SOUTHWEST BUTLER COUNTY

Multi-Municipal Safety Action Plan

Appendix E: Best Practices

PARTNERING TOGETHER for the Southwest Butler County Safety Action Plan

CRANBERRY TOWNSHIP

HARMONY BOROUGH

Jackson Township
Established 1854

ZELIENOPLE BOROUGH
INCORPORATED MAY 29, 1840
1840

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Section E1. Southwest Butler County Multi-Municipal Comprehensive Safety Action Plan (CSAP)

To develop the CSAP, other safety action plans of similar-sized municipalities were reviewed and compared to ascertain applicable lessons learned and best practices.

The CSAP includes four municipalities: Cranberry Township, Harmony Borough, Jackson Township, and Zelienople Borough. The total population is 42,813 according to the 2020 census. The population for each municipality is as follows:

- Cranberry Township has 33,096 residents
- Harmony Borough has 942 residents
- Jackson Township has 4,883 residents
- Zelienople Borough has 3,912 residents

The total land area of the four municipalities is 47.03 square miles. The population and the land area, as a whole and for individual municipalities, were compared to other safety action plans to find similar-sized municipalities. The following municipalities that were compared to the overall project area were:

- City of Pocatello, Idaho
  - Population of 56,320 residents in 33.6 square land miles
- Lower Merion Township, Pennsylvania
  - Population of 63,903 residents in 23.9 square land miles
- Haverford Township, Pennsylvania
  - Population of 50,431 residents in 10.0 square land miles

The following municipalities too small in population and in size to be compared to the smaller municipalities in the project, like Harmony Borough, Jackson Township, and Zelienople Borough:

- City of Castle Pines, Colorado
  - Population of 11,036 residents in 9.6 square land miles
- City of Bluefield, West Virginia
  - Population of 9,324 residents in 9.0 square land miles
- Elizabethtown, North Carolina
  - Population of 3,304 residents in 5.1 square land miles

Section E2. Best Practices for the Elements of Comprehensive Safety Action Plans

All comprehensive safety action plans have required elements from the Department of Transportation. The elements are as follows:

- Leadership Commitment and Goal Setting
- Planning Structure
- Safety Analysis
- Engagement and Collaboration
- Policy and Process Changes
- Strategy and Project Selections
- Progress and Transparency Approach

After reviewing documents of similar-sized municipalities to the area as a whole and individual smaller municipalities, best practices for each element were developed. These are discussed for each element below.

Leadership Commitment and Goal Setting

The best practice for the leadership and goal setting is to have a "*target date for achieving zero roadway fatalities and serious injuries, or percentage reduction of roadway fatalities and serious injuries by a specific date with the eventual goal of eliminating roadway fatalities and serious injuries*," according to the USDOT. The USDOT also says that it should be "*an official public commitment (e.g. resolution, policy, ordinance) by a high ranking official and/or government body*."

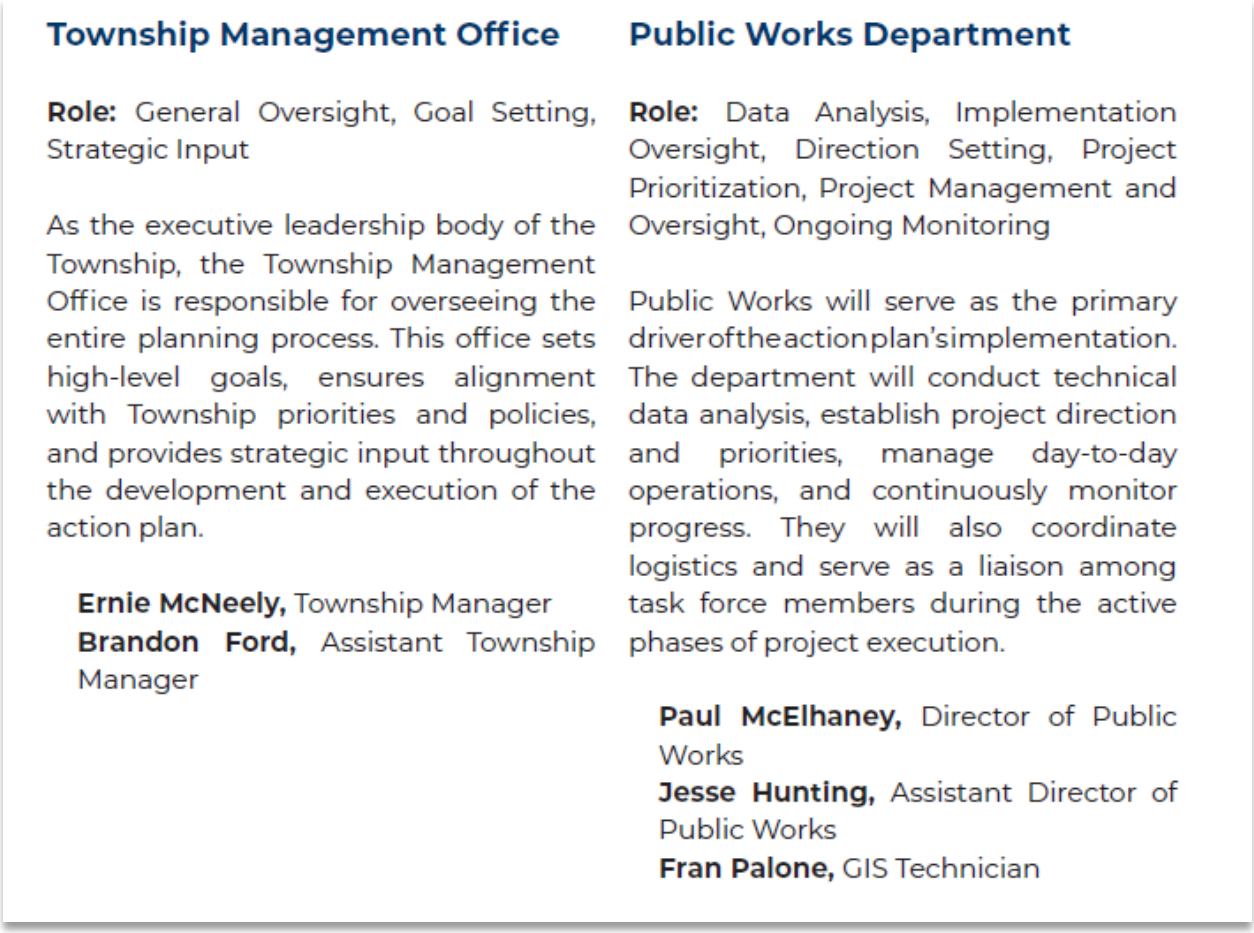
The City of Pocatello Safety Action Plan had the most robust number of measurable goals with related timelines that were approved by the mayor by a resolution. The City of Bluefield Safety Action Plan and Elizabethtown Safety Action Plan had a vision zero goal with a timeline that was approved by their Board of Directors and Town Council respectively with the adoption of the plan.

Planning Structure

The USDOT says that a planning structure is charged with "*oversight of the Action Plan development, implementation, and monitoring*." Lower Merion Township's safety action plan provided a description of the places of work of those on the planning committee and

specific roles assigned to each place of work. **Figure E.1** shows an example of the information given.

Figure E.1 – Lower Merion Township Information Given for the Planning Committee



Township Management Office

Role: General Oversight, Goal Setting, Strategic Input

As the executive leadership body of the Township, the Township Management Office is responsible for overseeing the entire planning process. This office sets high-level goals, ensures alignment with Township priorities and policies, and provides strategic input throughout the development and execution of the action plan.

Ernie McNeely, Township Manager
Brandon Ford, Assistant Township Manager

Public Works Department

Role: Data Analysis, Implementation Oversight, Direction Setting, Project Prioritization, Project Management and Oversight, Ongoing Monitoring

Public Works will serve as the primary driver of the action plan's implementation. The department will conduct technical data analysis, establish project direction and priorities, manage day-to-day operations, and continuously monitor progress. They will also coordinate logistics and serve as a liaison among task force members during the active phases of project execution.

Paul McElhaney, Director of Public Works
Jesse Hunting, Assistant Director of Public Works
Fran Palone, GIS Technician

Elizabethtown's Safety Action Plan had the most different occupations of people on their planning committee, including town leadership, Bladen County leadership, police, NCDOT representatives, FHWA safety engineer, and local residents. The City of Pocatello's Safety Action Plan included schools, the fire department, and the county's Office of Emergency Management. The City of Bluefield's Safety Action Plan has people who are involved at the university.

Safety Analysis

The USDOT says that the safety analysis should include an "*analysis of existing conditions and historical trends that provides a baseline level of crashes involving fatalities and serious injuries*." It also includes a spatial analysis of crash locations and the severity, as

well as contributing factors, crash types, and modes. Analysis of systemic and specific safety is also performed as needed. The analysis should include all roads, and a geospatial identification of higher-risk locations should be developed, like a high-injury network.

The City of Bluefield and Elizabethtown had the most robust safety analysis. They performed an analysis of historical trends for fatalities and serious injuries in their respective state they are located. Then, they performed a spatial analysis of all crashes, collision types, fatal and serious injuries, and vulnerable road users. Crash types, contributing behavior factors, contributing environmental factors, and vulnerable road users were analyzed further. A high-injury network of segments and intersections was developed using crash rates. Lower Merion Township and Haverford Township also developed high-injury networks. Alternatively, the City of Castle Pines had developed a high-risk network.

Engagement and Collaboration

The USDOT says engagement and collaboration should "*involve robust engagement with the public and relevant stakeholders, including the private sector and community groups*." All the reviewed plans had public meetings to discuss the safety action plans. Additionally, all the reviewed plans conducted surveys except for Lower Merion Township. For Elizabethtown and the City of Bluefield, the survey was a map that allowed respondents to mark the location of their safety concern and provide a brief description. For Elizabethtown, the survey map was also used for project prioritization. The City of Castle Pines, Haverford Township, and the City of Pocatello all generally asked for feedback about traffic safety and operations. The City of Pocatello had a second survey for project feedback.

All the reviewed plans had stakeholder interviews except for the City of Pocatello. The groups of stakeholders were listed for City of Castle Pines, City of Bluefield, and Elizabethtown. The City of Bluefield and Elizabethtown had the private sector involved in stakeholder meetings, but Elizabethtown only interviewed one business. The City of Bluefield has the best practice for engagement and collaboration because they interviewed the utility providers, fire and police department, Bluefield Area Transit, Bluefield Rescue Squad, non-profits, downtown businesses, public schools, universities, and the town of Bluefield, VA and the Virginia Department of Transportation. City of Castle Pines was more focused on the users, such as bicycle and pedestrian representatives, elderly citizens, and caregivers.

Policy and Process Changes

The USDOT says that the policy and process changes section should "*include an assessment of current policies, plans, guidelines, and/or standards to identify opportunities to improve how processes prioritize transportation safety*." The action plan should also discuss implementation.

The City of Castle Pine's Safety Action Plan had the most robust policy and process changes section. They discussed the relevant plan review and recommended changes to improve roadway safety. They also reviewed the design guidance and provided tracked changes to show exactly what revisions were recommended.

Elizabethtown's Safety Action Plan had the best implementation plans, as for each given policy, there were actions that the governmental body could take to implement them.

Strategy and Project Selections

The USDOT states that strategy and project selections should "*include identification of a comprehensive set of projects and strategies – shaped by data, the best available evidence and noteworthy practices, and stakeholder input – that will address the safety problems described in the action plan*." The strategies and countermeasures focus on a Safe System Approach. The projects should be prioritized in a list that provides time ranges. The list should have specific projects or descriptions of them, and explain the prioritization criteria used.

Lower Merion Township specified projects under its Capital Improvement Program (CIP) under the five elements of the safe system approach. The township provided a table of priority safety projects with the scope, timeline, estimated cost, and safe system elements involved. The priorities were listed, but the weight of the priorities were not shown, so the exact methodology is not known. The City of Bluefield, Elizabethtown, and Haverford Township provided a matrix that gave exact points and weights to different metrics for prioritization, which would be a best practice.

Elizabethtown had the most comprehensive prioritization fields, including improve safety outcomes, promote economic development, promote access to community services within residential areas (sidewalk coverage), transportation disadvantaged populations (TDP) (number of TDP indicators), community support, and improve health outcomes. Lower Merion Township had a unique prioritization field that prioritizes projects that have a strong return on investment.

Progress and Transparency Approach

USDOT says that the progress and transparency approach should include the "*method of measuring progress over time after an action plan is developed or updated, including outcome data*." Transparency should be established with residents and other relevant stakeholders. At a minimum, the approach must include "*annual public and accessible reporting on progress toward reducing roadway fatalities and serious injuries and public posting of the Action Plan online*."

The City of Pocatello will conduct reviews quarterly, which is the most frequent of any action plan reviewed. Haverford Township, City of Bluefield, and Elizabethtown will be building crash dashboards; however, only Haverford Township's will be available to the public. The City of Castle Pines, Lower Merion Township, City of Bluefield, and Elizabethtown will all be publicly posting an annual report on progress towards their goals and implemented projects. Lower Merion Township had the most robust list of metrics that they will be following to determine progress. All plans reviewed were posted online.

Section E3. Summaries of the Municipalities Elements of the Safety Action Plans

CITY OF POCATELLO

The City of Pocatello's "Safe Streets and Roads for All Action Plan" was completed in October 2024.

Leadership Commitment and Goal Setting

There were multiple plan goals that the mayor approved, including:

- Eradicating fatal and serious injury crashes by 2035
- Goal of zero pedestrian deaths in the next 12 months
- Reduce the number of severe roadway departure crashes by 50% by 2035
- Improve 25% of eligible roadways to a complete streets model by 2035
- Reduce aggressive driving incidents by 25% by 2035 in accordance with the Idaho State Highway Safety Plan
- Improve eligible pedestrian and bicycle infrastructure 30% by 2035
- Reduce the 5-year average number of distracted driving serious injury crashes

Planning Structure

The planning partners and stakeholders included:

- Bannock Transportation Planning Office
- Idaho Transportation Department
- City of Pocatello Police Department
- City of Pocatello Fire Department
- Bannock County Sheriff's Office
- Southeast Idaho Council of Governments
- Pocatello Chubbuck School District 25
- Bannock County Office of Emergency Management

Safety Analysis

Existing five-year crash analysis, as well as input from the City's Streets Department, Engineering Division, and Police Department, led to the identification of three priority areas in the city. Severe injury crashes, fatal crashes, and pedestrian crashes were mapped for all of the City of Pocatello. Crash types, contributing circumstances, injury severity, and trends of crashes per year were studied as well.

Engagement and Collaboration

The City of Pocatello conducted open house meetings, attended community events, presented at public meetings, and conducted surveys to engage the community.

Policy and Process Changes

The existing plans, programs, and policies were evaluated for their opportunities to improve safety, what year it was developed or if they are ongoing, and the timeframe that it will be updated. Changes to the plans, programs, and policies were not recommended.

Strategy and Project Selections

Safety recommendations within the three priority areas were prioritized by locations where severe or pedestrian-related crashes have occurred, public comments were made, and field observations were identified. The locations, strategies, and improvement recommendations were listed, but time frames were not provided for the improvements

Progress and Transparency Approach

The City of Pocatello will monitor progress on the Safe Streets for All Plan quarterly. The City's Public Works department will review the plan, including a review of updated crash data, pavement plans, infrastructure investments, and regular police data. They will also consult with stakeholders yearly to identify any progress, impediments, or updates needed.

LOWER MERION TOWNSHIP

Lower Merion's Township "Comprehensive Safety Action Plan" was completed in June 2025.

Leadership Commitment and Goal Setting

The goal set is to reduce roadway fatalities and serious injuries by 50% by the year 2030, with the ultimate goal of zero deaths and serious injuries on the roadway.

Planning Structure

The planning committee and their roles were provided in the document as follows:

- Township Management Office
  - General Oversight, Goal Setting, Strategic Input
- Public Works Department
  - Data Analysis, Implementation Oversight, Direction Setting, Project Prioritization, Project Management and Oversight, Ongoing Monitoring
- Montgomery County Planning Commission
  - Data Collection and Analysis, Project Ideas, Project Prioritization, Community Outreach
- Building and Planning Department
  - Data Collection and Analysis, Strategic Planning, Report Formation Assistance, Oversight, Project Prioritization, Community Outreach
- Township Engineer's Office
  - Data Collection and Analysis, Project Prioritization, Project Management and Planning, Project Follow-Up and Monitoring
- Traffic Safety Unit
  - Data Collection, Data Analysis, Priority Setting, Project Prioritization

Safety Analysis

The safety analysis was a data-driven approach that used crash data from PennDOT's PCIT, Delaware Valley Regional Planning Commission's Crash Tool and Regional High Injury Network, and local police reports. The Regional High Injury Network identified road segments with fatal or serious injury crashes and vulnerable road user crash trends.

Engagement and Collaboration

The Township engaged the public, advocacy groups, and private stakeholders across key planning initiatives, like a bicycle greenway concept and its active transportation plan. The Township also developed a comprehensive sidewalk network assessment and StoryMap

following engagement with the public and coordination with departments and agencies. There was also outreach with stakeholders for a specific study on the City Avenue Corridor.

Policy and Process Changes

The Township explained the commitment to roadway safety, including the Township's Police Department Traffic Safety Unit (TSU), the CIP that can be used, and the safety reviews of all external permit processes.

The Township established a Vision Zero Task Force to provide oversight. The Township outlined planned policy enhancements and implementation as follows:

- Incorporate high-injury network analysis and crash data into the prioritization and review of both capital and private development projects.
- Use safety performance metrics to guide funding decisions, project design, and public engagement.
- Strengthen internal coordination among departments – particularly between planning, engineering, and public safety – to ensure safety considerations are systematically embedded in all phases of project development.
- Align policy frameworks with the Safe System Approach, which emphasized proactive planning, redundancy, and designing a transportation network that accounts for human error and vulnerability.
- Integrate safety data into the review of capital projects as well as zoning, subdivision, and land development permits.
- Publish safety data on the Township's website to make the information publicly available.

Strategy and Project Selections

The township has established transportation safety projects through the CIP that ensure safety across the Safe System Approach's five elements: Safe Roads, Safe Speeds, Safe Vehicles, Safe Road Users, and Post-Crash Care. The document mentions projects that are on the CIP that fall under each of the categories.

The evaluation used to prioritize projects was based on their ability to prevent or reduce the most severe types of crashes, improve accessibility for VRU, align with community input, and be feasibly implemented with a strong return on investment. The township provided a table of priority safety projects with the scope, timeline, estimated cost, and safe system elements involved.

Progress and Transparency Approach

The Township has established a structured reporting process. They will collect and report key outcome metrics annually to be published publicly that include:

- The number of fatalities and serious injuries disaggregated by mode
- Crash trends by location and corridor, aligned with the High Injury Network
- Crash trends involving vulnerable populations, including seniors, children, and people with disabilities
- Project completion updates and progress tracker

All safety-related projects and private development reviews will be evaluated by the following performance-based criteria:

- Reduction in crash rates or severity at project locations
- Improvements to pedestrian and bicycle infrastructure
- Implementation of traffic calming or speed management features
- Enhanced safe access to schools, transit, parks, and key destinations

Post-implementation evaluations will be conducted for select projects. Additionally, the Vision Zero Task Force will meet twice a year to review safety data, assess project implementation progress, and identify areas for further investigation.

HAVERFORD TOWNSHIP

Leadership Commitment and Goal Setting

The Township Board of Commissioners will be asked to adopt a resolution committing to reducing fatal and serious injury crashes by 50% before 2030, with the goal of zero fatal and serious injury crashes by 2040.

Planning Structure

The advisory committee was listed in the acknowledgements; however, there were no mentions of the advisory committee within the body of the document. The advisory committee included:

- Township Manager
- Delaware County- Manager of Transportation and Infrastructure
- Delaware County- Vision Zero Coordinator
- Discover Haverford
- Four Haverford Township Residents
- Delaware Valley Regional Planning Commission

Safety Analysis

The safety analysis used six years of data to make a crash heat map, a walker and cyclist crash map, a high injury network, and an equity consideration map. The populations considered vulnerable for the equity consideration map were those consisting of higher percentages of people with disabilities, individuals aged 65 and older, and those experiencing a pollution burden.

Engagement and Collaboration

Community engagement activities included surveys, focus groups, and township-wide public meetings. The surveys focused on transportation safety and gathered demographic information as well. They also got data on frequently mentioned locations where residents witnessed near-miss accidents.

Policy and Process Changes

There was no discussion on current policy or existing planned projects.

Strategy and Project Selections

Projects were prioritized based on a developed approach called the Haverford Township Safe Streets Project Ranking system. The Township provided a table in which the criteria, points, and the basis for point assignments were explained. The criteria were speeds, volumes, fatal or serious injury crashes, all crashes, elementary or middle schools, pedestrian generators, pedestrian facilities, and vulnerable populations.

General recommendations, elements involved, and a summary of the intervention were provided. Then, for each recommendation, there were recommended locations to implement, tiers and elements involved, and a description of the elements, as well as the road type that it would best fit. The tier one of the recommendations could be implemented immediately.

Progress and Transparency Approach

The Township will build and display a publicly accessible crash dashboard to measure some of the impacts of the interventions and give public visibility to priority areas. The Township will also build a project and infrastructure dashboard that has a baseline inventory of the existing infrastructure and could track ongoing and completed infrastructure projects. Lastly, data collection before and after a new engineering project will be collected in order to show the impact on safety, driver behavior, and counts of pedestrians and bicycles.

CITY OF CASTLE PINES

The City of Castle Pines Safety Action Plan was completed in May 2024 and was listed as a resource on the Safe Streets for All resource library.

Leadership Commitment and Goal Setting

The City's goal is to reduce the number of severe crashes and maintain the baseline of zero fatality.

Planning Structure

An oversight committee was formed that included representatives from the Colorado Department of Transportation, the Denver Regional Council of Governments, City Staff, and City Council.

Safety Analysis

Five years of crash data were analyzed for city-owned and maintained roads. The analysis looked at the locations by mode, percent of crashes by severity, crash count by accident location, crash count by year, and percent of crashes by lighting condition.

Severity of crashes were further analyzed by looking at the crash type by severity. Another analysis was done to determine locations that have more severe crashes. The process was that for each crash, a weighted score was assigned to it based on the cost associated with the crash severity. Then, the value of the score was divided by the number of crashes to get an average crash severity by location.

The top crash locations were determined based on the total crashes, weighted crash score, and average crash severity.

The risk score of factors for local roads and collector/arterial roads were determined using existing crash data and the total number of lane miles of the factor. On collector/arterial roads, vehicles had a separate risk score from the bicycles and pedestrians. This created essentially a high-risk network

Engagement and Collaboration

To engage with the public, a webpage and flyer were developed for the distribution of information. To collect input from the public, there was an online community survey and three focus group meetings. The focus groups were school safety representatives, bicycle and pedestrian representatives, and elderly citizens and caregivers.

Policy and Process Changes

The team reviewed and summarized relevant local and regional plans. The relevant policies to the safety action plan were listed. Then, additions or amendments that could enhance

multimodal safety and contribute to reducing significant injuries and maintaining a baseline of zero fatalities were listed. The following changes are listed:

- Develop and adopt a Complete Streets Policy or Resolution
- Develop and adopt a Bicycle/Pedestrian Master Plan
- Add prioritized list of projects in the Trails Master Plan
- Maximize opportunities to stripe bike lanes in annual resurfacing projects
- Consider development or adoption of a policy that discourages placement of crosswalks where stopping sight distance is not provided

Proposed changes to the City's design guidance were also recommended.

Strategy and Project Selections

Prioritization for top crash locations and system recommendations were prioritized differently. Whereas the top crash locations were prioritized based on total number of crashes and average crash severity, systemic recommendations were prioritized based on safety impact, equity, and public priority.

Recommendations for top crash locations were given in priority order, with a timeline for implementation, such as near, mid, and long term. Systemic recommendations were categorized by general, arterial and collector, schools, bicyclists and/or pedestrians, location-specific, signing and striping, and construction zones. The recommendations, their category, and the timeline were given.

Progress and Transparency Approach

Select members of the oversight committee will be responsible for reviewing the SAP annually to measure the effectiveness of the SAP over time. This includes:

- Using the SAP crash data as a baseline, evaluating whether the number and severity of crashes at the 14 priority locations is declining year over year.
- Using the SAP crash data as a baseline, evaluating whether there is a decrease in the number and severity of crashes per 1,000 residents.
- Track and report on the SAP recommendations implemented.
- Track results of pilot projects.
- Post an annual summary report on the City's website that highlights the progress that has been achieved toward meeting the City's goal of reducing significant injury crashes and maintaining the baseline of zero fatalities.

CITY OF BLUEFIELD

Leadership Commitment and Goal Setting

The City of Bluefield's Board of Directors adopted the action plan and committed to the Vision Zero Goal. The goal is zero fatalities by the year 2050.

Planning Structure

The steering committee included:

- City Manager
- City Board of Directors Member at-large
- City Interim Engineering Services/Stormwater Director
- WVDOH Local District Engineer/Manager
- Bluefield State University (WV), Vice President of University Development
- Bluefield State University (WV), Chief of Staff
- Bluefield University (VA), Vice President of Institutional Advancement
- City Chief of Police

Safety Analysis

The five-year historical crash data was used for the safety analysis, limitations such as changes to the university, the COVID-19 pandemic, the presence of heavier vehicles, and non-reportable crashes. The safety analysis included the trends of fatal and serious injuries in West Virginia. The safety analysis for the study area included the crash types per year and the severity of each crash type. Severe crashes were investigated further. The fatal crash details were found through the USDOT's Fatality Analysis Reporting System (FARS). The crash severity by year was plotted, as well as a map of the severe crashes. Temporal distribution of all crashes and severe crashes was analyzed. Other analyses were the contributing environmental factors, such as lighting, roadway surface conditions, and weather, and contributing driver actions and driver conditions.

VRU crashes were investigated closer as they are more likely to sustain a severe injury in a collision. The trend of VRUs over time was analyzed. The percentage of VRU crashes to the percentage of fatal and serious injury crashes that were VRUs were compared. Lastly, the lighting condition at the time of the VRU crashes was analyzed.

The team had assigned the crashes based on their spatial location and additional available information to segments and intersections. For crashes assigned to the segment, the team used spatial crash information as well as AADT volume and segment lengths to compute a crash rate. For crashes assigned to intersections, a crash rate using historical crash data

and the AADT of entering traffic was calculated for all crashes and fatal and serious injury crashes.

Lastly, road safety audits were performed and discussed. The key corridors evaluated had a page dedicated to the road safety audit findings.

Engagement and Collaboration

The community engagement included a social media data collection tool, stakeholder interviews, and public meetings. The social media data collection tool was a map that allowed respondents to mark the location of their safety concern and provide a brief description. The categories of people that were involved in the stakeholder interviews were utility providers, the fire and police department, Bluefield Area Transit, Bluefield Rescue Squad, non-profits, downtown businesses, public schools, universities, the City of Bluefield, VA, and the Virginia Department of Transportation.

Policy and Process Changes

A review of policies was discussed, but applicable policies were not listed. Policy recommendations for concerns were given as follows:

- Create signage strategy
- Adopt a complete streets policy
- Appoint a vision zero or SS4A technical committee
- Implement a school audit for safe routes to school
- Expand transit service hours
- Pursue a sidewalk replacement program
- Develop Bicycle and Pedestrian Master Plan and Multimodal Path System
- Develop a Road User Safety Advocacy Program
- Include Pedestrian Friendly Traffic Signal Phasing
- Implement Neighborhood Traffic Calming Policy
- Install Animal Crossing Signage
- Perform Pre-Project Meetings and Walking Tours with Safety in Mind
- Implement a Stormwater Maintenance Program
- Perform Signal Warrant Assessment

Strategy and Project Selections

Project areas were selected based on community participation, crash data analysis, field views, and Road Safety Audits. The applicable safety countermeasures were shown on a schematic of the corridors identified.

The projects were prioritized by four categories: safety, equity, community participation, and economic development potential. A matrix between the number of observed safety concerns noted during roadway safety audits and the recorded crash injury status code was used for the safety category. For equity, the number of federal equity tool thresholds exceeded were assigned a matrix score. For community participation, the number of individuals who commented on a specific area was assigned a matrix score. Lastly, the economic development score gives a matrix score considering whether it is within an area zoned for businesses, has existing businesses, or within an area that drives education or tourism.

After prioritization, the implementation time range of each project was given.

Progress and Transparency Approach

The following are the ways in which progress will be measured:

- The Steering Committee should meet once per year to review the latest information, including a developed crash data dashboard and annual online survey. They will also discuss community needs, lessons learned, opportunities, and emerging technologies. Finally, they will provide input on the annual report. The annual report will be published summarizing implemented strategies and projects from this Action Plan and system performance with respect to expectations.
- The Steering Committee will evaluate the metrics related to their goals to determine the best ones to track.
- Pedestrian counts will be conducted in perceived high activity areas at least once per year to facilitate planning and prioritization of nonmotorized system improvements.

ELIZABETHTOWN

Leadership Commitment and Goal Setting

The Elizabethtown Town Council adopted the action plan and committed to the Vision Zero goal of the study, which is to have zero fatalities by 2050.

Planning Structure

The Steering Committee was made up of the following:

- Assistant Town Manager
- Town Finance Director
- Town Director of Communications and Marketing

- Chief of Police
- Town Council Member and Mayor Pro Tem
- Town Council Member
- Former NCDOT Board Member
- Bladen County Commissioner
- NCDOT Eastern Regional Traffic Engineer, Transportation Safety and Mobility Division
- NCDOT Division Traffic Engineer, Division 6
- FHWA Safety Engineer
- Local Residents

Safety Analysis

Statewide crash statistics were shown in the document to give a bigger context of the crash history in Elizabethtown. The limitations of the crash history for Elizabethtown were provided as generally historical data does not reflect recent changes, doesn't account for the increasing size and weight of vehicles, and does not reflect crashes that were not reported. Crash types and the fatal and serious injuries by crash type were analyzed. Crash severity was investigated further by using FARS. The severe crashes were analyzed temporally and spatially. Environmental factors, like lighting, roadway surface conditions, and weather conditions, that contributed to crashes were analyzed for all crashes or only severe crashes. Behavior factors such as driver condition at the time of the crash and contributing driver actions were analyzed for all crashes. Contributing driver actions were also investigated for severe crashes.

VRU crashes were investigated closer as they are more likely to sustain a severe injury in a collision. The trend of vulnerable road users over time was analyzed. The percentage of fatal and serious injuries of VRUs was analyzed as well as the percentage of VRU crashes by lighting conditions.

The team had assigned the crashes based on their spatial location and additional available information to segments and intersections. For crashes assigned to the segment, the team used spatial crash information as well as AADT volume and segment lengths to compute a crash rate. For crashes assigned to intersections, a crash rate using historical crash data and the AADT of entering traffic was calculated for all crashes and fatal and serious injury crashes.

Lastly, road safety audits were performed and discussed. The key corridors evaluated had pages and pictures dedicated to the road safety audit findings.

Engagement and Collaboration

Engagement with the community consisted of four components: an online data collection and project prioritization tool, stakeholder interviews, New Town Community Newsletters, and public meetings. The online data collection tool allowed respondents to mark specific locations and leave brief descriptions of their concerns on a map. After the development of projects, a similar tool was opened to the public to collect prioritization information on projects.

The stakeholders that were interviewed include the following:

- Director of Bladen County Health and Human Services, Director of Bladen Area Rapid Transit System, and Bladen County Division of Aging
- Director of Bladen County Social Services
- Director of Elizabethtown Public Services
- Coordinator of Transportation Services, Bladen County Schools
- Principal of Elizabethtown Middle School
- Assistant Principal Elizabethtown Middle School
- Head of School Emereau Bladen Charter School
- Owner of Hair Power

The community newsletter was developed to keep the New Town community up to date and to engage the community, as it has the highest concentration of transportation-disadvantaged populations.

The team held two public meetings. The first one had the public identify top community concerns and top countermeasure preferences. For the second meeting, there was a roadway prioritization activity.

Policy and Process Changes

A list of plans and policies that were reviewed for the Action Plan was given. A summary was given in the body of the document and it mentioned a more detailed review was provided in the appendix.

Policies were proposed and action items to implement them were provided with each policy and description. The different policies were as follows:

- Require Bicycle Parking in Commercial and Residential Areas
- Require Greenways and Sidewalks
- Modify Allowances for Bicycle Riding on Sidewalks in Some Cases
- Incorporate Pedestrian and Bicycle Plans into Ordinance by Reference

Strategy and Project Selections

Project areas were selected based on community participation, crash data analysis, field views, and Road Safety Audits. The applicable safety countermeasures were shown on a schematic of the corridors identified.

To prioritize identified project areas for implementation a 100-point scoring system was developed using criteria and sub-criteria. Each criterion was worth 15 points, except for "improve safety outcomes," which was worth 25. The criteria were: improve safety outcomes, promote economic development, promote access to community services within residential areas (sidewalk coverage), transportation disadvantaged populations (TDP) (number of TDP indicators), community support, and improve health outcomes.

After prioritization, the implementation time range of each project was given.

Progress and Transparency Approach

The following are the ways in which progress will be measured:

- The Steering Committee should meet once per year to review the latest information, including a developed crash data dashboard and annual online survey. They will also discuss community needs, lessons learned, opportunities and emerging technologies. Finally, they will provide input on the annual report. The annual report will be published summarizing implemented strategies and projects from this Action Plan and system performance with respect to expectations.
- The Steering Committee will evaluate the metrics related to their goals to determine the best ones to track.