

## 4. Transportation

*Transportation is one of the most important elements in determining quality of life in a community. A well functioning system of roads and transportation alternatives to walk, bike and access public transit is critical to economic vitality. Due to topography and the region's rapid and unpredictable growth, transportation is among Morgantown's greatest challenges. Understanding that transportation and land use are closely connected, this element of the Plan integrates with the Morgantown Monongalia Metropolitan Planning Organization's Long Range Transportation Plan, which is the primary guide to improving transportation in the region and within Morgantown. This plan acknowledges the MPO's critical role by referencing specific recommendations of that plan and by proposing transportation strategies Morgantown can pursue that are compatible with this Plan's Land Management element.*

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### WV Code Compliance

*This chapter addresses the following topics required by the West Virginia Code:*

- Transportation

### A. Goal

A balanced, safe, attractive well-connected transportation system that offers reduced congestion, supports and encourages desirable growth, and integrates private vehicles, public transportation, biking, and walking.

### B. Key Findings

This section summarizes key points raised during the public meetings and found from the technical analysis conducted for Crossroads. The objectives and strategies outlined later in the chapter are shaped by these ideas.

### Public Input

The following themes highlight the most commonly expressed ideas from small group discussions and surveys conducted during the public meetings.

**Reduce road congestion.** Road congestion is widely seen as the region's greatest challenge.

**Diversify transportation options.** One of the most common themes from residents was to provide transportation options other than cars. Finances, convenience, lifestyle, ability/disability, and recreation were all reasons for becoming a less car-reliant community. Regardless of the motivation, people want more flexibility in their options. Morgantown has two valuable resources in place to help residents, students and visitors move throughout the city with the Mountain Line Transit Authority and WVU's PRT system. Participants at the public meetings however, want to see routes and hours expanded on both systems.

**Rethink traffic management.** Due to the region's topography, building additional roads is not always a viable option. Participants recommended alternative solutions to reducing traffic congestion. Pedestrian linkages, bike lanes and transit were frequently mentioned, but other ideas like encouraging businesses to stagger business hours; charging fees according to amount of usage; offering tax breaks for carpooling; creating bus-only lanes; and prohibiting WVU freshmen from having cars on campus were all suggested alternatives.

**Reduce freight truck traffic within the city.** The presence of large trucks within the city evoked frustration from many respondents. The community wants to see truck traffic rerouted around the city and prohibited within the city's core.

**Increase roadway linkages within and around the city.** Many respondents pushed for better roadway connections to areas throughout the city. Creating the proposed beltway to the north of Morgantown remains a popular idea, along with improving access to the airport, I-68 and I-79, and increasing linkages for out-of-town commuters, especially from the north.

**Expand the sidewalk network throughout the city.** Citizens strongly desire that sidewalks be incorporated on all city streets and in new developments to create a complete pedestrian network. Such a network would improve community aesthetics, traffic congestion and health. Existing sidewalks should be made ADA-compliant.

**Improve street signage to facilitate wayfinding.** Regardless of the mode of transportation, signs are critical for navigation. Many people expressed demand for better signage for traffic management, safety and wayfinding.

### ***Existing Conditions and Trends***

The following themes were distilled from the technical analysis of the existing conditions and trends and represent the most important points.

**Nearly 20 miles or 5.1 percent of the county's roadways are operating at levels above their efficient capacity.** 18 separate corridors were identified as operating with capacity deficiencies. These include US 19, SR 705, US 119, WV 705, WV 7, Burroughs Street, Riddle Street, Willowdale Road, and University Avenue.

**The City of Morgantown averaged 3 to 4 accidents per day on its roadways between June 2008 and December 2011.** Patterson Drive at the Monongahela Boulevard intersection had the highest incident rate with 188 crashes occurring at this intersection over the study period. Closely following Patterson Drive at Monongahela Boulevard was Van Voorhis Road at Chestnut Ridge Road with 95 incidents within the study period. The remaining three of the top five locations for incidents were University Avenue at Beechurst Avenue, Patterson Drive at Laurel Street, and Spruce Street at Walnut Street.

**The Mountain Line Transit Authority (MLTA) offers a weekday bus service and is planning to increase service frequency and ridership.** Ridership on the system is expected to increase by 15 percent between 2013/2014, and six percent between 2014/2015. This expansion of service would increase ridership by 373,395 passengers.

**WVU provides transit alternatives for students and faculty with the unique PRT line and multiple shuttles.** The PRT Facilities Plan outlines a strategy for improvements to the PRT along with costs and funding. Due to the high cost of the PRT infrastructure, major expansion or extension of the system is unlikely in the near future.

**Over half (57 percent) of the total population of the county has access to transit services.** More than 12,000 jobs and 27,540 people are within a quarter-mile of a bus stop or a half-mile of a PRT station.

**Despite shortcomings in the city's pedestrian infrastructure, Morgantown has a higher percentage of residents walking to work than any other community in the state.** Roughly 17 percent of commuters walk to work daily despite limited or non-existent sidewalks in many areas of the city. Many of the city's sidewalks are not sufficiently maintained and have fallen into disrepair, and others are not fully ADA-compliant.

### **The MMMPO and Long Range Transportation Plan**

The Morgantown Monongalia MPO is the federally-designated transportation planning agency for Morgantown and Monongalia County, serving as a regional partnership among the West Virginia DOT, local transit agency, local elected leadership, local planning and public works directors, the business community, and citizens. The MMMPO has the authority to plan, prioritize, and recommend transportation projects for federal and state funding. It is responsible for ensuring the region is in compliance with federal and state multi-modal transportation planning requirements.

One of the MMMPO's core functions is to maintain a Long-Range Transportation Plan (LRTP) and a Transportation Improvement Program (TIP) for the metropolitan area that fosters mobility and access for people and goods, efficient system performance and preservation, and quality of life. The most recent LRTP was coordinated with this Comprehensive Plan Update as an outcome of the Crossroads regional vision. **Below are the LRTP's goals and objectives.** These goals and objectives are supported by a range of projects in the LRTP, which are summarized on pages 60-61.

**Goal 1: A multimodal transportation system that efficiently moves people and goods.**

- 1A: To eliminate/reduce current congestion and multimodal traffic flow restrictions on arterial and collector roadways
- 1B: To ensure that future development and related transportation improvements address capacity and connectivity needs proactively rather than reactively
- 1C: Improve ingress/egress to the most densely developed / highest activity areas of region (the core)
- 1D: Provide adequate transportation capacity and access to support current businesses
- 1E: Focus capacity improvements for all modes in areas of desired future growth and development that support the public's vision for the region

**Goal 2: A transportation system in which all modes are highly integrated and connected.**

- 2A: To allow for convenient transfer from one mode to another in the region to maximize travel efficiency
- 2B: To encourage the use of the most efficient mode based on the distance and characteristics of a particular trip
- 2C: Increase the geographic area in which people have convenient access to non-automobile modes
- 2D: Reduce reliance on automobile for travel
- 2E: Better serve those who do not/cannot own and drive a personal automobile
- 2F: To allow for efficient transfers of goods between modes (air, pipeline, river rail)
- 2G: Improve and expand infrastructure for pedestrians, bicyclists and people with disabilities
- 2H: Increase use of existing rail-trails for transportation purposes

**Goal 3: A multimodal transportation system that safely moves people and goods.**

- 3A: To minimize crashes, especially injury/fatality crashes by 50% through improvement of high crash locations and improvement of local enforcement of traffic laws and education of transportation system users
- 3B: To ensure that future growth and related transportation improvements address transportation safety needs in planning and design

**Goal 4: A transportation system that maximizes the efficiency of freight movement through and within the region with minimal impacts on neighborhood and campus areas, especially areas of higher bicycle and pedestrian demand.**

- 4A: Reduce truck traffic in residential neighborhoods and on other streets where significant numbers of bicycles and pedestrians are present
- 4B: Improve truck access to key industrial areas Change in time to deliver freight Change in amount of freight moved Change in amount of freight-dependent industries
- 4C: Increase options for freight movement that minimizes truck traffic on non-interstate roadways

*The eight goals for the Long Range Transportation Plan were developed based on the Crossroads regional vision process, local stakeholder interviews, collaboration with the MMMPO's Transportation Advisory Group, and in consideration of the SAFETEA-LU eight metropolitan planning factors which must be addressed according to Federal guidance. These goals are intended to be the basis for decision-making related to region's Long Range Transportation Plan. The numbering of the goals is in no way an indication of priority or a ranking of importance.*

### **Long Range Transportation Plan Recommendations**

The LRTP's recommendations involve capital improvement projects that are identified on a map as well as supporting projects that are not mapped.

### **Mapped Capital Projects**

These projects are identified and numbered on the map on the following page. The numbering is not an indication of priority. Details of the projects including their estimated cost and priority are contained in the LRTP.

#### **Goal 5: Greater collaboration between local agencies, state officials, and private interests in the pursuit and funding of transportation improvements.**

5A: More effective and less costly transportation improvements by capitalizing on common goals and needs between communities and agencies in the region

5B: Higher quality transportation system improvements due to cost sharing and collaboration

5C: Transportation improvements that support the public's long-term vision for the region

#### **Goal 6: A Transportation system that is attractive, sustainable, and livable.**

6A: Integrate the local context of the area into the planning, design, and construction of transportation improvements

6B: Include sustainability features in design of transportation improvements that minimize environmental impacts and goods

6C: Address multimodal system needs in all planning, design, and construction of transportation improvements

#### **Goal 7: Reduce automobile trip demand, especially during peak travel hours.**

7A: Reduce the need to construct costly transportation and parking infrastructure improvements

7B: Invest in transportation improvements that encourage and support development/land use patterns that decrease need to travel

7C: Reduce automobile emissions and improve air quality

7D: 50% increase in trips made by walking

7E: 5% of all trips made by bicycle by 2025

7F: Increase number of trips made by public transit by 200%

7G: Increase work telecommuting and virtual lectures (WVU)

7H: Increase average vehicle occupancy by 100%

#### **Goal 8: A multimodal transportation system that enhances the homeland security of the region.**

8A: Heighten awareness of homeland security needs related to transportation

8B: Improve understanding of critical transportation system related homeland security issues in the region

8C: Incorporate homeland security needs in transportation project planning, design, and construction

## Non-mapped strategies

The following strategies are intended to help guide the MPO's planning efforts during the LRTP period. Some of these activities are stand-alone planning efforts, but many are pre-cursors or support activities to projects identified in the "LRTP Capital Projects List."

**Regional Sidewalk Connectivity Plan.** Expand the Connecting Network Sidewalks (CNS) from the Morgantown Pedestrian Safety Plan to include the entire region and develop a 10-year action plan to implement improvements necessary to complete the CNS.

**Regional Bike Plan.** Building on the Morgantown Bicycle Plan, develop a "Regional Connecting Bike Route Network" (same concept as the CNS) and a 10-year implementation plan that identifies specific signage, markings, spot roadway improvements, trail improvements, etc. The plan should also include an education program and campaign to promote cycling, improve awareness of traffic laws and appropriate operational practices to improve safety. A local law enforcement plan and officer education program to help curb bicyclist, pedestrian and automobile driver behavior that is dangerous for cycling should also be part of the plan.

**Access Management Plan.** Complete a study of key corridors in the region to identify current access management deficiencies. Include data driven prioritization based on related crashes and congestion, and develop policy for access control, planning, design and retrofits. Identify priority locations and a 10-year implementation plan.

**Complete the Streets Initiative.** Develop an action plan to increase and leverage local funding sources, and coordination and implementation processes, for local agencies to partner with WVDOH on projects to share costs related to complete street enhancements.

**Local Transportation Funding Committee.** Establish group of local transportation and funding experts to meet regularly and develop an action plan to increase local agency (non-state/federal) transportation funding sources, and to maximize state/federal transportation funding expenditures in the region.

**Safe Routes to School Committee.** Develop a committee and identify funding sources to help local schools develop Safe Routes to School Travel Plans and apply for federal funding assistance with improvements.

**Regional Freight Movement Plan.** Collect data and perform more detailed analysis of existing freight movement characteristics (truck, air, rail, pipeline, etc.), current truck volumes, current problems related to freight movement, existing and projected attractors and generators, market trends, and current and preferred routes. Coordinate with local stakeholders, industry representatives, WVDOH, and local agencies to develop improvements and strategies to increase global competitiveness of the region while encouraging truck traffic to use desired routes.

**Regional Parking Management Plan.** Develop a "Park Once" policy for the urban area and a plan to manage parking and to incentivize rideshare/carpooling/walking/biking/transit to minimize parking (which encourages auto traffic) in congested areas.

**Region-wide Traffic Signal Upgrades.** Undertake a study of all signalized intersections in the region. Develop an aggressive short-term plan to upgrade all signals to utilize state-of-the-art vehicle detection and vehicle responsiveness systems, corridor and system timing optimization, and central system control. Integrate priority timings for bus system where feasible.

**Regional TSM Plan.** Develop region-wide micro-simulation analysis and site-specific alternative feasibility studies (primarily intersections) to maximize the capacity and safety of the transportation system through a series of intersection and other spot improvements to the system.

**Regional Crash Data and Analysis Program.** Develop a program to improve crash data collection and analysis procedures and to develop an annual regional high-crash and priority improvement list.

**Regional Bicycle and Pedestrian Data Collection Program.** Modify the current traffic data collection program to also include bicycle and pedestrian data.

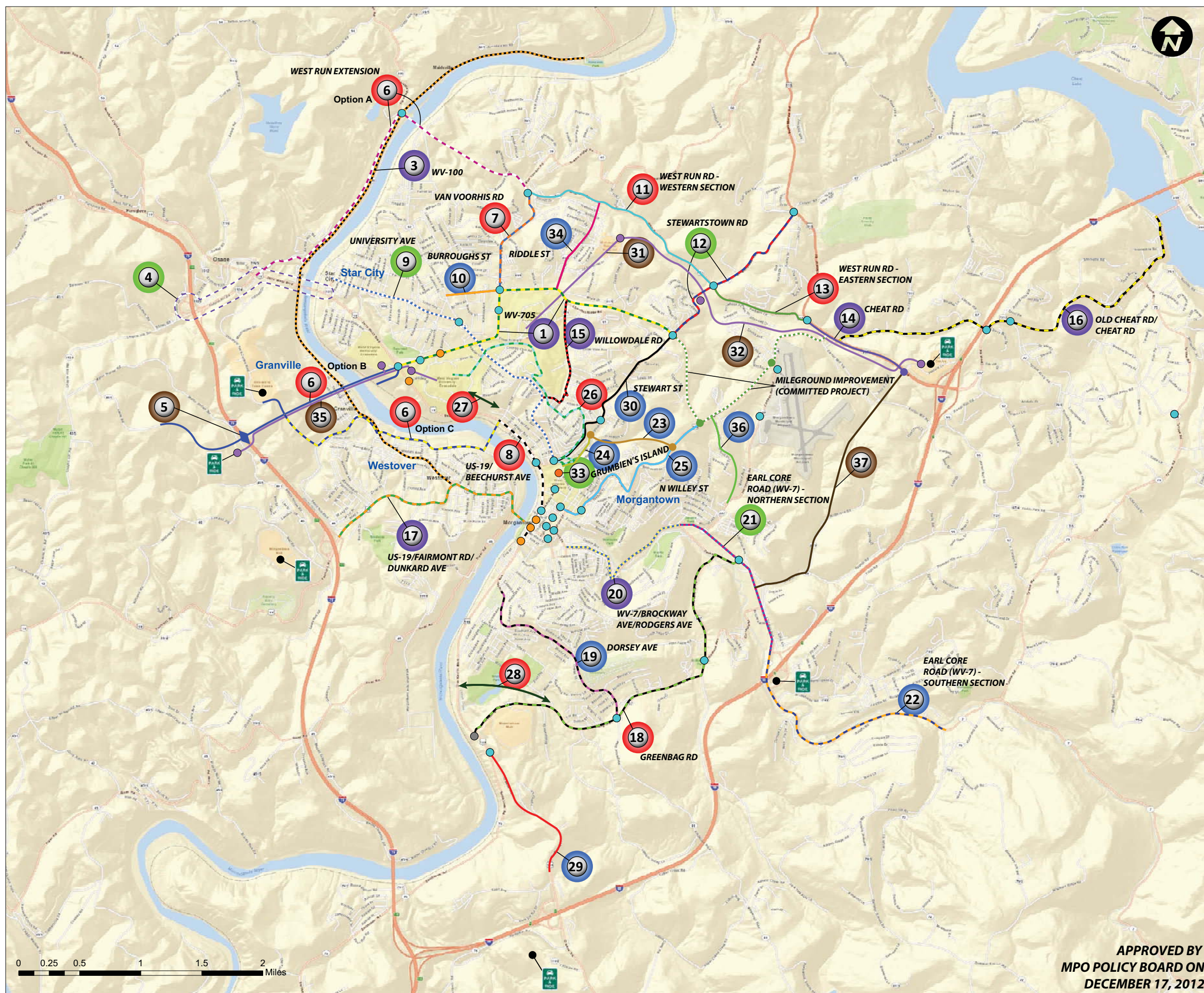
**Regional Multimodal Travel Forecasting Model Development.** Expand current TransCAD regional travel forecasting model to include transit, bike, and pedestrian trip generation and assignments to better reflect the nature of travel in the greater Morgantown area.



# L RTP Projects

- |                                                                                                           |                                                                          |
|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 1 WV-705 Corridor Improvements                                                                            | 19 Dorsey Ave                                                            |
| 3 Lazelle Union Rd (WV-100) Improvements                                                                  | 20 Brockway Rodgers/Powell Avenues (WV-7)                                |
| 4 I-79/Chaplin Hill Rd/US-10/Lazelle Union Rd Interchange and Access Improvements                         | 21 Earl Core Rd (WV-7) Northern Section                                  |
| 5 New I-79 Interchange at Business Parks Site and Connecting Roadways                                     | 22 Earl Core Rd (WV-7) Southern Section                                  |
| 6A West Run Extension and Lazelle Union Rd (WV-100) Connection to US 19                                   | 23 New Rd Connection from Willey St to Downtown Campus Area              |
| 6B Roadway Connection from New I-79 Interchange to Monogahela Blvd                                        | 24 Protzman/Falling Run Pedestrian and Bicycle Connector                 |
| 6C 8th St Bridge over Monogahela River and Roadway Connection to TIF Development Area Interchange to I-79 | 25 Willey St Improvements                                                |
| 7 Van Voorhis Rd Improvements                                                                             | 26 WVU Campus Bus Rapid Transit Connector                                |
| 8 Beechurst Ave Improvements                                                                              | 27 Grant Ave Bicycle/Pedestrian Connector                                |
| 9 University Ave Improvements                                                                             | 28 White Park/Caperton Trail Connection                                  |
| 10 Burroughs St                                                                                           | 29 Grafton Rd (US-119)                                                   |
| 11 West Run Improvements - Western Section                                                                | 30 Stewart St Improvements                                               |
| 12 Stewartstown Rd Improvements                                                                           | 31 PRT Extension from University Health Services to Mon General Hospital |
| 13 West Run Improvements - Eastern Section                                                                | 32 PRT Extension from Mon General Hospital to Glenmark Centre            |
| 14 Cheat Rd Improvements                                                                                  | 33 Grumbien's Island Grade Separation                                    |
| 15 Willowdale Rd Sidewalk Improvements                                                                    | 34 Riddle St Improvements                                                |
| 16 Old Cheat Rd/Cheat Rd Bike Lanes                                                                       | 35 PRT Connection New Business Park to Evansdale Campus                  |
| 17 Fairmont Rd/Holland Ave (US-19)                                                                        | 36 New Roadway Connection from Mileground Rd to Hartman Run Rd           |
| 18 Greenbag Rd Improvements                                                                               | 37 Extension of Airport Industrial Rd to WV-7 in Sabraton                |

- |                                                                             |                               |
|-----------------------------------------------------------------------------|-------------------------------|
| Recommended for Funding with Projected Available State and Federal Revenues | Tier 3                        |
| Tier 2                                                                      | Tier 4                        |
| Priority Safety Improvements Location                                       | Alternative Funding Dependent |
| Priority Pedestrian Crossing Improvements Location                          |                               |
| PRT Station                                                                 |                               |



APPROVED BY  
MPO POLICY BOARD ON  
DECEMBER 17, 2012

LONG RANGE TRANSPORTATION PLAN  
DRAFT PROJECTS



Reverse side of LRTP Map (intentionally blank)



**The Morgantown Pedestrian Safety Board was established in 2007 to promote a walkable environment throughout the city by developing safe, attractive and accessible walkways that connect neighborhoods and destinations.** The board produced the Morgantown Pedestrian Safety Plan which established nine goals for pedestrian accessibility in Morgantown.

**The city currently has limited bicycle infrastructure, yet Morgantown has taken significant steps in the past few years to support progress towards improving bicycling in the city.** The lack of infrastructure is due, in part, to the challenges with the City’s topography and limited rights-of-way on roadways. Efforts to improve bicycling include the creation of a Bicycle Board, the development of the Greater Morgantown Bicycle Plan, and the adoption of a “Complete Streets” policy.

### **C. Objectives and Strategies**

Outlined below are 8 objectives and 37 strategies to support the transportation element . The objectives indicate a specific policy direction, while the strategies are detailed actions necessary to initiate or complete an objective such as a program, policy or a project.

#### ***Objective 1. Address neighborhood transportation issues in a manner that balances overall mobility with neighborhood integrity.***

- TR 1.1 Develop and implement a Regional Parking Management Plan in partnership with the MMMPO.
- TR 1.2 Expand a parking management programming in targeted areas such as residential permitted parking.
- TR 1.3 Identify neighborhood parking problems that can be addressed cooperatively by the Parking Authority and/or other groups.

#### ***Objective 2. Reduce presence of freight trucks within city limits.***

- TR 2.1 Develop and implement a Regional Truck Traffic Plan in partnership with the MMMPO.
- TR 2.2 Expand efforts to enforce weight limits, covered loads, and truck exhaust standards.
- TR 2.3 Evaluate the long-term viability of the Morgantown Energy Facility.

COMMUNITY PRIORITY

TR 2.4 Establish agreements with local trucking companies on preferred truck routes, which could include increasing weight limit on Interstate 68 between exist 1 (US 119) and 4 (WV 7), improvements to Greenbag Road as a designated truck route, reducing permitted weight on Walnut Street Bridge, etc.

***Objective 3. Expand ridership and coverage of bus, PRT and other alternative transportation modes.***

TR 3.1 Meet semi-annually with Mountain Line Transit Authority and the MMMPO to evaluate bus route coverage and frequency.

TR 3.2 Promote citizens' awareness of existing transit services and commuter alternatives such as the carpool/vanpool programing.

TR 3.3 Evaluate opportunities of increasing ridership of the PRT by people not affiliated with the university.

TR 3.4 Develop an alternative transportation ridership incentive program in conjunction with major employers and WVU.

***Objective 4. Work with West Virginia University to manage university-related traffic.***

TR 4.1 Partner with WVU in developing a grade-separated pedestrian crossing at Grumbeins Island.

TR 4.2 Lobby WVU to develop a parking garage at the Coliseum with grade-separated pedestrian crossing connecting WVU athletic facilities complex with WVU Evansdale campus.

TR 4.3 Meet semi-annually with WVU to remain informed and provide input on their transportation and parking plan.

TR 4.4 Meet semi-annually with WVU to consider strategies for discouraging or limiting student automobile ownership and the impacts of those strategies.

TR 4.5 Lobby WVU to develop park-and-ride facilities for students, employees and for use during special events as recommended in the Long Range Transportation Plan.

TR 4.6 Lobby WVU to develop long-term storage parking for students who live on and off campus.

***Objective 5. Increase bicycle use through infrastructure improvements and education.***

- TR 5.1 Implement the Morgantown Bicycle Plan.
- TR 5.2 Develop a bicycling education plan.
- TR 5.3 Develop a traffic enforcement plan to improve bicycling safety and to reduce the perceived risk of bicycling in Morgantown.
- TR 5.4 Implement the “Complete Streets” policy adopted by City Council in December 2007 to guide development review and approval, roadway maintenance, right-of-way improvements, and right-of-way expansion wherever practical.
- TR 5.5 Develop a feeder trail system that connects neighborhoods with the Caperton and Decker’s Creek Trails.

***Objective 6. Encourage walking by expanding pedestrian networks and improving pedestrian safety and accessibility.***

COMMUNITY PRIORITY

- TR 6.1 Implement the Pedestrian Safety Plan.
- TR 6.2 Develop and implement a Regional Sidewalk Connectivity Plan in partnership with the MMMPO to construct, expand and/or connect sidewalk networks.
- TR 6.3 Construct new sidewalks where none exist in areas that have strategic opportunities to expand the connected sidewalk network and link significant destinations.
- TR 6.4 Continue to require pedestrian walkways and sidewalks in all new developments that connect to the existing pedestrian network wherever practical.
- TR 6.5 Reinstigate City Engineering and Public Works Department programming to systematically repair and/or reconstruct failing sidewalks and construct new sidewalk connections funded wholly or partly by adjoining property owners.
- TR 6.6 Install stairways at the end of bridges to provide access to pedestrian routes below bridges, with priority at strategic locations along Deckers Creek below the Walnut Street and University Avenue bridges.



COMMUNITY PRIORITY

TR 6.7 Study the feasibility of developing a bicycle and pedestrian connection between the Evansdale and Sunnyside neighborhoods in collaboration with WVU.

**Objective 7. Support changes to the roadway network to alleviate traffic congestion.**

TR 7.1 Continue sponsorship of and partnership with the MMMPO and maintain leadership roles on its policy board and advisory committees.

TR 7.2 Develop an Access Management Plan in collaboration with the MMMPO.

TR 7.3 Lobby the MMMPO for roadway capacity improvements as recommended in the MMMPO Long Range Transportation Plan.

TR 7.4 Lobby the MMMPO for improvements to traffic control devices, traffic demand management strategies, and roadway and wayfinding signage as recommended in the MMMPO Long Range Transportation Plan (i.e., changing lights to signs, etc.)

**Objective 8. Support improvements to transportation service and access to Hart Field.**

TR 8.1 Implement the 2012 Morgantown Municipal Airport Master Plan.

TR 8.2 Pursue the proposed runway expansion project recommended in the 2012 Morgantown Municipal Airport Master Plan.

TR 8.3 Implement advanced runway protection strategies.

TR 8.4 Expand public transportation and taxi services for airport passengers.