

**BROOKE-HANCOCK-JEFFERSON
TRANSPORTATION STUDY**

TECHNICAL MEMORANDUM 2008-7

**BHJ REGIONAL 2030 TRANSPORTATION PLAN
PROJECT CONSIDERATIONS**

JUNE 2008

BROOKE-HANCOCK-JEFFERSON TRANSPORTATION STUDY

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PROJECT CONSIDERATIONS

INTRODUCTION

This section projects transportation projects to meet the BHJ Region's transportation needs over the next 25 years. The technical activities range from special traffic counting reports, accident location studies, or other GIS information gathering activities. BHJ staff then presented these projects to the Technical Advisory Committee and Transportation Policy Committee for review, comment, adoption as the Long range Transportation Plan.

The first step in the analysis process was examining statistical databases such as traffic volume reports, historical accident records and finally output assignments from the GIS and the Travel Forecast Model. The Ohio Department of Transportation using information generating by the BHJ staff conducted the travel forecast modeling process. In addition to the technical analysis process, the Transportation Study has developed a working relationship with local, state, and federal government officials and transportation agencies. Much of this work was performed by the Transportation Study staff as part of the daily responsibilities as discussed in BHJ's Overall Work Program.

Along with this detailed technical analysis, BHJ has collected, over the last four years, input from local communities through public meetings for specific projects (i.e. BHJ Bridge system Study, Brooke-Hancock Coordination Plan, and Jefferson County Human Service Public Transit Coordination), one-on-one discussions with communities leaders, and other public involvement techniques outlined in the Public Participation Plan. The BHJ also received input from the local, state, and federal elected officials through their participation in BHJ meetings and other sources of face-to-face contact.

This memorandum identifies transportation projects and programs that achieve the established regional priorities and strategies that have guided the outcome of this Transportation Plan Update.

PLAN GOALS & OBJECTIVES

- Prepare a Financially Responsible Plan that represents the region's fair share of federal and state economic resources and political importance.
- Encourage retention, expansion, and re-development of Regional Industrial Centers through promotion of an intermodal (air, highway, rail, and water) transportation network.
- Maintain and construct a safe, secure, and flexible Ohio River Bridge System that is reliable for existing industry, their employees, and all residents, and provides enhanced access within and outside the metropolitan area for retention of existing business and promotion of future economic growth and activity.
- Develop a modern four-lane Columbus, Ohio to Pittsburgh, Pennsylvania Highway Corridor through Steubenville, Ohio and Weirton, West Virginia generally following ongoing expansion of OH Routes 161/16 and US Routes 22/36/250 in Ohio, West Virginia, and Pennsylvania.
- Construct a modern West Virginia State Route 2 highway corridor that is safe and accessible to existing and future industrial and commercial markets.

- Design an efficient Public Transit & Human Service Transportation program that is coordinated and cost effective, makes the most of available resources, and avoids duplication of individual program efforts.
- Create a Pedestrian and Recreational Trail Network that bridges the Ohio River, promotes a healthy quality of life, discourages automobile dependence, and supports a growing tourism economy.

MAJOR/NEW HIGHWAY PROJECTS

Project classified as Major/New Highway Projects include construction programs that: (1) add capacity to the highway network, (2) have extraordinary costs, (3) a relocation of an existing highway or bridge, and/or (4) a major reconstruction of a functional transportation facility. These projects may represent the preservation of the existing transportation system and reconstruction of facilities to meet federal standards.

Ohio Project Considerations

OH-1 Rehabilitation/Reconstruction of State Route 43 (Washington Street/Sunset Boulevard) from State Route 7 to Belleview Boulevard; Steubenville, OH

This piece of State Route 43 is a four-lane arterial highway that directs east-west traffic into the Central Business District of Steubenville, OH. The Ohio Department of Transportation built or reconstructed the project area in several construction programs beginning in the early 1960's and ending in 1975. Washington Street from State Route 7 (Dean Martin Blvd) to Fifth Street has an asphalt concrete surface with either brick or concrete as a base. This section was resurfaced in 1988 and is now again in need of a mill and fill treatment. Washington Street from N. Fifth Street to N. Seventh Street was built as a grade-separated rail crossing under the then Panhandle Railroad Line of the Pennsylvania Railroad. The section from Fifth Street to Belleview Boulevard, constructed with a concrete surface, is rapidly deteriorating and is well past its lifetime.

The overall proposal is to split the entire project into four phases. When the City begins this project, they should consider developing an overall preliminary design through their consultant that would identify the rehabilitation and reconstruction issues. In this way, the City could begin developing detailed construction drawings for each project phase described below using the preliminary designs.

Phase #1 – State Route 7 to Fifth Street

This section would be rehabilitated by milling the existing deteriorated asphalt pavement and placing new asphalt concrete pavement and replacing curb, walk and ADA ramps where needed. Long life pavement markings and traffic sign replacement should also be part of the project scope.

Phase #2 – Seventh Street to Belleview Boulevard

The existing Portland cement concrete pavement in this section is in poor condition and needs replaced. Although asphalt concrete might be a suitable alternative, 10-inch Portland cement concrete may be a more proper surface replacement for the Washington Street Hill section due to the highway's steep grade. Replacing the pavement with asphalt could reduce the cost of the entire project and, over the years, be easier to maintain when compared to Portland cement concrete. Asphalt concrete pavement is also a better fit with the current ODOT Urban Paving Policy which effectively only addresses asphalt concrete pavement rehabilitation.

Additional work in this section includes replacement of existing asphalt concrete shoulders, replacement of the raised concrete median and guardrail with concrete barrier wall, replacement of guardrail, replacement of storm drains where needed, installation of long life pavement markings and replacement of traffic control signs.

Phase #3 – Fifth Street to Seventh Street

The existing Portland cement concrete pavement in this section is in poor condition and needs replaced. Replacing the pavement with asphalt could reduce the cost of the entire project and, over the years, be easier to maintain as compared to Portland cement concrete. Asphalt concrete pavement is also a better fit with the current ODOT Urban Paving Policy which effectively only addresses asphalt concrete pavement rehabilitation.

Additional work in this section includes replacement of existing curbs, rehabilitation of retaining walls, replacement of storm drains where needed, replacement of retaining wall safety fence, replacement of walk and ADA ramps where needed, installation of long life pavement markings and replacement of traffic control signs.

Phase #4 – SR43 (Washington St) Interchange Ramps and Bridges

The existing Portland cement concrete pavement on the ramps is in poor condition and needs replaced. Replacing the pavement with asphalt could reduce the cost of the entire project and, over the years, be easier to maintain as compared to Portland cement concrete. Asphalt concrete pavement is also a better fit with the current ODOT Urban Paving Policy which effectively only addresses asphalt concrete pavement rehabilitation.

Additional work in this section includes replacement of existing asphalt concrete shoulders, replacement of guardrail, rebuild storm drains where needed, installation of long life pavement markings, and replacement of traffic control signs.

During this phase of the project, the bridge structures at the following locations over Washington Street in Steubenville should be rehabilitated: (1) Sixth Street, (2&3) Adams Street Ramp (one over Market Street Ramp eastbound from Washington Street, and (4) Lawson Avenue. Each bridge is more than 30 years old and they are approaching the end of their respective life cycles. Replacement costs are the responsibility of ODOT.

Programming the project in several phases distributes the cost of the entire project over several years since project financing under the current Urban Paving Policy established by the Ohio Department of Transportation may be too difficult to obtain. The policy makes it very difficult to obtain funds for high-priced major reconstruction projects, such as this proposal, on State Routes within cities in Ohio.

In conclusion, the project area defined on State Route 43 is in dire need of reconstruction. Without highway construction funds from the State of Ohio, the City of Steubenville cannot alone afford the reconstruction of this arterial route. The Ohio Department of Transportation should give this project special recognition as an exception to the Urban Paving Initiative Policy governing preventive maintenance and resurfacing projects on State Routes in Ohio.

OH-2 Improvements to Lovers Lane from Sinclair Avenue to State Route 43 (Sunset Boulevard); Steubenville, OH

Lovers Lane has insufficient roadway capacity due to narrow width. In addition, left turn movements to various driveways and minor cross streets as well as daily mail delivery vehicles block or delay daily through traffic throughout the entire corridor. Currently, Lovers Lane from Sunset Boulevard to Fort Steuben Drive is operating at LOS E and in the future may function at LOS F. Adding to this problem, the Ft. Steuben Mall recently underwent a \$50-\$60 million dollar reconstruction resulting in additional traffic generation.

Consideration for improving Lovers Lane should consist of the following alternatives:

- Widen to 36 feet the entire length of the study area from Sunset Boulevard to Sinclair Avenue to permit three 12-foot lanes for left turn movements.
- Widen to 36 feet the existing roadway from Sunset Boulevard to Fort Steuben Drive to permit three 12-foot lanes for left turn movements and widen to 24 feet from Fort Steuben Drive to Sinclair Avenue.
- Widen to 24 feet from Sunset Boulevard to Sinclair Avenue to permit two 12-foot lanes, construct left turn lanes at Fort Steuben Drive and Sinclair Avenue, and lengthen the left turn lanes at the intersection with Sunset Boulevard.
- Consider constructing Roundabouts as an alternative in lieu of traffic signals at Lovers Lane and Fort Steuben Dr and at Lovers Lane and Sinclair Avenue. Roundabouts provide benefits of traffic calming, greater efficiency and significantly safer movement of traffic.
- All of the above alternatives should include a sidewalk system to allow on-foot mail delivery to eliminate the daily roadway delays caused by vehicle deliveries.

The City of Steubenville should initiate an in-depth traffic study and carefully review the above considerations. In addition, the study should include a neighborhood pedestrian plan that addresses access-management problems and traffic calming issues that will result from construction of the proposed project. The pedestrian plan should include Fort Steuben Drive and John Scott Highway to enhance the overall value of the Fort Steuben Drive/Mall Drive commercial area and adjacent residential areas. The city also needs to identify all necessary financial resources to purchase essential right of way and fund project construction. One option is to implement the project in several stages and distribute costs over a longer period of years.

In summary, road improvement needs, as illustrated by an expected LOS F, has and will increase. A creative financing program including all beneficiaries is essential.

OH-6 Reconstruct Ft. Steuben Drive/Mall Drive from Lovers Lane to John Scott Highway; Steubenville, OH

A narrow 40-foot wide, four-lane urban collector street, Ft Steuben Drive/Mall Drive directs traffic through the region's major commercial shopping area in the west end of Steubenville, OH. More than 13,420 vehicles travel on this city street to work or shop daily. In many instances, left turning vehicles block the through lane, there are no pedestrian walkways within the entire length of Ft Steuben Drive/Mall Drive, and finally, the route is a rapidly deteriorating concrete surface.

Considerations to improve Ft Steuben Drive/Mall Drive should consist of the following alternatives:

- Widen the entire length of the study area to 48-feet wide.
- Reconstruct the entire route at its current width and delineate median turn lanes at commercial driveways for left turn movements.
- Formulate a pedestrian and traffic calming plan to increase the attractiveness of the entire commercial shopping area.

OH-7 Seventh Street from South Street to University Boulevard; Steubenville, OH

Seventh Street in Steubenville currently functions as a Minor Arterial from Adams Street to University Boulevard. As such, it serves as a north/south highway along the west perimeter of the Steubenville Central Business District connecting U.S. 22 at the foot of the Veterans Memorial Bridge to State Route 43 (Washington Street). Throughout its entire length, the street's base has areas of severe deterioration. In addition, the street's curb-to-curb width changes abruptly from 22 feet to 32 feet at many of the intersections along the route creating an inconsistent alignment.

Consideration for improving Seventh Street should consist of the following alternatives:

- Widen the entire route to a minimum of 24-feet with proper curbs, drainage, and sidewalks.
- Widen many of the intersections along the route to improve line-of-sight problems.
- Widen the city block between North Street and Washington Street to at least 48-feet to permit parking on the west edge of the street and permit a median lane for left turn movements.

Possible solutions are reconstruct Seventh Street to two 12-foot lanes, with curbs, sidewalks, and drainage, improve the roadway alignment, and install left turn lanes at key intersections such as North Street, Washington Street, Market Street, and Adams Street.

OH-8 County Highway 34 (Two Ridge Road) from County Highway 22A (Cadiz Road) to State Route 43 (Canton Road); west of Wintersville, OH

County Highway 34 (Two Ridge Road) is a collector highway that links two principle arterial highways, Canton Road to Cadiz Road, west of Wintersville, OH. The County Route has realized a significant increase in traffic (2,800 in 1992 to 4,910 in 1997) since the completion of the U.S.22 bypass in 1994. Built on a rolling terrain resulting in a poor alignment, the roadway has many sharp curves and restrictive line-of-sight problems at many intersections along the route.

Consideration for improving Two Ridge Road should consist of the following alternatives:

- Widen the entire county route to at least 24-feet with adequate shoulder width and drainage.
- Improve the overall alignment and grade of the existing route especially the two sharp s-curves 0.80 miles north of Cadiz Road.

The preferred alternative is reconstructing the entire roadway to satisfy the above considerations. In addition, possibly consider installing bike lanes and/or pedestrian lanes adjacent to the entire route. This last concern could be part of an overall bicycle/pedestrian plan for Jefferson County, OH.

OH-25 CR77 (Sinclair Ave) from Lincoln Ave to Lovers Lane

This project is the joint responsibility of both the Jefferson County Engineer and the City of Steubenville. Sinclair Avenue is a two-lane roadway winding its way along a watershed valley known locally as Permars Run. The roadway width is less than 24 feet wide with few shoulder recovery areas. The project would improve horizontal and vertical curves where needed, widen the pavement to full 24 feet, add paved shoulders, replace culverts where needed, replace guardrail where needed and install new traffic control signs.

OH-26 SR7 from Mingo Junction North Corp to Steubenville South Corp

The existing roadway, built in the early 1960s, is “cut” into the hillside that follows along the Ohio River Valley between Steubenville and Mingo Junction. The existing rock cut face is experiencing deterioration resulting in intermittent rock falls. The project would address the rock fall conditions by cutting back the slope of the rock face and providing a rock-fall recovery area at the toe of the slope.

OH-37 Lovers Lane from Fernwood Rd to Sinclair Ave; Steubenville, OH

This section of Lovers Lane has a roadway width of 19 feet, while left turn movements to various driveways and minor cross streets as well as the daily postal service delivering mail via truck (since there is no sidewalk for foot delivery) in the project area block or delay the through traffic.

Consideration for improving Lovers Lane Road should consist of widening the road to 24 feet to permit two 12-foot lanes and construct left turn lanes at Sinclair Avenue and at Country Club Drive. Another consideration is building a roundabout at Lovers Lane and Sinclair Ave in lieu of a traffic signal (see OH-2). In addition, building sidewalks in a systematic way to allow on-foot mail delivery instead of delivering mail via truck thereby eliminate traffic blocking problem.

The City of Steubenville should initiate an in-depth traffic study and carefully review the recommended improvements. In addition, the study should include a neighborhood pedestrian plan that addresses access-management problems and traffic calming issues that will result from construction of the proposed project.

West Virginia Project Considerations

WV-1 CR 13 (Three Springs Drive) from US Route 22 to CR 507 (Cove Road); Weirton, WV

Three Springs Drive is an urban collector street that directs traffic through a regionally significant commercial activity center in Weirton, WV. The excessive number of commercial driveways along this route severely restricts street capacity. Capacity calculations estimate that the intersections at County Route 13 and St. Thomas Drive and Potomac Avenue are operating at LOS D while the intersection at Cove Road functions at LOS F. Traffic model projections indicate vehicle miles traveled on Three Springs Drive will increase by roughly 1.2% annually over the next twenty-five years. At this rate, projected traffic volumes will be severely compromised all capacity on Three Springs Drive within the next ten years and the entire route will be operating at LOS F. Several suggestions that should improve capacity problems on Three Springs Drive are:

- Formulate an access-management plan throughout the entire corridor to minimize the number

- of commercial driveways and reduce the number of left turn conflict along the entire route.
- Develop a pedestrian plan to interconnect all the commercial centers along Three Springs Drive to reduce automobile dependency within the retail district.
- In conjunction with the pedestrian plan, encourage shared parking lots among all the individual business centers by creating frontage roads parallel to Three Springs Drive.
- Consider relocating the north 0.5 miles of County Route 13 from 0.1 miles north of Potomac Avenue adjacent to an existing driveway to the Gabriel Store's parking lot connecting to Knights Road as shown in Figure 8-2.

Alternative solution is reorganizing existing and future commercial driveways into frontage roads thereby reducing the number of commercial access points along Three Springs Drive.

WV-3 US Route 30 from 0.80 miles east of the Ohio State Line to Pennsylvania State Line; Hancock County, WV

US Route 30 is a principle arterial highway that runs roughly 3.50 miles through the most northern end of Hancock County, WV connecting Pennsylvania to the east bridging the Ohio River to East Liverpool, OH to the west. Starting at the Jennings Randolph Bridge over the Ohio River and ending just east of Chester, WV, about 0.90 miles of US Route 30 is a four-lane limited-access highway. Then, for the remaining 2.60 miles, the US Route is a winding two-lane highway with a 24-foot road surface and 8-foot shoulders. Further speaking, this route experiences a high accident rate, in particular, the intersection with WV State Route 8 0.90 miles west of the Pennsylvania State Line.

Daily traffic on US Route 30 ranges from 7,600 vehicles at the Pennsylvania State Line to 17,000 vehicles over the Ohio River Bridge between Chester, WV and East Liverpool, OH. At present, the four-lane section of US Route operates at LOS A with very little traffic congestion. The remaining two-lane section is operating at LOS C. Twenty-five year traffic projections taken from the Travel Forecast Model show that traffic volume on US Route 30 will increase by approximately 3.0% annually. At this rate, the entire section of US Route 30 through Hancock County may begin operating at LOS D in 12 years when traffic volumes begin to exceed the route's capacity. By 2025, US Route most likely will operate at LOS E and begin to experience moderate to severe congestion problems.

Two factors contribute to the anticipated increase in vehicle miles on US Route 30 over the next twenty-five years. First, is the anticipated completion of US Route 30 as four-lane limited access highway in Ohio from Canton to East Liverpool, and second, the projected growth of Mountaineer Casino Racetrack and Resort in Hancock County. Mountaineer anticipates becoming a major regional attraction to patrons in Pennsylvania as well as Ohio and West Virginia.

At a minimum, the West Virginia Division of Highways should consider relocating US Route 30 on a new alignment to eliminate the winding downhill section between State Route 8 and the four-lane portion. Then, rebuild the route as two-lane facility starting at the Pennsylvania State Line and ending at 0.25 miles east of Chester, WV where the four-lane highway begins, on an alignment that for future expansion to a four-lane limited access highway when needed.

WV-5 Relocate State Route 2 from New Cumberland South Corporate Limits to Chestnut Street; New Cumberland, WV

Beginning at the south corporate limits of New Cumberland, State Route 2 (Ridge Avenue) is a confining two-lane street with a surface width that varies between 19 and 22 feet. Moving further north, the alignment from Clay Street to Jefferson Street, a section of State Route 2 known locally as "Station Hill," State Route 2 begins to descend, down a steep grade. The road then bends sharply ninety-degrees (90°) to the west near the bottom of the hill. An at-grade crossing of the N&S Railway at Madison Street follows this quickly. Finally, State Route 2 continues back to the north with another close ninety-degree (90°) turn right at the intersection of Madison Street and North Chester Street. Heavy trucks with a length of 50 feet or more often block the two cramped intersections and the rail crossing at the bottom of the hill causing traffic delays and thereby creating a dangerous situation.

An alternative route would closely follow the existing State Route 2, but built to a four-lane highway following north to the intersection at State Route 8.

WV-6 Relocate State Route 2 (Main Street) from County Route 7 (Bruin Drive) to County Route 8 (Archer Heights Road); Follansbee, WV

Main Street in Follansbee is the most congested highway in the BHJ Region. Traffic congestion occurs in Follansbee for a variety of reasons as previously discussed in Section 7 pages 7-8 through 7-10. The Regional Travel Patterns document listed five intersections in Follansbee on State Route 2 as high accident locations in Brooke and Hancock counties. These intersections are at the Brooke Shopping Plaza, Mark Avenue, Allegheny Street, Raymond Street, and State Street. Several solutions for future discussion to relieve traffic woes on State Route 2 in Follansbee are as follows:

- The most expensive solution would be a complete 4-lane limited-access bypass around Follansbee. The proposed route includes three interchanges, two at each terminus and one at Alternate State Route 27 (Allegheny Street).
- Continue construction of a 4-lane road with at-grade intersections on the existing alignment of State Route 2 through Follansbee.
- Eliminate on-street parking on State Route 2 through Follansbee and construct new off-street parking facilities. This would create surface width to delineate Main Street with a median lane for left turn movements. The project would also include an access- management and pedestrian plan to reduce the number of commercial driveways on Main Street and re-evaluate the traffic control patterns.
- Create a one-way pair scheme by expanding Mill Alley or Rose Alley as the southbound or northbound alternative facility for State Route 2.

WV-7 State Route 2 (Commerce Street) from State Route 67 (Bethany Pike) to 12th Street; Wellsburg, WV

This 0.80-mile segment of State Route 2 has a surface width of 30 feet for about 0.50 miles from 12th Street to 2nd Street that then widens to 44 feet near the intersection at State Route 67. The beginning of the 30-foot wide section of Commerce Street at the 12th Street intersection and ending just south of State Route 27 (Washington Pike) is three 10-foot lanes, allowing for a center left turn lane from southbound State Route 2 to eastbound State Route 27. The highway width is functionally obsolete creating unsafe and cramped traffic conditions that have led to numerous traffic crashes at or near this intersection. Continuing just south from the Washington Pike intersection, on-street parking is permitted on the northbound side of State Route 2 and the southbound side is lined by several

commercial driveways segment south, further compromising capacity on Commerce Street in the south end of Wellsburg.

The prime solution to correct traffic problems in the south end of Wellsburg is, at a minimum; widen Commerce Street from 12th Street to Bethany Pike to 40 feet with 3-lanes and adequate space for pedestrian traffic and proper drainage. Another consideration is purchase adequate right-of-way to expand this section of highway to at least 60 feet wide for 5-lanes of highway and eliminate on-street parking as warranted by increases in future traffic volumes.

WV-8/9 State Route 2 from Ohio County Line to State Route 67; Brooke County, WV

This project is a continuation of current expansion of State Route 2 in Ohio County and south Brooke County. Constructing this segment of State Route 2 to a 4-lane highway from Ohio County Line to Wellsburg would be the natural progression of expanding the state highway. The project's intent is to eliminate several dangerous rock fall and mudslide areas near Beech Bottom, by stabilizing the hillside on the east perimeter of the road. Furthermore, improvements to widen the existing route can provide better and direct access to Wheeling, WV, and expand industrial opportunities in south Brooke County along the Ohio River.

HIGHWAY SYSTEM PRESERVATION PROJECTS

Construction programs classified as Highway System Preservation Projects preserve and maintain the current operation and safety standards of an existing transportation facility. These types of projects do not add capacity to the existing transportation network, are usually low-cost, and initiated on highway facilities that currently meet federal standards for highway construction.

Ohio Project Considerations

In Ohio, village, city, township, county and state government have certain responsibilities for maintenance of their respective highway facilities as delineate by the Ohio Revised Code. To begin, the Ohio Department of Transportation (ODOT) maintains all Interstate, United States, and State Routes that are included in the National Highway System (NHS). Furthermore, ODOT maintains all State and US Routes outside municipal corporation areas with a population greater than 5,000 that is an area designated as a **City**. In summary, maintenance of all State and United States Routes that are not designated NHS Routes within a city boundary is the responsibility each respective city government. In addition, the maintenance of all designated federal-aid highways that have an Administrative Classification of a County, Township, City or Village Route, is the responsibility of each respective level of government. Therefore, this plan will attempt to identify **Highway System Preservation Projects** each responsible governmental unit in Jefferson County, Ohio expects to complete on the federal-aid system in the next 25-years.

OH-4 John Scott Highway Connector from SR43 (Sunset Blvd) to Steubenville North Corporation; Steubenville, OH

This project is the responsibility of the City of Steubenville. The John Scott Highway Connector, constructed as part of the US 22 by-pass project, opened to traffic in the early 1990s. The concrete pavement is reaching its useful life and the city should consider rehabilitating the existing concrete pavement. However, there are existing issues with the existing concrete pavement (joint faulting) which may make rehabilitation cost prohibitive. Spot joint and pavement repair with an asphalt

concrete overlay may be the most cost effective solution as long as engineers can design an asphalt mix that is capable of resisting the stresses imposed by vehicles on the steep grade.

OH-5 Brady Avenue/University Boulevard from SR43 (Sunset Blvd) to Seventh Street; Steubenville, OH

This project is the responsibility of the City of Steubenville. Last resurfaced in the mid 1990s The Brady Avenue / University Boulevard pavement surface is showing a sign of deterioration as it reaches its useful life. This project includes milling and replacing flexible asphalt, as well as pavement markings and the replacement of a traffic control signs.

OH-9 Resurface County Highway 22A (Cadiz Road/Old US 22) west of Wintersville, OH

This project is the responsibility of the Jefferson County Highway Engineer. The project area is an east/west principle arterial highway that was formerly designated US Route 22. Approximately 1.85 miles in length, the proposed project limit begins at the Reeds Mill Interchange of US Route 22 (STA-5.08) and ends at Springdale Avenue (STA-3.23) at the Wintersville, OH west corporate limits. This project includes milling and replacing flexible asphalt, as well as pavement markings and the replacement of a traffic signal at Springdale Avenue.

OH-10 Resurface South Commercial Avenue; Mingo Jct., OH

This project is the responsibility of the Village of Mingo Junction. The project area is a north/south minor arterial street that runs parallel to State Route 7 in the south corporate limits of Mingo Jct. Approximately 1.60 miles in length, the proposed project begins at the Village's south corporate limits and ends at the bridge over Cross Creek. This project includes milling and replacing flexible asphalt, replacement of curb, sidewalk and catch basins where needed as well as pavement markings and traffic control devices.

OH-11 Resurface Franklin Avenue Extension; Toronto, OH

This project is the responsibility of the City of Toronto. The project area is an east/west minor arterial street located in the extreme south end of the City. The project length is roughly 0.62 miles in length beginning at the Franklin Avenue intersection and ending at County Highway 46 at Toronto's southwest corporate limits. The overall project includes concrete pavement repair where needed and placing a new asphalt concrete wearing surface throughout the entire area. The project area near the state highway interchange will also include pedestrian sidewalks and curbs for proper drainage, as well as a concrete median to delineate center turn lanes. Finally, the project includes installing and/or replacing pavement markings and traffic control devices as needed.

OH-13 Resurface Lovers Lane Connector; Steubenville, OH

This project is the responsibility of the City of Steubenville. The Lovers Lane Connector is a north/south minor arterial highway that connects County Highway 43 at the US Route 22 Interchange in the west end of Steubenville, OH to State Route 43 (Sunset Boulevard). The transportation facility is a four-lane highway roughly 0.93 miles in length. The project consists of milling and replacing flexible asphalt, replacing guardrail, pavement markings and traffic control devices.

OH-14 Resurface Frank Layman Boulevard (formerly US Route 22); Wintersville, OH

This project is the responsibility of the Village of Wintersville. The project area is an east/west principle arterial highway that was formerly designated US Route 22. Approximately 0.73 miles in length, the proposed project begins at the intersection of State Route 43 (Canton Road) and ends at the Wintersville, OH west corporate line at Springdale Avenue. This project includes milling and replacing flexible asphalt, as well as pavement markings.

OH-15 Resurface State Route 43 (Sunset Boulevard); Steubenville, OH

This project is the joint responsibility of ODOT and the City of Steubenville through the Urban Paving Initiatives Policy. This project includes milling and replacing flexible asphalt as well as pavement markings. Project costs will be 80% ODOT and 20% City funds.

OH-16 Resurface State Route 7 (Dean Martin Boulevard); Steubenville, OH

This project is the responsibility of ODOT through the Urban Paving Initiatives Policy. Since State Route 7 is a part of the National Highway System, project costs will be 100% ODOT funds.

OH-20 Franklin Ave from Franklin Ave Extension to Trenton St; Toronto, OH

This project is the responsibility of the City of Toronto. The project area is a north/south minor arterial street that serves as the main north/south local access corridor for the City. The project includes milling and replacing asphalt concrete, replacement of curb where needed, replacement of sidewalk where needed, pavement markings and replacement of traffic control signs.

OH-27 Lincoln Ave Underpass at Norfolk-Southern Railroad; Steubenville, OH

OH-28 Alexander Ave from State Route 7 to Fourth St; Toronto, OH

This project is the responsibility of the City of Toronto. Constructed in conjunction with the State Route 7 by-pass project Alexander Avenue pavement has reached its useful life and is in need of rehabilitation. Spot joint and pavement repair with an asphalt concrete overlay is the recommended treatment. Spot guardrail repair, installation of pavement marking and replacement of traffic control devices are also included.

OH-29 Old SR7 from Belmont Co Line to SR150A; Rayland, Tiltonsville and Yorkville

This project is the responsibility of the Jefferson County Engineer. The project area is a north/south collector street that serves as the main north/south local access corridor for the areas of Rayland, Tiltonsville, and Yorkville. The project includes milling and replacing asphalt concrete, replacement of curb where needed, replacement of sidewalk where needed, pavement markings and replacement of traffic control signs.

OH-30 John Scott Highway from Sinclair Avenue to SR43 (Sunset Blvd); Steubenville, OH

The proposed work will resurface the entire length of the project with an asphalt overlay; replace portions of guardrail that are in very poor condition and the installation of long life pavement

markings. The work will also include improving the intersection of John Scott Highway and Mall Drive. This work will involve widening of the northwest corner turn radius, installation of overhead guide signs on the southbound approach, changing on lane use function on the northbound and southbound approaches, rebuilding the traffic signal, and installing video detection at five signals in the Mall area. Added work includes replacing the four incandescent signals bulbs with LED type lighting and erect spot highway lighting at the intersection of John Scott Hwy and Mall Drive. The resurfacing limits on John Scott Highway are from south edge of SR43 (Sunset Boulevard to the north edge of Sinclair Ave to the), for a length of 1.12 miles. The limits on Mall Drive are from John Scott Highway to 150 feet west of John Scott. Finally, construct work should include minor drainage repairs as needed and new curb installed on the corner radius.

The intersection improvement work will address the heavy southbound right turn traffic and a lane utilization issue on the southbound John Scott Highway approach. Because of the heavy right turn, motorists who intend to turn right move into the right lane long before the intersection. Observation of lane utilization shows the issue extends back to SR43 as indicated by a recent traffic count survey taken just south of SR43 on southbound John Scott Highway showing 75 percent of the vehicles entering the intersection use the right lane.

Adding the dual right turn at Mall Drive will help to even out the southbound lane usage and help relieve congestion issues with the through traffic on southbound John Scott Highway at SR43. It will also relieve congestion in the right turn movement at John Scott Highway and Mall Drive. A before and after SimTraffic© model simulation analysis of the John Scott Highway and Mall Drive intersection shows a reduction in emissions and fuel consumption making at least a portion of this project eligible for CMAQ funding.

OH-35 Commercial Ave (CR7B) from Clifton Ave to Mingo Junction South Corp; Mingo Jct., OH

This project is the responsibility of the Jefferson County Engineer. The project area is a north/south minor arterial street that runs parallel to State Route 7, south of the corporation limits of Mingo Junction. Approximately 1.60 miles in length, the proposed project begins at Clifton Avenue and ends at the south Mingo Junction corporation limit. This project includes milling and replacing flexible asphalt, replacement of curb, sidewalk and catch basins where needed, as well as pavement markings and traffic control devices.

West Virginia Project Considerations

In West Virginia, the West Virginia Department of Transportation is responsible for the maintenance of all highways that have an Administrative Classification of Interstate, United States, State, or County Route. Therefore, this plan does not identify Highway System Preservation projects for Brooke County and Hancock County, West Virginia.

CONGESTION MANAGEMENT / SAFETY HIGHWAY PROJECTS

Planned Hazard Elimination projects resolve safety problems at roadway hazardous locations and sections, and other transportation elements that present a danger to motorists, pedestrians, or bicyclists. These projects decrease traffic crashes thereby reducing deaths, injuries, and property damage.

Ohio Project Considerations

OH-19 Intersection improvements on State Route 43 (Sunset Boulevard) at Lovers Lane Road; Steubenville, OH

The intersection at Sunset Boulevard and Lovers Lane Road has insufficient roadway capacity. Left turn movements to the Lovers Lane Connector typically block or delay the daily eastbound traffic on Sunset Boulevard. Presently, only three vehicles can queue in the left turn lane at the intersection. Any additional left turn vehicles result in vehicles backing out into the through lane of eastbound Sunset Boulevard.

This intersection is within an identified traffic crash “hot spot” section on SR43 for the years 2004, 2005, and 2006. During those years, there were 46 traffic crashes identified at the intersection. Studies completed by BHJTS show that the intersection is operating at LOS F.

Consideration for improving this intersection should consist of the following, which will bring the intersection back to LOS C operation:

- Widen the eastbound approach to lengthen the left turn lane on Sunset Boulevard to a sufficient distance to handle properly the daily peak hour traffic.
- Widen the southbound approach (connector) to provide a separate right turn lane.
- Widen the northbound approach to add one lane to provide two separate left turn lanes and one through-right lane.

OH-21 SR43 (Main St) Traffic Signal System; Wintersville, OH

The traffic signals on State Route 43 through Wintersville currently do not operate as a system. The signal equipment is beyond its useful life and the village should consider installing a new coordinated traffic signal system similar to that installed on Sunset Boulevard through Steubenville.

OH-22 CBD Toronto Traffic Signal System – Toronto, OH

This project is the responsibility of the City of Toronto. The traffic signals in the central business district of the City are obsolete. Some of the traffic signals may no longer meet State of Ohio traffic signal warrant criteria. The project should first study all signalized intersections to determine which traffic signals meet the warrant criteria, then replace those installations and remove those traffic signals which are no longer justified. The city should consider coordinating the remaining traffic signals to reduce motorist delays and vehicle emissions.

OH-31 SR7 Traffic Signal Renovations; Steubenville, OH

This project is the responsibility of the City of Steubenville. The traffic signals along state Route 7

currently operate in a closed loop coordinated system, which the city and ODOT installed in the year 2000. The proposal is to renovate these traffic signals in the year 2024.

OH-32 SR43 Traffic Signal Renovations; Steubenville, OH

This project is the responsibility of the City of Steubenville. The traffic signals along state Route 43 currently operate in a closed loop coordinated installed in the year 2000. The proposed project is to renovate these traffic signals in the year 2025.

OH-33 Mall Area Traffic Signal Renovations; Steubenville, OH

This project is the responsibility of the City of Steubenville. The traffic signals in the Fort Steuben Mall area currently operate in a closed loop coordinated system installed in the year 2000. The proposed project is to renovate these traffic signals in the year 2026.

OH-36 CBD Traffic Signal System; Steubenville, OH

This project is the responsibility of the City of Steubenville. The traffic signals within the Steubenville central business district operate coordinated using a single timing plan and outdated interconnection cabling. Renovated over 25 years ago, the traffic signals are in need of replacement. A project to renovate the traffic signal installations, replace the interconnect cabling with fiber optic cable, install a closed loop master control system with limited traffic detection is proposed.

West Virginia Project Considerations

WV-4/10 Improvements to State Route 105 (Pennsylvania Avenue) from State Route 2 (Main Street) to Pennsylvania State Line; Weirton, WV

Projects to improve Pennsylvania Avenue are in several stages of development. Overall, WVDOT has developed this project in several phases, divided into three stages of construction beginning with: (1) Cove Road to the Pennsylvania State Line, (2) Cove Road to 12th Street, and (3) 12th Street to Main Street. Each construction phase should improve drainage, traffic flow, and pedestrian safety. The first two projects include the addition of a center lane for left turn movements, while the third project eliminates a dangerous sharp curve 0.15 miles east of Weir Avenue.

WV-17 CR7 (Cross Creek Rd) at intersection of CR7/1 (Rockdale Rd); Brooke County, WV

WV-18 Three Springs Dr Traffic Signal System; Weirton, WV

The traffic signals on Three Springs Drive in Weirton currently do not operate as a system. The current signal equipment is beyond its useful life. WVDOT should consider replacing the old system and a new coordinated “closed loop” type traffic signal system.

WV-19 Cove Rd/Penco Rd Traffic Signal System; Weirton, WV

The traffic signals on Cove Road and Penco Road in Weirton currently do not operate as a system. The current signal equipment is beyond its useful life. WVDOT should consider replacing the old system and a new coordinated “closed loop” type traffic signal system.

WV-20 Follansbee Traffic Signal System; Follansbee, WV

This project is the responsibility of West Virginia Department of Highways. The traffic signals along State Route 2 in Follansbee, installed over ten years ago, currently operate in a “closed loop” coordinated system. A proposed project is to renovate these traffic signals in the year 2019.

WV-21 Chester Traffic Signal System; Chester, WV

The traffic signals through Chester on State Route 2 currently do not operate as a system. WVDOT should consider replacing the existing signals with a new coordinated “closed loop” type traffic signal system.

WV-22 Wellsburg Traffic Signal System; Wellsburg, WV

This project is the responsibility of West Virginia Department of Highways. The traffic signals along State Route 2 in Follansbee, installed over ten years ago, currently operate in a “closed loop” coordinated system. A proposed project is to renovate these traffic signals in the year 2027.

BRIDGE PROJECTS

Identified bridge projects provide funding to replace or rehabilitate deficient highway bridges located on any public road in the BHJ Region. Through an intensive inspection and management programs, each respective state highway agency, ODOT and WVDOT, identify such projects. In Ohio, the County Engineers Association administers a local bridge program for structures that are not on the Interstate, United States, or State Route Federal-Aid System. The Ohio Department of Transportation is responsible for the maintenance and rehabilitation for all other bridge structures in Ohio. On the other hand, the West Virginia Department of Transportation assumes responsibility for all bridge structures in West Virginia. This plan attempts to identify a limited number of bridge projects that are essential to the integrity of the region’s highway network.

Ohio / West Virginia Project Considerations

BR-1 Veterans Memorial Bridge Access Improvements

When the *Upper Ohio Valley Bridge System Study, Phase 2 Report* was completed in 2003, the number one priority project listed was to “Construct Roadway and Intersection Capacity Improvements” in the vicinity of the Veterans Memorial Bridge. One of the specific areas mentioned was State Route 7 and University Boulevard along with related approaches on the Ohio side of the bridge. The *Veterans Memorial Bridge Access Study* funded Ohio Department of Transportation and published in 2005, identified several alternatives to address the bridge access issues. However, none of the alternatives adequately addressed the bridge access problem. Alternatives were rejected either because of constructability, geometric or operational issues. Since 2006, the BHJTS has worked with ODOT District 11 to develop and evaluate additional alternatives. This effort is ongoing at this time with no clear preferred alternative. By the end of calendar 2008, ODOT, BHJ, and other local advocates hope to identify that a preferred alternative.

The 2030 design year traffic for the alternative analysis assumes the removal of the Fort Steuben Bridge and the Market Street Bridge from the transportation network. ODOT has already announced

their intent to close and remove the Fort Steuben Bridge in 2009. West Virginia Department of Transportation is on record that they intend to keep the Market Street Bridge open until such time that their annual bridge inspection recommends its closure. With the age and condition of the Market Street Bridge, closure of this bridge could happen at any time.

Closure of the Market Street Bridge will have a serious traffic impact on the Veterans Memorial Bridge Access area. Once identified, ODOT will need to move quickly to implement a preferred alternative in order to address this anticipated impact.

BR-2 Ohio River Bridge from OH-7 Jefferson County, OH to WV-2 Brooke County, WV

The current bridge system in the Steubenville-Weirton Metropolitan Area has sufficient capacity to handle present traffic volumes; however, there are a number of significant deficiencies. Future efforts to address these deficiencies may require a reconfiguration of the present system including the construction of new bridge capacity as well as the closure of old structures. Two of the three bridge structures in the immediate Steubenville-Weirton Area, the Fort Steuben Bridge, and the Market Street Bridge have exceeded their design life. Although investments in added maintenance to each bridge may extend their useful life, neither structure can be brought up to modern highway standards due to inherent design constraints. Additionally, an increased investment in maintenance funds does not preclude the possibility of failure of key structural components that would cause an abrupt closure of either bridge at any time in the coming years.

In September 1999, the Brooke-Hancock-Jefferson Metropolitan Planning Commission entered into an agreement with Pflum, Klausmeier & Gehrum Consultants, Inc. of Cincinnati, OH (PKG) to complete the *Upper Ohio Valley Bridge System Study, Phase 1 Report*. Both the Ohio and West Virginia Departments of Transportation funded jointly the study. The three bridge crossings that were included in the study are: (1) the Fort Steuben Bridge, (2) the Veterans Memorial Bridge, and (3) the Market Street Bridge.

The Phase 2 Report of the *BHJ Regional Bridge System Study* concluded in 2003, identified three priority activities. The first priority was to improvement access to the Veterans Memorial Bridge (see BR-01). The second priority was to construct a new Ohio River Bridge south of Wellsburg, West Virginia. The Phase 2 Report recommended the region move forward with initiating a Phase 3 Report and start addressing detailed location and environmental aspects.

Phase 3 of the study will be underway in 2008. Funding for the Phase 3 work came about through a transportation bill “Earmark” from Senator Bird of West Virginia.

West Virginia DOT recently stated this new Ohio River Bridge “will be viewed as a replacement of the Market Street Bridge”. Because of shrinking dollars due to increased construct costs and inflation, the region will be fortunate to be in a position to construct one additional bridge across the Ohio River in the next 25 years.

BR-3 New Ohio River Bridge from OH-43 (Washington Street) in Steubenville, OH to WV-2 in Brooke County, WV

The Phase 2 Report of the *BHJ Regional Bridge System Study* prepared by Edwards and Kelcey consulting engineers concluded in 2003, identified three priority activities. The first priority was to

improvement access to the Veterans Memorial Bridge (see **BR-01**). The second priority was to construct a new Ohio River Bridge south of Wellsburg, West Virginia (see **BR-02**). The third priority was to construct a new Ohio River Bridge to connect West Virginia Route 2 with Steubenville at Washington Street.

Currently, there is no funding available for this project. However, the region considers this location for a river crossing to be crucial its economic vitality. The announcement by West Virginia DOT that the construction of the New Ohio River Bridge south of Wellsburg (see BR-02) replaces the Market Street Bridge sheds a different light on the analysis performed in the Phase 2 Bridge System Study. At no time during the Phase 2 study did WVDOT mention of make public this intention. BHJ encourages WVDOT and ODOT to revisit this issue during Phase3 of Ohio River Bridge System Study to confirm the Phase 2 findings or recommend alternatives.

BR-4 New Ohio River Bridge from OH-7 Jefferson/Columbiana County to WV-2 Hancock County South of Chester, WV

WV-16 Veterans Memorial Bridge Decorative Lighting

Ohio Project Considerations

OH-23 Trenton Ave Bridge; Toronto, OH

The project is the responsibility of the City of Toronto. This is a Bridge System Preservation project programmed to address normal repair and rehabilitation concerns. Constructed in the mid 1990's with a projected lifetime of 50 years, this bridge will be in service for over 30 years during the life of this plan.

OH-24 Replace South Commercial Ave Bridge Structure over Cross Creek; Mingo Jct., OH

This project is the responsibility of the Village of Mingo Junction. Built in 1931, the bridge structure has an overall length 148 feet and a surface width of 28.8 feet. Recent inspection reports appraise bridge's overall condition as "poor" and structurally deficient though rated for 100% of the legal load limit. On an average day, more 2,700 vehicles travel over the structure, of which 7.20% are large trucks in excess of 50 feet in length. Just north of the bridge crossing are several truck terminals and access points to industrial centers that must cross this bridge to enter Ohio State Route 7 to the south. Truck traffic is restricted from entering Mingo Jct. and Ohio State Route 7 due to height limits beneath a grade separated rail crossing less than 0.20 miles north of the bridge.

The bridge is of vital economic importance to the Village of Mingo Junction and is in needs replaced sometime in the near future.

OH-34 Titanium Way Bridge; Toronto, OH

The project is the responsibility of the City of Toronto. This project will replace the bridge on Titanium Way located just south the Franklin Street Extension. Titanium Way is a vital link in the area economy serving as the only access to Timet Corporation, a top ranked manufacturer of titanium metal.

West Virginia Project Considerations

WV-12 Construct Bridge over N&S/WSX Railway as a Replacement of Cove Road At-Grade Railroad Crossing; Weirton, WV

As previously discussed in **Section 7**, on the average, Cove Road at is blocked approximately 30 times a day up to as much as 8 minutes at a time due to the N&S Railway and WSX Railroad tracks. Although the Lee Avenue Bridge just north of the rail grade is a grade separated crossing over the railroad tracks, the bridge has strict weight limits and is functionally obsolete to carry heavy trucks, busses and emergency vehicles. Further speaking, the bridge has reached the end of its useful life. Potentially, a failure of the Lee Avenue Bridge would divert traffic to the rail-crossing cutting off traffic on Cove Road, as well as emergency services throughout areas of Weirton.

Rebuilding Cove Road on a new alignment with a bridge will eliminate the at-grade rail crossing of the N&S Railway and WSX Railroad. WVDOT presented four alternative solutions at a public meeting in Weirton, WV on April 27, 1993. Each of the alternatives is still viable and be reconsidered as a replacement of the Lee Avenue Bridge.

WV-14 Replace Bridge on State Route 105 (Colliers Way) over US Route 22; Weirton, WV

This bridge structure over US Route 22 is approximately 30 years old and is an integral as part of the US Route 22 and Colliers Way Interchange in Weirton. The bridge is past its useful life and be replaced with a bridge that is at a minimum 3 lanes wide with pedestrian walkways on each side of the roadway.

REGIONAL RAILS/TRAILS DEVELOPMENT

Ohio Project Considerations

OB-2 Ohio River Front Trail

OB-3 Converted Rail Trail from Jefferson/Harrison County Line to Dillonvale

OB-4 Converted Rail Trail from Dillonvale to Rayland

OB-5 Converted Rail Trail from Yorkville to Toronto

West Virginia Project Considerations

WVB-1 Panhandle Trail; Weirton, WV

The Panhandle Trail (formerly known as the Harmon Creek Trail) in Weirton, WV has been actively working to complete the 4-mile rail trail running under U.S. 22 Harmon Creek Exit to the Pennsylvania State line near Colliers WV.

The Weirton Rail Trail Committee has added 1.5 miles of available railroad right of way to the Panhandle Rail Trail Project bringing the total trail mileage to 4-miles within this section of West Virginia. This rail trail will link Weirton WV to the National Network of trails. The Panhandle rail

Trail is a planned 29-mile pathway linking two states, three counties, and 14 municipalities. The trail will connect with the Montour Trail in McDonald, PA. This connection will bring the Panhandle into the National Network of trails that lead to Washington, D.C.

This project includes the development of bicycle and walking facilities from the City of Weirton to the Pennsylvania state line. During the preliminary development stage of BHI's Bicycle/Pedestrian Trail Plan, the Task Force realized that there is a tremendous demand for bicycle and pedestrian facilities within the BHI region.

Further consideration should be given to supporting the development of this trail south of Weirton developing a linkage to the Brooke Pioneer Trails. This development would enhance the National Network of trails leading to Washington, D.C.

WVB-2 Brooke Pioneer Trail; Brooke County, WV

The Brooke County Trail Committee has been actively working to expand and enhance a four-mile stretch of abandoned rail trails running which will extend from the city of Wellsburg (eventually encompassing residential areas of Short Creek, Beech Bottom, Wellsburg, Follansbee, and Colliers) to the Ohio County line. Trail advocates anticipate an extension of the Wheeling Heritage Trail and a connection with the Brooke Pioneer Trail at the Ohio County line. The Brooke County Trail association has identified the trail from Wellsburg to the Ohio County line as their number one priority.

BHI and advocacy groups have considered developing an interconnected network of trails throughout Brooke County. However, due to the topography and the limited right of way available, this truly interconnected network may be difficult to develop, but planners have identified individual trail facilities. For example, the Town of Bethany and Bethany College have been working to develop their own series of trails. They have actually implemented several projects. The City of Wellsburg has considering developing a trail network tied into the historic section of town.

WVB-3 Historic Wellsburg Town Trail; Wellsburg, WV

The City of Wellsburg has expressed an interest in developing a bicycle/pedestrian trail extending from the south end to the north end of the city. A trail of this nature would enhance the festivals currently held each year and would provide recreation for the city's residents.

WVB-4 Town of Bethany & Bethany College Trails, Bethany, WV

The Town of Bethany and Bethany College have been working toward the development of trail facilities for several years. The college has developed a walking and hiking trail through its properties while the town has developed a few mountain bike trails. Both have considered plans to expand their respective trails in the future

WVB-5 Ohio River Trail from Weirton to Tomlinson Run; Hancock County, WV

WVB-6 Converted Rail Trail from Follansbee to Weirton; Brooke County, WV

WVB-7 Tomlinson Run State Park to Chester, WV Trails; Hancock County, WV

Tomlinson Run Park is a State owned and maintained park facility. Currently there is a network of trails covering the entire park. As more people within the area become active in biking and recreational hiking/pedestrian activities, park operators anticipated expanding the existing trail facilities

Another consideration is developing trails connecting the Cities of Chester and New Cumberland to Tomlinson Run State Park. However, due to the topography and the limited right of way available this trail facility would be difficult to construct.

WVB-8 Follansbee City Park Recreational Trail; Follansbee, WV

RIVER PORT DEVELOPMENT

Ohio Project Considerations

OR-1 Steubenville River Port Authority

OR-2 Warrenton River Port Development

The Warrenton Port Facility is a privately owned by the Synergy Corporation of Cincinnati, OH. The American Industries & Resource Corporation of Wintersville, OH originally constructed the facility as a coal receipt and off-loading wharf river port with a storage capacity of 30,000 tons of coal. Currently, the wharf is capable of stacking 16 barges in 4 tiers each 4 barges wide. In addition, one railroad spur of the Wheeling & Lake Erie Railway (W&LE) serves the facility and connects to a receiving hopper storage area that services a 48-inch and a 36-inch electric conveyor belt system. Since the sale to the Synergy Corporation, the dock can also load and off-load steel slabs with the assistance of a crane and conveyor belt system.

West Virginia Project Considerations

WVR-1 Weirton River Port Authority

Over the years, planners and port developers have often described the Ohio River as a liquid highway passing through the region. In the past, West Virginia and the U.S. Army Corps have made commitments to improve potential sites in Weirton public port facilities. However, economic analysis and design studies have yet to support public investments.

REGIONAL PUBLIC TRANSPORTATION DEVELOPMENT

Public transportation within the BHJ region has been an important form of transportation for many years. It provides a source of mobility for many individuals, particularly the elderly and disabled community, which would otherwise not have access to dependable transportation. As such, it is an integral part of the entire transportation system and must be maintained and modified to meet the changing demands of the region's public transportation dependent residents.

CONCLUSIONS

Although each project proposed is important and necessary to enhance, maintain, and expand the existing transportation system, the planning and construction of the entire program is costly. Construction costs are continually rising and revenue sources are difficult to predict. These facts make it difficult to fund and program high-cost projects. Even though federal, state, and local governments can reasonably fund many low-cost projects, virtually every project requires a significant level of state and/or federal government participation and cooperation.

As part of the federal requirements of this transportation plan, it is first necessary to evaluate funding sources and forecast potential revenue sources to determine each project's feasibility. A separate financial forecast document summarizes project cost estimates by the year of expenditure and the distribution of anticipated federal, state, and local government funds. The next step is developing a staged "fiscally constraint" long-range transportation improvement program for the lifetime of this plan based on a sound financial plan demonstrating how each project is reasonably funded. Then, each "fiscally constraint" project must demonstrate that it will not adversely affect the environment by exceeding the ambient air quality standards set forth by the United State Environmental Protection Agency (USEPA).