



To: Date: May 1, 2007

From: Baker Subject: Task 1: Data Collection Memorandum

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Introduction. The Regional Intergovernmental Council (RIC), serving a four-county region including Boone, Clay, Kanawha and Putnam Counties in West Virginia, has solicited the services of Michael Baker Jr. Inc. (Baker) to perform a two-phase bicycle and pedestrian circulation study for Kanawha and Putnam Counties. The two-phase study will result in a Bicycle and Pedestrian Plan for the two counties.

Under Phase I to date, Baker has collected and reviewed existing resources, including existing bicycle and pedestrian facilities, under Task 1: Data Collection. This Memorandum summarizes the data obtained from Kanawha and Putnam Counties, the RIC and the West Virginia Department of Transportation (WVDOT).

GIS Data. GIS data was obtained from the RIC and ESRI for Kanawha and Putnam Counties and included the following:

- Amtrak regions, stations and routes
- State, County and Municipality boundaries
- Roadways
- Major cities and towns
- Schools
- State Forests, County Parks and Municipal Parks
- Existing Trails, Planned Trails, Proposed Trails
- Bodies of Water including rivers, streams and lakes
- Ports
- Cemeteries
- KVRTA transit routes, malls and offices
- Points of interest

Kanawha-Putnam Long-Range Transportation Plan Final Report, 2005-2030, RIC, February 2006. Aside from the GIS data, the information contained in the Kanawha-Putnam Long-Range Transportation Plan (KPLRTP) is the single most important resource for the development of the Bicycle and Pedestrian Plan. The bicycle and pedestrian corridors and activity centers identified in the KPLRTP will serve as reference for identifying specific bicycle and pedestrian improvement areas in Kanawha and Putnam Counties. Through a review of the KPLRTP information and GIS data, locations for facilities inventory can be selected and specific areas for improvement can be identified.



Several objectives relating to bicycle and pedestrian facilities were identified in the KPLRTP, including the provision of "adequate pedestrian and bicycle facilities at high volume locations" and adding/improving "facilities for bicycles and pedestrians."

The KPLRTP identified the following bicycle and pedestrian deficiencies:

- There is a lack of continuity in the bicycle and pedestrian network on highways.
- There are few designated bicycle facilities.
- There is a shortage of bicycle storage facilities (racks and lockers) at activity centers.
- There is a lack of motorist and bicyclist education regarding the rules of the road and safety measures.

To address the identified deficiencies, several recommendations were proposed as part of the KPLRTP, including:

- Implementing bicycle and pedestrian recommendations in the Charleston Riverfront Development Plan once complete.
- Implementing the Kanawha Trestle Rail Trail.
- Implementing recommendations from the Charleston East End Neighborhood Revitalization Plan and Washington Street Streetscape Projects as they relate to bicycle and pedestrian improvements.
- "Continue efforts to establish the Greater Charleston Greenway and Huntington-Charleston Greenway."
- Create a Bicycle and Pedestrian Plan for Kanawha and Putnam Counties.
- Provide bicycle and pedestrian accommodations in proposed highway improvements in the KPLRTP.
- Provide connections where there are currently gaps in the bicycle and pedestrian network.
- Promote the installation of bicycle storage facilities in activity centers.
- Encourage local governments to incorporate bicycle planning into the comprehensive planning process.
- Utilize AASHTO's Guide for the Development of Bicycle Facilities in design projects.

Of note, as part of the US 35 Widening Project identified in the Executive Summary of the KPLRTP, sidewalks are proposed for construction from Winfield High School to WV 34 in Winfield.

Transportation Improvement Program FY 2006-2009, Kanawha and Putnam Counties, WVDOT, 2007. Reviewing the projects proposed in the Transportation Improvement Program (TIP) provides an opportunity to not only identify planned bicycle and pedestrian facility projects, but to also identify planned projects where bicycle and pedestrian facilities can be accommodated or retrofitted.

<u>Traffic Signal Installation</u> If a traffic signal installation is planned, a review of pedestrian activity could be performed at the intersection to see if there would be a benefit in installing pedestrian signals (countdown), crosswalks (longitudinal), curb ramps and pedestrian push button activation.



<u>Roadway Striping</u> - If restriping of a roadway is planned, a review of the roadway and its potential to connect destinations could be considered. If the roadway has potential to connect activity centers, then bicycle facilities could be considered as part of the restriping (4'-6' shoulders or 6' bicycle lane).

<u>Roadway Resurfacing</u> - When a roadway has a planned resurfacing project, a review of the potential for installing both sidewalks and on/off road bicycle facilities could be evaluated.

<u>Structures Rehabilitation and Replacement - When structures are planned for rehabilitation or replacement, the new or improved structure could be designed to accommodate bicycle and pedestrian travel.</u>

Some bicycle and pedestrian facility specific improvements listed in the FY 2006-2009 TIP included:

- Purchasing bicycle racks (Kanawha County, 2007).
- Constructing the Middle Ridge Recreational Trail (Kanawha County, 2007).
- Constructing sidewalk on WV 34, Valley Park Drive Sidewalks (Putnam County, 2007).
- Constructing sidewalk on WV 62, Buffalo Sidewalks (Putnam County, 2007).

The Greater Charleston Greenway Initiative: A Vision for Greenspace, Connectivity & Pedestrian Community, Terrell Ellis & Associates for the West Virginia Land Trust, May 2006.

The Greater Charleston Greenway Initiative Report summarizes the public's interest in developing alternative transportation routes, including bicycle routes, a connected sidewalk network and recreational trails in the communities of Kanawha City, South Hills and South Charleston.

Through an extensive public outreach effort, citizens of each community identified alternative transportation routes and improvements they would like to see implemented in their community.

<u>Kanawha City residents</u> would like to see recreational trail connections to existing and planned routes and the creation of a recreational trail along the south side of the Kanawha River. It was also noted that the pedestrian bridge connecting the East End and Kanawha City is need of improvements. A 6-mile loop to connect major destinations (e.g., State Capitol Complex) is also desired.

<u>South Hills residents</u> identified a need to upgrade existing roads to accommodate pedestrians and bicycles, including sidewalk improvements and bicycle paths along existing roads, as well as recreational trails to connect communities. They identified a need for safer bicycle and pedestrian routes across and in the vicinity of Corridor G and improved pedestrian access from MacCorkle Avenue to the Holz school district.

<u>South Charleston residents</u> would like sidewalks and bicycle lanes installed from Kanawha City to South Charleston. They would also like to establish connector trails and maintain existing trails.



Several existing plans and the results of a public meeting were researched as part of The Greater Charleston Greenway Initiative, including The Charleston Central Redevelopment Plan, The City of Charleston's Comprehensive and Neighborhood Revitalization Plans and a public meeting held by the Charleston Riverfront Committee. Information from these plans and/or events is summarized below.

The Charleston Central Redevelopment Plan: The Greenway Loop System includes specific recommendation for wider sidewalks, bicycle lanes and streetscape amenities (e.g., bicycle racks).

The City of Charleston's Comprehensive Plan, dated 1996, recommends identifying areas in the city that need infrastructure improvements, including sidewalks and roadways. This plan mentions a concern for restricted pedestrian movements and poor sight distance for vehicles and pedestrians in the South Hills Business District. It states that design guidelines be established at corridor main entrances and at commercial centers for pedestrian and bicycle access.

The City of Charleston's Neighborhood Revitalization Plan for the East End recommends the encouragement of using alternate modes of transportation through the creation of pedestrian walkways, bicycle routes and a bikeway plan. For the Vandalia/Woodland Terrace neighborhood, it is recommended that pedestrian access be improvement between the Vandalia Terrace Apartments and the Vandalia Community Center.

The Charleston Riverfront Committee held a public meeting on November 9, 2004 to brainstorm about redeveloping the Charleston riverfront and Kanawha Boulevard. At the meeting, residents cited the importance for safe pedestrian walkways.

Town of Handley Economic Development Plan, RIC, June 2005. The Town of Handley has an aging population and 14.2% of the population lives below the national poverty level. When residents were surveyed as part of the development of the Economic Development Plan, there were comments concerning the need for improved sidewalks. Further, if a "downtown" is established, as recommended, sidewalks will be needed to facilitate pedestrian movements between residences and local businesses.

Corridor Review, WV 25 and WV 62 (Poca to North Charleston), RIC, January 2003. Traffic and vehicle crash analysis was performed for the WV 25 and WV 62 corridor in this RIC study.

Pedestrian Fatalities, West Virginia by County, USDOT and NHTSA, 2005. There were two recorded pedestrian fatalities in Kanawha County and no recorded pedestrian fatalities in Putnam County in 2005.

St. Albans Bridge/Underpass Study Final Report Executive Summary. Prepared for RIC by URS, May 2003. This study was performed to identify solutions to crossing the Kanawha River between St. Albans and Nitro.





Corridor Review, US Route 119 (Charleston - Clendenin), RIC, November 2001. Traffic and vehicle crash analysis was performed for the US Route 119 corridor to develop a "low cost transportation system management improvement plan" in this RIC study.

Urban Area Traffic Counts for Charleston, WVDOT - Planning & Research, 2004. The West Virginia Department of Transportation performed traffic counts for several roadways in the Charleston urban area in 2004. Traffic volumes were collected for the following roadways:

- US 60
- US 64
- US 119
- WV 25 and Alternate 25
- WV 114
- WV 214
- WV 601
- WV 622
- CR 8, Valley Drive
- CR 12
- CR 16, Chestnut Street
- CR 20
- CR 23, Bridge Road
- CR 38, South Park Road
- 21st Street
- Strawberry Road
- 2nd Street
- 3rd Street
- 40th Street
- Main Avenue
- B Street
- Pennsylvania Avenue
- Dry Ridge Road
- Highland Drive
- Walnut Street
- Kanawha Terrace
- Washington Avenue
- 7th Avenue
- Cunningham Street
- Dogwood Road
- Lower Donnally Road
- Mac Corkle Avenue
- 50th Street
- 35th Street
- 36th Street
- Virginia Street

- Quarrier Street
- Lee Street
- Washington Street
- Oakwood Road
- Overbrook Road
- Hampton Road
- Court Street
- Laidley Street
- Summers Street
- Capitol Street
- Dickenson Street
- Broad Street
- Brooks Street
- Morris Street
- Ruffner Avenue
- Oakridge Drive
- McKee AvenueSummer Lane
- 54.....
- Roxalana Road
- 2nd Avenue
- 3rd Avenue
- 4th Avenue
- 5th Avenue
- Central Avenue
- Glendale Avenue
- Weberwood Drive
- Churchill Drive
- Park Avenue
- Beech Avenue
- Randolph Street
- Wyoming Street
- Indiana Avenue
- Smith Street
- Montrose Drive
- Glendale Avenue





2003 Crash Data, WVDOT, 2003. Summarizes pedestrian and bicycle crashes by county and municipality for 2003. Kanawha County had 67 pedestrian crashes in 2003, the highest of any county in West Virginia, 21% of all pedestrian crashes. Putnam County had five (5) pedestrian crashes in 2003, almost 2% of all pedestrian crashes in the state. In 2003, Kanawha County reported 20 bicycle crashes, nearly 14% of the total 146 bicycle crashes in West Virginia. Putnam County reported three (3) bicycle crashes in 2003, 2% of the total bicycle crashes in the state.

General Highway and County Maps for Kanawha and Putnam Counties, WVDOT, 2004.

Traffic Count Data for Kanawha and Putnam Counties, WVDOT, 2004. Average Daily Traffic (ADT) is illustrated on highway maps for roadways in Kanawha and Putnam Counties.

Cross Lanes Subarea Transportation Plan Update, RIC, 1996. A study of transportation needs in the Cross Lanes community was performed by the RIC. The plan, an update from 1981, includes proposed bicycle and pedestrian facilities. It is recommended in the plan that new sidewalks be considered for installation adjacent to roadways anytime a roadway is widened. Specific pedestrian improvements were recommended for Big Tyler Road (safe routes to schools). Bicycle facilities are proposed for Koontz Drive.

Summary Travel Characteristics for West Virginia, 1995 American Travel Survey, Bureau of Transportation Statistics, USDOT, Publication Number BTS/ATS95-ESTC/WV.

U.S. Census Data (Population and Employment) for West Virginia, Kanawha and Putnam Counties, U.S. Census Bureau, 2000.