LABELLE AREA
TRANSPORTATION STUDY
An Early Options Analysis

Southwestern Pennsylvania Commission

July 2004
Members of the
Southwestern Pennsylvania Commission

2004

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LABELLE AREA
TRANSPORTATION STUDY
An Early Options Analysis

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And

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July 2004
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I. INTRODUCTION

Construction of the new State Correctional Institution in Luzerne Township, Fayette County (see Figure 1) will have both short and long-term impacts on transportation and land use in the Township and surrounding areas. With the opening of this facility in August 2003, these impacts are beginning to be seen, particularly with the additional demands placed on the local transportation network. The economic development opportunities and pressures expected to occur as a result of the construction of the Uniontown to Brownsville section of the Mon-Fayette Expressway are likely to put additional stresses on the local roadway network.

While the location of SCI Fayette may be ideal for a prison (remote, away from population centers, etc.), it also limits accessibility to the prison for employees, visitors, and industries having business with the prison. This study analyzes the existing transportation infrastructure in the SCI-Fayette area, the travel demands created by the prison, and the potential for proposed roadway projects to improve access and mobility in this area. While these issues were considered prior to construction of SCI-Fayette, the closing of prisons in Pittsburgh and in Greene County has resulted in traffic patterns that vary from those initially anticipated. Therefore, this study will examine current conditions and will identify additional short and long-term transportation upgrades needed in the area. These will include multimodal solutions for improving the movement of both people and goods.
II. STUDY AREA

The study area for this project includes portions of Luzerne Township, Redstone Township, Brownsville Township, and Brownsville Borough in Fayette County and portions of West Brownsville Borough, Centerville Borough, and East Bethlehem Township in Washington County (see Figure 2 & Figure 3). The study focuses on four primary routes into and out of the prison area (see Figure 4).

i. Route 1 – “Signed Route”

Currently, road signs to SCI-Fayette direct motorists to use PA Route 166 and S.R. 4020 (Hopewell / Heistersburg Road). While these roadways are generally in good condition, the route has horizontal and vertical geometric deficiencies (sharp curves) in a number of places. Also, as L. Robert Kimball & Associates identified in their October 1999 *Transportation Network Improvements Associated with the State Correctional Institution Western Pennsylvania*, “Currently, many of the local roads in the area, including S.R. 4020 are under weight restrictions. A significant increase in traffic on these roadways, particularly truck traffic, will increase maintenance costs to [PENNDOT] District 12-0 dramatically.”

While this route provides the best access to the prison for trucks, buses, and other large vehicles, it is longer and less direct for many employees and visitors. These motorists often choose the Ferry Route or River Route rather than take the “long way around”.

ii. Route 2 – “Ferry Route”

Employees of SCI-Fayette coming from the north and west can utilize PA Route 88 on the Washington County side of the Monongahela River to access the Fredericktown Ferry. The Ferry takes them across the River to Fayette County where it is a short trip on East Fredericktown Road and S.R. 4022 to the prison. This is a reasonably direct route to the prison; however, reliability of the ferry service is problematic at times. Also, East Fredericktown Road is in poor condition and includes a narrow railroad underpass.

iii. Route 3 – “River Route”

Rather than take the “long way around”, or chance being delayed by an out-of-service ferry, many prison employees currently use S.R. 4022 (LaBelle Road) to get to SCI-Fayette. This road can generally be characterized as narrow and winding and includes segments through residential areas of Brownsville and LaBelle where drivers must slow significantly.

iv. Route 4 – “FAECO Drive Route”

One proposed solution to the transportation difficulties in this area is the upcoming construction of the Uniontown to Brownsville segment of the Mon-
Fayette Expressway and the proposed FAECO Drive. This section of the Turnpike Commission’s Mon-Fayette Expressway will include a new bridge across the Monongahela River and a new interchange on the Fayette County side of the River. FAECO Drive (or an upgrade of Alicia Heights Road) will link this new interchange with S.R. 4022. These projects are currently being designed by the Turnpike Commission, with construction projected to begin as early as 2006. However, construction funding for FAECO Drive is not currently programmed on SPC’s 2005-2008 Transportation Improvement Program (TIP).

Figure 2 – Study Location
Figure 3 – Study Area
Figure 4 – Primary Routes To/From SCI-Fayette
III. EXISTING LAND USE

Land use in the immediate vicinity of SCI-Fayette has traditionally been characterized by wooded areas, mining, and steep slopes along the Monongahela River. The area is currently zoned M-1, Light Industrial. Fayette County’s 2000 Comprehensive Land Use Plan indicates that a significant portion of this area is classified as Future Growth Area. SCI-Fayette is a big part of this planned growth and is intended to serve as a significant economic development and job-creating engine for the area. An example of this growth is Fayette Thermal, the company that supplies steam to the new 672,000-ft² prison. Fayette Thermal’s site is located just south of SCI-Fayette along S.R. 4020.

Another corporation with activity near the prison is Matt Canestrale Contracting, Inc. This company has a Mon River terminal with access from East Fredericktown Road and active coal mining and slag dumping operations in the area, including a site on the east side of S.R. 4020 across from SCI-Fayette. Field views indicate that dump trucks travel between this site and the river terminal, resulting in trucks crossing S.R. 4020 just south of the S.R. 4020 / S.R. 4022 / East Fredericktown Road intersection. Trucks also cross East Fredericktown Road just west of the intersection. Field observations indicate that the frequency of truck crossings can vary widely from no activity to perhaps 20-30 crossings per hour.

Other important land use features around the prison include the Pennsylvania Fish Commission boat launch and East Fredericktown Boat Docks adjacent to the Fredericktown Ferry’s Fayette County landing site. Impacts to these recreational facilities should be considered when analyzing any future development and/or transportation improvements in the area. These facilities, along with the presence of the historic ferry, provide a unique opportunity to promote economic development related to recreation and tourism along both sides of the River as well. This was recognized as a “Key Issue” in a recent draft of the joint comprehensive plan underway for Luzerne and Redstone Townships: “The Monongahela Riverfront is not used to its best advantage as a community facility.” This document also identified the objective to “Encourage and support the development of a network of trails linking residential areas to open space and recreation resources and surrounding trail systems.”

It is also important to note the residential areas along the roadways leading to the prison. As is characteristic of rural roads, LaBelle Road, Heistersburg / Hopewell Road, East Fredericktown Road, S.R. 0088, and other roadways in this area provide direct access to residential properties, which can make improving them, especially widening, difficult.

IV. ROADWAY CHARACTERISTICS

i. “Signed” Route

As discussed in Section II, road signs to SCI-Fayette direct motorists to use PA Route 166 (see Figure 5) and S.R. 4020 (see Figure 6). While this is the most direct route for motorists coming from Uniontown and points southeast, it is not a
very direct route for people coming from Washington County, Allegheny County, or Greene County, where many of the prison’s employees originate.

The roadway cross-section on PA 166 typically consists of two 10-foot lanes with 4-foot shoulders. The road has serious vertical and horizontal alignment deficiencies including very sharp curves in Segments 410, 430, and 440, and limited sight distances at most intersections including the intersection of Route 166 and Academy Road. Field observations indicate that school buses make stops on PA 166, which when combined with the roadway alignment and sight distance restrictions, creates a potential for crashes.

Figure 5 – PA Route 166, Segment 420, Near Merrittstown

The roadway cross-section on S.R. 4020 varies with some sections having lane widths as narrow as 8 feet with 0 to 2-foot shoulders. One newer section of S.R.
4020 (approximately 1.5 miles from the Redstone/Luzerne Twp line toward the prison) has 11-foot lanes with 2 to 3-foot shoulders and centerline rumble strips. This roadway is posted with a 10-ton weight limit in numerous places; however, planned improvements along this roadway may eliminate the need for these weight restrictions. A major tree-trimming project was undertaken along S.R. 4020 in Fall 2003 to improve sight lines along this roadway.

The speed limit on Route 166 is 40 miles per hour with much of the rest of the Signed Route posted at 35 mph. There are 20 mph advisory speeds posted at some curves. The prevailing speed is typically 5-10 mph over the posted speed limit.

PENNDOT Bureau of Planning and Research (2001) Traffic Volume Maps indicate that the Average Daily Traffic (ADT) on U.S. 40 is approximately 11,000 vehicles per day through Brownsville (see Figure 7). PA 166 carries approximately 3,900 vehicles per day between U.S. 40 and S.R. 4020. The ADT on S.R. 4020 varies from 650 to 4,000 vehicles per day, with the most heavily traveled portion being between Bull Run Road (S.R. 4003) and Rush Run Road (S.R. 4001) and the least traveled portion near the prison.

The signs directing motorists to the prison are standard destination signs with a green field and white letters. The sign legends read “SCI Fayette”, which may not receive quick recognition by some visitors. These signs are located at the following intersections:

- U.S. 40 at PA 166;
- PA 166 at S.R. 4020;
- PA 4020 at T-307 (Isabella Road); and,
- PA 4020 at T-704 (East Millsboro Road).

In addition to the standard green and white destination signs, there are blue signs with white letters saying “PRISON” near the intersection of PA 166 and S.R. 4020. These signs are very conspicuous and easy for motorists to recognize. There are also white signs with the word “PRISON” spray-painted in black near the PA 166/S.R. 4020 intersection. These signs are small, difficult to see, and are likely to be ineffective.
Figure 7 – 2001 Traffic Volume Maps


ii. “Ferry” Route

PA Route 43, the Mon-Fayette Expressway, is a four-lane highway near its interchange with U.S. 40 in Washington County. PA Route 43 ends south of the interchange at its intersection with PA Route 88 (Low Hill Road). Route 88 transitions from four lanes to three lanes (two southbound and one northbound) approximately 0.2 miles south of this intersection, and transitions to a two-lane cross-section approximately 0.25 miles further south. The two-lane section of this roadway typically consists of 4-foot shoulders with 11-foot lanes. There is an at-grade railroad crossing on PA 88 approximately 0.5 miles north of Fredericktown (see Figure 8).

![Figure 8 – PA Route 88 Railroad Crossing Near Fredericktown](image)

The speed limit on this route is 65 mph near the interchange, transitioning to 55 mph and 40 mph as the cross-section narrows, with 20 mph advisories on certain curves. The speed limit near Fredericktown is 25 mph. Prevailing speed on this route is approximately 5-10 mph over the posted speed limits. As illustrated in Figure 7, ADT values on S.R. 43 and S.R. 88 range from approximately 4,400 vehicles per day near U.S. 40 to approximately 7,300 vehicles per day near Fredericktown.

On the Fayette County side of the Ferry Route, the road leading from the ferry landing to S.R. 4020 and S.R. 4022 is known as East Fredericktown Road or River Road (T-301). East Fredericktown Road (see Figure 9) is generally 15.5 feet wide with no shoulders, poor drainage, and residential properties very close to the roadway in certain places. There is a narrow railroad underpass (approximately 17 feet wide) on a horizontal and vertical curve near the ferry landing (see Figure 10). This underpass does not appear to be in good condition. While traffic data for this roadway is not currently available, volumes are expected to be very low.

From the East Fredericktown Road / S.R. 4020 / S.R. 4022 intersection, motorists have a short drive up the hill on S.R. 4020 to reach SCI-Fayette. ADT on this...
section of roadway is approximately 650 vehicles per day. This segment will be discussed further in the next section of the report as part of the River Route.

![Figure 9 – East Fredericktown Road Between the Fredericktown Ferry & S.R. 4020 / S.R. 4022 Intersection](image)

Existing ferryboat operations will be discussed in Section V.

iii. “River” Route

As mentioned in Section II.iii, many prison employees currently choose S.R. 4022 (LaBelle Road) to get to SCI-Fayette. From U.S. 40 motorists must use Market Street and Water Street to get through Brownsville to LaBelle Road. Water Street is part of a one-way pair of roadways that go through primarily residential
neighborhoods in Brownsville. This route also contains the historic Dunlap Creek Bridge, which was the first cast iron bridge in the United States and is on the National Register of Historic Places. The speed limit through Brownsville is 25 mph with prevailing speed 0-5 mph over the posted speed.

LaBelle Road (see Figure 11) is narrow and winding in many places and typically consists of 10-foot lanes with no shoulders. The posted speed varies from 35 mph to 40 mph, and prevailing speed is approximately 0-5 mph over the posted speed limit. The roadway is posted with a 10-ton weight limit in numerous places. Although the roadway is not suitable for trucks, a large tractor-trailer, apparently destined for SCI-Fayette, was observed using this route during field work for this study. Anecdotal information also indicates that trucks coming through Brownsville often get lost and stop to ask for directions to the prison.

![Figure 11 – S.R. 4022 between Brownsville and LaBelle](image)

A major tree-trimming project was undertaken in the Fall of 2003 to improve sight lines along S.R. 4022. Major roadway improvements in this area could be very difficult due to the steep slopes along the river.

Average Daily Traffic on the Brownsville portion of this route is approximately 8,200 vehicles per day. ADT’s south of Brownsville are approximately 800 vehicles per day, increasing to 1,100 vehicles per day between Alicia and LaBelle. The ADT on S.R. 4020 from its intersection with LaBelle Road and East Fredericktown Road is approximately 650 vehicles per day.

This section of S.R. 4020, between the LaBelle Road / East Fredericktown Road intersection and the prison, is steep and windy. The roadway consists of two lanes varying in width from 8 feet to 11 feet. There are no shoulders throughout most of this segment, and guardrails have recently been installed along a significant portion of the segment. As discussed in Section III, there is a truck crossing near the LaBelle Road / East Fredericktown Road intersection (notice dump truck behind utility pole in Figure 12. The posted speed limit on this section of roadway is 35 mph.
V. FREDERICKTOWN FERRY

The Fredericktown Ferry is the last of three original ferries crossing the Monongahela River between Washington County and Fayette County. The ferry was a privately-owned operation from the time it began serving traffic in the local area (prior to 1900) until it was closed due to decreased ridership in 1969. The ferry was reopened in 1979 under a partnership agreement between Fayette and Washington Counties, and today, it is one of only a few cable-operated ferries still in use in the United States – the only one in the Eastern U.S.

The Fredericktown Ferry, affectionately known as “Fred”, can carry up to six cars, with a weight limit of ten tons. Crossing time is approximately four minutes. It works through the use of two steel cables, which are anchored on each side of the Monongahela River. The engine grabs one of the cables and pulls the ferry across the river; with the cable sinking back to the bottom of the river once the ferry reaches the other side. The ferry can be operated by one person, but operators must have special training and be licensed by the United States Coast Guard.

Department of Labor statistics indicate that there are only 22,530 people in the United States who are employed in the occupation of Captains, Mates, and Pilots of Water Vessels, of which approximately 440 are employed in Pennsylvania. Pennsylvania ranks 3rd among all states in mean hourly wage for individuals with this job classification.
($27.59 per hour), although this number is somewhat skewed by the Philadelphia region where 220 of the 440 people are employed. Currently there are three full-time licensed operators and one part-time licensed operator employed at the Fredericktown Ferry. The starting salary for Fredericktown Ferry operators is approximately $9.13 per hour plus health and life insurance benefits. This relatively low wage (when compared to similarly qualified people in Pennsylvania) could cause the Counties difficulty with attracting and retaining employees to operate the ferry.

Operating hours for the ferry have recently been expanded in order to accommodate shift changes at SCI-Fayette. The ferry is now scheduled to be in service from 4:00AM to Midnight on weekdays and from 6:00AM to 4:00PM on Saturdays and Sundays, which totals 120 hours of service per week. This level of service can be difficult to maintain with only 3.5 employees considering that vacation days, sick days, and other issues must be factored in. Beyond staffing difficulties, ferry operations can be hampered by high water, ice, or other hazards determined by the U.S. Coast Guard. Mechanical breakdowns, typically a broken cable, can also suspend operations. Because of the increased ferry usage associated with SCI-Fayette and the need to ensure reliable service, ferry operators have begun keeping extra parts on-hand in order to repair the ferry quickly in the event of a mechanical failure. This was not typically done in the past, and is an important step in ensuring reliable service.

Figure 13 – Fredericktown Ferry Approaching Fayette County

One additional difficulty for ferry users when the ferry is out of service is that they do not know it until they get there. This can cause significant delays, as motorists must then use an alternative route to get to their destination. One way to remedy this problem would be to install changeable signs on the approach routes to the ferry that would tell motorists whether the service is open or closed. This could be incorporated into an overall program to improve ferry signage on both sides of the river, which would also help raise awareness of the ferry service.
Prior to the increase in hours of service, operations and maintenance costs for the ferry were $8,000-$10,000 per month. These costs could rise as much as 30%-40% due to the increase in operations. Approximately 75% of this cost can be attributed to salaries and benefits of the ferry operators; however, as indicated previously, operators of the ferry are paid significantly less than their equally qualified counterparts.

Figure 14 – Fredericktown Ferry Approaching Washington County

Operations and maintenance expenses for the ferry are currently financed through ridership fees and the expenditure of the Counties’ Liquid Fuels funds. However, use of these Liquid Fuels funds to pay for the ferry reduces the amount of money the Counties have to spend on roadway and bridge repairs, creating an ever-increasing backlog of projects. Therefore, an assessment of ridership fees and an investigation into alternative funding sources for the ferry is needed. Current rates for riding the ferry are shown in Table 1. These rates were last increased in the mid-1970’s. Fayette and Washington Counties are currently reviewing these rates and considering a possible fare increase. Additional funding sources that should be investigated include the Federal Highway Administration’s (FHWA’s) Ferry Boat Discretionary (FBD) Program, the Transportation Enhancements Program, and various historic preservation, economic development, and transit funding sources. The Department of Corrections may also be willing to contribute to the upgrade of this service since its employees are primary users of the facility.

FHWA’s Ferry Boat Discretionary Program was created by Section 1064 of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and reauthorized by
Section 1207 of the Transportation Equity Act for the 21st Century (TEA-21). Applications for candidate projects for the FBD Program were last accepted on February 27, 2004; however, all of the funding for this program was legislatively earmarked for specific projects. Future funding opportunities through this program are uncertain at this time since the multiyear federal transportation reauthorization bill is still under debate.

The Transportation Enhancements Program is another potential funding source that existed in ISTEA and TEA-21 and is almost certain to be included in federal reauthorization. In the past, this program has set aside 10% of federal Surface Transportation Program (STP) money for twelve specific types of transportation projects. One of these project categories is Rehabilitation and Operation of Historic Transportation Buildings, Structures, or Facilities. This program also includes categories for scenic beautification, historic preservation, and pedestrian and bicycle projects, which could all be useful around the ferry landings in order to make them more attractive, easier to use, and to better integrate the ferry into the surrounding area.

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VI. TRAVEL TIME ANALYSIS

Travel time runs were conducted along the Signed Route, Ferry Route, and River Route (see Figure 3) on Tuesday, February 10, 2004. These timed runs were measured from just west of the Route 40 interchange with the Mon-Fayette Expressway in Washington County, to SCI-Fayette’s site driveway on S.R. 4020. The Malden Road / U.S. 40 intersection was chosen as the starting point because all three routes into the prison area are viable for motorists approaching the study area from this direction.

From the U.S. 40 / Malden Road intersection, the Signed Route is approximately 14.5 miles to the prison (see Figure 15). The average travel time measured along this route was 21 minutes, with relatively little variability (see Figure 16). Note: No slow moving vehicles such as heavy trucks or buses were encountered during these runs.

The Ferry Route measures approximately 8.5 miles (excluding the ferry crossing distance) from the U.S. 40 / Malden Road intersection to the prison. This is approximately 40% shorter than the Signed Route. As shown in Figure 16, this route can be the quickest, taking as little as 15 minutes, but travel times on this route are the most variable because they are dependent on the location of the ferry when the traveler reaches the ferry landing. The average travel time measured along this route was 17.5 minutes. Note: These measurements were taken during off-peak times, so they do not account for the situation where a motorist arrives at the ferry but must wait to board because the ferry is full.

The River Route is approximately 10.8 miles to the prison from the intersection of U.S. 40 and Malden Road. This is approximately 25% shorter than the Signed Route and 27% longer than the Ferry Route from this location. The average travel time along this route was measured to be 16 minutes, which makes it the quickest of the three routes. Again, no slow moving vehicles were encountered during these runs.

While this analysis can give us some insight into existing travel patterns and help us understand why motorists may choose a particular route, it is important to note that these routes are not necessarily logical choices for everyone. Motorists coming to the study area from the north and west have the opportunity to make a decision between all three routes, but travelers from other areas are more limited. The Ferry Route is the obvious first choice for travelers from Greene County, with the River Route serving as an alternative if the ferry is out of service (adding about 20 minutes to the trip). The Signed Route would be the first choice for people coming from Uniontown and most other parts of Fayette County, while travelers from Westmoreland County are likely to choose the River Route or the Signed Route, but probably not the Ferry Route. Therefore, it is important to remember that all three of these routes play a significant role in providing access in the study area. This will be demonstrated further in Section VIII.
Figure 15 – Route Distances (from U.S. 40 / Malden Road Intersection)

Figure 16 – Travel Time Analysis (from U.S. 40 / Malden Road Intersection)
VII. CRASH ANALYSIS

Reportable crash data was received from PENNDOT for the five-year period from 1997-2001. This data was analyzed in order to calculate crash and injury rates and to compare these safety indicators on various roadway segments and routes to and from the prison area. It is important to note that “reportable” crashes include those in which someone was injured or where a vehicle was damaged enough to require towing from the scene. Additional crashes may have occurred on these roadway segments during this period that are not contained in PENNDOT databases.

Formulas for the calculation of crash rates are as follows:

- **Segment Crash Rate (crashes per million vehicle-miles)** =
  \[
  \frac{(Crashes \times 1,000,000)}{(AADT \times 5 \text{ Years} \times 365 \text{ Days/Year} \times \text{Segment Length})}
  \]

- **Injury Rate (injuries per mile per year)** =
  \[
  \frac{(Injuries \text{ in Segment})}{(Segment \text{ Length} \times 5 \text{ Years})}
  \]

Table 2 provides a summary of this crash data and analysis. As illustrated in Figure 17, the roadway segment with the highest crash rate during this 5-year period was S.R. 4022 between Brownsville and Alicia Heights Road. Most of the crashes in this segment, including a fatality that occurred on June 16, 2000, involved motorists driving too fast and/or driving on the wrong side of the road.

There was also a fatality on Route 166 during this 5-year time frame. This crash also involved a motorist driving over the posted speed limit. As shown in Figure 18, Route 166, along with U.S. 40 through Brownsville, had some of the highest injury rates in the study area. This could be expected to some degree because of the higher traffic volumes on these segments. However, it may also be a result of crashes along these roadways occurring at higher speeds, and thus, resulting in more injuries.

Figure 17 and Figure 18 also illustrate a notable pattern on Route 88 in Washington County – crash and injury rates gradually increase as you near Fredericktown. This could be caused by motorists not reducing their speeds as the character of the roadway changes from a four-lane expressway to a two-lane roadway. This could indicate the need for additional signage or visual cues that encourage motorists to slow down.

Using weighted average AADT values and summing crashes for the three routes, the following average crash rates were calculated for each route:

- Ferry Route – 0.78 crashes per million vehicle-miles of travel
- River Route – 1.05
- Signed Route – 1.80

Thus, the crash rate on the River Route is 34% higher than that of the Ferry Route. The crash rate on the Signed Route is 71% higher than the River Route and 130% higher than
the Ferry Route (see Figure 19 for illustration). Note that these calculations only include the sections of each route where data was available.

Using similar methodology, the average injury rates (see Figure 20) were calculated as:

- River Route – 0.82 injuries per mile per year
- Ferry Route – 1.86
- Signed Route – 3.05

In terms of injury rates, the Ferry Route is approximately 127% higher than the River Route. The Signed Route is 64% higher than the Ferry Route and 272% higher than River Route. One reason the injury rate may be lowest on the River Route is because traffic volumes on this route are relatively low, thus most crashes involved only a single vehicle. As discussed previously, higher traffic volumes and higher travel speeds on segments of the Signed Route and Ferry Route are likely contributing factors to the higher injury rates.
### Table 2 – Crash Data (1997-2001)

<table>
<thead>
<tr>
<th>Route</th>
<th>Road</th>
<th>Segment</th>
<th>AADT</th>
<th>Distance (Miles)</th>
<th>Crashes</th>
<th>Injuries</th>
<th>Crash Rate&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Injury Rate&lt;sup&gt;2&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferry</td>
<td>SR 43</td>
<td>US 40 to SR 88</td>
<td>4,400</td>
<td>2.00</td>
<td>1</td>
<td>1</td>
<td>0.06</td>
<td>0.10</td>
</tr>
<tr>
<td>Ferry</td>
<td>SR 88</td>
<td>PA 43 to SR 2026</td>
<td>5,000</td>
<td>0.508</td>
<td>5</td>
<td>5</td>
<td>1.08</td>
<td>1.97</td>
</tr>
<tr>
<td>Ferry</td>
<td>SR 88</td>
<td>SR 2026 to SR 2065</td>
<td>5,300</td>
<td>2.172</td>
<td>14</td>
<td>23</td>
<td>0.67</td>
<td>2.12</td>
</tr>
<tr>
<td>Ferry</td>
<td>SR 88</td>
<td>SR 2065 to SR 2063</td>
<td>7,300</td>
<td>0.820</td>
<td>11</td>
<td>9</td>
<td>1.01</td>
<td>2.20</td>
</tr>
<tr>
<td>Ferry</td>
<td>SR 88</td>
<td>SR 2063 to Water St</td>
<td>7,300</td>
<td>0.385</td>
<td>11</td>
<td>14</td>
<td>2.14</td>
<td>7.27</td>
</tr>
<tr>
<td>Ferry</td>
<td>SR 88</td>
<td>Water St to Ferry St</td>
<td>4,400</td>
<td>0.131</td>
<td>4</td>
<td>4</td>
<td>3.80</td>
<td>6.11</td>
</tr>
<tr>
<td>River / Signed</td>
<td>SR 40</td>
<td>PA 43 to Lane Bane Bridge</td>
<td>10,000</td>
<td>1.816</td>
<td>17</td>
<td>14</td>
<td>0.51</td>
<td>1.54</td>
</tr>
<tr>
<td>River / Signed</td>
<td>SR 40</td>
<td>Lane Bane Bridge to Fayette Co</td>
<td>13,000</td>
<td>0.397</td>
<td>5</td>
<td>2</td>
<td>0.53</td>
<td>1.01</td>
</tr>
<tr>
<td>Signed</td>
<td>SR 40</td>
<td>Wash. Co to PA 166</td>
<td>11,000</td>
<td>1.407</td>
<td>86</td>
<td>108</td>
<td>3.04</td>
<td>15.35</td>
</tr>
<tr>
<td>Signed</td>
<td>SR 166</td>
<td>US 40 to Academy Rd</td>
<td>3,900</td>
<td>2.863</td>
<td>71</td>
<td>78</td>
<td>3.48</td>
<td>5.45*</td>
</tr>
<tr>
<td>Signed</td>
<td>SR 4020</td>
<td>Academy Rd to SR 4003</td>
<td>1,700</td>
<td>1.742</td>
<td>11</td>
<td>7</td>
<td>2.04</td>
<td>0.80</td>
</tr>
<tr>
<td>Signed</td>
<td>SR 4020</td>
<td>SR 4003 to SR 4001</td>
<td>4,000</td>
<td>2.075</td>
<td>10</td>
<td>9</td>
<td>0.66</td>
<td>0.87</td>
</tr>
<tr>
<td>Signed / River</td>
<td>SR 4020</td>
<td>SR 4001 to SR 4022</td>
<td>650</td>
<td>4.441</td>
<td>11</td>
<td>7</td>
<td>2.09</td>
<td>0.32</td>
</tr>
<tr>
<td>River</td>
<td>SR 4022</td>
<td>SR 4020 to SR 4001</td>
<td>1,100</td>
<td>3.488</td>
<td>16</td>
<td>9</td>
<td>2.29</td>
<td>0.52</td>
</tr>
<tr>
<td>River</td>
<td>SR 4022</td>
<td>SR 4001 to 18&lt;sup&gt;th&lt;/sup&gt; Street</td>
<td>800</td>
<td>2.017</td>
<td>12</td>
<td>18</td>
<td>4.07</td>
<td>1.78*</td>
</tr>
</tbody>
</table>

<sup>1</sup> Crash Rate (crashes per million vehicle-miles of travel)

<sup>2</sup> Injury Rate (injuries per mile per year) – does not account for injury severity (i.e. minor injuries, moderate injuries, major injuries, fatalities)

* A fatality occurred in this segment
Figure 17 – Crash Rates (crashes per million vehicle-miles of travel)
Figure 18 – Injury Rate (injuries per mile per year)
Figure 19 – Weighted Average Crash Rates for Each Route

Figure 20 – Weighted Average Injury Rates for Each Route
VIII. PRISON-GENERATED TRAFFIC

SCI-Fayette generates four basic types of traffic: employee-trips, prisoner-trips, visitor-trips, and freight-trips. Each of these types of traffic has different characteristics and puts different demands on the local transportation network. Because employee-trips are the most regular and predictable type of traffic associated with the prison, much of the focus of this study revolves around these; however, this analysis will also briefly addresses the three other trip types. (Note: For this section of the report, a trip is considered to include the journey to and from SCI-Fayette. In terms of traffic volumes added to local roadways, these trip numbers should be doubled, because the “to” and “from” are actually separate trips.)

i. Employee-Trips

SCI-Fayette is expected to employ approximately 700 people when it is fully operational. As shown in Table 3, on a typical day SCI’s security staff hours are broken into three shifts, which results in these employees traveling to and from work in what are generally considered “off-peak” travel hours. Administrative and other staff generally work 8:00 AM – 4:00 PM (with some degree of flex scheduling), which means that they are typically traveling during “peak” hours.

<table>
<thead>
<tr>
<th>Shift</th>
<th>Staff Per Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrections Officers</td>
<td>6:00 AM – 2:00 PM 100</td>
</tr>
<tr>
<td>Corrections Officers</td>
<td>2:00 PM – 10:00 PM 100</td>
</tr>
<tr>
<td>Corrections Officers</td>
<td>10:00 PM – 6:00 AM 60</td>
</tr>
<tr>
<td>Administrative, Clerical, Maintenance, Teachers, Counselors, Correctional Industries, Other</td>
<td>8:00 AM – 4:00 PM 300</td>
</tr>
</tbody>
</table>

A survey of current SCI-Fayette employees was conducted in May 2004 to gain a better understanding of their travel patterns and travel needs (see Appendix A for a sample survey and detailed survey results). SPC received 230 responses to this survey, which is approximately a 33% sample of the total number of expected employees.

As shown in Figure 21, prison employees come from all over the Southwestern Pennsylvania region, with most originating in Greene, Fayette, Washington,
Figure 21 – Employee Distribution by Zip Code (Survey Responses)
Allegheny, and Westmoreland Counties. Six of the 230 survey respondents travel from outside the SPC region to work at SCI-Fayette. When asked which roads they use to get to/from work, most respondents listed multiple routes, indicating that they follow different paths depending on conditions. In many cases, the main factor governing this decision is whether the Fredericktown Ferry is operating.

Of the 230 employees surveyed, approximately 137 travel to/from areas that make the Fredericktown Ferry a reasonable transportation option. (In other words, for someone traveling to the prison from Connellsville in Fayette County, the Ferry Route does not make sense, but for someone traveling from Waynesburg in Greene County, it does.) When asked if they had ever used the ferry to get to SCI-Fayette, 113 survey respondents answered “yes”, which is over 82% of the people for whom it is a logical option. This clearly demonstrates that people are willing to use the ferry. However, an open-ended question about “major transportation issues in the local area”, solicited 79 responses related to the ferry including:

- General concerns about ferry reliability;
- Lack of advanced notification of whether the ferry is open or closed;
- Grading of the ferry approaches;
- Lack of service on weekends;
- Size of the ferry is too small to handle peak traffic; and,
- Lack of adequate staffing of the ferry.

In addition, when asked whether they would consider using a shuttle service from the Fredericktown Ferry to the prison, over 65% of surveyed employees who would use the ferry if it provided reliable service indicate that they would also consider using a shuttle from the ferry if it were available. This could help alleviate problems caused by heavy traffic peaks where the size of the ferry becomes an issue. It could also help avoid visitor parking problems at the prison. Note: A sizeable gravel parking area exists in close proximity to the ferry landing on the Fredericktown side of the river. Pedestrian-related improvements between this parking area and the ferry could make a shuttle and/or ridesharing system more practical.

The two issues that received the highest number of responses to the “major transportation issues” question were concerns over general roadway maintenance (i.e. potholes, crumbling shoulders, winter maintenance, and pavement conditions) and roadway design (i.e. roadway widths, vertical and horizontal geometry (curves), drainage problems, landslides, and safety features such as guide rail, lighting, and pavement markings). There were 114 responses related to general roadway maintenance and 111 responses related to roadway design issues, clearly indicating that maintenance and improvement of the existing roadway system is a priority. There were also a number of positive responses regarding work that PENNDOT has been doing to improve and maintain the roads in this area.
One other issue that received a significant number of responses was related to the overall access in the area. Responses identified things such as, “no direct access to prison”, lack of a bridge across the Monongahela River in this area, and a lack of planning prior to siting and construction of the prison. There were 69 access-related responses to the “major transportation issues” question.

In terms of specific roadways that stimulated responses, S.R. 4022 (LaBelle Road) had the most with 21. East Fredericktown Road had the second highest number with 15, including some colorful characterizations such as “terrible”, “hazardous”, “deplorable”, and “almost impassable”. Completion of the Mon-Fayette Expressway received eight responses; S.R. 4020 (Hopewell/Heistersburg Road) received four; and, Alicia Heights Road received four. The number of responses received for each of these roadways is generally proportional to the number of employees using these roads for access to the prison.

Survey responses show that the River Route and Ferry Route are the preferred alternatives for most employees. This was confirmed by a spot turning movement count performed on Tuesday, February 10, 2004, at SCI-Fayette’s 2PM shift change. As illustrated in Figure 22, 79% of employees leaving the prison turned left toward the River and Ferry Routes and 21% turned right to use the Signed Route. As indicated previously, for the 79% of people turning left, their ultimate decision to use the River Route or the Ferry Route is often dictated by whether the Fredericktown Ferry is running. As prison officials have pointed out, “people avoid the ferry not because it’s not quick enough, but because it’s inconsistent”.

![Figure 22 – Employee Turning Movement Distribution at 2PM Shift Change (2/10/04)](image-url)
ii. **Prisoner-Trips**

As of May 2004, there were approximately 1,000 inmates at SCI-Fayette. This number is expected to increase to approximately 1,800 by mid-summer 2004 with the ultimate prison capacity being 2,034 beds. Inmates originate from locations all over the Commonwealth and are transported to SCI-Fayette in a number of ways. Prisoner transport for other reasons such as court appearances or transfer to other facilities is also widely varied and irregular, which makes predicting and accounting for these trips difficult. In addition, once SCI-Fayette is at capacity, these trip types are expected to be relatively low in volume when compared to employee-trips and visitor-trips, and primarily conducted in off-peak travel periods. Therefore, prisoner-trips are a relatively minor component of the total traffic generated by SCI-Fayette. Furthermore, route planning and decision making for these types of trips should be primarily influenced by safety and security issues rather than travel time or other factors.

iii. **Visitor-Trips**

Inmates at SCI-Fayette are currently allowed five visits per month, with visiting hours set at Thursday-Monday (no visitation on Tuesdays and Wednesdays) from 8:15AM to 3:30PM. At full capacity, if each inmate received all five of these visits, the total number of visitor-trips per month would be about 10,170. Evenly distributing these trips throughout the month, equates to approximately 462 trips per visitation day – almost as many trips as will be generated by SCI-Fayette employees.

These calculations are not meant to suggest that this number of trips should be expected on a daily basis; rather, they are presented in order to show the potential magnitude of these types of trips. The actual number of visitor-trips on any given day will vary based on inmate levels, the number of visits each inmate gets relative to the 5 per month allowed, and the peaking characteristics of visitor travel such as seasonal changes and holiday occurrences. What is important to recognize is that the volume of trips in this category is not insignificant and could add as many as 500 or 600 (two-way) trips to the local roadway network on any given day.

Because SCI-Fayette has not been open long and there has been a necessary focus on getting the facility fully staffed and operational, efforts to outreach to potential visitors have been somewhat limited. One of the main ways that visitors to SCI-Fayette receive information on traveling to the facility is through the Department of Corrections Internet website (www.cor.state.pa.us/Fayette.html). This site includes a link where potential visitors can get driving directions to the site via Yahoo! Maps. Various trials of this service indicate that it directs most people to use the Ferry Route, but it will also direct them to the Signed Route, and in limited cases, the River Route depending upon the traveler’s point of origin.

While the maps provided through this service do an adequate job of getting visitors into the general vicinity of the prison, the directions in the immediate area
are inaccurate and can be quite confusing, particularly for travelers using the Ferry Route. As shown in Figure 23, the maps produced from this service actually show the ferry about one mile downriver (toward Brownsville) from its true location. They also show the prison approximately one mile south of its actual location. In addition to being a frustration for visitors, these maps could cause unnecessary additional traffic on local roadways from visitors driving around lost.

Another service that is intended to provide travel information to potential visitors is through the telephone system at SCI-Fayette. Callers to the main telephone number at SCI-Fayette hear an automated message that instructs them to press “1” for directions to the institution. However, at the time of this report, the system was not fully operational and no directions were provided.

Future efforts should be made to provide better travel information to SCI-Fayette visitors and to direct them to preferred travel routes. This outreach should be coordinated with local efforts to spur economic development related to restaurants, lodging, and other visitor services. (Note: One employee survey listed the lack of gas stations on routes leading to the prison as a major transportation issue in the local area.)

![Figure 23 – Directions to SCI-Fayette provided on Department of Corrections Website](image)
(Note: The ferry and prison are shown in the wrong locations.)
iv. Freight-Trips

Freight trips to/from SCI-Fayette include supply deliveries as well as traffic generated by Correctional Industries, which conducts metal furniture and license plate manufacturing operations at the prison. As indicated in Section IV, all three existing routes into the prison area have at least one segment that is posted with a 10-ton weight limit. However, field observations and employee surveys indicate that these weight limits are often ignored, more than likely out of necessity. Since there are no routes into SCI-Fayette that are not posted, what option does someone driving a truck over 10 tons have other than to ignore the signs?

While detailed data on the origin of freight-trips and the volume of truck traffic generated by SCI-Fayette was not available, Freight Logistics representatives from Correctional Industries were able to provide information on the routes that their trucks use to access the prison. These trucks are all directed to use the Signed Route via U.S. Route 40, PA Route 166, and S.R. 4020, which is the most reasonable option for freight-trips. The Ferry Route contains two underpasses (one on each side of the river adjacent to the ferry landings) that restrict truck heights and the 10-ton weight limit of the ferryboat itself can not be changed without a new vessel; thus, the Ferry Route is not a viable route for trucks. The River Route contains narrow lane widths and tight horizontal curves, as well as requiring trucks to navigate through downtown Brownsville, so it should be discouraged for truck use as well. Therefore, since the Signed Route is currently the only viable route for freight-trips to SCI-Fayette, efforts to improve the geometry and reduce or remove weight restrictions along the roadways on this Route are essential.

IX. FUTURE LAND USE & GROWTH

Residents, public officials, and advocacy groups in the local area are actively involved in planning and visioning for their future. Current efforts include a joint Comprehensive Plan for Luzerne and Redstone Townships, a joint Comprehensive Plan for Brownsville Borough and Brownsville Township, Washington County’s Comprehensive Plan, and an update to the Fayette County Zoning Ordinance. In recent years, Fayette County has also completed its Comprehensive Plan (2000), as well as the Mon-Fayette Expressway Land Use Management and Economic Development Analysis (2004). The Fayette Forward Steering Committee also initiated an update to its 1995 Strategic Plan in early 2003.

Much of this work includes a focus on the Mon-Fayette Expressway and the impacts that it will have on land use and future growth in this area of Southwestern Pennsylvania. In the vicinity of the planned Bull Run Road / Telegraph Road interchange in Luzerne Township, this future growth is anticipated to include:

- village style development from downtown Brownsville to the interchange;
- a regional business park;
- industrial/manufacturing districts along the river;
• a service plaza for gas stations, small restaurants, convenience stores, hotels, and other businesses; and,
• a visitors center welcoming travelers to Fayette County.

The presence of SCI-Fayette could help spur this growth. As outlined in the draft Luzerne / Redstone joint comprehensive plan, the prison could spawn development associated with food contractors (to supply the prison with approximately 8,000 meals per day), prescription medication suppliers, clothing suppliers, and visitor services such as restaurants, hotels, and service stations. The prison could also generate residential development should employees decide to relocate to the area. As indicated in the aforementioned L. Robert Kimball & Associates’ 1999 report entitled *Transportation Network Improvements Associated with the State Correctional Institution Western Pennsylvania*, “The Department of General Services has estimated that the value of secondary development resulting from the construction of a prison of this type typically equals three times the value of the prison itself.”

Another important opportunity for growth lies with the boat and barge building operations and other industry located along the Monongahela River. The Hillman Barge and Construction Company started operations in Brownsville in 1938 and still produces vessels at this location, with HBC Barge, LLC, now part of the Trinity Group corporation. Improved access to this facility along S.R. 4022 could spur growth for this and other industries in this area.

The question is, will this potential growth and the secondary development from the prison be impeded by poor roadway access? While the Kimball report concedes that, “…the overall impact on local traffic from the facility itself will be manageable with minimal, short term improvements to the immediate roadway network”, it also recognizes that “A significant increase in traffic on these roadways, particularly truck traffic, will increase maintenance costs to [PENNDOT] District 12-0 dramatically.” The report emphasizes the need for roadway improvements to handle this potential secondary development and suggests that the answer to the question above is “yes”.

The following section of this study provides information regarding current efforts to improve access to SCI-Fayette and prepare for this potential development.

**X. PROPOSED ROADWAY IMPROVEMENTS**

i. **S.R. 4020 (Hopewell / Heistersburg Road)**

There are a number of roadway projects along S.R. 4020 in various stages of development. A summary of these projects is included in Table 4.

These projects are considered “betterments”, which means that they are fairly extensive in nature including some roadway realignment, widening, and the addition of turn lanes in designated locations. As discussed earlier, since the Signed Route provides the only viable way for trucks to reach SCI-Fayette, these improvements along S.R. 4020 are essential. This is reinforced by the prison
employee survey results that identified roadway maintenance and roadway design issues as the key needs in the study area.

Table 4 – S.R. 4020 Roadway Projects

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Approximate Limits</th>
<th>Schedule</th>
<th>Programmed Costs*</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.R. 4020 01R</td>
<td>Dunlap Creek to Segment 0150/1600 (east of Bull Run Road)</td>
<td>Completed in 2003</td>
<td>N/A</td>
</tr>
<tr>
<td>S.R. 4020 02R</td>
<td>Segment 0120/0000 (east of Rush Run Road) to Segment 0070/0000 (east of Millsboro Road)</td>
<td>Design in 2003 Construction in 2004 &amp; 2005</td>
<td>$50,000 P.E. $100,000 F.D. $100,000 Util. $100,000 R/W $1,500,000 Const.</td>
</tr>
<tr>
<td>S.R. 4020 03R</td>
<td>Segment 0150/1600 (east of Bull Run Road) to Segment 0120/0000 (east of Rush Run Road)</td>
<td>Design in 2004 Construction in 2005</td>
<td>$20,000 P.E. $20,000 F.D. $300,000 Util. $100,000 R/W $1,500,000 Const.</td>
</tr>
<tr>
<td>S.R. 4020 04R</td>
<td>Segments 0070/0000 (east of Millsboro Road) to S.R. 4022 &amp; East Fredericktown Road</td>
<td>Design in 2003 Construction in 2004</td>
<td>$200,000 P.E. $150,000 F.D. $100,000 Util. $400,000 R/W $1,968,000 Const.</td>
</tr>
</tbody>
</table>

*P.E. – Preliminary Engineering Phase  
F.D. – Final Design Phase  
Util. – Utility Phase  
R/W – Right-of-Way Phase  
Const. – Construction Phase

ii. S.R. 4022 (LaBelle Road)

There is a maintenance project scheduled along S.R. 4022, from Brownsville Borough to the intersection with S.R. 4020 and East Fredericktown Road, for the summer of 2004. As with the projects on S.R. 4020, these improvements are necessary to address current roadway conditions. However, this project is primarily a roadway resurfacing project and will not be as extensive as the work scheduled along S.R. 4020. This is appropriate and necessary since S.R. 4020
provides truck access to the prison and more extensive improvements to S.R. 4022 would likely be cost prohibitive due to the terrain.

iii. S.R. 4003 (Bull Run Road)

A “betterment” project is currently scheduled for Bull Run Road as well. This roadway reconstruction project, which extends from S.R. 4020 to around Cox Run north of Shepler Road, is planned for design in 2004 and construction in 2005. Programmed funding for the project includes:

• $20,000 – Preliminary Engineering;
• $50,000 – Final Design;
• $10,000 – Utilities;
• $10,000 – Right-of-Way; and,
• $1,500,000 – Construction.

This project is important because once the Mon-Fayette Expressway is built between Brownsville and Uniontown, including the interchange in Luzerne Township, Bull Run Road could provide alternative access to S.R. 4020. This would allow trucks and other vehicles to avoid PA Route 166 and portions of U.S. Route 40, which may help reduce safety concerns along these two roadways (see Section VII for existing crash and injury rates along these roads).

iv. S.R. 43 (Mon-Fayette Expressway)

The Brownsville to Uniontown section of the Mon-Fayette Expressway will include a new bridge crossing the Monongahela River, as well as a new interchange in Luzerne Township near Bull Run and Telegraph Roads. Currently, the $446 million project ($85 million for P.E., Design, and R/W and $361 million for Utilities and Construction) is scheduled to be built in 12 sections that range in cost from $3 million to $56 million. The bridge crossing the Mon River is likely to be one of the most expensive pieces of this project.

A recent bond issue that passed in the Fall of 2003 made $250 million available for construction of the Uniontown to Brownsville section of the Mon-Fayette. These funds must be expended by August 2008; therefore, the Pennsylvania Turnpike Commission plans to advance the construction of sections that are “ready to go” first. This means that final design and right-of-way clearance need to be complete for these sections. Currently, the central portion of the Expressway (five construction sections between Fan Hollow Road and Grindstone Road) are scheduled to be bid in late 2005 and early 2006. The remaining sections are currently under design and could be bid in 2006 if funding is available. However, given that funding uncertainties exist and given that the Mon River bridge and Luzerne interchange are likely to take multiple construction seasons to complete, it is possible that the portion of the Mon-Fayette through the study area may not be open for use until 2010 or later. Therefore, in addition to addressing some of the long-term transportation needs of the area, the currently
scheduled projects along S.R. 4003, S.R. 4020, and S.R. 4022 are especially important in the short-term to ensure safe and reliable access in the study area.

Once construction of the Brownsville to Uniontown section of the Mon-Fayette is complete, it will have a significant impact on travel patterns in the study area, although the exact nature of those impacts is difficult to predict because they will depend upon land use changes in the area as well as other roadway improvements that may be made in conjunction with the Mon-Fayette Expressway construction.

v. FAECO Drive and/or Alicia Heights Road

FAECO Drive is a proposed new roadway that would connect the Mon-Fayette Interchange at Bull Run Road and Telegraph Road with LaBelle Road and the Monongahela River. This connection is vitally important to improving access to current and potential industrial sites along the river. While FAECO Drive would not provide direct access to SCI-Fayette, as shown in Table 5, it is likely to provide a time savings to motorists destined for the prison.

An alternative to building this new roadway to the river would consist of improving existing Alicia Heights Road. This alternative has been considered previously, but in recent months has been disregarded in favor of the FAECO Drive option. However, there is some feeling in the local community that the Alicia Heights Road alternative may have been shelved too hastily and that it is still worth considering.

The Turnpike Commission is scheduled to complete preliminary design of FAECO Drive as part of the work to design the Mon-Fayette Interchange at Telegraph and Bull Run Roads (although construction of FAECO Drive would progress through SPC’s Transportation Improvement Program (TIP) rather than being done by the Turnpike Commission). Before this design progresses, the Turnpike Commission, perhaps in conjunction with PENNDOT, should do a detailed cost-benefit analysis comparing the FAECO Drive and Alicia Heights Road alternatives. This analysis should include engineering, environmental, right-of-way, utility, and construction costs as well as other costs such as user costs and opportunity costs. The analysis should also include an assessment of projected travel time savings, safety improvements, economic development opportunities, and other benefits, such as the ability to achieve desired land use outcomes as presented in the Mon-Fayette Expressway Land Use Management and Economic Development Analysis (2004). This type of analysis is important to ensure the best investment of public dollars. (Note: PENNDOT Central Office is currently developing cost-benefit analysis procedures to be implemented throughout their agency as well as in other state agencies. This project could provide an excellent opportunity to test those procedures.)
### Table 5 – Travel Time Projections

<table>
<thead>
<tr>
<th>Route Description</th>
<th>Approx. Length</th>
<th>Projected Travel Time*</th>
<th>Potential Time Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon-Fayette to FAECO Drive to LaBelle Road to Prison</td>
<td>9 miles</td>
<td>12 – 13 minutes</td>
<td>3 – 4 minutes&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>Mon-Fayette to Alicia Heights Road to LaBelle Road to Prison</td>
<td>10 miles</td>
<td>14 – 15 minutes</td>
<td>1 – 2 minutes&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>Mon-Fayette to Bull Run Road to Hopewell/Heistersburg Road to Prison</td>
<td>12.5 miles</td>
<td>17 – 18 minutes</td>
<td>3 – 4 minutes&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

*From the U.S. 40 / Malden Road intersection in Washington County (for comparison with previous travel time analysis)

<sup>1</sup>Compared to current River Route travel times

<sup>2</sup>Compared to current Signed Route travel times

### vi. Intuition Parkway

Another new roadway that has been discussed for this area is Intuition Parkway (a.k.a. FAECO Drive Extension). This roadway would provide direct access from the Telegraph Road / Bull Run Road interchange of the Mon-Fayette Expressway to SCI-Fayette, and could be a means of spurring economic development in Luzerne Township and surrounding areas by capitalizing on the proximity of the interchange and the prison.

The biggest difficulty with constructing this direct access to the prison is almost certain to be funding. The cost of building a new 3 ½ to 4-mile roadway is likely to be on the order of $5 - $10 million. Based on SPC’s recently adopted 2005-2008 TIP, approximately $193 million will be needed beyond 2008 just to complete the Fayette County roadway and bridge projects that are already underway on the TIP. This is approximately 2.7 times the amount of funding that Fayette County is projected to receive in the 2005-2008 TIP, which means that it is likely to take at least 3 additional TIPs (or until the Year 2020) just to complete the projects that are already on the TIP. Beyond this, there are over $600 million of additional Fayette County projects that are already on the long-range plan and “in line” for funding. (This does not include the money needed to build the Mon-Fayette Expressway, since the Mon-Fayette is a Turnpike project and does not go through SPC’s TIP funding stream.)
This does not suggest that direct access to the prison is a bad idea, or that it might not be a high enough priority to justify deferring other projects in the County. Rather, this information is presented to provide a realistic understanding of current and projected financial constraints and to illustrate that bringing a project of this magnitude to fruition will be very difficult if relying strictly on standard funding streams. Therefore, it is advisable for proponents of this project to explore innovative funding methods that could help realize the project in a more reasonable time frame. This could include using techniques such as:

- formation of a Transportation Development District via Pennsylvania’s Transportation Partnership Act (Act 47 of 1985, as amended) (See Appendix B);
- Official Map authority granted to municipalities through Article IV of the Municipalities Planning Code (see Appendix C);
- donation of right-of-way by property owners;
- loans through the Pennsylvania Infrastructure Bank (see Appendix D); and/or,
- establishment of transportation impact fees or other financial contributions from developers to facilitate financing of roadway improvements.

These investigations should identify successes and failures in Pennsylvania and in other states to ascertain the most appropriate financing methods for this project.

One final point to consider with regard to access to SCI-Fayette…one of the hopes of the residents and public officials in this area is for the prison to serve as an economic generator to help revive the local economy. Consideration should be given to the possibility that quick and easy direct access to the prison may, in some ways, work counter to this goal. If getting to the prison is too easy, then employees and companies with business at the prison can access the prison from much further away. Rather than employees living close to where they work, they will just commute from long distances. And rather than companies opening local offices, they will just serve the prison from their current offices. This ends up being bad for workers who end up with long, stressful, expensive commutes, and it ends up being bad for the local community because rather than getting economic development, they just get more traffic.
XI. FINDINGS & RECOMMENDATIONS

FINDINGS

- SCI-Fayette opened in August 2003 and is expected to employ approximately 700 people and house over 2,000 inmates when fully operational.

- Fayette County’s 2000 Comprehensive Land Use Plan indicates that a significant portion of the area near the prison is classified as Future Growth Area. SCI-Fayette is a big part of this planned growth and is intended to serve as a significant economic development and job-creating engine for the area.

- The Department of General Services has estimated that the value of secondary development resulting from the construction of a prison of this type typically equals three times the value of the prison itself; however, poor roadway access could impede this development.

- Motorists coming to the study area from the north and west have the opportunity to make a decision between three routes to the prison (Signed Route, Ferry Route, and River Route), but travelers from other areas are more limited.

- The Signed Route would be the first choice for people coming from Uniontown and most other parts of Fayette County, while travelers from Westmoreland County are likely to choose the River Route or the Signed Route, but probably not the Ferry Route.

- The Ferry Route is the obvious first choice for travelers from Greene County, with the River Route serving as an alternative if the ferry is out of service (adding about 20 minutes to the trip).

- All three routes play a significant role in providing access in the study area.

- Road signs to SCI-Fayette direct motorists to use PA Route 166 and S.R. 4020 (Hopewell / Heistersburg Road); however, improved signage is needed.

- The Signed Route had the highest average crash rate and the highest average injury rate of the three Routes.

- Local roads in the area, including S.R. 4020, are under 10-ton weight restrictions.

- The Fredericktown Ferry provides reasonably direct access to the prison; however, reliability of the ferry service is problematic and East Fredericktown Road, which leads from the Fayette County ferry landing to the prison, is in poor condition and includes a narrow railroad underpass.

- The Fredericktown Ferry also has a weight limit of 10 tons.

- Currently there are three full-time licensed operators and one part-time licensed operator employed at the Fredericktown Ferry.

- Operating hours for the ferry have recently been expanded in order to accommodate shift changes at SCI-Fayette. The ferry is now scheduled to be in service from 4:00AM to Midnight on weekdays and from 6:00AM to 4:00PM on
Saturdays and Sundays, which totals 120 hours of service per week. This level of service can be difficult to maintain with only 3.5 employees.

- Prior to this recent increase in hours of service, operations and maintenance costs for the ferry were $8,000-$10,000 per month. These expenses are split 50/50 by Washington and Fayette Counties, who jointly operate the facility.

- These costs could rise as much as 30%-40% due to the increase in operations.

- Approximately 75% of the O&M costs to run the ferry can be attributed to salaries and benefits of the ferry operators; however, the starting salary for ferry operators is significantly lower than the mean hourly wage for individuals with this job classification in Pennsylvania ($27.59 per hour). This relatively low wage could cause the Counties difficulty in attracting and retaining employees to operate the ferry.

- Operations and maintenance expenses for the ferry are currently financed through ridership fees and the expenditure of the Counties’ Liquid Fuels funds. However, use of Liquid Fuels funds to pay for the ferry reduces the amount of money the Counties have to spend on roadway and bridge repairs, creating an ever increasing backlog of projects.

- Current rates for riding the ferry were last increased in the mid-1970’s.

- Of 230 SCI-Fayette employees surveyed, approximately 137 travel to/from areas that make the Fredericktown Ferry a reasonable transportation option.

- When asked if they had ever used the ferry to get to SCI-Fayette, 113 survey respondents answered “yes”, which is over 82% of the people for whom it is a logical option, clearly demonstrating that people are willing to use the ferry if reliable service can be provided.

- When asked whether they would consider using a shuttle service from the Fredericktown Ferry to the prison, over 65% of surveyed employees who would use the ferry if it provided reliable service indicated that they would also consider using a shuttle from the ferry if it were available, which could help alleviate peak traffic problems.

- Improved ferry signage, including advanced “Ferry Open/Closed” notice to travelers, is needed.

- The Pennsylvania Fish Commission boat launch and East Fredericktown Boat Docks are located adjacent to the Fredericktown Ferry’s Fayette County landing. These features, along with the presence of the historic ferry, provide a unique opportunity to promote economic development related to recreation and tourism along both sides of the River.

- Many prison employees currently use the River Route and S.R. 4022 (LaBelle Road) to get to and from SCI-Fayette. This road can generally be characterized as narrow and winding and includes segments through residential areas of Brownsville and LaBelle where drivers must slow significantly.
• Dump trucks generated by the Mon River terminal of Matt Canestrale Contracting cross East Fredericktown Road just west of the S.R. 4020 / S.R. 4022 / East Fredericktown Road intersection, and cross S.R.4020 just south of this intersection. Truck crossing frequency can vary widely from no activity to perhaps 20-30 crossings per hour.

• The Ferry Route had the lowest average crash rate and the River Route had the lowest average injury rate.

• The two issues that were identified by SCI-Fayette employees as the most pressing transportation concerns in the local area were general roadway maintenance (i.e. potholes, crumbling shoulders, winter maintenance, and pavement conditions) and roadway design (i.e. roadway widths, vertical and horizontal geometry, drainage problems, landslides, and safety features such as guide rail, lighting, and pavement markings).

• Lack of direct access to the prison, lack of a bridge across the Monongahela River in this area, and a lack of planning prior to siting and construction of the prison were also identified as major concerns by prison employees.

• S.R. 4022 (LaBelle Road) and East Fredericktown Road were the two roadways most cited as needing improvement.

• On a typical day, SCI’s security staff hours are broken into three shifts, which result in travel to and from work in “off-peak” hours. Administrative and other staff generally work 8:00 AM – 4:00 PM, which means they are typically traveling during “peak” hours.

• SCI-Fayette employees come from all over Southwestern Pennsylvania with most originating in Greene, Fayette, Washington, Allegheny, and Westmoreland Counties. Six of the employees surveyed travel to the prison from outside the 10-county SPC region.

• Inmates at SCI-Fayette are currently allowed five visits per month, with visiting hours set at Thursday-Monday (no visitation on Tuesdays and Wednesdays) from 8:15AM to 3:30PM.

• Visitors to SCI-Fayette could add as many as 500 or 600 (two-way) trips to the local roadway network on any given day.

• PENNDOT has roadway “betterment” projects in various stages of development along the entire length of S.R. 4020 in the study area. These projects are all scheduled for construction by 2005.

• PENNDOT has a maintenance project scheduled along S.R. 4022, from Brownsville Borough to the intersection with S.R. 4020 and East Fredericktown Road, for the summer of 2004.

• PENNDOT has a “betterment” project scheduled for Bull Run Road from S.R. 4020 to around Cox Run north of Shepler Road. This project is scheduled for design in 2004 and construction in 2005.
• The $446 million Mon-Fayette Expressway, Uniontown to Brownsville project is scheduled to be built in twelve sections ranging in cost from $3 million to $56 million.

• Currently, the central portion of the Expressway (five construction sections between Fan Hollow Road and Grindstone Road) are scheduled to be bid in late 2005 and early 2006. The remaining sections are currently under design and could be bid in 2006 if funding is available.

• FAECO Drive is a proposed new roadway that would connect the Mon-Fayette Interchange at Bull Run Road and Telegraph Road with LaBelle Road and the Monongahela River. The Pennsylvania Turnpike Commission is designing this roadway in conjunction with the design of the Mon-Fayette’s Bull Run Road / Telegraph Road interchange.

• An alternative to building FAECO Drive would consist of improving existing Alicia Heights Road.

• Another new roadway that has been discussed for this area is Intuition Parkway (a.k.a. FAECO Drive Extension). This roadway would provide direct access from the Telegraph Road / Bull Run Road interchange of the Mon-Fayette Expressway to SCI-Fayette, and could be a means of spurring economic development in Luzerne Township and surrounding areas by capitalizing on the proximity of the interchange and the prison.

• The biggest difficulty with constructing this direct access to the prison is almost certain to be funding.
RECOMMENDATIONS

- First priority should be given to preservation and improvement of existing roads in the study area. This includes completion of PENNDOT’s planned improvements to S.R. 4020, S.R. 4022, and S.R. 4003. A project to improve East Fredericktown Road from the ferry landing to S.R. 4022 should also be scheduled and advanced by Luzerne Township.

- PENNDOT should investigate the use of signing, pavement marking, traffic calming, or other techniques on S.R. 88 near Fredericktown to slow traffic as it approaches town.

- Washington and Fayette Counties should create a joint ferry committee/task force that meets on a regular basis to discuss ferry operations, staffing, and other matters related to ferry service. In addition to the two Counties, this committee could include representatives from SCI-Fayette, SPC, Greene County, and the local municipalities, as well as community groups that may be interested in preserving and promoting the ferry as a historical resource.

- This committee should perform additional research related to potential funding options for the ferry including the Transportation Enhancements Program, FHWA’s Ferry Boat Discretionary Program, increased fees, implementation of a ferry pass system, potential for advertising on the ferry or at ferry landings, and various historic preservation, economic development, and transit funding sources. The Department of Corrections may also be willing to contribute to the upgrade of this service since its employees are primary users of the facility.

- The committee should also work on issues such as improved signage to the ferry, aesthetic improvement of access points, parking improvements and pedestrian access at ferry landings, establishment of a shuttle and/or ridesharing service from the ferry to the prison, and actively promoting the ferry as a historic and economic development resource. This could involve partnering with local historical societies and/or preservation groups and could potentially help to recruit additional ferry operators. Creation of an Internet website dedicated to the ferry (www.fredericktownferry.com) could be an important first step to this effort.

- PENNDOT and the Counties should install changeable signs on the approach routes to the ferry to alert motorists of “Ferry Open” or “Ferry Closed”. Ferry operators should be given the capability and training to activate these signs from the ferry site. This should be incorporated into an overall program to improve ferry signage on both sides of the river.

- The Counties should also investigate the possibility of using public service announcements or news bulletins through local media outlets (i.e. radio and television stations) to update the public on the status of the ferry (open/closed), as is often done with school closings. Broadcasting via Highway Advisory Radio may also be an option for providing traveler information.
• The Counties, local communities, and ferry operators should work to improve the appearance of the ferry landings (i.e. garbage clean-up, landscaping, etc.) to make the landings more attractive to potential ferry patrons.

• SCI-Fayette should work to provide better travel information to prison visitors and to direct them to preferred travel routes, which are currently the Signed Route and Ferry Route. SPC’s Geographic Information Systems (GIS) department could be a resource for helping to create maps and/or web-related products to facilitate this effort.

• The Turnpike Commission, in conjunction with PENNDOT, should do a detailed cost-benefit analysis comparing the FAECO Drive and Alicia Heights Road alternatives to ensure the best investment of limited public dollars.

• The local municipalities, in conjunction with PENNDOT and the Turnpike Commission, should consider incorporating access management techniques into the planning and design of FAECO Drive and/or an Alicia Heights Road upgrade to ensure that the roadway(s) effectively serve through traffic.

• The local municipalities should develop requirements for traffic impact studies in accordance with the Municipalities Planning Code so developers are required to address projected increases in traffic by improving the existing roadway system.

• Proponents of the Intuition Parkway project should explore innovative funding methods such as formation of a Transportation Development District, the Township’s Official Map authority, donation of right-of-way by property owners, loans through the Pennsylvania Infrastructure Bank, and establishment of transportation impact fees or other financial contributions from developers to facilitate financing of this roadway improvement.
APPENDIX A

SCI-Fayette Employee Survey Sample
APPENDIX B

Pennsylvania’s Transportation Partnership Act
APPENDIX C

Pennsylvania Municipalities Planning Code
Article IV – Official Map
APPENDIX D

Pennsylvania Infrastructure Bank Handbook
APPENDIX E

Fredericktown Ferry Travel Advisory
(Implementation) Study