



March 9, 2012

Gary Valentine, Project Manager, Kentucky Transportation Cabinet
Paul Boone, Project Manager, Indiana Department of Transportation
John Sacksteder, Project Manager, Community Transportation Solutions Inc.

Ohio River Bridges Project
Forum Office Park III
305 N. Hurstbourne Parkway, Suite 100
Louisville, KY 40222

Dear Misters Valentine, Boone and Sacksteder,

Please find enclosed the enhanced bus service proposal for the Ohio River Bridges Project that TARC was asked to prepare in our meeting on Feb. 8.

We appreciate this opportunity and we are confident our recommendations will improve public transportation ridership between Southern Indiana and Louisville and between Eastern Jefferson County and downtown. We expect to attract new riders from other parts of the region who commute to downtown as well.

Enhanced bus service during construction and as part of the completed project will help achieve the project's purpose and need, resulting in improved cross-river mobility.

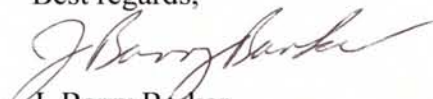
Both Kentucky and Indiana have a long history of providing operating funds for public transportation. While in Kentucky there are concerns about the use of road fund dollars for public transportation, other funding sources have and could be made available. As part of the project's selected alternative, enhanced bus service should be present both during construction and after project completion.

In making this submission, TARC asks again for assurances that public transportation be exempt from paying tolls associated with the project. Requiring TARC vehicles to be tolled is inconsistent with the project's purpose and need and making enhanced bus service part of the solution.

TARC looks forward to continue working with Bridges Project representatives and to improved mobility and safer bridges and highways when the project is completed.

Thank you again.

Best regards,


J. Barry Barker
Executive Director

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Transit Authority of River City • 1000 W. Broadway • Louisville, Kentucky 40203 • www.ridetarc.org

LOUISVILLE SOUTHERN INDIANA OHIO RIVER BRIDGES PROJECT

ENHANCED BUS SERVICE PROPOSAL

INTRODUCTION

Enhanced bus service is part of the selected alternative for the LSIORB Project, although specifics have not been previously clearly defined. Since the construction phase of the project will extend over a long period of time, enhanced bus service will be necessary to help maintain traffic flow and reduce traffic congestion and the number of cars in the project area. This service has the potential to demonstrate success and benefits of public transportation in the long term. As a result of direct benefits to transit users and the general public, enhanced bus service could become permanent after the ORB Project is completed.

This proposal is TARC's response to the Bridges Project Team request regarding the enhanced bus service determination and inclusion in the construction and funding plans. The enhanced bus service will mitigate the potential impact of the Louisville-Southern Indiana Ohio River Bridges Project on traffic flow in the project area, including TARC services during construction, and it will improve cross-river mobility as outlined in the purpose and need statement of the Ohio River Bridges Project. TARC's goal is to minimize the impact of construction on transit users and operate bus services with minimal disruption in a cost-efficient way.

As the public transportation provider for the Louisville region, TARC operates 45 bus routes in Jefferson, Bullitt and Oldham counties in Kentucky and Floyd and Clark counties in Indiana with an average daily ridership of more than 48,000 trips. Six of our routes serve Southern Indiana and TARC buses cross the river in the Bridges Project area more than 800 times each week. Daily ridership between Louisville and S. Indiana is more than 2100 boardings. Other local and express buses make more than 1,500 trips daily in the project area. In addition, TARC 3 and vanpool program provide transportation options to a significant number of users in Louisville and Southern Indiana. Each trip made by public transportation relieves traffic congestion, thus improving safety, reducing air pollution, and providing a cost-effective means of travel.

Enhanced public transportation, both during construction and as part of the built project, will benefit the project and the greater community. Planning, design, construction, and funding for enhanced bus service should be incorporated in the project's development and traffic maintenance plan and should be part of the completed project.

The ORB Project should also be designed so that it does not preclude public transportation options as part of the long-term, permanent solutions to improve cross-river mobility. One of the potential solutions for consideration is implementing public transportation **on the Clark Memorial Bridge.** 

ENHANCED BUS SERVICE

As discussed and agreed with the ORB project team, the enhanced bus service in the construction phase of both bridges and the Spaghetti Junction rebuild will include:

- Turning radii, lane widths and all other project construction elements shall meet design criteria to accommodate buses.
- Permanent park-and-ride facilities established in final construction plans and contracts at locations that will maximize service efficiency and allow TARC users to access public transportation before entering the project impact area.
- Express and shuttle bus service during construction and options for this service to become permanent between Louisville and Southern Indiana.
- The storage and operation facility for the maintenance of additional vehicles.
- Improved and new bus stops, shelters, benches, sidewalk, access and pull-off areas for buses. Locations should be designated as part of the traffic maintenance and construction plans.
- A public awareness and communications program, advertising and increased tools including use of emerging technology such as mobile applications and online services to communicate with the public about public transportation service and arrival times of buses.
- Traffic signal priority for public transportation – coordinated with the Louisville Metro Government traffic division.
- Assurances that public transportation - TARC buses, TARC3 paratransit vehicles for people with disabilities, TARC supervisor vehicles and vanpools - will be exempt from paying tolls associated with the project.

SUMMARY

TARC analyzed the level of service and bus routes in the project area and estimated the potential impact of the ORB project construction phase on TARC services and customers. Services are analyzed in Southern Indiana, Spaghetti

Junction and the downtown area. The potential project impact area has been determined based on TARC routes that cross the Ohio River, travel through Spaghetti Junction, and serve downtown area on a daily basis. Traffic delays are expected in the project area on all routes, express and local commuter routes, that serve major downtown employers, and also on trolleys, vanpools and TARC 3 trips.

Service Projection and Operating Consideration

The enhanced bus service proposal is developed to:

- Mitigate the impact of the Ohio River Bridges Project on TARC services during construction - with the purpose to maintain at a minimum the existing level of service; and
- Plan for enhanced express and shuttle services during construction and after completion of the project.

Impacts on TARC services are estimated based on the following premises:

- The general project impact area (Map A) is analyzed in three sub areas: north-south cross-river connections along I-65 in Southern Indiana and in Louisville, east-west in the Spaghetti Junction, and the downtown area bounded by Main Street, S. 9th Street, Muhammad Ali Blvd and Frankfort Avenue.
- Major delays are expected during the AM and PM peak hours, inbound and outbound trips respectively, on all express and local routes, trolleys, TARC 3 trips and vanpools. 
- Estimated AM peak hour is from 6 AM to 9:30 AM. Estimated PM peak hour is from 4 PM to 6:30 PM.
- Estimated delays in the peak hours are approximately 20 minutes per trip in one direction: inbound in the AM or outbound in the PM (Table 1).
- Minor delays are expected during the off-peak hours on all local routes in the project area, trolleys and TARC 3 trips. These delays have not been included in the total estimated operational cost.
- Estimated impact on TARC services (additional service hours and buses) are based on the weekday schedules assuming that traffic delays during the weekend will be minimal (either there will be no construction activities on Saturday and Sunday, or the traffic volumes will not be significant in the downtown area to have an impact on TARC services).

Infrastructure

Vehicles

Based on the analysis of the potential impact of the ORB Project construction on TARC operations and customers, and expected delays and estimated additional hours of service, TARC will need additional vehicles, maintenance facilities, park and ride locations and on-street facilities improvements to be able to maintain the existing level of service and to respond to the potential increase in ridership.

- To maintain the existing level of service during construction additional 18 vehicles/standard capacity commuter coaches will be needed.
- To relieve traffic congestion and enhance commuter services, additional trips will be added to express routes 61, 64, 65, 66, and 67, and the local routes 43 and 72. At a minimum three additional buses are needed for these enhancements and to serve as spare buses for all routes in the project area.
- Four shuttle buses are planned to support commuter routes and provide connections to the new or existing park and ride locations.
- Additional eight TARC 3 vehicles will be needed to maintain the existing level of service during construction and to mitigate for delays expected on TARC 3 trips in the project area.
- Estimated additional 8 vanpool vehicles are needed to reduce traffic congestion, and to support and enhance vanpool program during the life of the project.

In accordance with Federal guidance TARC capitalizes the costs of maintaining and repairing its transportation assets. The percentage of TARC's total eligible operating cost that is capitalized maintenance equals 19.6%. TARC will apply that percentage to the portion of future operating costs attributable to enhanced bus service associated with the bridges project. The resulting capital cost of maintenance is \$ 364,000 annually.

Facilities

TARC will need an additional storage and maintenance facility for vehicles used to mitigate the impact of the ORB Project construction, and additional or improved park and ride locations.

- An additional facility for maintenance and storage of fleet vehicles. An estimated budget is developed for building acquisition, improvements and the equipment cost.
- **Three new park and ride facilities** will be established to support commuting by public transportation and to accommodate an expected increase in ridership (**Map B**). Preliminary estimate/capital cost for improvements for park and ride lots is included in the cost summary.
- Two existing park and ride facilities will be improved to accommodate a larger number of users. A basic cost estimate has been prepared but no major capital cost is expected.
- Passenger facilities, new or relocated bus stops and shelters in the project area, will need to be upgraded to improve safety, minimize impact on customers, and to support increased ridership during construction and after completion of the project.
- **TARC information and customer service center** is recommended in the downtown congested area, offering ticket/pass purchases, schedules, maps, assistance with trip planning. A suggested location is at the intersection of W. Market and S. 2nd Street but other options are possible.

The impact on TARC operations and services in the project area is determined in **absence of specific technical data** regarding anticipated traffic delays during the construction phase. The impact on TARC services is estimated based on the delays and lessons learned due to recent Sherman Minton Bridge closure and the additional cost to TARC for serving Southern Indiana customers while the bridge was closed. TARC expects a certain level of flexibility and adjustments to the enhanced bus service plans once construction starts or traffic maintenance plans are developed. TARC will also monitor and evaluate the potential impact of planned improvements on the Kennedy Bridge in the summer of 2012 and apply that experience to refining the enhanced bus service plans.

Public Information and Communications Program

A dynamic public awareness and information effort is required for TARC to successfully operate, serve customers and attract new riders during construction of the Bridges Project.

Passenger and community outreach, especially focusing on downtown Louisville, would have a positive impact on traffic congestion and on safety concerns while the project is being built. Businesses can operate with fewer disruptions and commerce can flow more freely if commuters are aware of TARC's specific routes and choose to take public transportation. Every car that is kept out of downtown – whether it is coming from Southern Indiana or other parts of the

Louisville Metro region - will benefit project construction goals and the greater community.

TARC routes and services are likely to evolve and change based on the project work schedule so the communications needs will be ongoing during the six year construction timetable. Because of the type of service TARC provides, outreach using targeted advertising is needed in addition to tools such as the TARC web site, media relations, e-blast notifications and social media outlets. Technology advances and the common use of smartphones require communications on those platforms as well.

TARC will develop all materials and communications around the enhanced bus service, coordinating with Bridges Project staff. TARC will work with project staff to ensure public transportation information is integrated with project construction information and community outreach efforts. TARC will also be a vehicle for providing project construction information.

TARC's public information and awareness efforts would include:

- **Advertising:** The most cost-effective advertising targeting cross-river and other downtown commuters would include messages about TARC's services relating to the Bridges Project on: radio drive-time and traffic reports; billboards in and near the project area and near TARC cross-river and downtown routes; selective internet advertising; and bus and bus shelter ads. Total Cost for six years including creative development and production: \$1,095,000 million (Specific allocations per year would depend on the work schedule but estimated at: YR 1: \$350,000; YR 2: \$225,000; YR 3: \$170,000; YR4: \$170,000; YR 5: \$130,000; YR 6: \$50,000)
- **Public affairs/relations support:** Developing meeting and distribution materials (onboard notices, brochures, news releases, web site information and updates, videos), writing, media relations support. Total six year cost: \$240,000 (average \$50,000 per year)
- **Texting service:** Would be used to convey information and updates to TARC riders about enhanced bus service. The estimate would cover six years of service including a one-time start-up fee of \$5,000 and annual subscription fees of \$2,000 for unlimited texting to 25,000 numbers. Cost: \$28,000
- **Ongoing community outreach and materials:** TARC staff will distribute materials to major employers and businesses, local elected leadership and civic and community organizations on both sides of the river, prepare and make presentations about enhanced bus service, post information on the web site and through social media and other means. Brochures and bus and system route maps and schedules will require ongoing updating

and printing. Printing costs for six years relating to the enhanced bus service is estimated at: \$40,000

COST ESTIMATE

An estimated budget for implementing the enhanced bus service as part of the Ohio River Bridges Project selected alternative includes only capital cost; additional operating costs to TARC are not included.

- Estimated total capital cost to implement enhanced bus service during construction and to continue using facilities and vehicles after completion of the project is 19.72 million.

The total cost includes:

- Additional number of vehicles needed to maintain level of service during construction is 21 buses (includes a minimum number of spare vehicles). The estimated total cost of \$9,139,000 is based on the standard capacity commuter coach unit price.
- Estimated capital cost for four additional shuttle buses to enhance services during and past construction is \$500,000.
- Estimated cost for additional eight TARC 3 vehicles needed to maintain level of service is \$400,000.
- Additional eight vanpool vehicles to enhance ticket-to-ride program from Southern Indiana – estimated cost is \$200,000.
- Estimated cost of public awareness and information program is \$1,403,000 million (six years).
- Information and Customers Service Center. Total six-year cost including rent, office materials/display, one full-time staff is \$980,000

Operating cost excluded from the capital budget:

- **Additional estimated operating cost** to TARC to maintain current level of service, and enhance some express and local routes in the project area is \$ 1.86 million annually. There is a potential under current Federal Transit Administration regulation to capitalize the cost of maintenance and may be applicable here. The resulting capital cost of maintenance associated with the Ohio River Bridges project impact is \$379,000 annually or **\$2,273,000** for the life of the project (estimated 6 years construction period).

- Additional estimated operating cost to TARC 3 to maintain at an existing level of service in the project area is \$ 631,000 annually.

A **Memorandum of Agreement** will be developed to fund and implement the enhanced bus service as part of the LSIORB Project. In addition to capital cost, funds for some short term cost during construction could be provided.

TARC will work with the Bridges Project team on implementing enhanced bus service that will promote efficient public transportation during construction and later as part of the long term cross-river mobility solution. **TARC will monitor service performance, collect the data and prepare periodic reports for internal analysis and evaluation.**



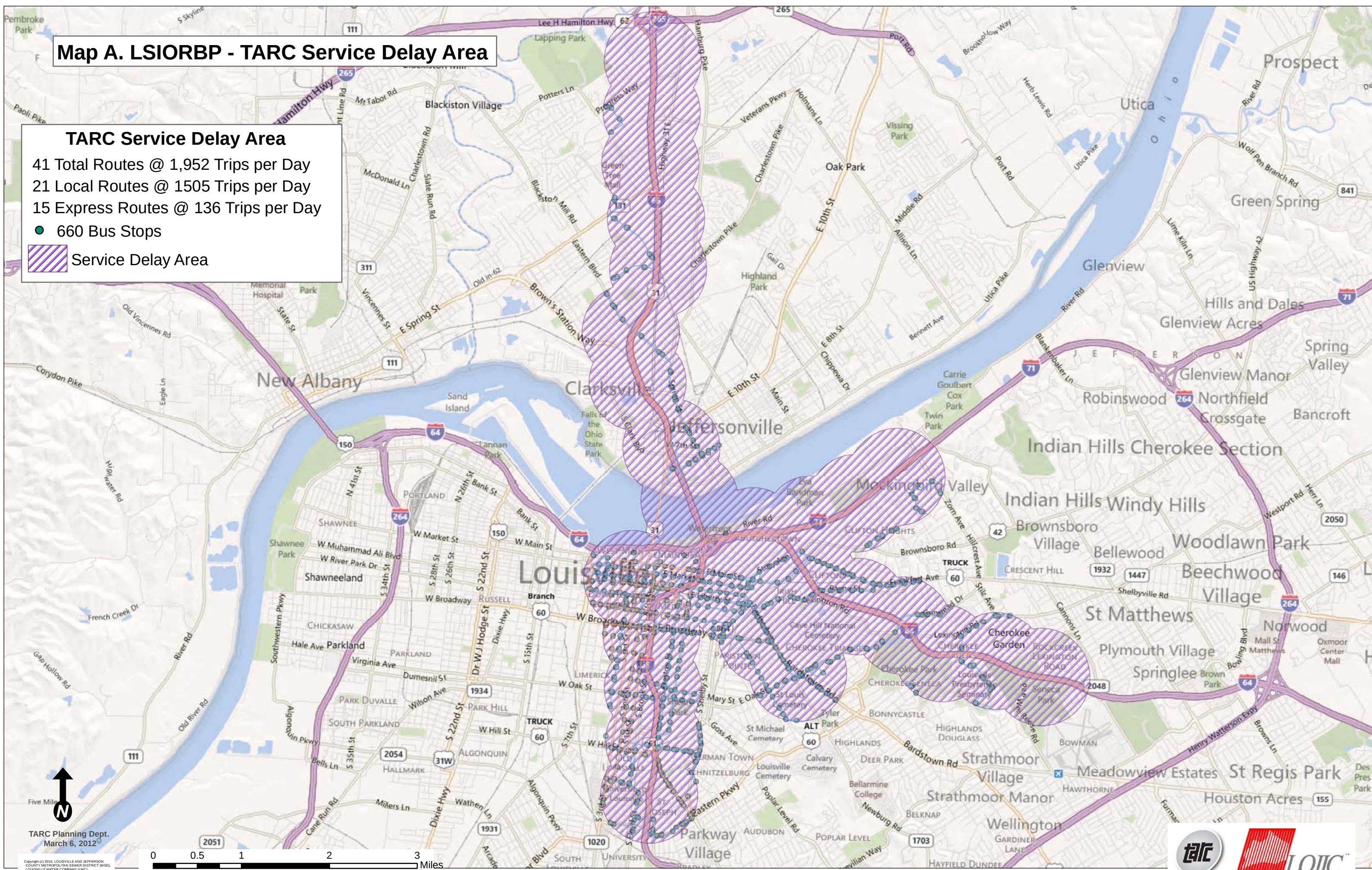
March 9, 2012

Map A. LSIORBP - TARC Service Delay Area

TARC Service Delay Area

41 Total Routes @ 1,952 Trips per Day
21 Local Routes @ 1505 Trips per Day
15 Express Routes @ 136 Trips per Day
● 660 Bus Stops

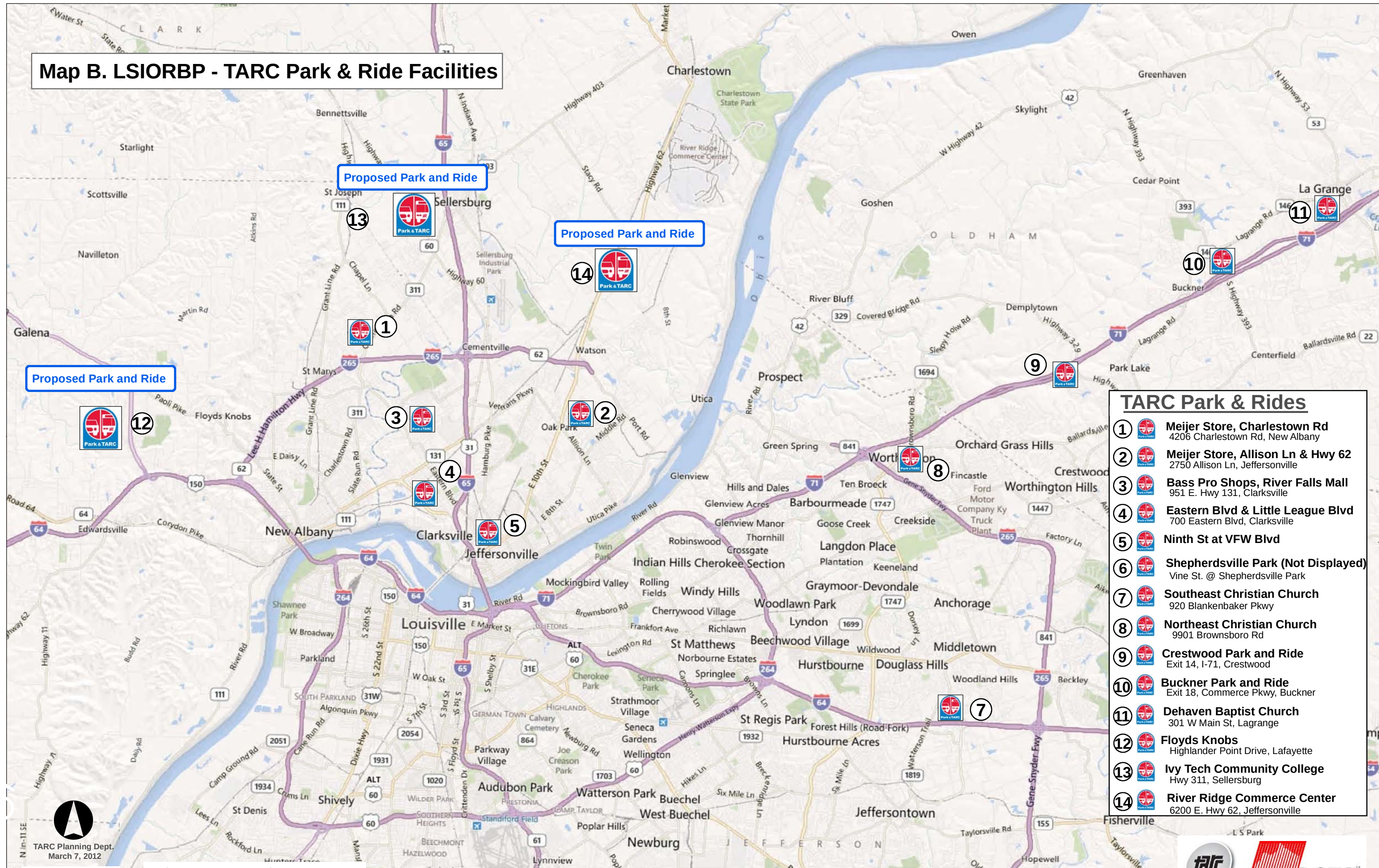
 Service Delay Area



Five Miles
N
TARC Planning Dept.
March 6, 2012

0 0.5 1 2 3 Miles

Map B. LSIORBP - TARC Park & Ride Facilities



TARC Planning Dept.
March 7, 2012

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TARC Park & Rides

- ①  **Meijer Store, Charlestown Rd**
4206 Charlestown Rd, New Albany
- ②  **Meijer Store, Allison Ln & Hwy 62**
2750 Allison Ln, Jeffersonville
- ③  **Bass Pro Shops, River Falls Mall**
951 E. Hwy 131, Clarksville
- ④  **Eastern Blvd & Little League Blvd**
700 Eastern Blvd, Clarksville
- ⑤  **Ninth St at VFW Blvd**
- ⑥  **Shepherdsville Park (Not Displayed)**
Vine St. @ Shepherdsville Park
- ⑦  **Southeast Christian Church**
920 Blankenbaker Pkwy
- ⑧  **Northeast Christian Church**
9901 Brownsboro Rd
- ⑨  **Crestwood Park and Ride**
Exit 14, I-71, Crestwood
- ⑩  **Buckner Park and Ride**
Exit 18, Commerce Pkwy, Buckner
- ⑪  **Dehaven Baptist Church**
301 W Main St, Lagrange
- ⑫  **Floyds Knobs**
Highlander Point Drive, Lafayette
- ⑬  **Ivy Tech Community College**
Hwy 311, Sellersburg
- ⑭  **River Ridge Commerce Center**
6200 E. Hwy 62, Jeffersonville



LSIORB PROJECT – ENHANCED BUS SERVICE

TABLE 1 - Estimated Capital Cost

ENHANCED BUS SERVICE COMPONENTS	PLAN	COST ESTIMATE \$\$
Road Geometry / design features of the project	Turning radii, lane widths to accommodate buses Project Team and the contractor	Part of the ORB Project design and construction plans
Park and Ride Facilities	3 new and 2 improved park and ride locations – Map B 	1,550,000
Transit facilities improvements	New and improved bus stops, shelters, benches, pull-offs and access	550,000
Additional buses acquisition – express and local	To maintain and enhance level of service – 21 buses	9,139,000
Additional buses acquisition – shuttles	To enhance bus service and support commuter routes – 4 shuttles	500,000
Additional TARC 3 vehicles acquisition	To maintain at a minimum the existing level of service – 8 TARC 3 buses	400,000
Additional vanpools acquisition	To mitigate for vanpool delays in the project area – 8 vanpool vehicles (double svc. from S. IN)	200,000
Maintenance Facility	Building acquisition and improvements	2,727,000
Public Awareness and Information Program	Ongoing program including targeted advertising, texting, community outreach and materials	1,403,000
TARC Information and Customer Service Center	Downtown space in congested area equipped to provide assistance: trip planning; ticket, pass sales; maps/schedules, etc.	980,000
Traffic Signal Priority	TARC should coordinate with the Metro Gov. traffic operation division	No cost estimate
Capital cost of maintenance (per FTA 19.6% of operating cost) for 6 years	Capitalized costs of maintaining transportation assets associated with the ORBP -378,830 annually	2,273,000
TOTAL CAPITAL COST		19,722,000

Notes:

- Capital cost for buses is provided for 21 vehicles. That includes three buses for enhanced service and backup during the six year construction period.
- Operating costs to TARC to maintain the existing level of service with minimal delays are estimated to \$ 1,93 million annually.
- Estimated TARC 3 operating costs are \$631,000 annually.
- The total operating costs of \$2.56 million annually is not included in the total budget for the enhanced bus service.

March 9, 2012

LSIORBP ENHANCED BUS SERVICE

TABLE 2

**Add. Bus Hours in the AM and PM peak in the Project Area
and
Estimated Operating Cost**

Project Area TARC Svc. Area	Current Bus Hours weekday	Add. Hrs. AM & PM Peak w/constr.	Enhanced Svc. Bus Hours	Total Additional Hours	Total Bus Hrs with Const. Impact	Add. Daily Operating Cost \$	Additional Annual Operating Cost \$
Cross-river Southern Indiana connections	156.5	10.8	3.1	13.9	170.4	1,334	342,940
Spaghetti Junction east-west connections	74.7	12.6	4.7	17.3	92	1,661	426,825
Downtown – local routes	937.2	43.2	1.8	45	982.2	4,320	1,110,240
Trolleys	70.6	2.1		2.1	72.7	202	52,811
TARC 3 service in the peak H	400	55		55	455	2,475	631,130
TOTAL						9,992	2,563,946

Amount eligible for capitalized maintenance cost is \$378,830 per year, or \$2.27 million for the life of the project.

March 9, 2012