

# BATON ROUGE – NEW ORLEANS INTERCITY RAIL FEASIBILITY STUDY

## STRATEGIC BUSINESS PLAN

FINAL REPORT • FEBRUARY 2014



### *Prepared for:*



Regional Planning Commission for Jefferson, Orleans, Plaquemines,  
St. Bernard, St. Tammany and Tangipahoa Parishes



Capital Region  
Planning Commission

*Baton Rouge  
Area Foundation*

Baton Rouge  
Area Foundation

*Prepared by:*  
HNTB Corporation

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# INTRODUCTION

This Business Plan is a detailed strategy to implement intercity passenger rail service between Baton Rouge and New Orleans. This document has been developed as part of the Baton Rouge to New Orleans Passenger Rail Feasibility Study which is being led by a Project Management Team consisting of the New Orleans Regional Planning Commission (NRPC), the Capital Region Planning Commission (CRPC) and the Baton Rouge Area Foundation (BRAAF). The study has been performed by HNTB Corporation, with assistance from Manning Architects and Saizan and Associates.

The *Strategic Business Plan* addresses the following topics:

- Opportunities and issues
- Economic development opportunities
- The public-private organizational and financial structures needed to implement the new service
- How to take advantage of resulting economic growth to fund capital improvements and operations
- Capital and operating costs
- Financing strategies





# MAKING THE CASE

## WHY SUPPORT THIS NEW SERVICE?

The notion of passenger rail between Baton Rouge and New Orleans has a long and storied history, one as colorful and complex as the region itself. Numerous stakeholder groups in Louisiana have long advocated for restored passenger rail service along the highly-traveled 80-mile stretch linking the state's capital to the vibrant cultural port city and the growing suburban parishes that lie in between.

Over the last several years—particularly since Hurricane Katrina in 2005, elected, business and civic leaders along the corridor have coalesced around hard facts about the Baton Rouge-New Orleans region. Arguably for the first time, they have spoken with one voice about issues the Southeast Louisiana Super Region faces and the obstacles it must overcome to see measurable economic, social and cultural progress.

Reestablishing passenger rail service between Baton Rouge and New Orleans is critical to the continued economic growth of the southeast Louisiana Super Region which includes more than 2.2 million people and nearly 1 million jobs. In order for this region to remain nationally and globally competitive, connectivity between the major population, employment, social and cultural centers must be enhanced. High-quality rail service can be a critical component of the transportation network connecting these two metropolitan areas.

It is expected that intercity passenger rail connecting Baton Rouge and New Orleans will also advance national transportation goals. This route is part of the Gulf Coast Corridor, one of the nation's eleven federally-designated high-speed rail corridors. The development of service between Baton Rouge and New Orleans will lead the way as the first step in the creation of a regional network of passenger rail service stretching from Houston through New Orleans to Mobile and Atlanta.

At the community level, it will connect Louisiana's most populous cities: the state capital of Baton Rouge and its world-famous seaport and tourist destination, New Orleans, and the growing parishes along the I-10 corridor. The new

### *Why do we need this service?*

- To increase the quality of life for residents and visitors
- To provide another way to get around to jobs and other destinations
- To attract new business
- To provide transportation alternatives
- To meet regional sustainability goals



service introduces a new transportation mode to a corridor that now relies solely on highways. It will expand travel capacity and modal choices for residents and visitors to the corridor, especially for those without access to personal vehicles.

### WHAT WILL SERVICE LOOK LIKE?

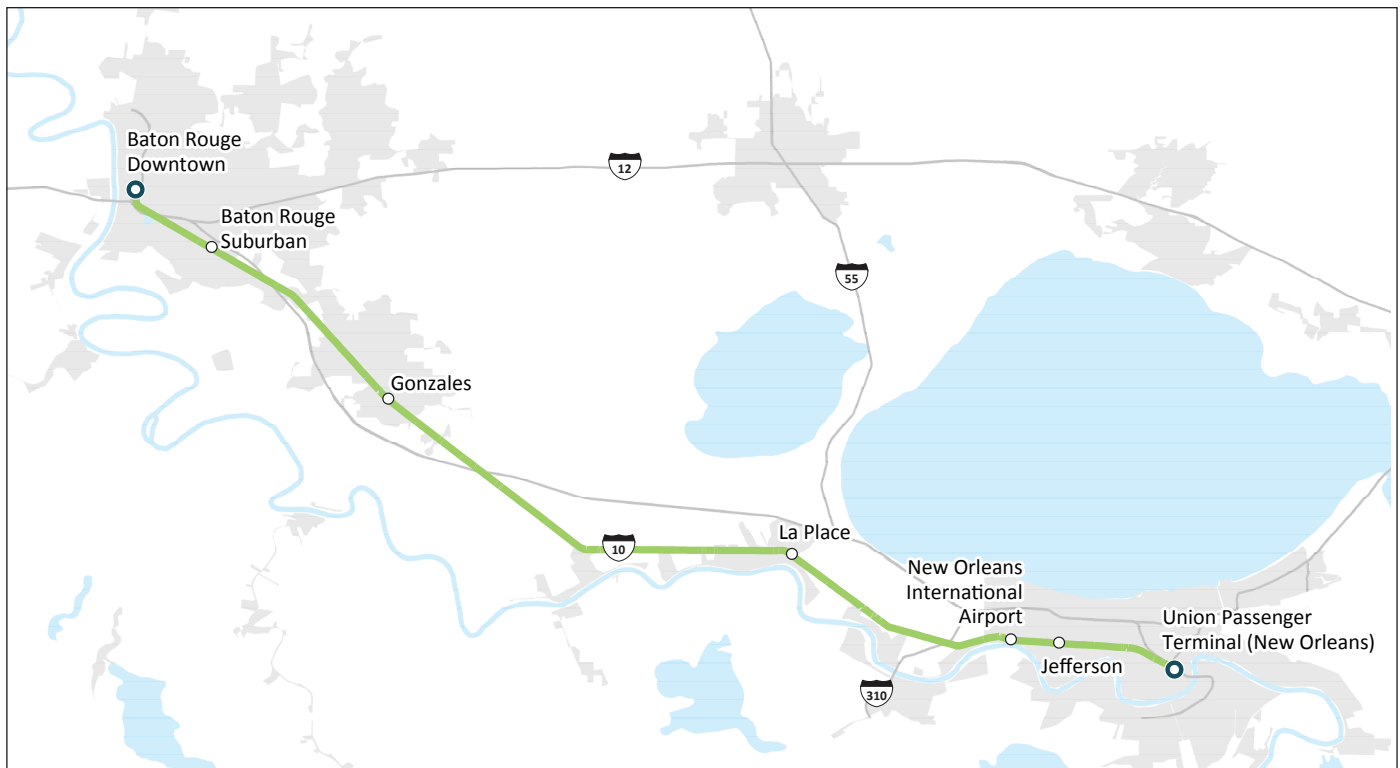
The Baton Rouge to New Orleans Passenger Rail Service is expected to be an attractive alternative for commuters going to work and for business and pleasure travelers to conveniently get between Baton Rouge and New Orleans. The proposed route and station locations are shown in **Figure 1**.

Initially, two daily round trips will travel at speeds of up to 79 mph. These trains will operate on existing freight rail lines owned and operated by

the Kansas City Southern Railway (KCS) and the Canadian National Railway (CN). As part of this plan, capital improvements will be made to the rail lines to ensure that the passenger trains can operate efficiently and reliably while maintaining and enhancing the capacity for the private railroad owners to operate and grow their freight business.

The freight transportation that these railroads provide is a key component of the region's economy serving the region's industries and businesses. Freight rail also plays an important role in reducing congestion, by providing an alternative transportation mode for cargo that would otherwise be shipped by truck.

Connections to the local transportation network are essential for the success of passenger rail



▲ Figure 1: Proposed Passenger Rail Corridor and Station Locations

service. This includes easy roadway access from major regional corridors, parking, readily-available transit service and bike and pedestrian facilities. The New Orleans Union Passenger Terminal (NOUPT) is served by the new Loyola streetcar and Greyhound bus service, and is connected to the city by a network of streets and sidewalks. Improved accessibility at other stations will be needed once passenger service is implemented.

Passenger amenities are important to make the service attractive and comfortable for users. Stations should provide a comfortable place to wait for the train to arrive. Modern train equipment with amenities such as wireless internet and comfortable seating would help people relax and be productive during their trip.

## WHAT BENEFITS WILL RAIL SERVICE PROVIDE?

Passenger rail service in the Baton Rouge to New Orleans corridor would provide a number of benefits and meet multiple goals set by the Department of Transportation in the Louisiana Statewide Transportation Plan<sup>1</sup> and the Regional Planning Commission's Metropolitan Transportation Plan<sup>2</sup> to improve the health and welfare of the area's population.

The total population of the parishes served by the proposed rail is close 1.4 million people. East Baton Rouge and Jefferson are the parishes

1 *Louisiana Statewide Transportation Plan*, Louisiana Department of Transportation and Development, <http://www.dotd.la.gov/study/>

2 *Metropolitan Transportation Plan: New Orleans Urbanized Area*, Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Tammany and Tangipahoa Parishes, [http://www.norpc.org/assets/pdf-documents/mtp\\_no\\_2040.pdf](http://www.norpc.org/assets/pdf-documents/mtp_no_2040.pdf)

*Passenger rail service* in the Baton Rouge to New Orleans corridor would provide a number of benefits:

- Safe and efficient transportation options
- Foundation for economic competitiveness and a healthy economy
- Energy efficiency and environmental quality
- Interconnected livable communities
- Evacuation

where most of the population is concentrated, each with over four hundred thousand citizens in 2008. They are followed by Orleans Parish with over three hundred thousand inhabitants and Ascension with more than one hundred thousand. Saint Charles and Saint John the Baptist Parish population is close to fifty thousand, while Saint James Parish population only reaches twenty thousand people.

### Safe and efficient transportation options

Rail service will fundamentally improve passenger transportation by providing a safe alternative form of transportation in the Baton Rouge to New Orleans corridor. It will also lay the groundwork for a future enhanced rail network connecting major destinations in the Gulf Coast Region. The rail improvements will also benefit freight rail service.

The proposed rail infrastructure improvements will ensure a reliable service with competitive trip times. People can travel in comfort as





▲ *Figure 2: By supporting the new rail travel mode, localities can concentrate and enhance development at station locations.*

passengers rather than drivers and be more productive during their trip. Passenger rail service provides an attractive transportation alternative to automobile travel in the congested I-10 corridor.

### **State of good repair**

The project will alleviate switching delays associated with the present track configuration. The current layout causes inefficiencies and undermines a state of good repair of equipment. The new track extensions will create more storage and reduce maintenance disruptions. It will allow the labor force to be more productive with its time. A state of good repair will help address system vulnerabilities, create a resilient transportation system and improve life cycle costs of all equipment.

### **Foundation for economic competitiveness and a healthy economy**

Providing another mode of transportation promotes the growth of a vigorous, durable and diverse marketplace and business community.

Rail service will provide access to the region's economic centers. Improved access to jobs and development opportunities at the stations will help serve the needs of regional and local commerce. Investment in the project will generate high-skilled construction and operating jobs, and can provide a market for the industries producing the components such as rail, control systems, locomotives and passenger cars.

Proposed improvements will enhance the economic competitiveness of the region over



**Table 1: Annual Attendance for Special Events in New Orleans**

Event	Estimated Attendance
<b>SPORTS</b>	
R+L Carriers New Orleans Bowl	40,000 to 50,000
Allstate Sugar Bowl	80,000 to 100,000
Zurich Classic PGA Tournament	100,000
Bayou Classic	100,000
<b>FESTIVALS</b>	
Mardi Gras	1.0 to 1.2 million
French Quarter Festival	400,000
Jazz and Heritage Festival	500,000 to 600,000
New Orleans Wine and Food Experience	40,000
Essence Music Festival	560,000
Voodoo Music Festival	250,000
Christmas New Orleans Style	40,000 to 50,000

the medium-and long-term by creating jobs and opportunities for low-income workers and people living in economically distressed areas. Enhancing rail service would also bolster the region's tourism sector, which is a major source of jobs with low educational and skills requirements, which can benefit the most disadvantaged members of the population.

Proposed upgrades to the system and associated increases in rail ridership will facilitate access to and from the neighborhoods surrounding the stations. Investment in these areas will leverage substantial public-private investment. For example,

underdeveloped and underutilized parcels along the Loyola Avenue corridor adjacent to the NOUPT are prime for office space, retail, commercial, residential and other uses. The Downtown Development District has calculated that underutilized parcels along Loyola can provide over 6 million square feet of residential property and 200,000 square feet of commercial space.<sup>3</sup>

Rail service will enhance access to the numerous tourist attractions and special events along the corridor. **Table 1** lists the attendance at some of the most popular events in New Orleans. All in all, there were an estimated 9.0 million visitors to New Orleans in 2012, with total visitor spending of \$6.2 billion. Tourism in New Orleans continues to grow and it is expected that by 2016 there will be 9.8 million visitors spending upwards of 6.9 billion annually. Baton Rouge tourist traffic trends typically correlate with New Orleans'. So, it is expected that as New Orleans improves, post-recession, so will Baton Rouge.<sup>4</sup>

Baton Rouge also has a growing petrochemical industry, with the second largest oil refinery in the country. The largest employer in the Baton Rouge area is government. This is the result of being the state capital and the location of Louisiana State University. Other areas of activity include medical research and the film industry (tax advantages have promoted the development of this activity).

Baton Rouge and New Orleans are major port

3 Bennett, Peter, "A Baseline for Downtown Transit Oriented Development: Planning for Success in the Loyola Corridor" (2011). *University of New Orleans Theses and Dissertations*. Paper 1418.

4 The University of New Orleans Hospitality Research Center. *Louisiana Tourism Forecast 2013-2016*. April 2013.



cities that can handle deepwater ocean tankers and cargo carriers that transfer their loads onto railroads and pipelines. These ports bookend the Port of South Louisiana and together these ports cover 172 miles on both banks of the Mississippi. They are significant to the economy of the nation with the South Louisiana Port ranking first in U.S. by total tons of cargo. New Orleans ranks fifth and Baton Rouge tenth.<sup>5</sup> The ports also support a number of passenger cruise vessels.

### **Energy efficiency and environmental quality**

Rail is an energy-efficient, environmentally-friendly mode of transportation that helps to encourage compact development and reduce parking demand.

### **Interconnected livable communities**

The availability of rail passenger transportation can promote higher-density development in the area surrounding stations. With proper planning, station areas can be developed to take advantage of local assets and opportunities and serve as a focus for regional and local growth patterns.

By supporting the new rail travel mode with complementary local transportation networks and mixed-use development, localities can concentrate and enhance development at station locations. This type of development respects environmental, historic and cultural resources and can help secure a sustainable future.

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5 United States Department of Transportation Research and Innovative Technology Administration. *Bureau of Transportation Statistics Table 1-57: Tonnage of Top 50 U.S. Water Ports, Ranked by Total Tons*. Accessed online 1/13/14.

### **Evacuation**

Due to the area's geographic location, the area is susceptible to major natural disasters. Hurricane Katrina and other recent storms have highlighted the need to develop strategies to safely and conveniently move large numbers of people out of the Greater New Orleans region when threats arise including ambulatory medical patients that can be moved to Baton Rouge area hospitals. Passenger trains can be a part of the solution.

The project corridor provides many positive characteristics in this respect. Easy access and convenience will encourage evacuees to move out sooner, minimizing the reluctance and indecision to get out. Trains have the ability to carry large numbers of persons and will help divert traffic out of the congested I-10 corridor. The Baton Rouge to New Orleans rail corridor will also provide direct access to the medical complex in East Baton Rouge, which includes Our Lady of the Lake and Baton Rouge General Hospitals.

### **IS THERE COMMUNITY SUPPORT FOR INTERCITY RAIL?**

One critical, ongoing task is the further development of a broad-based coalition advocating for the implementation of rail service. In recent years, organizations along the corridor have made tremendous progress in organizing to advance the discussion and keep the rail project at the forefront of the regional agenda.

It is necessary to understand and adopt the various visions for growth in the region and the role rail transportation plays to support those visions. As part of this study an extensive stakeholder outreach effort has been initiated to

identify and develop a broad range of support. Enthusiasm has been shown by stakeholders, who are primarily interested in the project's ability to provide transportation alternatives and serve as a catalyst for economic development.

During the course of this study the Project Management Team met with a wide variety of stakeholder groups to discuss the proposed rail service. See **Table 2** for a list of key stakeholder groups. Groups included municipal, parish and state elected officials; major employers;

community organizations and other individuals and organizations with a stake in the region's development. The Committee has solicited help from key stakeholders to get input on identifying the most effective station locations.

The Project Management Team will continue this collaborative approach with elected officials and key stakeholders to continue developing a broad base of support to move this rail service to implementation.

**Table 2: Key Stakeholder Participants**

<b>Project Management Team</b>	
New Orleans Regional Planning Commission	Baton Rouge Area Foundation
Capital Region Planning Commission	
<b>State and Local Officials</b>	
City of New Orleans	St. John Parish
City of Baton Rouge/East Baton Rouge Parish	East Baton Rouge Redevelopment Authority
Jefferson Parish	New Orleans Redevelopment Authority
Ascension Parish	New Orleans Building Corporation
St. Charles Parish	Louisiana Department of Transportation Development
<b>Regional Organizations</b>	
Louisiana Intrastate Rail Commission	Greater New Orleans Foundation
Southern High Speed Rail Commission	Transport for NOLA
Center for Planning Excellence	
<b>Business Organizations</b>	
Baton Rouge Area Chamber	Major employers
Greater New Orleans Inc.	
<b>Transportation Providers</b>	
Kansas City Southern (KCS)	Regional Transit Authority (RTA)
Canadian National (CN)	Capital Area Transit System (CATS)
New Orleans Union Passenger Terminal	Louis Armstrong New Orleans International Airport
National Railroad Passenger Corp. (Amtrak)	Baton Rouge Metropolitan Airport





# PROPOSED OPERATIONS

The National Railroad Passenger Corporation (Amtrak) is the operator of intercity passenger rail service in the United States. Under the Rail Passenger Service Act of 1970 (Public Law 91-518), Amtrak is guaranteed the right of access to all freight rail lines and is only required to pay for the incremental costs associated with their use of those tracks. The idea of bringing in a private operator who could provide high-quality service and control costs is attractive. But a private company would not have the guaranteed access rights that Amtrak enjoys and operations would have to be negotiated with the railroad owners of the corridor. It is likely that any negotiated access rights would cost significantly more than the rates that Amtrak pays. The freight railroads are opposed to having companies other than Amtrak operate on their lines because of liability and other concerns. This issue of selecting the operator will need to be addressed in more detail as the region moves towards implementation of service in the corridor.

If Amtrak becomes the operator for the Baton Rouge to New Orleans service, then Section 209 of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA) (Public Law 110-432) will control how Amtrak determines operating costs. The Act mandates a consistent cost-sharing methodology across all corridor routes of less than 750 miles in order to ensure fair and equitable treatment. Amtrak has developed an Agreed Methodology that assigns direct route

## *Rail Passenger Service Act of 1970 (Public Law 91-518)*

In 1970, the U.S. railroad industry was in a precarious financial condition. In response, Congress created the National Railroad Passenger Corporation (“Amtrak”) pursuant to the Rail Passenger Service Act of 1970. Amtrak was created to relieve the freight railroads of the continued burden of deficit passenger operations and “to revitalize rail transportation service in the expectation that the rendering of such service along certain corridors can be made a profitable commercial undertaking . . .”

In creating Amtrak, Congress sought to establish a single, for-profit corporate entity that, with initial Federal assistance, and with infrastructure, financial and other contributions from the freight railroads, would be responsible for providing all intercity rail passenger service over a unified national system.

*A Summary of Current Legislative Provisions Prescribing the Legal and Regulatory Framework Governing the National Railroad Passenger Corporation (Amtrak), Amtrak Reform Council, December 4, 2000.*



costs and a share of system-wide overhead costs to each corridor. This methodology was utilized to develop an operating cost estimate for the proposed initial service in the Baton Rouge to New Orleans Corridor.

### SERVICE LEVEL

The initial level of service for the Baton Rouge to New Orleans corridor is proposed to be two round trips per day operating 365 days per year. One morning and one evening trip would be provided in each direction. Maximum speeds would be 79 mph and the average speed would be between 50 to 55 mph. The difference between the maximum and average speeds results from station stops and other locations along the route where speeds are restricted. Trains would initially consist of a locomotive and three passenger cars, with a total capacity of approximately 240 seats. The trains would operate in a “push-pull” mode with a locomotive at one end and a cab control car or perhaps a second locomotive at the other end, allowing them to easily switch directions at the end of each trip.

### SCHEDULES

A Train Performance Calculator (TPC) was used to determine the unconstrained running times for service between Baton Rouge and New Orleans. With the improvements recommended in this study, the maximum operating speed for passenger trains can be increased to 79 mph on the majority of the route.

The estimated end-to-end travel time in the corridor, including five intermediate stops and pad time to allow for recovery from any delays, is 1 hour and 35 minutes. A sample schedule based

**Table 3: Sample Schedule**

<b>Southbound</b>	<b>Trip #1</b>	<b>Trip #2</b>
LV Baton Rouge	7:00 AM	5:00 PM
Baton Rouge Suburban	7:09 AM	5:09 PM
Gonzales	7:25 AM	5:25 PM
La Place	7:45 AM	5:45 PM
Kenner	8:00 AM	6:00 PM
Jefferson Parish	8:15 AM	6:15 PM
AR New Orleans	8:35 AM	6:35 PM
<b>Northbound</b>	<b>Trip #1</b>	<b>Trip #2</b>
LV New Orleans	7:00 AM	5:00 PM
Jefferson Parish	7:15 AM	5:15 PM
Kenner	7:25 AM	5:25 PM
La Place	7:40 AM	5:40 PM
Gonzales	8:00 AM	6:00 PM
Baton Rouge Suburban	8:18 AM	6:18 PM
AR Baton Rouge	8:35 AM	6:35 PM

on this running time, and assuming the proposed station locations described in the following section, is shown in Table 3.

### STATIONS

#### Regional and community analysis

A thorough analysis of the region and its component communities has been conducted by the Consultant Team. To maximize the benefits of passenger rail service, an ideal station location should:

- Be in close proximity to a diversity of residential and nonresidential land uses
- Provide direct access to regional and local amenities

- Maximize connectivity within the existing street grid
- Connect to a community's existing greenway system
- Contain land available for development
- Provide opportunities for place-making and community building

### Connecting to the Larger Community

A rail station serves as both a point of departure for local residents and a community's front door to visitors. Destinations within convenient walking distance (1/4-1/2 mile) of the rail station are easily accessible by rail passengers, but destinations in the greater community require alternative transportation options, such as buses, shuttles, taxis, streetcars, or car-share service. Station area planners should work with transit authorities or private companies to ensure that the needs of rail passengers are met by either public or private transportation services.

### Rail Station Neighborhood Fundamentals

At a minimum a rail station can function with simply a platform, ticket kiosk, and surface parking lot. However, a well-planned rail station can become a valuable community asset that integrates the rail station into the surrounding neighborhood with "complete streets," which accommodate vehicles, bicycles, and pedestrians. The station design can also encourage compact, diverse, pedestrian-oriented, community-based infill development near the station.

A local community can use a variety of regulatory tools to encourage this type of development, including overlay zoning districts, planned unit



▲ *Figure 3: A rail station can function with just a platform, ticket kiosk, and surface parking lot. However, a well-planned rail station can become a valuable community asset.*

development design guidelines, special tax districts, development bonuses, or transfers of development rights.

### Proposed Station Locations

There is a total of seven proposed stops along the Baton Rouge to New Orleans Intercity Rail Corridor (**Figure 1**). The study recommended specific locations for each of these stations and provides information on how the area around the station could be developed in order to take advantages of the economic activity created by the rail service.

Station location criteria included maximizing connectivity with the street grid, utilizing biking and pedestrian ways, leveraging connections to regional and local assets, maximizing land development potential for place-making and community-building.

The proposed locations of these stations are as follows:

#### Baton Rouge Downtown Station

The Baton Rouge - New Orleans Intercity



Passenger Rail Service Development Plan, which was produced for the Southern High-Speed Rail Commission in December 2010, identified a location between Main Street and Florida Street near the former Maison Blanche Department Store for the Downtown Baton Rouge terminal station.

Subsequent discussions with stakeholders in Baton Rouge have led to a recommendation to move the station location approximately one-half mile south near Government Street. This new site has the potential for greater redevelopment opportunities and provides more direct access to Baton Rouge central business district.

### **Baton Rouge Suburban Station**

The 2010 Service Development Plan recommended that a new station facility be constructed south of the Interstate 10/Bluebonnet Road interchange near the Mall of Louisiana in East Baton Rouge Parish. More recently it has been recommended that an alternative site be considered further north near Essen Lane where a station could provide better access to the Baton Rouge Medical Complex.

### **Gonzales**

This new station would be located on East Cornerview Street in Gonzales (Ascension Parish). This location is near the Gonzales City Hall and community pool. Concepts for a prototype for the Gonzales station area development are described in the following *Prototype Station Study*.

### **LaPlace**

Located in St. John the Baptist Parish, LaPlace is becoming a western suburb of the New Orleans metropolitan area. The proposed LaPlace station would be adjacent to the US 61/ US 51 intersection, west of Main Street.

### **Kenner Suburban Station (LANOIA)**

The Kenner Station will provide a direct connection between the rail corridor and the Louis Armstrong New Orleans International Airport (LANOIA). The airport is currently going through a master planning process to design a new terminal on the north side of the airport runways. Options to provide access between the proposed rail service and the new airport terminal are under consideration, and a specific location for the rail station will depend on the access and connectivity provided to the south side of the airport.

### **Jefferson Parish**

The 2010 Service Development Plan did not identify a station in Jefferson Parish; however, since the time that report was issued there has been a lot of interest expressed for a station stop that would serve the residents of the largest parish in the New Orleans metropolitan area.

Through discussions with the Parish and other key stakeholders, it has been determined that the preferred station location is in the vicinity of Zephyr Field on Airline Drive. This location would serve the baseball park and other key destinations, including the new Performing Arts Center and the New Orleans Saints' training facility, and it would provide convenient access for parish residents.

### **New Orleans Union Passenger Terminal (NOUPT)**

This is the existing Amtrak/Greyhound station located at 1001 Loyola Avenue, near the Superdome in Downtown New Orleans. The station has capacity for additional rail service and with the recent construction of the Loyola streetcar line has excellent connections to the Central Business District and the French Quarter.



## EQUIPMENT

The 2010 Service Development Plan included capital costs for new locomotives and passenger coaches that would be dedicated to service in the Baton Rouge to New Orleans corridor. This approach would allow the procurement of new trains customized for service in this corridor. This approach would require a large initial capital investment in equipment and a delay in service implementation of a year or more because of the long lead time needed for ordering equipment of this type.

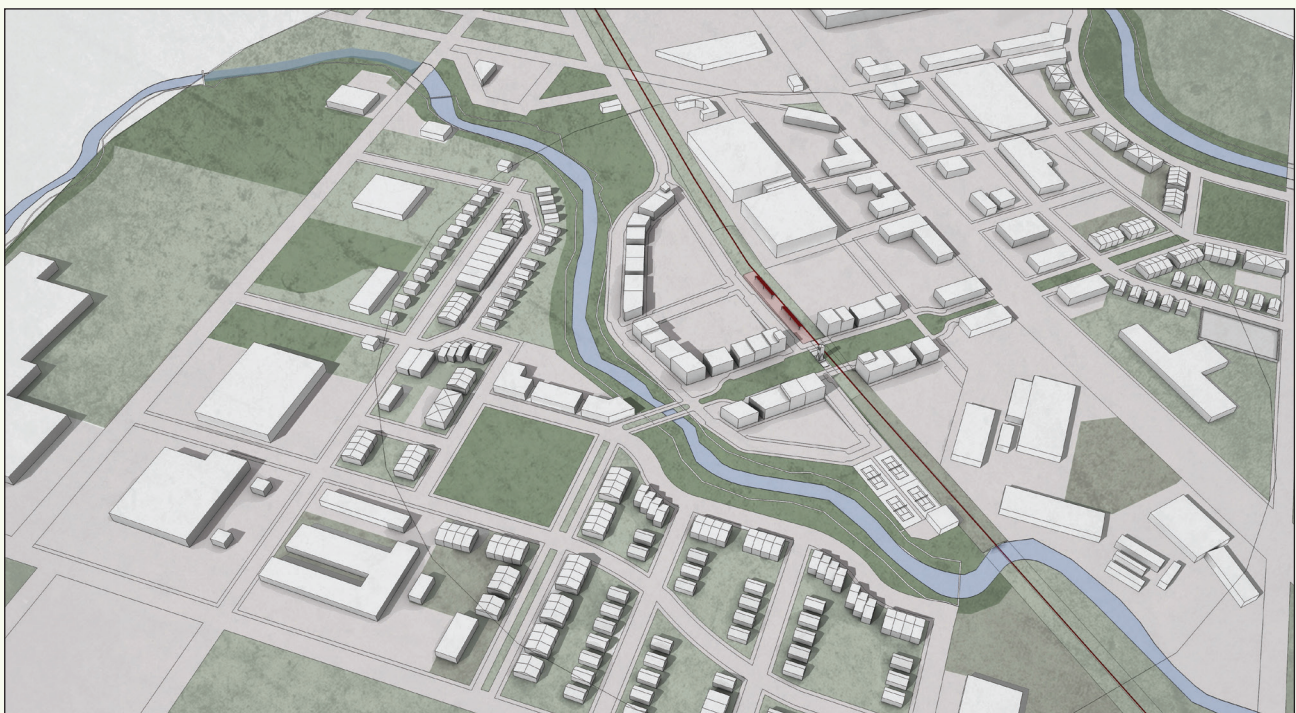
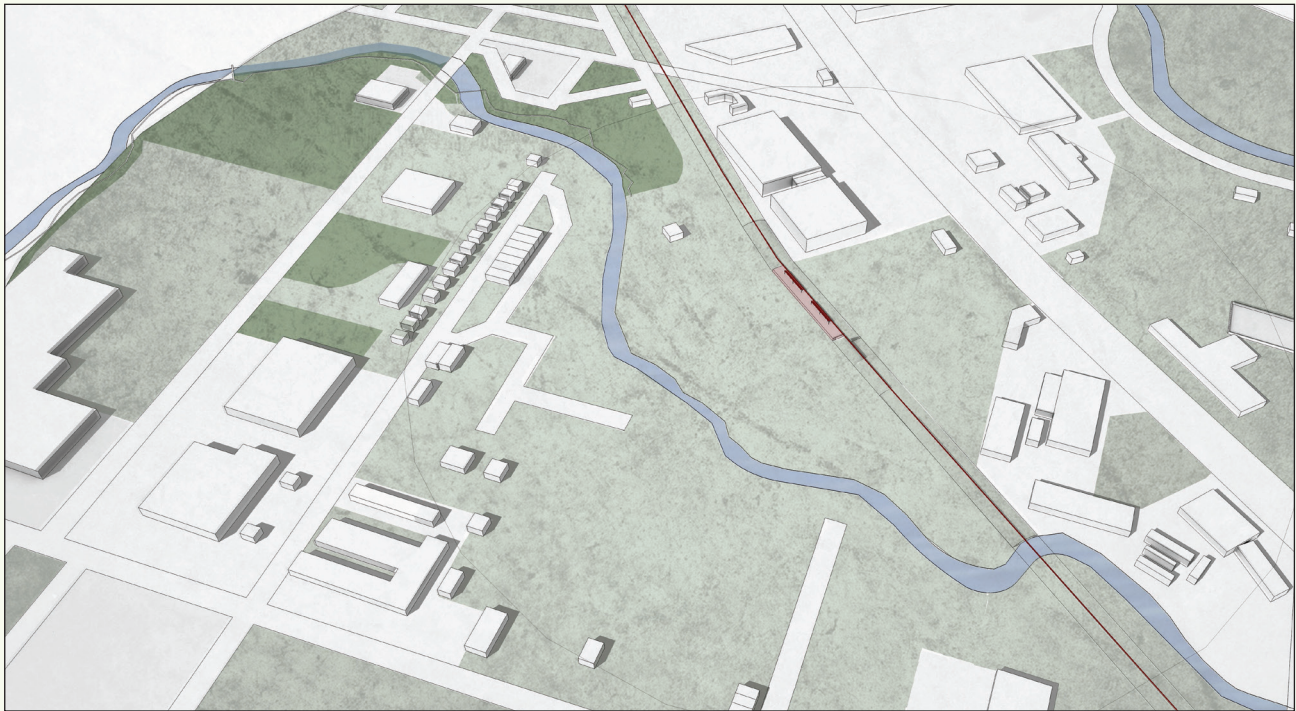
For the initial service level proposed here it is proposed that train equipment be leased

from Amtrak or another provider. Amtrak is currently working with several Midwestern states to complete a major procurement of locomotives and bi-level coaches. Once this new equipment is delivered some of the locomotives and single-level coaches currently being used on Midwest routes will be taken out of service. This equipment could be rehabilitated and made available for service between Baton Rouge and New Orleans. As ridership grows and service levels increase, it will be appropriate to consider purchasing new equipment for this corridor.



▲ *Figure 4: The existing Amtrak/Greyhound station, located near the Superdome in Downtown New Orleans, has capacity for additional rail service.*





▲ *Figure 5: Ascension Parish and Gonzales Station Area, Existing and Potential Full Build-Out*

## PROTOTYPE STATION STUDY - ASCENSION PARISH AND GONZALES

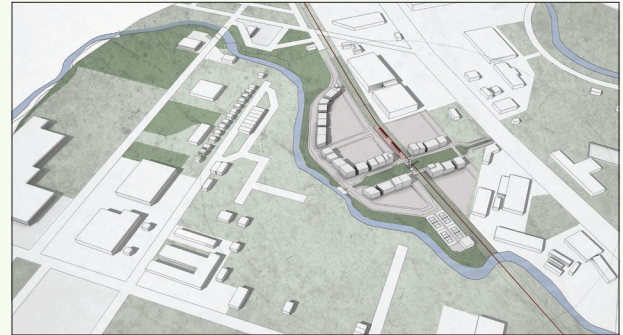
Ascension Parish is a community of 107,215 residents located in the southeastern portion of the greater Baton Rouge metropolitan area. A rail station has been proposed near Airline Highway in Gonzales, the largest incorporated city in the parish (population 9,781).

The parish contains a large chemical district along the Mississippi River that serves as an employment center for the greater Baton Rouge/New Orleans region. Passenger rail can bring value to Ascension Parish by connecting workers to the chemical district. Parish officials should work with major employers to provide convenient transit options such as shuttle service between the rail station and the chemical district.

The Gonzales rail station is proposed on a large area of vacant land between Airline Highway and Smith Bayou. Analysis of the area reveals that the surrounding neighborhood has a variety of land uses and potential for integration into the existing street network; is connected to a regional greenway system; and contains a large amount of developable land.

In Phase I, the portion of the site closest to the rail could be developed as a mixed-use core containing:

- A grand main street with two large public squares;
- 3-story mixed-use buildings containing retail, office, and residential;
- 2-story multi-family buildings;
- Preserved natural green space and hike-and-bike trails along Smith Bayou;
- Connection to nearby Airline Highway retail and Jambalaya Park;



▲ *Figure 6: Ascension Parish and Gonzales Station Area, Phase I Development*

- Pedestrian-scale development, including wide sidewalks, on-street parking, bicycle lanes, street trees, shallow setbacks, and bulb-out curbs;
- Discreet rear parking spaces, pick-up/drop-off lanes; and
- 64,000 square feet of commercial, 64,000 square feet of office, 370 residential units, and 1,333 parking spaces.

The potential full build-out shows how the almost 60 acres of vacant and under-utilized land can be repurposed as the core of a walkable neighborhood, including:

- A compact, mixed-use core alongside a diversity of housing types;
- Larger-scale commercial uses along Airline Highway;
- Several acres of public green space;
- Pedestrian blocks and buildings;
- Multi-modal access across the adjacent bayou, rail, and highway;
- An expanded network of complete streets and hike-and-bike trails





# CAPITAL IMPROVEMENTS

## APPROACH

This study proposes an incremental approach to implementing passenger rail service. The 2010 Service Development Plan presents a capital and operating plan for eight round trips per day with trains operating at a maximum speed of 110 mph at a cost of approximately \$448 million. While this level of service is still the long term goal, we are recommending an incremental approach to service implementation.

The proposed initial service would provide two round trips per day at speeds up to 79 mph. Once the service has been established and ridership levels grow, additional frequencies can be implemented. By following this incremental approach we have identified numerous capital

improvements that can be avoided or scaled back and we have estimated the cost for implementing start-up service to be approximately \$250 million.

The Baton Rouge to New Orleans rail corridor is 78.7 miles long and traverses tracks owned by three different railroads, as shown in **Table 4**. Improvements have been identified for each ownership section of the corridor. All costs are shown in 2013 dollars.

## SITE AND TRACK WORK

### Kansas City Southern Route Segment

As part of this study the Consultant Team developed a Capital Improvement Plan for initial

**Table 4: Rail Line Segments**

North End of Segment	South End of Segment	Owner	Segment Name	Operating Railroads	Length (miles)	
Baton Rouge MP 789.1	Frellsen Jct. MP 855.7	Kansas City Southern	New Orleans Subdivision	KCS	66.5	
Frellsen Jct. MP 443.5	Orleans Jct. MP 444.2	Canadian National	Baton Rouge Subdivision	CN, KCS	0.7	
Orleans Jct. MP 900.8	Southport Jct. MP 908.6	Canadian National	McComb Subdivision	CN, KCS, Amtrak	7.8	
Southport Jct. MP 3.7	NOUPT MP 0.0	New Orleans Building Corporation	New Orleans Union Passenger Terminal	Amtrak	3.7	
					<b>TOTAL</b>	<b>78.7</b>





▲ *Figure 7: Gates and flashing lights will be installed at all public grade crossings on the corridor.*

service. The proposed improvements include the replacement of 50% of the ties and resurfacing of all mainline and siding tracks to allow for an upgrade to Federal Railroad Administration (FRA) Class IV standards, which will accommodate passenger train speeds up to 79 mph.

Sidings at Gonzales, Gramercy, Norco and Frelson will be extended to allow trains to pass and to provide separate tracks to serve the major customers on KCS's line. The Gramercy siding will be extended to eight miles in length and will include intermediate crossovers to serve KCS's industrial customers in this area. A new 9,000-foot-long side will be built in the vicinity of Seigen Lane in East Baton Rouge, allowing trains entering the Baton Rouge Terminal area to meet and pass without blocking the Essen Lane grade crossing.

A Centralized Traffic Control (CTC) signal system will be installed on the entire KCS corridor and all hand-thrown turnouts will be replaced with power-operated turnouts. On the extended sidings, higher speed turnouts will be installed to allow for passenger trains to move through them at 30 mph.

### **Canadian National Route Segment**

The 2010 Service Development Plan proposes to double track the entire 8.5 miles of the CN Railway over which the Baton Rouge service would operate. Much of this route segment already has two tracks, and much of the work would involve realigning track and installing crossovers in order to minimize conflicts between passenger trains and freight trains, particularly with the freight movements associated with Mays Yard in Metairie.

For the purposes of this study, we have assumed the full cost of the CN track improvements identified in the 2010 Service Development Plan and adjusted them to 2013 dollars.

### **East Bridge Junction**

East Bridge Junction (EBJ) is a major interlocking connecting the KCS, CN, Union Pacific (UP), Burlington Northern Santa Fe (BNSF), CSX, Norfolk Southern and New Orleans Public Belt railways located just east of Mays Yard. The 2010 Service Development Plan included the cost of re-configuring this junction to allow increased speed for east-west freight movements and allow for the addition of passenger trains while reducing the levels of congestion.

For the purposes of this study, we have assumed the full cost of the track improvements at East Bridge Junction identified in the 2010 Service Development Plan and adjusted to 2013 dollars.

A capacity analysis conducted by CN as part of the 2010 Service Development Plan indicated that a flyover would be required at East Bridge Junction to separate the passenger trains from the freight trains at this congested location. The FRA recommended that rather than building a flyover, the junction could be reconfigured to increase the capacity and throughput.

The FRA-recommended improvements (and not the passenger train flyover) were included in the list of recommended improvements in the 2010 Service Development Plan. The FRA and the Louisiana Department of Transportation and Development (DOTD) are conducting The New Orleans Rail Gateway Environmental Impact Study (EIS) to identify rail and roadway improvements to improve rail traffic flow in

the region. The recommendations made in this study could have a big impact on East Bridge Junction. CN has indicated that they will need to conduct additional capacity analyses of their line to determine what improvements are needed to support passenger service.

### **Amtrak Route Segment**

The tracks leading into New Orleans Union Passenger Terminal are owned by the City of New Orleans and operated by Amtrak through an agreement between Amtrak and the New Orleans Building Corporation. The 2010 Service Development Plan includes double tracking the entire 3.7 mile Amtrak segment and making other upgrades to improve operations at the New Orleans Passenger Terminal.

For the purposes of this study, we have assumed the full cost of the track improvements to the Amtrak segment identified in the 2010 Service Development Plan and adjusted to 2013 dollars.

### **At-Grade Crossings**

The 2010 Service Development Plan identifies 124 at-grade crossings in the corridor. On the KCS route segment there are 107 crossings, with 90 public and 17 private vehicle crossings. On the CN segment there are 17 crossings including 11 public and two private vehicle crossings and four pedestrian crossings. There are no at-grade crossings on the Amtrak corridor segment. Slightly less than half of these crossings (42 vehicle crossings on KCS, five vehicle and four pedestrian crossings on CN) are currently protected with two-quadrant gates.

For the initial service the Capital Improvement Plan recommends upgrading all public crossings with two-quadrant gates and flashing lights. For



### *Rail Safety Improvement Act of 2008 (Public Law 110-432)*

In response to several fatal rail accidents between 2002 and 2008, Congress passed the Rail Safety Improvement Act of 2008 (RSIA), the first authorization of FRA's safety programs since 1994. RSIA directs FRA to, among other things, promulgate new safety regulations. These new regulations govern different areas related to railroad safety, such as hours of service requirements for railroad workers, positive train control implementation, standards for track inspections, certification of locomotive conductors, and safety at highway-rail grade crossings.

U.S. Department of Transportation, Federal Railroad Administration, [www.fra.dot.gov/Page/P0395](http://www.fra.dot.gov/Page/P0395)

those grade crossing locations that already have two-quadrant gates in place, the signal approaches will be modified to allow for adequate advance warning time for trains traveling at speeds up to 79 mph.

#### **Total Site and Track Work Costs**

A summary of the costs for the recommended site and track work capital improvements, broken down by railroad, is shown in **Table 5**.

## **STRUCTURES**

All of the bridge structures on the Baton Rouge to New Orleans passenger rail corridor are on the KCS segment of the route. As part of the 2010 Service Development Plan an engineering firm selected by KCS (Design Nine, Inc.) was brought in to conduct a full assessment of all of the bridges and other structures. Nearly all of the bridges on this section of the corridor are open deck timber structures. In order to eventually achieve 110 mph design operating speeds, Design Nine recommended replacing all timber bridges with ballasted deck concrete and steel structures.

Many of the bridges identified for replacement in the 2010 Service Development Plan are in locations where passenger trains could never achieve high speeds due to station stops, curvature, passing sidings and other physical and operations restrictions. In addition, several new bridges included by Design Nine for the Baton Rouge Yard Lead, Essen Siding and Barmen Siding extensions will not be needed because those extensions are not included in this initial service Capital Investment Plan.

Many of the remaining bridges on the KCS line are adequate for conventional passenger train operations. While repairs and upgrades may be necessary for some of these bridges, wholesale replacement is not required. The replacement of the longest bridge on the corridor, the 1.8-mile-long Bonnet Carré Spillway Bridge, is estimated to cost \$62.1 million in 2013 dollars. This is the largest single project proposed for the rail corridor, and it represents more than half of the total structure costs identified for the Baton Rouge to New Orleans Corridor.

This plan recommends the replacement of the Bonnet Carré Spillway Bridge and the construc-



tion of eight new bridges that are needed for the recommended siding extensions. We also include the cost of replacing 12 of the existing 56 bridges, repairing the remaining 44 bridges and replacing all of the drainage structures. The total estimated cost for structures is \$87.8 million.

## SIGNAL IMPROVEMENTS

The signal systems that control the operation of trains on the railroads over which the proposed service will run will also need to be upgraded. Each of the three railroad operators in this corridor has its own signal and control systems that are controlled from a centralized dispatch center.

The Rail Safety Improvement Act of 2008 (Public Law 110-432) mandates the implementation of a Positive Train Control (PTC) on Class I railroad main lines (i.e., lines with over 5 million gross tons annually) over which any poisonous- or toxic-by-inhalation (PIH/TIH) hazardous materials are transported; and on any railroad's main lines over which regularly scheduled passenger service is operated. KCS, CN and Amtrak have all submitted Positive Train Control Implementation Plans that indicate that the majority of the corridor will be equipped with interoperable PTC systems.

Only the 4.2 mile section of the CN McComb subdivision between Mays Yard and Southport Junction will not be equipped. It is assumed that all of the federally mandated PTC systems will be in place before any passenger service is initiated. Only the cost of installing PTC on the 4.2 miles of the CN line is included in this Capital Investment Plan.

### Kansas City Southern Route Segment

The KCS New Orleans Subdivision is controlled by an Automatic Block Signal (ABS) system. Train movements are authorized by Direct Traffic Control through voice communication with the KCS dispatching office in Kansas City, MO. We have included costs for replacing the KCS ABS system with an automated Centralized Traffic Control (CTC) system. The KCS signal costs include the installation of wayside signals and communications and modification of KCS's central dispatch control center. The total cost for these improvements is \$22.2 million.

### Canadian National Route Segment

The CN segments of the Baton Rouge to New Orleans corridor are controlled by a CTC system operated from the CN operations office in Homewood, IL. The cost estimate includes the installation of new signals to control the reconstructed EBJ Interlocking and associated control center modifications. The total cost for these improvements is \$3.1 million.

### Amtrak Route Segment

Because there is a CTC system already in place for the Amtrak segment, no additional improvements will be needed to the signal system to accommodate additional passenger trains coming from Baton Rouge. **Table 5** summarizes the signal costs for the entire Baton Rouge to New Orleans passenger rail corridor.

## STATION COSTS

A corridor-wide cost of \$1.5 million per station for the six new stations that will need to be constructed on the corridor, which includes the construction of a basic station facility including a platform, shelter and parking. Additional



**Table 5: Total Estimated Capital Costs**

Major Cost Item	Estimated Cost (\$ Millions 2013 Dollars)					TOTAL
	KCS	CN	East Bridge Junction	NOUPT	Corridor	
Site & Track Work	\$59.0	\$38.0	\$4.3	\$6.5		\$107.8
Grade crossings	\$10.8	\$1.8	\$0.0	\$0.0		\$12.6
Structures	\$87.8					\$87.8
Signals	\$23.2	\$3.8				\$29.0
Engineering & Management	\$12.8	\$3.1	\$0.3			\$16.2
Rolling Stock					\$0.0	\$0.0
Stations					\$9.0	\$9.0
<b>TOTAL</b>	<b>\$195.6</b>	<b>\$46.7</b>	<b>\$4.6</b>	<b>\$6.5</b>	<b>\$9.0</b>	<b>\$262.4</b>

enhancements, such as the construction of a signature terminal station in Baton Rouge, would require additional funds in each locality.

## SUMMARY OF CAPITAL COSTS

The total costs for the capital improvements needed to support the initial level of service operation are shown in **Table 5**. The estimates do not include the cost of procuring train equipment. The Consultant Team has assumed that the trainsets necessary to operate the initial level of service will be leased from Amtrak. The cost of that lease is included in the annual operating expenses.

## RAILROAD OWNERS ISSUES AND CONCERNS

The proposed passenger service would operate on tracks owned by two large national freight rail carriers, KCS and CN. These rail lines are critical components of each company's national

rail network and they play a critical role in the economy of the region. The American Association of Railroads (AAR) has established a set of principles to guide the development of passenger rail service on freight-owned corridors.

These principles focus on establishing a continuing partnership between freight and passenger railroads that ensures there is enough capacity for current and future rail service and that there is a regulatory and legal framework in place that protects the needs, and addresses the responsibilities, of all parties. The AAR principles include:

### Safety

Railroads are an extremely safe way to move people and freight, and everyone involved in railroading wants to keep it that way. That's why safety has to come first when it comes to passenger trains sharing track or rights-of-way with freight trains. Among other things, this means that in some cases – depending on train speeds and frequency, track standards, and other

factors – separate tracks for passenger and freight trains will be needed.

### **Access and capacity**

Passenger rail use of freight rail corridors should not compromise freight railroads' ability to serve present or future customers. On many freight rail corridors, current or potential future freight traffic levels are so high that there is no spare capacity for passenger trains. In these cases, new infrastructure must be added before passenger trains can operate. Passenger rail use should not prevent freight railroads from serving their existing and future customers.

### **Full compensation**

Freight railroads should not be expected to subsidize passenger railroads any more than firms that provide locomotives, fuel, or food for dining cars. If passenger trains use freight railroad assets or property, the host freight railroads should be fully and fairly compensated. For example, tracks on which passenger trains operate, particularly higher-speed trains, must meet different standards requiring significantly higher and more expensive maintenance than tracks on which freight trains operate.

Host freight railroads should be fully compensated for these and other costs associated with hosting passenger service. Moreover, railroads should not be subject to any new local, state, or federal tax liability as a result of a passenger rail project.

### **Adequate liability protection**

Despite railroads' best efforts to prevent them, accidents sometimes do occur. An accident involving passenger trains – which are generally far lighter than freight trains, often travel at higher speeds, and, most importantly, have passengers on board – is far more likely to involve significant casualties than an accident involving freight trains only. Passenger operations also bring more people onto railroad property, resulting in a corresponding increase in risk. That's why freight railroads require adequate protection from liability before they can agree to host passenger trains.

There is no one-size-fits-all approach. Each project involving passenger rail on freight-owned corridors has unique challenges and circumstances that should be evaluated on a case-by-case basis.





# OPERATING COSTS AND REVENUES

## APPROACH

Annual operating and maintenance costs have been calculated for the scenario in which the recommended capital improvements are in place and two round trips per day are operating at maximum speeds of 79 mph. The Amtrak Section 209 methodology was used to calculate direct operating costs and to assign a portion of overhead charges to the corridor operations. Key operating statistics for the initial level of service are shown in **Table 6**.

## ANNUAL O&M COST ESTIMATES

The estimated total annual operating and maintenance expenses for the proposed initial start-up passenger rail service in the Baton Rouge to New Orleans corridor are shown in **Table 7**.

## RIDERSHIP AND REVENUE FORECASTS

The 2010 Service Development Plan used the Federal Transit Administration's Aggregate Rail

Ridership Forecasting Model to develop ridership estimates for the corridor. This model is focused on identifying potential journey-to-work trips within the service area. Non-work trips such as shopping, health care, airport access and special events were estimated using a wide range of modal share assumptions. More than 90% of the 461,000 annual trips estimated for the initial service of 4 round trips per day were projected to be work trips.

Additional analysis of potential ridership was not in the scope of this current study; however, ridership estimates made for the 2010 Service Development Plan indicate that the projections of riders for non-work trips is very low and does not fully take into account the potential ridership that could be generated by business and pleasure trips. New Orleans hosts numerous major festivals and activities, such as Mardi Gras, the Sugar Bowl, NFL and NBA sporting events and the Jazz Festival, which attract a large number of visitors from the surrounding region. The state

**Table 6: Key Initial Service Operating Statistics**

Operating Statistic	Total Annual	Calculations
Annual Train Miles	113,800	78 miles/trip x 4 trips/day x 365 days
Total Car Miles	341,400	3 cars/train x 113,800 annual train miles
Train Hours	2,920	2 hours/trip x 4 trips/day x 365 days
Ridership	210,240	240 seats/train x 60% Load Factor x 4 trips/day x 365 days
Total Passenger Miles	13,140,000	219,000 passengers x 60 mile avg. trip length



government functions, the medical facilities in East Baton Rouge, and events at Louisiana State University will attract visitors to the northern terminus of the corridor. Many of these visitors would use rail for their travel if a viable passenger rail service were in place.

Since demand modeling was not part of this current feasibility study, a simple supply analysis was used to project ridership. It was assumed that on average, 60% of the seats made available will be filled by paying customers. This seat occupancy rate compares favorably with the ridership projections conducted as part of the 2010 Service Development Plan (which projected a 65% seat occupancy rate) and the experience of other similar passenger rail services.

Total annual revenues have been estimated based on a \$10 per trip average fare, which was utilized in the 2010 Service Development Plan. These revenues will offset the operating costs of the service and reduce the level of public subsidy that is needed. Annual ridership, revenue and operating subsidy estimates for the initial corridor service are shown in Table 8.

**Table 7: Estimated Start-up Annual Operating Expenses**

<b>Cost Category</b>	<b>Cost</b>
Host Railroad Payments	\$780,000
Maintenance of Equipment	\$1,770,000
Operations	\$1,980,000
Fuel	\$570,000
Sales & Marketing	\$390,000
Stations – Shared (NOUPT)	\$120,000
Administration	\$1,360,000
Insurance	\$150,000
Lease of Equipment	\$1,600,000
Police and Security	\$170,000
<b>TOTAL</b>	<b>\$8,890,000</b>

**Table 8: Annual Projected Ridership, Revenues and Operating Subsidy**

<b>Item</b>	<b>Annual Total</b>
Annual Ridership	210,000
Operating Expense	\$8,890,000
Annual Revenue @ \$10 per Trip	\$2,100,000
Net Annual Operating Subsidy	\$6,780,000

# POTENTIAL FUNDING SOURCES

Major transportation projects typically require multiple funding sources and multiple partnerships of key public agencies and private sector participants. While funding of any new transportation project is challenging, there are many potential funding sources for a passenger rail project. The establishment of funding and dedicated ongoing revenue streams will be critical for the project's viability and feasibility.

Funding will be needed to support both the initial capital investments and the ongoing operating and maintenance expenses associated with the passenger rail service. Historically, federal funds have been available to cover a significant portion of the capital expenses (typically 50% - 80% of the total cost of rail and transit projects). State and local funding will be required to provide a required match to any federal transportation grant. Revenues generated from passenger fares do help to pay for the cost of operating the service; but, intercity passenger rail service is generally not self-supporting. The annual operating subsidy requirement (total operating expenses less operating revenues) for the initial service is estimated to be \$6.7 million. The 2010 Service Development Plan estimates an annual subsidy requirement of \$17 million when the full eight round trips per day service is implemented.

It will therefore be necessary to generate a steady stream of revenue to support the ongoing operating costs. For Amtrak corridor services,

## *Rail Funding Options*

- Taxes
- Grants
- Fare box
- Value capture

## *Rail Financing Tools*

- Bonds
- TIFIA/RRIF
- P3s
- St Infra Bank (SIB)

passenger revenues typically cover 50% or more of the ongoing operating costs. Taxes are the most common source to fund the operating subsidy for rail projects. Tax sources are typically stable and can be very broad based.

There are also value capture options including the use of tools that harness the benefits created by rail development. The following summarizes ways to generate revenue for the project.

### **Taxes**

Potential sources of tax revenue include sales taxes, property taxes, motor fuels taxes and oth-



er taxes and fees. In Louisiana, sales and motor fuels taxes are established statewide. Localities have the option to create a local option sales tax in addition to the state tax rate. Property taxes are established at the jurisdiction level as well.

### Grants

There are a variety of federal and state funding programs that could potentially support development of rail transportation. Congress decides appropriation for each program and a measure of uncertainty exists with each subsequent transportation bill. Current possible federal funding sources include FHWA's Section 130 Grade Crossing Program, Surface Transportation Program, Traffic Mitigation project funding, the Congestion Mitigation and Air Quality Improvement Program, and the Passenger Rail Investment and Improvement Act funding.

Other grant possibilities include the TIGER discretionary grant program and FRA's High Speed and Intercity Passenger Rail Program. While many federal programs are in place, uncertainty remains with respect to how Congress decides to appropriate money for each program and the direction of the next transportation authorization bill.

### Fare box revenue

Fare Box revenues represent the direct user fees that riders of the rail system pay to utilize the service. User fees are not a tax and the user receives an immediate and direct benefit of the transportation asset in return for the fare. Fare levels are typically not set to recover the full operations cost of the asset and are instead priced to attract ridership. Since fare box revenues are not sufficient to cover operating costs, other revenue sources are required to fill the

### *What is value capture?*

Because well-planned transportation investments increase people's access to desirable destinations, locations near these investments command higher land prices, benefiting land owners and developers; studies of the Chicago region show a 10 percent to 20 percent increase in land values near transit stations. Value capture mechanisms are a type of public financing where increases in the private land values generated by public transportation investments are "captured" to repay the cost of the public investment. Using value capture mechanisms to finance new or existing transportation infrastructure connects the benefit of the infrastructure investment with the cost to provide it.

*Value capture case studies: What is value capture?, Metropolitan Planning Council, [www.metroplanning.org/news-events/article/6311](http://www.metroplanning.org/news-events/article/6311)*

operating subsidy. Historically, fare box revenues are utilized to offset operating costs and are not pledged to repay debt.

### Value capture

Value capture is an emerging tool used in infrastructure funding and finance as a way to harness the benefits created by rail development. Value capture techniques can take a variety of forms and include business or special assessment districts, tax increment financing, development impact fees, negotiated exactions, joint development, land value tax, air rights development, and others.



Numerous variations on the implementation of value capture techniques exist but most rely on extracting the value from a new “district” along the corridor or around the stations themselves. Public entities can assess impact fees, negotiate extractions or have the landowners in a special district vote to assess themselves a fee to support the development.

## FINANCING OPTIONS

Once the project’s funding and revenue potential has been analyzed, the next step is to translate these sources into upfront financing proceeds. The ultimate financing plan will likely utilize multiple types of debt and equity products to optimize the project’s revenues and produce the upfront proceeds to deliver the project.

### Bonds

Debt issuance by bonding is the most common financing tool for projects of this type. Bonds must have a revenue stream capable of meeting debt repayment requirements. Common bond types include:

- Sales tax bonds
- General obligation bonds (full faith and credit of the government)
- Revenue bonds (specific dedicated revenue source)
- Grant Application Notes (GANS) and Grant Anticipation Revenue Vehicles (GARVEE) issued against pledged federal funding
- Private Activity Bonds (PABs) (federally tax-exempt bonds used to finance the activi-

ties of private firms)

Congress introduced private activity bonding eligibility for transportation projects through the amendment of Section 142 of the Internal Revenue Code. SAFETEA-LU added PAB eligibility for highway and freight transfer facilities (including highway-rail transfer). Mass transit projects and high speed rail facilities (over 150 mph) were already eligible for PABs, up to a \$15 billion limit for transportation-related PABs.

### TIFIA/RRIF

The Transportation Infrastructure Finance and Innovation Act (TIFIA) and Railroad Rehabilitation and Improvement Financing (RRIF) are similar federal credit assistance programs that allow eligible projects to receive flexible and low-cost loans. Qualified projects must submit applications and compete for loan awards, but each program is currently adequately funded to provide loans. Both loan projects have a final term of 35 years and the interest rate is based on the 30-year Treasury rate.

### Public/private partnerships

Public/private partnership (P3) funding can provide value by transferring risk and minimizing public subsidies. The private equity component can provide a funding boost and serve as a local match for federal funding. By using strategies such as an Availability Payment Structure where the public owner pledges a steady revenue stream for long term annual payments, P3s can secure upfront financing and accelerate project delivery .

### State Infrastructure Bank

Many states utilize a State Infrastructure Bank (SIB) to help finance infrastructure projects. SIBs



are usually capitalized at the state level and offer low-cost loans for key projects.

SIBs can allow projects that do not typically qualify for bonds an additional financing option, can work in tandem with bonding programs, and can offer credit assistance (in the form of reserve or liquidity funds) to enhance a financing. Since SIBs are a governmental entity and do not have the same goals as debt investors, SIBs can act as a patient lender and strategically invest in economic development or priority projects.

## FINANCIAL CHALLENGES

Clearly the biggest challenge to implementing passenger rail service is finding adequate sustainable revenue sources to pay for the initial capital investment and the ongoing operating and maintenance expenses. A variety of federal, state, local and private resources will be needed for this project. Innovative financing techniques and public-private partnerships can help to reduce the initial capital investments, but stable revenue sources will be needed to repay any debt incurred.

## NEXT STEPS

It is clear that there is strong regional support for the implementation of passenger rail service in the corridor connecting Baton Rouge and New Orleans. Reliable and convenient rail service can provide an attractive transportation alternative for residents and visitors and help support economic growth of the region. The challenge is to focus this broad support into actions that will lead to the implementation of service. Key actions that must be taken in the near term include:

### **Identify a lead organization to continue work to advance the rail corridor project**

This feasibility study is being led by a regional coalition consisting of the New Orleans Regional Planning Commission, the Capital Planning Commission and the Baton Rouge Area Foundation. This coalition remains committed to this project and will lead the project into the next phase. Ultimately other organizations including the Louisiana Intrastate Rail Compact, the Southern Rail Commission and the Louisiana Department



▲ *Figure 7: Reliable and convenient rail service can provide an attractive transportation alternative for residents and visitors and help support economic growth of the region.*



of Transportation and Development will need to play a significant role in service implementation.

### **Pursue federal funding sources for the initial capital investments**

The current transportation (MAP-21) and passenger rail (PRIIA) bills expire in 2014 and Congress will have to create new authorizing legislation to continue these programs. The Baton Rouge/ New Orleans Super Region must work with their legislators to ensure that the next transportation bill includes programs to fund intercity passenger rail projects. Advocates from the region should work with representatives from the rest of Louisiana and from other states with interest in passenger rail service to create an adequate long-term funding program.

### **Encourage targeted investments in the rail corridor through the use of existing programs**

There are opportunities to fund improvements to the Baton Rouge to New Orleans rail corridor that will benefit current rail and highway operations and help set the stage for future passenger service. Grade crossing improvements should be targeted on the corridor and be based in part on the future passenger service. The New Orleans Rail Gateway project, which is focused on improving the movement of freight through the metropolitan area, should include accommodations for future passenger trains.

Major roadway projects that cross the railroad, such as the Essen Lane widening project in Baton Rouge should plan for future rail service as well.

### **Develop consensus on station locations**

Working with stakeholders, local officials, businesses and community-members, station

locations and general design concepts need to be developed. This may involve coordinating with existing planning efforts to incorporate station plans.

### **Baton Rouge Redevelopment Authority**

The Baton Rouge Redevelopment Authority owns a large amount of property in the area of the proposed Government Street station and is working on a development plan. The passenger rail coalition should continue to work with the Redevelopment Authority to make the rail station an integral part of the redevelopment of the neighborhood.

### **South Medical District**

The South Medical District in Baton Rouge is currently preparing a comprehensive plan that is expected to address traffic and mobility issues and allow the workforce and patients to access the facilities. A station location could be a part of the solution.

### **Ascension Parish**

Ascension Parish has suggested alternative locations for a station along Airline Highway that could provide more direct access to major residential and employment centers. The coalition should continue to work with the Parish to explore options and develop a vision for a station.

### **Louis Armstrong New Orleans International Airport**

Louis Armstrong New Orleans International Airport is currently relocating their terminal from the south side of the airport to the north side. Planning for passenger circulation between the terminal and the future rail line should be included in the master plan.



▲ *Figure 8: The single track Bonnet Carré Spillway Bridge, with its 10 mph speed limit, is a major impediment to the growth of the freight traffic on the rail line.*

### Jefferson Parish

Jefferson Parish has an interest in developing a station in the vicinity of Zephyr Field. The coalition should continue to work with the Parish to identify a station location and to provide for connectivity to nearby cultural, employment and residential centers.

### Explore strategies for funding the replacement of the Bonnet Carré Spillway Bridge

The replacement of the Bonnet Carré Spillway Bridge is the largest single project in the proposed capital improvement program, accounting for nearly one quarter of the total cost. This single track bridge with its 10 mph speed limit is a major impediment to the growth of the freight traffic on the rail line. The coalition should work with Kansas City Southern Railway, the Corps of Engineers, and other interested parties to come

up with strategies for funding replacement of this bridge through the Transportation Investment Generating Economic Recovery (TIGER) Grant Program or another available funding program.

### Initiate Environmental Documentation

The National Environmental Policy Act (NEPA) requires the evaluation and documentation of the environmental effects of a federally funded project. Given the critical importance of the replacement of the Bonnet Carré Spillway Bridge and the fact that this project would have independent utility by enhancing the movement of freight traffic in the New Orleans region, a logical first step would be to initiate the NEPA process for this project. The completion of NEPA documentation for the Bonnet Carré Spillway Bridge replacement would position that for funding



through TIGER or other federal grant programs. The completion of this complex project-specific NEPA document will also simplify the level of documentation needed to obtain environmental clearance for the entire corridor.

### **Continue development of stakeholder and public support**

Developing a broad level of support for this project is essential to help lead the elected officials towards providing dedicated sources of funding to support the operation of passenger rail service in this corridor. The coalition will continue to maintain the high visibility of this project and encourage other groups to become active advocates for service.

### **ROLE OF LOUISIANA INTRASTATE RAIL COMPACT**

In 2010 the Louisiana legislature passed, and the governor signed into law, Act 858 which authorizes the creation of a Louisiana Intrastate Rail Compact. The Act creates the mechanism whereby two or more parishes or municipalities can form a quasi-governmental entity that could identify and generate alternative sources of revenue for financing improvements to the state's rail and transit ways. The boundaries of the Compact would be coextensive with the territorial boundaries of each respective municipality that becomes a member of the Compact.

The Rail Compact serves as the governing body responsible for all aspects of implementing and operating an intercity rail project. Initially this responsibility includes creating bylaws, hiring staff, identifying funding and financing opportunities, identifying best practices, studying comparable commuter rail systems, initiating

detailed station area planning and coordinating with the various public entities involved with the project such as DOTD, MPOs, RTAs and chambers of commerce. The Compact is charged with thinking strategically about the opportunities to align public, private and non-profit resources to reap the benefits of development near stations. The Compact also has the authority to negotiate with a passenger rail operator such as Amtrak and negotiate with the freight railroad owners to share track usage.

The City of New Orleans, the Baton Rouge/East Baton Rouge City-Parish, Ascension Parish and Jefferson Parish have appointed members to the Compact, and an organizational meeting was held on October 2, 2013, in Gonzales. The Compact is poised to take a key role in leading the development of passenger rail service in the Baton Rouge to New Orleans corridor.

### **ROLE OF SOUTHERN RAIL COMMISSION**

The Southern Rail Commission is a multi-state compact with membership from Louisiana, Mississippi, and Alabama. Originally called the Louisiana - Mississippi - Alabama Rapid Rail Transit Commission, it was created as an interstate compact in 1982 by an Act of Congress. The Commission has conducted numerous studies of the feasibility of passenger rail service in the Gulf Coast Region, and was instrumental in the implementation of the Gulf Coast Limited, which provided daily service between Mobile and New Orleans during the 1984 Louisiana World Exhibition.

The Commission (which has changed its name several times since its creation) continues to work for improved and additional rail passenger service in the tri-state area as adequate funds

### *What is the NEPA process?*

Major transportation projects can affect a community and its environment. The National Environmental Policy Act (NEPA) seeks to balance the need to develop infrastructure with the protection of the environment. NEPA requires federal agencies to understand the social and environmental impacts of projects before decisions are made.

Through the NEPA process, FRA will analyze and fully disclose the project's potential impacts in a document that can be reviewed and commented on by the public and government agencies.

Other regulations also play into the transportation decision-making process. They cover such concerns as civil rights and social justice, historic preservation, air and water quality, and park and habitat protection. These laws will be addressed concurrently with the NEPA process.

There are three basic levels of analysis available in the NEPA process:

- Categorical Exclusions (CE) are actions that do not have a significant effect. They are excluded from the requirement to prepare an EA or EIS. Minor rail improvements within existing rail rights-of-way typically qualify as a CE.
- Environmental Assessments (EA) are completed when a project's environmental impacts are expected to be minimal. The outcome is typically a Finding of No Significant Impact (FONSI).
- Environmental Impact Statements (EIS) are required when significant impacts are expected. An EIS identifies all potential impacts.

The FRA has established a tiered approach to EIS's in long corridors where substantial improvements are needed.

The Tier 1 EIS addresses broader questions relating to the type of service, route, station location, service levels and types of operation. The Tier 2 EIS is a site specific review appropriate to make a decision on implementing a particular project.

become available through local, state and federal sources. Capital and study projects on the Gulf Coast High Speed Rail Corridor, which includes the Baton Rouge to New Orleans route, are the

primary focus of the Commission in its efforts to expand rail passenger service in and around the tri-state area and beyond.

