TALLEYRAND CONNECTOR

Removing obstacles to goods movement in North Florida's international gateway to trade

U.S. Department of Transportation
Office of the Secretary of Transportation
Docket No. DOT–OST–2017–0090

Funding Opportunity for the Department of Transportation's Nationally Significant Freight and Highway Projects (INFRA Grants) for Fiscal Years 2017 and 2018

November 2, 2017

INFRA Grant Application Summary

Was an INFRA application for this project submitted previously?	No
If yes, what was the name of the project in the previous application?	
Previously Incurred Project Cost	$0
Future Eligible Project Cost	$48,000,000
Total Project Cost (This should be the sum of the previous two rows)	$48,000,000
INFRA Request	**$23,000,000**
Total Federal Funding (including INFRA) $	$23,000,000
Are matching funds restricted to a specific project component? If so, which one?	No
Is the project or a portion of the project currently located on National Highway Freight Network?	No
Is the project or a portion of the project located on the NHS?	Yes
o Does the project add capacity to the Interstate system?	No
o Is the project in a national scenic area?	No
Do the project components include a railway-highway grade crossing or grade separation project?	No
If so, please include the grade crossing ID.	
Do the project components include an intermodal or freight rail project, or freight project within the boundaries of a public or private freight rail, water (including ports), or intermodal facility?	No
If answered yes to either of the two component questions above, how much of requested INFRA funds will be spent on each of these projects components?	NA
State(s) in which project is located	Florida
Small or large project	Small
Urbanized Area in which project is located, if applicable	Jacksonville
Population of Urbanized Area	1.15M
Is the project currently programmed in the:	
o TIP	No
o STIP	No
o MPO Long Range Transportation Plan	Yes
o State Long Range Transportation Plan	N/A
o State Freight Plan	No
If selected, would you be interested in participating in a new environmental review and permitting approach	Yes

Executive Summary

The Florida Department of Transportation (FDOT) in cooperation with the City of Jacksonville, Jacksonville Port Authority (JAXPORT), and Jacksonville Transportation Authority (JTA), is pleased to submit this grant application requesting $23 million in INFRA funding for the Talleyrand Connector in Jacksonville, Florida. **The Talleyrand Connector will remove obstacles to goods movement in Northeast Florida's international gateway to trade.** The Talleyrand Connector proposes to remove and reconfigure the existing Hart Expressway (National Highway System facility) elevated ramp from A. Philip Randolph Boulevard to Festival Park Avenue, providing; 1) new freight access to the Talleyrand Port District; 2) freight and vehicle congestion relief along multiple points of the Hart Expressway; and 3) improved connectivity to eastern downtown Jacksonville. The Talleyrand Connector is the final piece of a larger initiative to improve freight access in Northeast Florida.

By virtue of its geography and robust freight infrastructure network, Jacksonville is a logistics hub and gateway to the southeastern United States. Improving freight flow at this location benefits freight traveling to, from and through Northeast Florida to and from the southeastern United States and internationally via the Talleyrand Port District at the Port of Jacksonville.

The FDOT and the City of Jacksonville are committed to providing $25 million in matching funds for the $48 million project.

Summary of Benefits

MERIT CRITERIA	HOW CRITERIA ARE MET
Support for National or Regional Economic Vitality	• Eliminates a freight bottleneck on the freight corridor connecting I-95 and the Talleyrand Port District. This freight corridor is used to move goods throughout the southeast U.S. and internationally via the Port of Jacksonville. • Preserves Northeast Florida's working waterfronts dependent on deep water, rail, and highway access. • Supports opportunities for port redevelopment and expansion.
Leveraging of Federal Funding	• Leverages $95 million of recently expended and committed Federal and State investments on this freight corridor.
Potential for Innovation	• Utilizes FDOT's environmental streamlining measures including NEPA delegation and State-wide Environmental Project Tracker. • Completes Intelligent Transportation System (ITS) infrastructure on this freight corridor which is centrally managed at the state-of-the-art Regional Transportation Management Center (RTMC).
Performance and Accountability	• Proposes to condition funding on the timely start of design build procurement in January 2019 which allows for construction to begin in January 2020.

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Talleyrand Connector Website

The Florida Department of Transportation has prepared a website link for the Talleyrand Connector project which includes a link to the application narrative and the application appendices including the Benefit-Cost Analysis supplementary documentation, a detailed project schedule, letters of support, and the SF 424 form. The website location is: http://fdotd2crossdock.com/infragrant.html.

1.0 Project Description

The Florida Department of Transportation (FDOT) in cooperation with the City of Jacksonville, Jacksonville Port Authority (JAXPORT), and Jacksonville Transportation Authority (JTA), is pleased to submit this grant application requesting $23 million in INFRA funding for the Talleyrand Connector in Jacksonville, Florida. The Talleyrand Connector will remove obstacles to goods movement in Northeast Florida's international gateway to trade. The Talleyrand Connector proposes to remove and reconfigure the existing Hart Expressway (SR 228) elevated ramp from A. Philip Randolph Boulevard to Festival Park Avenue, providing; ***1) new freight access to the Talleyrand Port District; 2) freight and vehicle congestion relief along multiple points of the Hart Expressway; and 3) improved connectivity to eastern downtown Jacksonville.*** The FDOT and the City of Jacksonville are committed to providing $25 million in matching funds for the $48 million project.

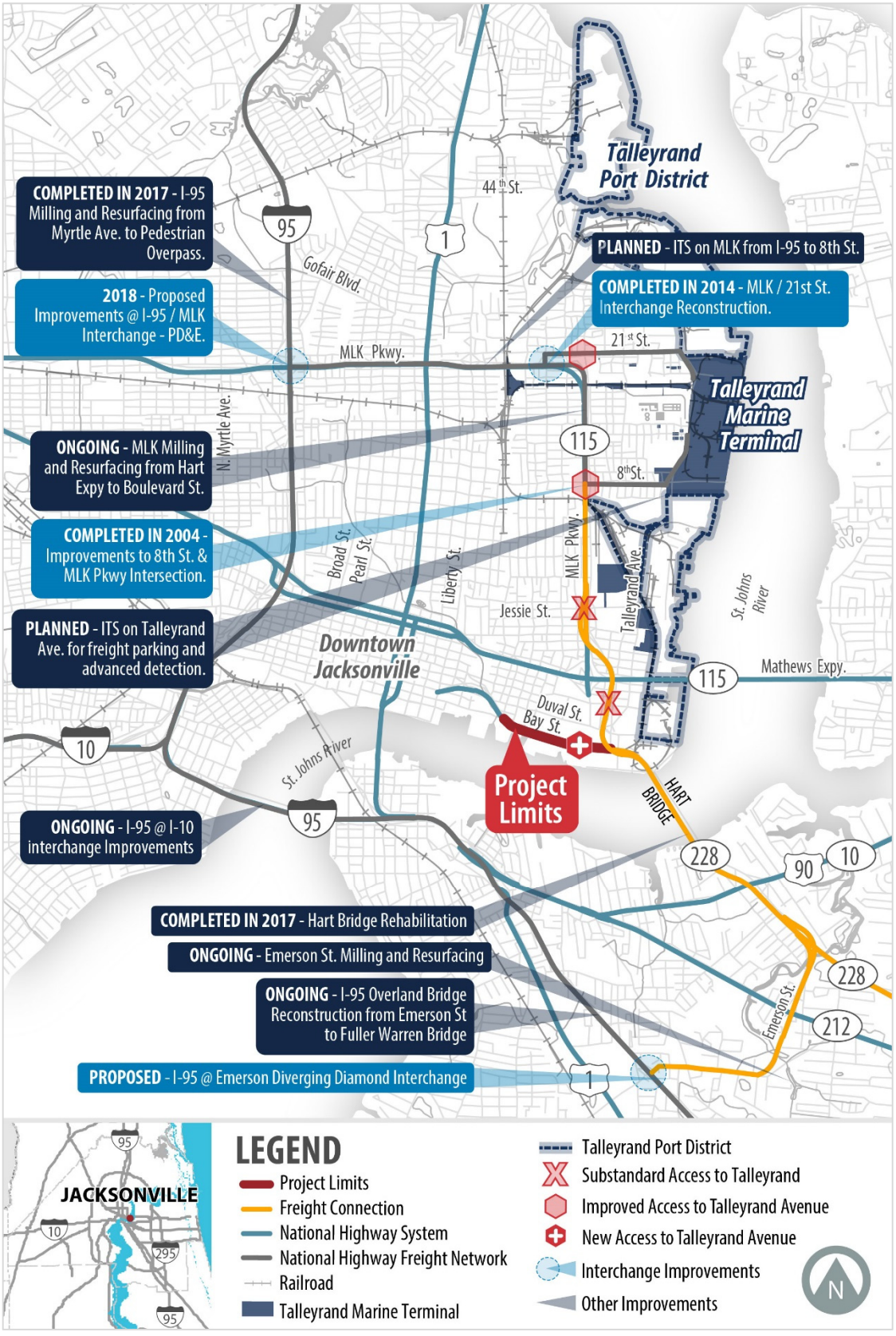
The Talleyrand Connector is part of a larger freight initiative to improve freight access in Northeast Florida by improving freight connectivity to and from the Interstate 95 (I-95) system (See **Figure 1**). The corridor connecting I-95 and the Talleyrand Port District has been a focus area for FDOT because of the economic importance of the port and because the infrastructure supporting the port is outdated, leading to congestion and inefficiencies in freight flow. In response, FDOT has recently completed numerous improvements along the corridor including the Martin Luther King (MLK) Parkway / 21st Street interchange, the MLK Parkway / 8th Street intersection, and the Emerson Street / I-95 interchange. Improvements to the I-95 / MLK Parkway interchange and installment of Intelligent Transportation Systems (ITS) on MLK Parkway from I-95 to 8th Street and on Talleyrand Avenue are also planned. These improvements facilitate safer freight movement to and from the northern portion of the Talleyrand Port District. The southern portion of the Talleyrand Port District accesses the Hart Expressway via Duval Street or Haines / Jessie Street, which have design deficiencies causing unsafe truck movements and bottlenecks during peak hours. The Talleyrand Connector is the final piece of this important freight connection between the Hart Expressway and Talleyrand Port District and other freight terminals in eastern Jacksonville.

GOAL: The Talleyrand Connector will remove obstacles to goods movement in Northeast Florida's international gateway to trade

The Hart Expressway, which is part of the National Highway System (NHS) and is designated by FDOT as a freight connector (Northeast Florida Freight Movement Study, 2017), serves as the preferred route for trucks traveling on I-95 from south Florida to/from the Talleyrand Port District. The percentage of freight trucks on the Hart Expressway varies between 11.6% and 13.4% (FDOT 2016 traffic counts).

The Hart Expressway is a four-lane facility (two-lanes each direction) with a southern terminus located just east of the I-95/Emerson Street interchange. From there, the facility extends northwest, crossing the St. Johns River. One lane of the facility then continues north, transitioning into MLK Parkway (also on the NHS) and a second lane continues west into downtown Jacksonville, where it stays elevated for approximately one-mile, bypassing Maxwell House (coffee plant), and transitions into two-lanes before terminating at-grade at Liberty Street. The elevated segment of the Hart Expressway parallels Bay Street/Gator Bowl Boulevard which is an at-grade four-lane arterial. The limits of the proposed Talleyrand Connector improvements extend along the elevated portions of the Hart Expressway between Festival Park Avenue and Liberty Street and includes the at-grade Bay Street.

Figure 1: Project Location

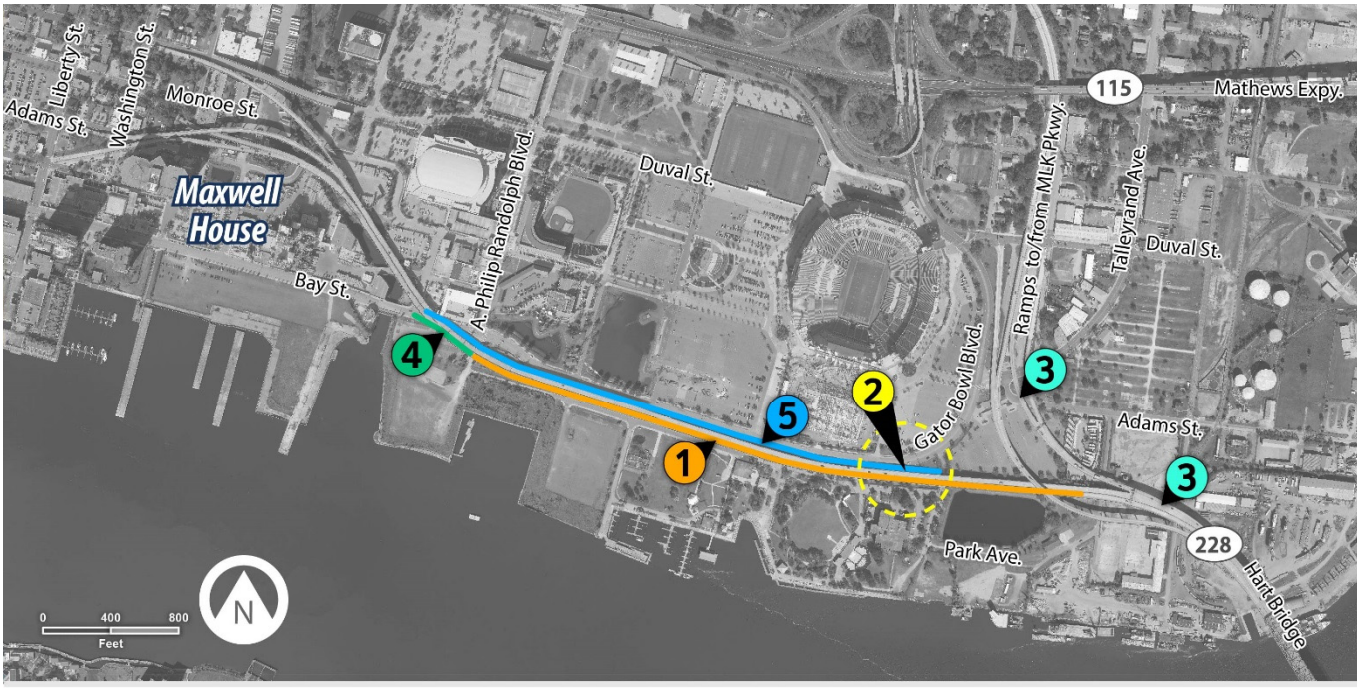


Project Improvements

The Talleyrand Connector consists of five major improvements including the following (see **Figure 2**):

1. ***Remove the elevated Hart Expressway ramps*** to Liberty Street between A. Philip Randolph Boulevard and Festival Park Avenue;
2. ***Construct a new signalized intersection*** at Bay Street/Gator Bowl Boulevard with a free flow ramp from the Hart Expressway to Talleyrand Avenue and turning radius designed to accommodate 62-foot trucks. Includes a new bridge over Festival Park Avenue and roadway on retained fill down to the Bay Street/Gator Bowl Boulevard intersection;
3. ***Install Intelligent Transportation Systems (ITS)*** for trucks traveling from the Hart Expressway to the Talleyrand Port District which will connect to the Regional Transportation Management Center. A minimum of six (6) cantilever dynamic messaging signs will direct traffic traveling to/from I-95 from the south and north;
4. ***Improve the existing signalized intersection*** at A. Philip Randolph Boulevard / Bay Street. Includes extending A. Philip Randolph Boulevard to the St. Johns River, and constructing a new loop ramp over A. Philip Randolph Boulevard to Bay Street; and
5. ***Widen Bay Street from 4 to 6 lanes*** with left turn lanes servicing Everbank Field and include a raised, landscaped median. Includes the re-routing of Bay Street eastbound around the proposed west loop ramp connection to A. Philip Randolph. Bay Street within these limits will have NHS designation.

Figure 2: Project Improvements



Project Benefits

The Talleyrand Connector will provide significant benefits to Northeast Florida and the southeastern U.S. A summary of the project outcomes and benefits are described below and in **Table 1** and discussed in more detail in **Section 5**.

- ***Improves freight flow*** and accessibility to the Talleyrand Port District by adding a new access point with a free flow turning movement, completing the overall program for access upgrades on this freight corridor;
- ***Provides safety*** and way-finding improvements for freight turning movements by installing ITS and dynamic messaging signs, and by providing an access point at the southern end of the Talleyrand Port District designed with appropriate turning radii for freight trucks;
- ***Relieves congestion*** along Hart Expressway during the AM and PM peak periods and along Bay Street during special events by adding 1,350 vehicles per hour of capacity;
- ***Preserves North Florida's working waterfronts*** dependent on deep water, rail, and highway access in order to protect waterborne trade and intermodal freight movement;
- ***Supports opportunities for port redevelopment and expansion*** by enhancing infrastructure and freight flow; and
- ***Improves connectivity*** to eastern downtown Jacksonville by bringing the Hart Expressway to grade at Bay Street.

Table 1: Benefits of the Talleyrand Connector

	IMPROVEMENT	OUTCOME
1	Remove elevated section of the Hart Expressway	Improves freight flow to the Talleyrand Port District by relieving congestion on the Hart Expressway during AM and PM peak travel periods.
2	Construct a new at-grade intersection with Gator Bowl Boulevard	Provides an additional access point for freight trucks traveling to the Talleyrand Port District with appropriate turning radius.
3	Install Intelligent Transportation Systems (ITS) infrastructure	Improves safety along a high-crash segment of the Hart Expressway and improves way-finding for freight trucks; completes the ITS network along the Hart Expressway / MLK Parkway corridor.
4	Improve at-grade intersection with A. Philip Randolph Boulevard	Enhances connectivity to/from eastern Downtown Jacksonville.
5	Widen Bay Street from four (4) to six (6) lanes	Adds additional capacity and provides congestion relief along Bay Street.

National and Regional Significance

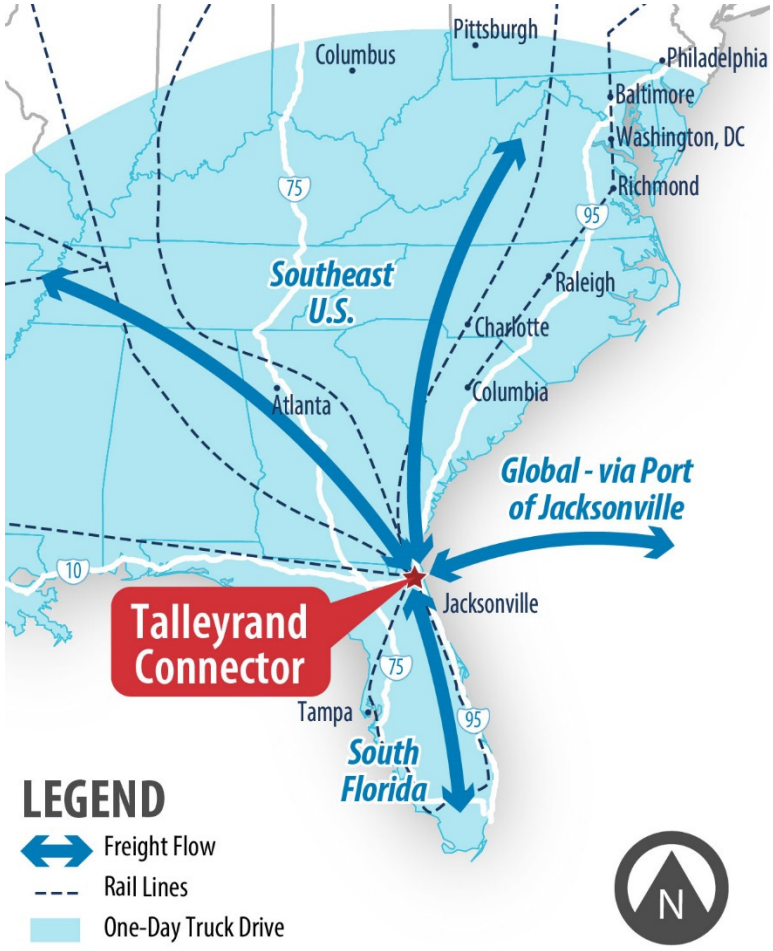
The Port of Jacksonville is Northeast Florida's international gateway to trade, the 4th fastest growing port in the U.S. JAXPORT supports more than 132,000 jobs and has an annual impact of $27 billion.

The Talleyrand Port District is one of three districts at the Port of Jacksonville. It facilitates international trade with South America, the Caribbean, Europe, the Mediterranean, Africa, and Asia. Within the U.S., its hinterland is primarily the southeastern and mid-western United States, but its reach extends to all 48 contiguous states and Puerto Rico. Within a one day truck drive, goods can reach anywhere in Florida, as far north as Ohio, and as far west as Louisiana, a reach of over 60 million consumers (see **Figure 3)**.

The Talleyrand Port District includes the Talleyrand Marine Terminal operated by JAXPORT with tenants such as Seaonus, Southeast Toyota, and Contanda. The Talleyrand Port District also includes private marine terminals for Crowley Maritime, United States Gypsum, Keystone, Lafarge, Lehigh Cement Co., NuStar Energy LP, TransMontaigne, and Center Point Terminals. The area also includes several large trucking terminals as well as numerous manufacturers and value added service providers such as Owens Corning, Independence Recycling, Raleigh Mine & Industrial, Shaw's Southern Belle Frozen Foods, and North Florida Shipyards (see **Figure 4**).

While there are many ports along the eastern U.S. seaboard, each has its niches. Strong niches in Jacksonville include trade with Puerto Rico, automobiles, and military cargo. The Port of Jacksonville is the top mainland U.S. port for handling trade with Puerto Rico with approximately 85% of mainland U.S. exports. Crowley, headquartered in Jacksonville and with its terminal at the Talleyrand Port District, handles 33% of Northeast Florida's exports to Puerto Rico and to other parts of the Caribbean. Of recent high importance, Crowley is the official FEMA carrier providing relief to Puerto Rico.

Figure 3: One-Day Truck Drive



Jacksonville is one of the nation's busiest ports for total vehicle handling. The port moved nearly 636,000 vehicles in 2016. A large portion of those where shipped through the Talleyrand Port District, which is home to Southeast Toyota.

The Port of Jacksonville is one of 16 strategic defense ports and the only port in Florida to move military cargo for the defense industry. Additionally, North Florida Shipyards, located directly underneath the Hart Bridge, specializes in military ship repairs.

Figure 4: Area Freight Generators

Transearch data indicates that in 2015, over 95 million tons of freight moved to, from, or through Northeast Florida. A majority of all freight (66 percent) in 2015 that moved across the Northeast Florida region was hauled by truck (Transearch, 2015), highlighting the importance of highway facilities to the region's economy and the quality of life for its residents. In 2016, Florida had over 14.5 million inbound / outbound truck movements, with over 28% using the I-95 corridor.

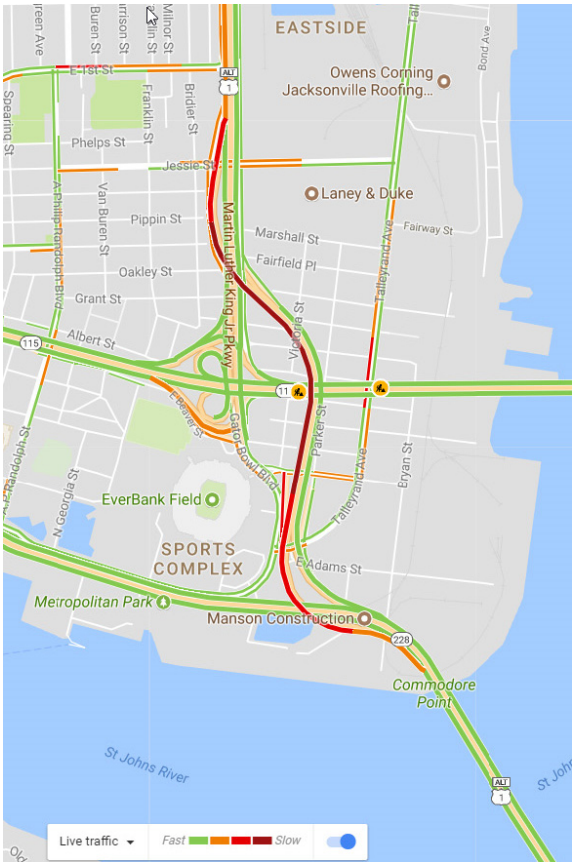
As a gateway to the state of Florida, I-95 in Northeast Florida sees a high percentage of pass-through traffic. Much of the freight moving between Central and South Florida and the rest of the U.S. have to pass through Northeast Florida along the way. The condition and performance of Northeast Florida's freight system is therefore of critical importance to the state as a whole. The Hart Expressway serves as a key connection between I-95 and numerous public and private marine terminals, including fuel, container, bulk, and intermodal facilities, along the St. Johns River and the Talleyrand Port District. Also, the Hart Expressway provides direct connections to major trucking terminals and light and heavy manufacturing plants such as Maxwell House, Cypress Trucking, and U.S. Gypsum.

Transportation Challenges and Solutions

The transportation challenges addressed by the Talleyrand Connector include: congestion on MLK Parkway and the Hart Expressway, inferior access to eastern downtown, and safety.

Congestion on MLK and the Hart Expressway is a challenge in the southbound AM peak and northbound PM peak as shown in **Figure 5**. The Hart Expressway is four lanes with a capacity of 3600 vehicles per hour (VPH) in each direction (1800 VPH per lane). However, the existing configuration of the Hart Expressway ramps sends one lane to Liberty Street and one lane to the SR-115 (MLK)/Duval Street interchange serving MLK, the Talleyrand Port District, and eastern downtown. This limits the capacity going to MLK, the Talleyrand Port District, and eastern downtown to 1800 VPH. The 2016 volume traveling to and from MLK, the Talleyrand terminals, and eastern downtown is 2068 VPH southbound in the AM peak and 2035 VPH northbound in the PM peak and is expected to increase at a rate of 2% per year. This over capacity condition causes congestion, safety problems, and very slow travel times that will continue to degrade.

Figure 5: PM Peak Congestion



Removing and reconfiguring the Hart Expressway ramps allows all eastbound lanes to be used by traffic destined for eastern downtown and the Talleyrand Port District. This provides for underutilized capacity on the Liberty Street ramp (approximately 75% or 1350 VPH) to be used to relieve congestion on the MLK/Duval Street ramp and will eliminate congestion during the AM and PM peak periods for traffic going to and from MLK, the Talleyrand Port District, and eastern downtown.

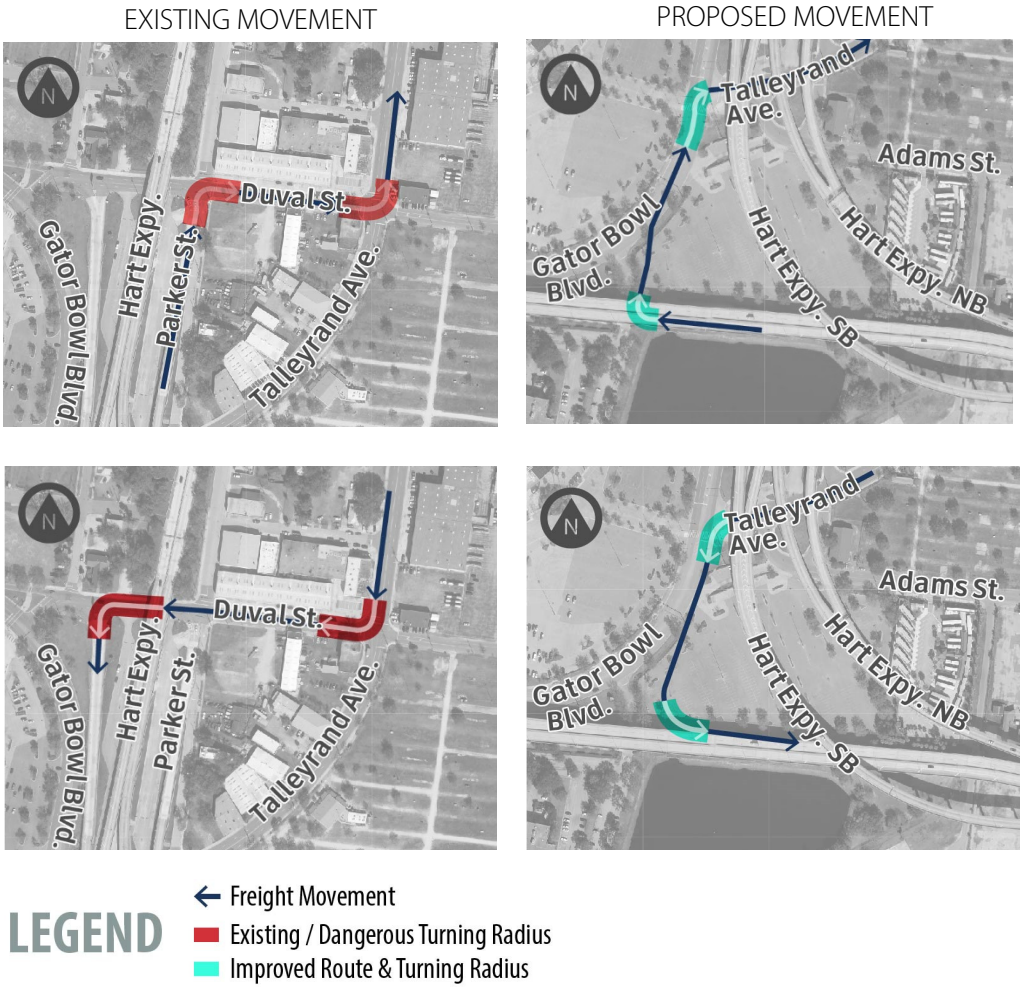
Inferior access to eastern downtown, which includes the Talleyrand Port District, is caused by limited options for ingress and egress due to the Mathews Expressway to the north, the St. Johns River to the south and east, and Hogan's Creek to the west. In total, there are six lanes to and from the west and three lanes to and from the east. The Talleyrand Connector adds one lane to and from the west and two lanes to and from the east leading to a capacity increase of 17% to and from the west and 67% to and from the east. This increased capacity will significantly improve mobility in and out of the eastern downtown area, which is home to multiple manufacturers, distributers, and freight terminals with trade partners throughout the southeast United States and internationally through the port.

Safety is impacted by the outdated design (early 1960s) of the Hart Expressway ramps and intersections accessing Talleyrand Avenue, and by a lack of way-finding. The Hart Expressway on-ramp coming from Liberty Street and merging with the on-ramp from Duval Street is considered a high crash segment with more than three times the average crash rate for similar facilities. The existing merge onto the Hart Expressway includes vehicles coming from Liberty Street at a high speed and vehicles from the lower speed MLK ramp. The new ramp from the signalized intersection at Gator Bowl Boulevard / Festival Park Avenue will create a safer merge for trucks because traffic will be slowed by the signal. Additionally, the ramp is 50 years old and is functionally obsolete.

Currently, freight trucks access Talleyrand Avenue via Duval Street, Haines/Jessie Street, 8th Street, and 21st Street. Except for MLK at 8th Street and 21st Street which were recently improved, the intersections are signalized and have outdated designs with short turning radii for freight trucks. Stakeholder feedback during the Northeast Florida Freight Movement Study (NFFMS) in 2016 showed concerns for the turning radius at 8th Street and Talleyrand Avenue and exiting the Hart Expressway at Duval Street (see **Figure 6**). Outdated intersections are becoming a greater problem as trucks increase in size. For example, Crowley recently increased their containers from 40-foot to 53-foot. The Talleyrand Connector will provide another access point with a free flow right turning movement to get onto Talleyrand Avenue and designed to accommodate 62-ft truck turning movements.

Coming off of the Hart Bridge there are multiple options creating a decision point for drivers headed to eastern downtown and the Talleyrand Port District. Stakeholder feedback from the NFFMS indicated that this is confusing for truck drivers. Dynamic messaging signs are included in this project to improve way-finding.

Figure 6: Existing Design Deficiencies



Existing intersections along the freight corridor have design deficiencies that make it difficult for trucks to navigate. The Talleyrand Connector will improve freight movement to the Talleyrand Port District by providing new, improved access.

2.0 Project Location

The Talleyrand Connector is located in the City of Jacksonville, Florida, known as the largest city by area in the contiguous United States with an estimated population of 1.15 million residents in the Jacksonville urbanized area (American Community Survey, 2016 1-Year Estimates). Jacksonville is the westernmost city on the east coast of the United States, providing efficient access to many inland areas. It is often noted that Jacksonville lies due south of Cleveland, Ohio. Jacksonville has two interstates within its boundaries, I-10 (east-west) and I-95 (north-south), and a third, I-75 (north-south), within 50 miles. It is also served by several U.S. Highway corridors that connect Florida to the Southeastern U.S. and beyond, and by three railroads including CSX, Norfolk-Southern, and Florida East Coast Railway. By virtue of its geography and robust freight infrastructure network, Jacksonville is a logistics hub and gateway to the southeastern United States.

The project specific coordinates for the Hart Expressway Ramp / Gator Bowl Boulevard / Festival Park Avenue Intersection are: 30.320824 North, -81.635789 West.

Northeast Florida Regional Economy

The Northeast Florida region is a competitive player in the global marketplace as international companies choose to locate here. While many types of businesses are drawn here, seven target industries have been identified which include three directly related to freight movement: advanced manufacturing, aviation and aerospace, and logistics and distribution. The success of these freight-related target industries is evident by the 2016 announcements of Amazon, BMW of North America, and Mercedes-Benz USA, among others, to develop facilities in Jacksonville.

In addition, the Jacksonville Chamber of Commerce and Northeast Florida Regional Council determined Advanced Transportation as one of three industry ecosystems that differentiate the region on a national and international level. Advanced Transportation includes many elements such as aviation, clean fuels, rail and port logistics, distribution centers and supply chain management. Furthering Advanced Transportation is only made possible by Northeast Florida's robust transportation network. The strong connection with the region's economic development and infrastructure serves to strengthen the argument for the relevance of the Northeast Florida Region to Statewide related efforts and matching industry sector targets.

Aerial photo of the Hart Expressway Ramp / Gator Bowl Boulevard / Festival Park Avenue intersection

3.0 Project Parties

The FDOT is serving as the primary sponsor and is acting in cooperation with the following parties:

City of Jacksonville

Jacksonville is the largest city by population in Florida, and the largest city by area in the contiguous United States. It is the county seat of Duval County, with which the city government consolidated in 1968. Among the City's responsibilities is the planning, building, and maintaining of the local road network.

"Jacksonville is a growing city with enormous opportunity ahead. This application will enable our intermodal and freight activities – already exceeding projections – to become more efficient and safe. I heartily endorse this project and, together with our partners at the Florida Department of Transportation, JAXPORT, Jacksonville Transportation Authority, on behalf of the City of Jacksonville, I urge your support."

Mayor Lenny Curry, City of Jacksonville

Jacksonville Port Authority (JAXPORT)

JAXPORT is vested by the Florida Legislature with the responsibility of operating, promoting, sustaining, and financing the public marine terminal facilities located within Jacksonville including the Talleyrand Marine Terminal. In doing so, JAXPORT makes important contributions to the local and regional economy both direct in nature, in terms of actual jobs created, and indirect through the attraction of business and industry to Jacksonville and Northeast Florida.

"As a member of the strong local partnership seeking this grant, JAXPORT is representing the interests of the customers on our public seaport terminals along with the interests of the freight community in general, pursuing continued modernization of the port district roadway system in the name of efficiency, safety and beneficial development.

I strongly support this application and urge the Department of Transportation's investment in Jacksonville. "

Eric Green, JAXPORT CEO

Jacksonville Transportation Authority (JTA)

The JTA is an independent state agency which operates Jacksonville's public bus service, ferry service, downtown automated Skyway, and paratransit service for the disabled and elderly. JTA also plans, designs and builds roads and bridges. JTA's predecessor, Jacksonville Expressway Authority, designed and built the Hart Bridge and Hart Expressway in 1967. JTA's mission is to improve Northeast Florida's economy, environment and quality of life by providing safe, reliable, and efficient multimodal transportation services and facilities.

4.0 Grant Funds & Sources & Uses of Project Funds

Table 2 shows the commitment of funds and the amount of INFRA funding necessary to complete the project. **Table 3** summarizes the uses of project funds, broken down by the project's major components.

The FDOT and the City of Jacksonville are committed to delivering the Talleyrand Connector and will contribute $25 million toward the project's $48 million cost, expended over a two-year timeframe. The $23 million request for INFRA funds would provide the remaining project funding and help leverage existing investments by FDOT and its partners.

As part of the project funding sources listed in **Table 2**, the City of Jacksonville has committed $1.5 million in funds for FY 2018 to complete survey efforts, receive NEPA approval, and prepare a Design-Build Criteria package. This is in addition to the funding FDOT has already expended on design.

Table 2: Committed Funding Sources

FUNDING PARTNER	FUNDING AMOUNT	FUNDING PERCENT
Non-Federal State and Local Funds	$25.0M	52%
INFRA Funds	$23.0M	48%

FDOT has set aside contingencies in the development of the project budget. Contingencies for the project total $6.4 million which is approximately 13% of the total estimated project costs.

No federal funds have been provided to date for this project. The project is not subject to the $500 million maximum funding source because it is a highway project.

Table 3: Use of Project Funds

PROJECT COMPONENT	COST	INFRA	FDOT PARTNERSHIP
Removal and construction of elevated roadway and bridge components	$18,500,000	$13,000,000	$5,500,000
Construction of at-grade roadway and intersection improvements	$19,300,000	$10,000,000	$9,300,000
Install Intelligent Transportation Systems (ITS) infrastructure	$600,000	- - -	$600,000
Project Design	$3,200,000	- - -	$3,200,000
Project Contingency	$6,400,000	- - -	$6,400,000
GRAND TOTAL	**$48,000,000**	**$23,000,000**	**$25,000,000**

FDOT is the project sponsor and will be responsible for managing the project funds, delivery and schedule. FDOT has a history of excellent project delivery, management and responsibility with public funds. FDOT has surpassed its project on-time completion target for the past 7 years and has also met its target to complete projects within budget for the past 3 years. FDOT also received good (Aa) credit ratings for all of its projects reviewed by Moody's in the last 10 years.

5.0 Merit Criteria

Criterion #1: Support for National or Regional Economic Vitality

Support for National or Regional Economic Vitality

The Talleyrand Connector will complete the program of improvements on this freight corridor, thereby supporting national and regional economic vitality through elimination of a freight bottleneck and making the Talleyrand Port District more attractive to private investment.

As discussed in Section 1, the freight connection between the Talleyrand Port District and the Hart Expressway is over capacity during peak hours creating a bottleneck which will continue to worsen. ***The Talleyrand Connector will increase capacity by 1,350 VPH, or 75%.*** Eliminating this freight bottleneck will improve efficiency and safety of movements for port businesses at the Talleyrand Port District. The Talleyrand Port District generates over 3,100 freight truck movements per day with origins and destinations throughout the southeastern U.S. as described in Section 1.

As previously noted, the 1,030-acre Talleyrand Port District includes private port-related businesses in addition to the Talleyrand Marine Terminal operated by JAXPORT. The port has room to grow with over 150 acres of vacant industrial zoned land. Over 80 acres of vacant industrial land are located at the southern end of the port district. JAXPORT has been in discussions with potential tenants for moving automobiles. Infrastructure improvements will help to attract private investments, such as this example, in the Talleyrand Port District.

Additionally, the project promotes the scenic beauty of the St. Johns River which is one of 14 American Heritage Rivers (AHR). The AHR Initiative was established in 1997 by Executive Order 13061, with three objectives: natural resource and environmental protection, economic revitalization, and historic and cultural preservation.


Looking east towards the Hart Expressway Ramp

Benefit-Cost Analysis

The Talleyrand Connector project provides a variety of benefits that support national and regional economic vitality, which have been estimated based on the United States Department of Transportation (USDOT) guidance on the preparation of INFRA applications. Where USDOT has not provided valuation guidance or a reference to guidance, standard industry practice has been applied. (See Benefit-Cost Analysis Technical Appendix for complete summary and backup information).

In the benefit-cost analysis (BCA) conducted for this application, benefits are estimated for current and future users on an incremental basis; that is, the change in welfare that consumers and, more generally, society derive from the Talleyrand Connector improvements, as compared to the

current situation. As with most transportation projects, the benefits derived from the implementation of an infrastructure project are actually a reduction in the costs associated with transportation activities. The benefits of a project are the cost reductions that may result from the project's implementation. These cost reductions may come in the form of average time saved by users, reductions in operating expenses, decreased levels of pollution, or more generally, a combination of multiple effects. The following principles guide the estimation of benefits and costs in the analysis:

- Only incremental benefits and costs are measured.
- Incremental benefits of the project include transportation cost savings for the users of the corridor.
- Incremental costs of implementation of the project include initial and recurring costs. Initial costs refer to capital costs incurred for design and construction of the project. Recurring costs include incremental operating costs and maintenance expenses. Only additions in costs to the current operations and planned investments are considered in the analysis.
- Benefits and costs are valued at their opportunity costs.
- The benefits stemming from the implementation of the Talleyrand Connector project are those above and beyond the benefits that could be obtained from the best transportation alternative.
- Annual costs and benefits are computed over a long-run planning horizon and summarized through a lifecycle cost analysis. The Talleyrand Connection project is assumed to have a minimum useful life of 30 years.

The opportunity cost associated with the delayed consumption of benefits and the alternative uses of the capital for the implementation of the project is measured by the discount rate. All benefits and costs are discounted to reflect the opportunity costs of committing resources to the project. Calculated real discount rates are applied to all future costs and benefits as a representation of how the public sector evaluates investments. A seven percent (7%) real discount rate is used in the analysis, with a sensitivity test at three percent (3%).

Build and No-Build Scenarios and Associated Costs

Two scenarios were compared in the benefit-cost analysis, a build and a no-build scenario. The build represents the Talleyrand Connector improvements as described in this application. The no-build scenario reflects no improvements to the corridor.

For the build scenario, it is estimated that the project will require $48 million in capital expenditures. Operating and maintenance after the improvements are complete is estimated to cost $13 thousand per year.

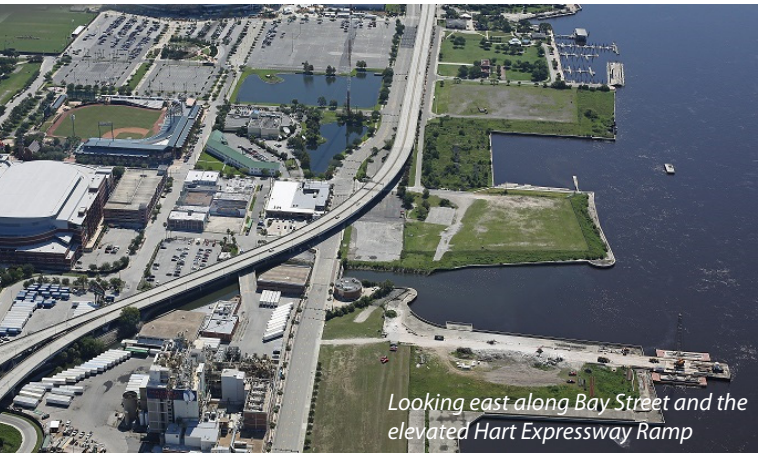
Summary Benefit-Cost Results

Table 4 presents results for the primary scenario of the Talleyrand Connector Improvements. The BCA assumes increases in traffic volumes along the corridor and reduced travel time as a result of the proposed improvements. Using the discount rate recommended in the INFRA Grant Program guidance (7%), the project will result in:

- Total benefits of $38.5 million in present value (PV) terms;
- Total costs of $35.5 million in present value (PV) terms; and
- Total net present value of $3.0 million, with a benefit-cost ratio (BCR) of 1.08.

Table 4: Benefit-Cost Analysis ($millions)

CRITERIA	BENEFITS (7% DISCOUNT RATE)
Travel Time Savings	$2.3
Accident Reduction	$0.4
Emissions Reduction	$0.4
Congestion Reduction	$0.4
Residual Value	$1.3
Development Benefits	$33.8
PV of Total Benefits	**$38.5**
Capital Costs	$35.4
O&M Costs	$0.1
PV of Total Costs	**$35.5**
Net Present Value (NPV)	$3.0
Benefit-Cost Ratio (BCR)	**1.08**



Looking east along Bay Street and the elevated Hart Expressway Ramp

Criterion #2: Leveraging of Federal Funding

Leveraging Transportation Investments

The Talleyrand Connector will leverage other recent transportation improvements in the area to create an enhanced freight network between I-95 and the Talleyrand Port District.

Built in the 1950s and 1960s, the infrastructure supporting the port needs updates to accommodate growth and increasing truck sizes which require a larger turning radius. FDOT has been systematically improving the access points at Talleyrand Avenue to provide for freight truck movements, including access points at the north and mid areas of the port. In 2004, FDOT made $6.4 million in improvements to the 8th Street / MLK Parkway interchange. In 2014, FDOT constructed a new interchange at the MLK Parkway and 21st Street / Talleyrand Avenue Interchange using $30.5 million in federal transportation funds. This interchange provides access to and from I-95 to the northern end of the Talleyrand Port District. The Talleyrand Connector is the next improvement on this freight network and will provide access to the southern end of the Talleyrand Port District with turning radius design to accommodate up to 62-foot trucks.

FDOT is also making improvements at other locations on this freight connector. In 2017, FDOT completed $1.7 million worth of resurfacing improvements to Emerson Street near I-95 which is a connecting route between I-95 and the Hart Expressway. Resurfacing improvements are ongoing on I-95 from Myrtle Avenue to the Pedestrian Overpass ($7.8M) and on MLK Parkway from Hart Expressway to Boulevard Street ($7.5M). Rehabilitation of the Hart Bridge ($4.3M) is scheduled to be completed in fall of 2017 (see **Table 5**).

The Talleyrand Connector will leverage ***$95 million*** *of recently expended and committed federal and state investments on the Hart Expressway / MLK Parkway freight corridor*

Additionally, the Talleyrand Connector will leverage future planned transportation improvements in the area. A diverging diamond interchange (DDI) is planned at I-95 and Emerson Street which will optimize the traffic operation to the greatest extent practicable. The existing Emerson Street interchange operates with two traffic signals separated by 400 feet. Improvements to the I-95 / MLK Parkway interchange are scheduled for a Project Development and Environment (PD&E) study in FY 2018 and are included in the Cost Feasible Plan through construction. The accommodation of ITS within the project limits will complement planned ITS projects on MLK Parkway and Talleyrand Avenue.

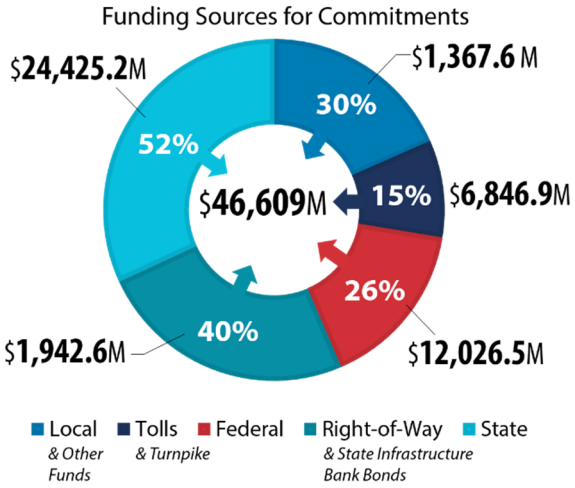
Non-Federal Share across Program

FDOT is a regular recipient of federal funding with approximately 26% of its Five Year Work Program FY 2017-2021 coming from Federal Funding (see **Figure 7**). Federal funding sources include motor fuel tax, Federal Highway Trust Fund, Federal Authorization Act, Fixing America's Surface Transportation Act. Non Federal sources include State funds which primarily come from fuel taxes and motor vehicle fees; local funds which primarily come from fuel taxes, infrastructure sales tax, local impact and permit fees, and general government contributions (property tax, development tax, etc.); toll roads; and Right of Way and State Infrastructure Bank Bonds.

Table 5: Leveraged Transportation Improvements

	IMPROVEMENT	COST	DATE
1	MLK Parkway / 8th Street Interchange	$6.4 Million	2004
2	MLK Parkway / 21st Street Interchange	$30.5 Million	2014
3	MLK Parkway / I-95 Interchange	$32.5 Million	Funded 2020
4	ITS from the MLK Parkway / I-95 interchange to the MLK Parkway / 21st Street Interchange	$4.2 Million	Funded 2020
5	Resurfacing Emerson Street near I-95	$1.7 Million	2017
6	Resurfacing I-95 from Myrtle Avenue to the Pedestrian Overpass	$7.8 Million	On-going
7	Resurfacing MLK Parkway from Hart Expressway to Boulevard Street	$7.5 Million	On-going
8	Hart Bridge Rehabilitation	$4.3 Million	On-going
	TOTAL CORRIDOR INVESTMENT LEVERAGED	**$94.9 Million**	

Figure 7: Five Year Work Program
(FY 2017-2021)



Full Lifecycle Costs

FDOT will assume responsibility for operations and maintenance of the Hart Expressway ramp to the touchdown at Bay Street. The City of Jacksonville will assume responsibility for operations and maintenance of Bay Street and the ramps from Bay Street to Liberty Street, to include landscaping and signalization.

Criterion #3: Potential for Innovation

The Talleyrand Connector project proposes to use innovation in environmental review and permitting and in safety and technology. Use of experimental project delivery authorities is not applicable.

Innovation in Environmental Review and Permitting

The project will address the environmental and safety innovation criteria referred to in the Notice of Funding Opportunity by taking advantage of innovative environmental streamlining measures during project development including FDOT's State-Wide Environmental Project Tracker (SWEPT). Utilizing these measures will help advance the project to be construction ready as grant funds are allocated.

In December 2016, FDOT signed a Memorandum of Understanding assigning the Federal Highway Administration's responsibilities under NEPA for federally funded highway projects to FDOT. Former FDOT Secretary Jim Boxold said, "FDOT expects significant time and cost savings as a result of this landmark agreement." In support of this new role, FDOT developed the SWEPT process to streamline its responsibilities. FDOT's SWEPT process provides a consistent and efficient method for documenting and tracking environmental reviews and supports self-assessment and performance management results. The SWEPT online tool will be used to enter the Type I CE document, track progress, and submit to FDOT Office of Environmental Management for approval.

Innovation in Safety and Technology

The Talleyrand Connector's ITS improvements will continue the planned ITS on MLK Parkway and Talleyrand Avenue south to the Hart Bridge. On MLK Parkway between I-95 and 8th Street, ITS surveillance is scheduled to be installed in 2021. On Talleyrand Avenue, FDOT is proposing a dynamic messaging system directing trucks to wait in a designated truck parking area to mitigate queues and to install advanced detection devices directing trucks to alternate routes to avoid train delays. These improvements are called out on the Project Location Map (**Figure 1**).

These ITS will be centrally managed at the Regional Transportation Management Center (RTMC) in downtown Jacksonville which opened in 2015. The RTMC showcases innovation with state of the art technology and co-located staff across agencies to coordinate planning and response for major events and incidents. It is the first facility in Florida to be interconnected to the Florida Department of Law Enforcement for combined response to Homeland Security threats. Connecting the Talleyrand Port District to the RTMC furthers innovation, safety, and smart city goals.

Regional Transportation Management Center

Criterion #4: Performance and Accountability

If selected for FY 2017 funds, obligation must occur by September 30, 2020 and construction must begin by March 30, 2022. The project schedule plans for construction to begin in January 2020, well before INFRA requirements. In order to meet this timeframe, the procurement for design build must begin by January 2019. Therefore, this project proposes to condition funding on the timely start of design build procurement in January 2019. FDOT will provide proof of meeting this requirement to USDOT. Conditioning funding on this milestone provides a measureable outcome for which the federal government can hold FDOT accountable, and it provides a cushion for meeting the INFRA start of construction deadline.

6.0 Project Readiness

Technical Feasibility

In July 2017, FDOT completed the design concepts, initial engineering, cost estimates, and design traffic activities for the project, all showing that the project is technically feasible. The City of Jacksonville is advancing efforts related to survey, geotechnical services, and preparation of a Design-Build criteria package, with assistance from FDOT. The City's FY 2018 Capital Improvement Program (CIP) allocated $1.5 million for these services which are expected to be procured in the fall of 2017. FDOT will provide oversight of the project construction and Design-Build contractor. FDOT regularly completes design-build highway and bridge projects throughout the state which demonstrate its technical capacity to oversee highway and bridge infrastructure improvement projects.

Project Schedule

The project schedule for the Talleyrand Connector is illustrated in **Figure 8** and demonstrates that the INFRA funds will be spent steadily and expeditiously once construction starts.

Construction will be divided into three phases. **Phase I** will include demolition and construction of roadway portions outside the limits of existing Bay Street, including the new loop ramp bringing the Liberty Street ramps over A. Philip Randolph Boulevard on the west end and a portion of the re-aligned Gator Bowl Boulevard on the east end.

Figure 8: Project Schedule

TASK	2017	2018	2019	2020	2021	2022
NEPA Document (Type I CE), Survey, and Geotech:						
NFTPO TIP Amendment:						
STIP Amendment:						
Design Build Procurement:						
Construction:			*Phase:*	1	2	3

Construction is anticipated to begin in January 2020 and conclude summer of 2022.

Phase II will include construction of east and west bridge tie-ins. Demolition will begin at the bridge tie-ins so that Phase II may overlap Phase I. **Phase III** includes widening, milling, and resurfacing of Bay Street, A. P. Randolph Boulevard, Adams Street, Spearing Street, and Monroe Street. ITS and signage will be the last pieces before project completion. A detailed table of construction activities which guided the schedule is contained in **Appendix B**.

Project Approvals

NEPA

FDOT District Two will lead the effort to secure NEPA approval. A Type I Categorical Exclusion will be prepared by FDOT District Two and submitted to FDOT Office of Environmental Management through the SWEPT tool. Approval is anticipated by January 2019. Because the project is located entirely within FDOT and City right-of-way with no natural resources, approvals from other agencies are not anticipated.

State and Local Planning

The Talleyrand Connector is included in the Northeast Florida Transportation Planning Organization's (NFTPO) 2040 Needs Plan (referenced as, "Hart Bridge Ramps to Liberty Street"). The Jacksonville City Council submitted the project to the NFTPO as the City's top road project priority through Ordinance 2017-368. Amendments to the NFTPO Cost Feasible Plan, the Transportation Improvement Plan, and State Transportation Improvement Plan will be sought prior to NEPA approval and the allocation of INFRA funds.

Legislative approval and right-of-way acquisition are not needed for the Talleyrand Connector. FDOT has received letters of support from local and elected officials, businesses and other organizations, listed in **Table 6** and attached in **Appendix C.**

Table 6: Letters of Support

PROJECT SUPPORTERS
City of Jacksonville
Jacksonville Port Authority
Jacksonville Transportation Authority
Jacksonville Chamber of Commerce
Jacksonville City Council
Crowley Maritime
Southeast Toyota
Coalition for America's Gateway & Trade Corridors
Florida Ports Council
US Representative John Rutherford
US Senator Marco Rubio
US Senator Bill Nelson

Project Risks

The Talleyrand Connector is located entirely within FDOT and City right-of-way with no natural resources; thus there are no environmental permits required and no real estate needs that could impose delays on the project. Preliminary engineering has been completed and there are no known technical risks that could delay the project. As detailed below (**Table 7**), FDOT has taken actions to avoid delays and mitigate risks in the implementation of the Project. FDOT has also set a schedule that anticipates starting construction two years prior to the deadline which gives room for delays without jeopardizing funding deadlines.

7.0 Large/Small Project Requirements

The Talleyrand Connector Project does not meet the minimum project size for a large project ($100 million) and is thus considered a small project. It is an eligible project because the Hart Expressway is on the National Highway System.

Transportation projects have the dual benefit of directly supporting jobs during construction and supporting the local, regional and national economies through the improved movement of goods, services and people over the longer term. Deficient links in a transportation system restrict travel and can significantly impact economic growth and safety. Ensuring that transportation is efficient and reliable is critical in providing opportunities for economic competitiveness and viable economic growth. As discussed in Sections 1.0 and 5.0, the Talleyrand Connector improves mobility on an important freight corridor in Northeast Florida, benefitting freight movements from this area to its trade partners throughout the southeastern United States and internationally via the Port of Jacksonville.

A project's cost effectiveness is an important factor. A comparison of the benefits and costs of a project can provide an indication of whether or not a project is worthwhile. To be deemed economically feasible, projects must pass one or more value benchmarks: the total benefits must exceed the total costs on a present value basis; and/or the rate of return on the funds invested should exceed the cost of raising capital, often defined as the long-term treasury rate or the social discount rate. A fundamental tenet of the benefit-cost analysis approach is that only those benefits that are directly attributable to the construction and operation of the project are included in the estimation of benefits and costs. For this analysis, the cost to build and operate represents the foregone value of an alternative investment. The benefits of the project refer to the improvement in the social well-being delivered by the project. The cost effectiveness of this project is reflected in its benefit cost ratio of 1.08 which is explained in **Section 5.0**. Additionally it should be noted that reconfiguring infrastructure within existing right-of-way minimizes environmental impacts and is less costly than adding bridge/ramp capacity or a new facility.

Table 7: Project Risks and Mitigation Strategies

RISK	MITIGATION STRATEGY
Procurement Delay	FDOT District Two's recent procurement of the Overland Bridge design build project provides a model for this project. Lessons learned from this procurement will thereby minimize the risk of procurement delays.
Contamination	There is known contamination of the adjacent properties along the St. Johns River. Requirements for special handling and construction provisions will be identified prior to selection of a design build contractor.
Maintenance of Traffic During Construction	Traffic impacts during construction are a known risk of this project. FDOT will develop a maintenance of traffic (MOT) plan and a traffic control plan (TCP) with special measures for major events. FDOT's recent experience with the Overland Bridge Reconstruction in Jacksonville provides lessons learned and demonstrates FDOT's ability to handle this risk.
Loss of Public Funding	Loss of funding due to unforeseen circumstances; additional funds would have to be obtained.