

Broward County Sealed Corridor Project

2022 Grant Application
Rail Crossing Elimination Program

COVER PAGE

Project Title	Broward County Sealed Corridor Project
Applicant	Broward Metropolitan Planning Organization (MPO)
Federal Funding Request Under this NOFO	\$15,440,000
Proposed Non-Federal Match	\$3,860,000
Does some or all of the proposed Non-Federal Match for the total project cost consist of preliminary engineering costs incurred before project selection?	No
Other Sources of Federal Funding	
Total Project Cost	\$19,300,000
Was a Federal grant application previously submitted for this project?	No
City(-ies), State(s) Where the Project is Located	Pompano Beach, Oakland Park, Fort Lauderdale, Dania Beach, Hollywood, Hallandale Beach, and Wilton Manors
Congressional District(s) Where the Project is Located	~Representative Sheila Cherfilus-McCormick – Florida's 20th District ~Representative Ted Deutch – Florida's 22nd District ~Representative Debbie Wasserman Schultz – Florida's 23rd District
<i>Is this project identified in:</i>	
The freight investment plan component of a State freight plan, as required under Section 70202(b)(9)	FDOT's Rail System Plan, 2018: www.fdot.gov/rail/plans/railplan
A State highway-rail grade crossing action plan, as required under section 11401(b) of Passenger Rail Reform and Investment Act of 2015 (title XI of Public Law 114–94)	FDOT's Highway-Rail Grade Crossings Action Plan, 2011: www.fdot.gov/rail/plandev/highway-rail-grade-crossing-safety-action-plan
Is the Project Located in a Rural Area or on Tribal Land?	No
If the Project is located in a Rural Area or Tribal Land, is the Project Located in a county with 20 or fewer residents per square mile, according to the most recent decennial census.	No
Is the project eligible for a funding set-aside in Section B.1?	No
U.S. DOT Crossing Numbers:	272519P, 272528N, 272531W, 272534S, 272535Y, 272870B, 272546L, 272547T, 272558F, 272559M, 272560G, 272564J, 272566X, 272572B, 272573H, 272576D, 272582G, 272584V, 272589E, 272591F, 272593U
Is the Project located on real property owned by someone other than the applicant?	The improvements are located on Florida East Coast Railway, in which Brightline has a JUA established for these improvements. Some features are on roadway right of way, and each of those municipalities are partners.

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PROJECT SUMMARY

The Broward County Sealed Corridor Project (Project) aims to improve safety in Broward County, Florida, by installing enhancements at 21 grade crossings along the Florida East Coast Rail Corridor (Corridor). The Corridor is currently shared by the Florida East Coast Railway (FECR), which operates freight rail, and Brightline Trains Florida, LLC (Brightline), which provides intercity passenger rail service. The population density developed over the last decade along the rail corridor has created significant safety challenges for the State, Regional, and local partners. Broward County's population increased by 11.2% from 2010 to 2020¹, with 2045 forecasts projecting an additional 13% increase.² Over the last five years, Broward County has experienced the highest number of vehicle incidents of any County in the intercity passenger rail service area (51%), and 35% of Broward County vehicle incidents were caused by vehicles driving around railroad entrance gates and getting struck by a train. Data shows that these types of incidents are more likely to be fatal. This \$19.3 million Project, in which the Broward MPO (MPO) in partnership with Broward County, is requesting \$15.4 million in Railroad Crossing Elimination Program (RCEP) funding, would

deter drivers from going around entrance gates by constructing exit gates and median at 21 grade crossings in the County that lack these engineering features. FRA's GradeDec model estimates a 47% reduction in incidents based on the results of supplemental safety measures, which will have significant safety, economic, and quality of life impacts for the County and Region.

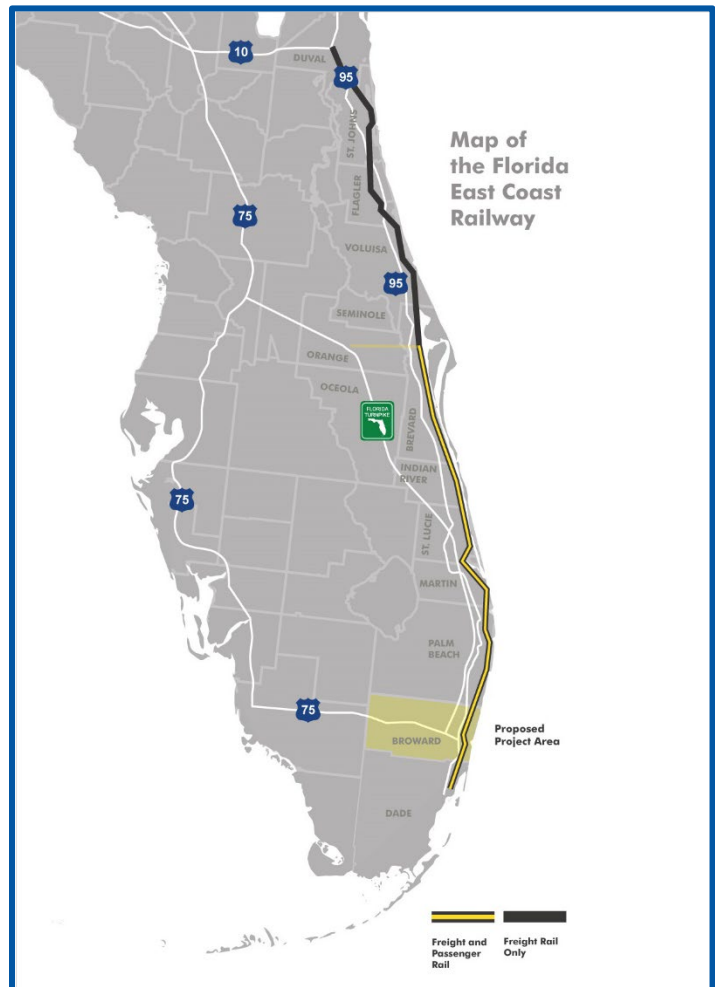


Figure 1: Project Location Map

PROJECT FUNDING

Previously Incurred Funding

Partners have worked on activities related to corridor analysis, planning, conceptual design, and other preconstruction activities to support the Project's development. These costs have not been included in

¹ Broward County Population and Forecasts - www.broward.org/Planning/Demographics/Pages/Population.aspx

² Broward County and Municipal Population Forecast and Allocation Model, 2017 - www.broward.org/Planning/Demographics/Documents/2017PFAMReportA.pdf

the total project costs. Within Broward County, over \$3 million has been invested in safety improvement in the Corridor. These safety measures are separate from the activities proposed in this RCEP application but comprehensively support the goals of this Project.

Project Budget

A cost estimate (Figure 2) has been developed for the Project based on conceptual engineering and field review. The project estimate has been broken into the main mitigation methods. The cost estimate was developed by Brightline, utilizing actual cost data from bid tabs for grade crossing components from previous rail infrastructure projects. Brightline created unit cost assemblies for exit gates and centerline medians, which include the raw cost, contractor general conditions and markups, professional services, project management, and contingency. The budget is also presented in Statement of Work and Standard Form, SF-424C: Budget Information for Construction.³

Mitigation Method	Estimated Quantity*	Construction Cost	Design Cost	Project Management Cost	Contingency	Implementation Cost
Exit Gates	33	\$ 11,500,000	\$ 700,000	\$ 2,300,000	\$ 2,800,000	\$ 17,300,000
Centerline Raised Median	7	\$ 1,200,000	\$ 200,000	\$ 300,000	\$ 300,000	\$ 2,000,000
Total		\$ 12,700,000	\$ 900,000	\$ 2,600,000	\$ 3,100,000	\$ 19,300,000

* Total of 21 grade crossings will be improved, with some proposed to receive exit gates or medians or a combination of both.

Figure 2: Project Budget

Funding Sources

The total capital costs for the Broward County Sealed Corridor Project equal \$19.3 million. The RCEP funds will support the engineering and construction of the proposed elements. Broward MPO requests \$15.4 million of RCEP funding, which is 80% of the total project. The remaining project funds will be provided by Broward County (12%) and six local municipalities (8%). If cost increases due to the final diagnostic review or the total amount of federal funding is not received, the MPO will look at adjusting the scope or seeking additional support from local municipalities or other local funding partners. The priority will be focused on crossings with the highest probability of an incident based on history and traffic volumes.

Uses		
Task	Total	% of Total Cost
Crossing Improvements - Medians	\$ 1,200,000.00	6%
Crossing Improvements - Exit Gates	\$ 11,500,000.00	60%
Final Design	\$ 900,000.00	5%
Project Management	\$ 2,600,000.00	13%
Contingency	\$ 3,100,000.00	16%
Total Project	\$ 19,300,000.00	100%

Sources		
Broward County Government	\$ 2,365,000.00	12%
Local Municipalities*	\$ 1,495,000.00	8%
Federal - Elimination Program	\$ 15,440,000.00	80%
Total Project	\$ 19,300,000.00	100%

*Dania Beach, Wilton Manors, Ft Lauderdale, Hallandale Beach, Hollywood, and Pompano Beach

Figure 3: Project Source of Funding

³ See Appendix A and C

APPLICANT ELIGIBILITY

The Broward Metropolitan Planning Organization (MPO) is a federally-mandated agency, established in 1977, responsible for setting policy on local transportation issues and deciding how to spend Federal and State funding on transportation projects in the Broward region.⁴ The MPO is an eligible applicant for the RCEP. To ensure the safe and efficient mobility of people and goods, optimize transit opportunities, and enhance environmental and economic well-being throughout the County, the MPO is the lead applicant for this Project and has established local and State partnerships to advance the activities proposed to be funded.

This Project is eligible for funding through the RCEP. The Project will design and construct exit gates and medians at 21 railroad grade crossings throughout the County. The activities are eligible under the following section in the RCEP Notice of Funding Opportunity: C.3.a.(4). Other means to improve the safety and mobility of people and goods at highway-rail grade crossings.

DETAILED PROJECT DESCRIPTION

The Florida East Coast Corridor (Corridor) is a critical rail route that supports the State's economy, improves the mobility of people and goods, and creates environmental resiliency. The railroad's arrival in the late 1800s initiated the founding or growth of many of Florida's largest cities today, particularly metropolitan South Florida. This growth has persisted to the present, and today over 7 million Americans live along the Florida East Coast Rail Corridor (Corridor), with Broward as the second most populous County.^{5,6} Brightline (passenger rail) and FECR (freight rail) operate trains along this Corridor to serve the areas growing communities.

In the early 1900s, as the population density developed along the rail corridor, Dixie Highway and U.S. Route 1 were built parallel to the railway. This parallel roadway development has created dangerous conditions and heightened the potential for trespassing and grade crossing collisions (see Figure 4). In 2019, Florida was ranked the third-highest State for railway trespassing casualties in the nation and the second-highest for casualties per track mile.⁷ Over the past several years, the Florida Department of Transportation (FDOT), Brightline, FECR, local cities and planning organizations, and the FRA have evaluated a broad range of solutions that could increase safety along the corridor. In addition to significant funds being invested by State, local, and private partners to improve safety

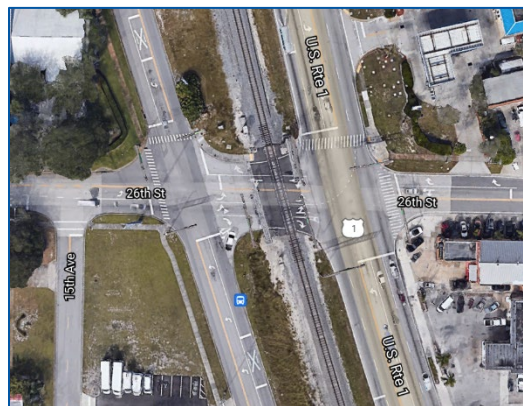


Figure 4: Roadways Parallel to Corridor
(Source: Google Earth)

⁴ Every four years the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) conduct an evaluation of the Broward MPO as part of their Transportation Management Area (TMA) Certification Review of the area. The MPO was recertified in 2019: browardmpo.org/federal-state-certifications

⁵ United States Census, 2019

⁶ Broward County and Municipal Population Forecast and Allocation Model, 2017 - www.broward.org/Planning/Demographics/Documents/2017PFAMReportA.pdf

⁷ FRA Office of Safety Analysis - safetydata.fra.dot.gov/officeofsafety/publicsite/query/castally4.aspx (search all for each query and 2019 calendar year). For number of track miles - www.bts.gov/state-transportation-infrastructure

along the Corridor, the USDOT has also awarded several safety-focused grants. These have included the South Florida East Coast Rail Corridor Intrusion Prevention Project⁸ and the recently awarded Florida East Coast Corridor Trespassing and Intrusion Mitigation Project.⁹ In partnership with local stakeholders, the MPO is pursuing funding through a USDOT RCEP grant for the **Broward County Sealed Corridor Project** (Project). The Project aligns with the safety efforts already being implemented and helps build a comprehensive approach along the entire Corridor.

The Project is a \$19.3 million investment that will benefit Broward County and the entire east coast of Florida by constructing supplemental safety measures at 21 highway-rail grade crossings on the FECR/Brightline shared-use Corridor. The Broward MPO is requesting \$15.4 million in RCEP funding for the design and construction activities that will enhance safety by reducing one of the primary types of accidents experienced along the railway: vehicles driving around the railroad entrance gates. To this end, the project would install 33 exit gates and 7 centerline raised medians to deter drivers from performing this illegal behavior that threatens public safety and causes expenditure of public funds and law enforcement personnel required for accident investigation and follow-up. Of the 66 crossings on the Corridor in Broward County, all crossings have entrance gates, and 39 have an exit gate or other element that helps to prevent drivers from going around the gates. This Project would improve 21 of the remaining 27 crossings working towards a 'sealed corridor' through Broward County. The remaining six crossings are not included in this Project because of local budgetary constraints. FDOT and multiple municipalities along the Corridor are still balancing post-pandemic community needs with limited resources to support residents and public infrastructure improvements. Local partners will continue to collaborate to identify near-term programs to install supplemental safety measures at the remaining six crossings. They will continue to seek federal funding opportunities to help build out a robust public safety program.

Background on the Challenges Addressed by the Project

By 2045, Broward County's population is expected to increase by 13%, reaching nearly 2.2 million.¹⁰ This population growth will create increased demand on the existing transportation infrastructure and challenge local partners to pursue alternative modes. South Florida's road system ranks the fifth most congested in the U.S., with average local lane travel speeds of 43 miles per hour and drivers estimated to lose 66 hours a year in congestion.¹¹ In addition to becoming more congested, many U.S. roadways are becoming increasingly dangerous. The National Highway Traffic Safety Administration recently released estimates that show traffic fatalities have increased by more than 10% in 2021, a 16-year high.¹² Road safety issues are especially acute along the Florida East Coast Corridor because of the dense population and urban setting.

⁸ Funded through the 2017 Consolidated Rail Infrastructure and Safety Improvements Program - railroads.dot.gov/newsroom/press-releases/us-department-transportation-announces-more-56-million-grants-improve-rail

⁹ Funded through the 2021 Rebuilding American Infrastructure with Sustainability and Equity - www.transportation.gov/policy-initiatives/raise/raise-2022-awards

¹⁰ *Florida Population Studies*, University of Florida, Bureau of Business and Economic Research, April 2021, www.bebr.ufl.edu/wp-content/uploads/2022/02/projections_2022.pdf

¹¹ INRIX 2021 Global Traffic Scorecard - inrix.com/scorecard-city/?city=Miami%20FL&index=32

¹² NHTSA article - nhtsa.gov/press-releases/early-estimate-2021-traffic-fatalities#:~:text=NHTSA%20projects%20that%20an%20estimated,Fatality%20Analysis%20Reporting%20System's%20history

Along the Corridor, grade crossing incidents have almost doubled since 2018, and 51% of those incidents have occurred at highway-roadway grade crossings.¹³ **Across the shared railway, 17% of vehicle-strike incidents are caused by situations where a driver maneuvered around the entrance gate, and 57% of those instances occurred in Broward County.** To date, the installation of exit gates and medians appear to be effective in preventing motorists from driving around deployed gates.

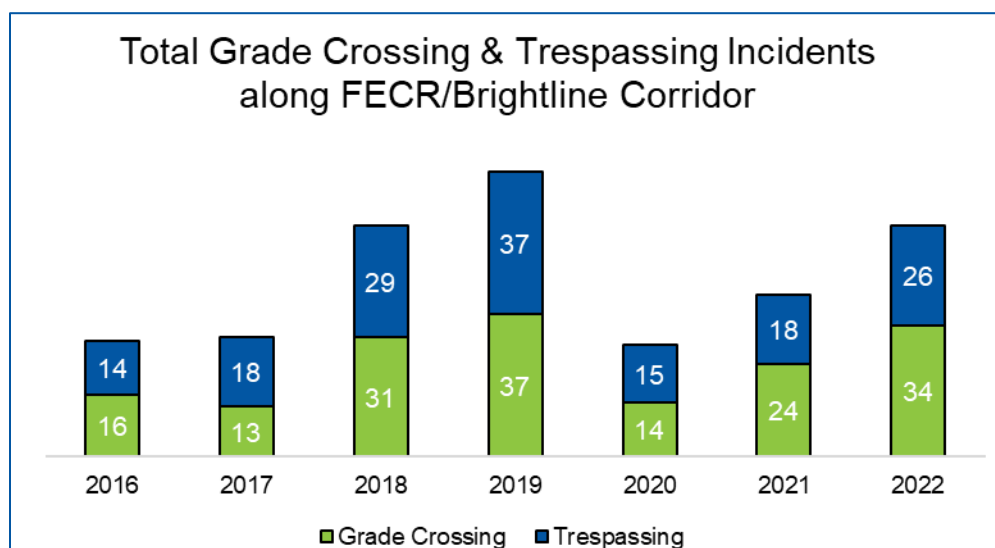


Figure 5: Incidents along FECR/Brightline Shared Corridor¹³

Brightline, the nation's only privately owned and operated intercity passenger rail service, currently runs service between the downtowns of Miami, Fort Lauderdale, and West Palm Beach. New stations in the operating segment are under construction in the cities of Aventura and Boca Raton and are expected to open by the end of 2022. In addition, an extension of Brightline's service north of West Palm Beach is now under construction and will soon connect to Orlando International Airport. Currently, Brightline runs 32 passenger trains per day through Broward County. With the extension, the overall service will operate 36 passenger trains per day along the entire corridor with one-hour headways.

Also, along the Corridor, FECR carries about 14 freight trains each day. However, with the significant improvements that freight infrastructure has undergone throughout the last decade, there are plans to expand, strategically positioning the Region for future growth opportunities. The recent freight projects, some of which were funded with federal grants, will help increase freight rail to about 24 trains per day and expand the average train length to 8,150 feet.

In addition, Broward County intends to operate a new commuter rail service along the Florida East Coast rail corridor that would connect communities in eastern Miami-Dade, Broward, and Palm Beach

¹³ FRA Crossing Inventory and Accident Reports - safetydata.fra.dot.gov/OfficeofSafety/PublicSite/Crossing/Xingqryloc.aspx

Counties.¹⁴ This service could bring an additional 50 daily trains to the area, in addition to the 46 freight and passenger rail trains that currently operate along the Corridor.

The passenger and freight traffic growth could mean that segments of the Corridor could see more than 60 trains a day by 2023. On the current system under operation, FECR and Brightline meet or exceed FRA's railroad safety requirements and the federal laws and regulations governing the safety of rail operations nationwide. Brightline has made significant safety infrastructure investments and has implemented parallel safety campaigns, including public service announcements on local broadcast and radio channels, training for first responders, distributing literature to schools along the Corridor, and connecting with Operation Lifesaver. The investment to be made with the proceeds of this grant will supplement all the current safety initiatives and create an even more meaningful impact.

Anticipated Outcomes and Benefits

The primary benefits of this Project are reduced loss of life and decreased traffic and railway collisions, trespassing, and other safety-related violations. FRA's GradeDec was used to analyze the improvement proposed at each crossing to determine an anticipated reduction in accidents based on a combination of effectiveness factors related to the proposed safety measures to be implemented as part of this Project (see Safety sections for more details). It is anticipated that over the next 20 years, more than **45 incidents can be avoided, potentially saving the lives of more than 11 people**. Using a conservative analysis, the monetized safety benefit of the Project would total about \$132 million over the next 20 years.

Multiple additional outcomes and benefits will be realized through this Project (see Selection Criteria section for more detail). Some of the highlights include:

- Disadvantaged communities along the Corridor will benefit from the engineering solutions which create safer access and improved connectivity.
- The supplemental safety improvements would support the long-term viability of the Broward County Quiet Zone.
- The future Broward County Commuter Rail project, proposed along the same Corridor, will be strengthened by increasing safety. This will provide a much-needed affordable transportation option that builds connectivity for disadvantaged communities.
- By reducing delays, the efficient movement of freight can be maintained. It will improve economic competitiveness through increased cargo activity and reduce congestion by switching cargo from truck to rail.
- Safe and reliable intercity passenger rail will attract more people, which will help reduce roadway congestion, reduce harmful air pollution, and improve safety.
- Efficient freight and passenger rail movement will improve mobility for people utilizing other transportation modes and increase community connectivity.
- Costly damage to public and private property due to road/rail accidents will decrease, along with the traffic backups and grade crossing closures resulting from an accident.

¹⁴ Coastal Link - browardmpo.org/coastal-link-commuter-rail-overview

- The fiscal and labor burden on local law enforcement to investigate roadway/railway accidents and trespasser deaths will be reduced.

Scope of Work

The elements to be constructed within this Project are site-specific to each of the 21 individual crossings with a focus on preventing drivers from driving around railroad entrance gates. The two primary features to be installed are exit gates and centerline raised medians. A breakdown of the mitigations planned by cities within Broward County is laid out in Figure 6. The overall goal for all improvements is to create a safer environment for drivers, pedestrians, bicyclists, passengers, and rail operations.

Mitigation Method	Unit	Pompano Beach	Oakland Park	Wilton Manor	Ft Lauderdale	Dania	Hollywood	Hallandale	Total*
Exit Gates	Each	8	1	2	8	4	6	4	33
Centerline Raised Median	Each	1	1	0	3	2	0	0	7

* This is subject to be adjusted based on final field verification and diagnostic review. Individual crossings may receive multiple mitigations. A total of 21 roadway crossings are planned to be enhanced within Broward County.

Figure 6: Mitigation Method Breakdown by City

The Project is currently in the conceptual design phase, and a typical section plan has been developed. The proposed mitigation solutions are not complex and preliminary engineering will be complete before the grant award. Some minor refinement of the Project locations and scope may be adjusted as the final field verification, and diagnostic review is complete. If selected, federal grant funding will be used to support the final design and construction of the following safety mitigations.

EXIT GATES

Exit gates are part of the crossing gate system used on the departing lanes of traffic to block users from entering a highway-rail crossing. A four-quadrant gate system is created by installing these in addition to entrance gates, which "seals the corridor." The goal is to deter drivers from maneuvering around the entrance gates to beat the train. The exit gate timing is delayed from the descent of the entrance gates to allow vehicles to pass through the crossing. The Project proposes installing 33 exit gates at 20 highway-railroad grade crossings in Broward County. Exit gates are already installed at multiple locations along the shared FECR/Brightline Corridor.



Figure 7: Example of Exit Gate on the Florida East Coast Corridor

CENTERLINE RAISED MEDIANS

Centerline raised medians are another traffic channelization device installed at grade crossings. Medians are more cost-effective than exit gates and are a proven means of improving safety. A wide raised median is also more aesthetically pleasing for communities because it provides the opportunity to include landscaping in its design. In determining the scope of the Project, each of the 21 crossings was first evaluated if a centerline raised median could be installed. Many of the crossings are constrained by existing roadway features and adjacent land uses, but through field review, 7 medians were identified to be installed as part of this Project. The shared FECR/Brightline Corridor already has multiple centerline raised medians installed, including some previously installed through a 2017 CRISI project.

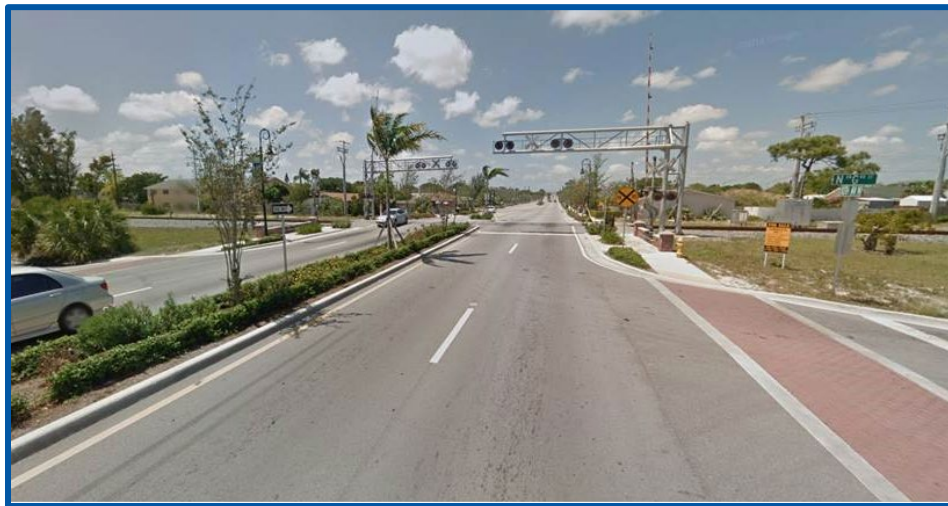


Figure 8: Example of Raised Median on the Florida East Coast Corridor

Performance Measures

As required in 2 CFR 200.301, some potential performance measures have been developed for the future construction and implementation of the Project, based on the guidance in the NOFO. The performance measures outlined below will help monitor progress in achieving USDOT's strategic goals and objectives.

Performance Measure	Unit Measured	Temporal	Primary Strategic Goal	Secondary Strategic Goal	Description of Measure
Reported Accidents/Incidents (All Shared Corridor Crossings)	Count	Annual	Safety	Quality of Life	Total annual highway-rail grade crossing accidents/incidents reported to FRA pre-project for baseline and post-project for three years.
Reported Accidents/Incidents (Project Crossings)	Count	Annual	Safety	Quality of Life	Total annual highway-rail grade crossing accidents/incidents reported to FRA pre-project for baseline and post-project for three years.

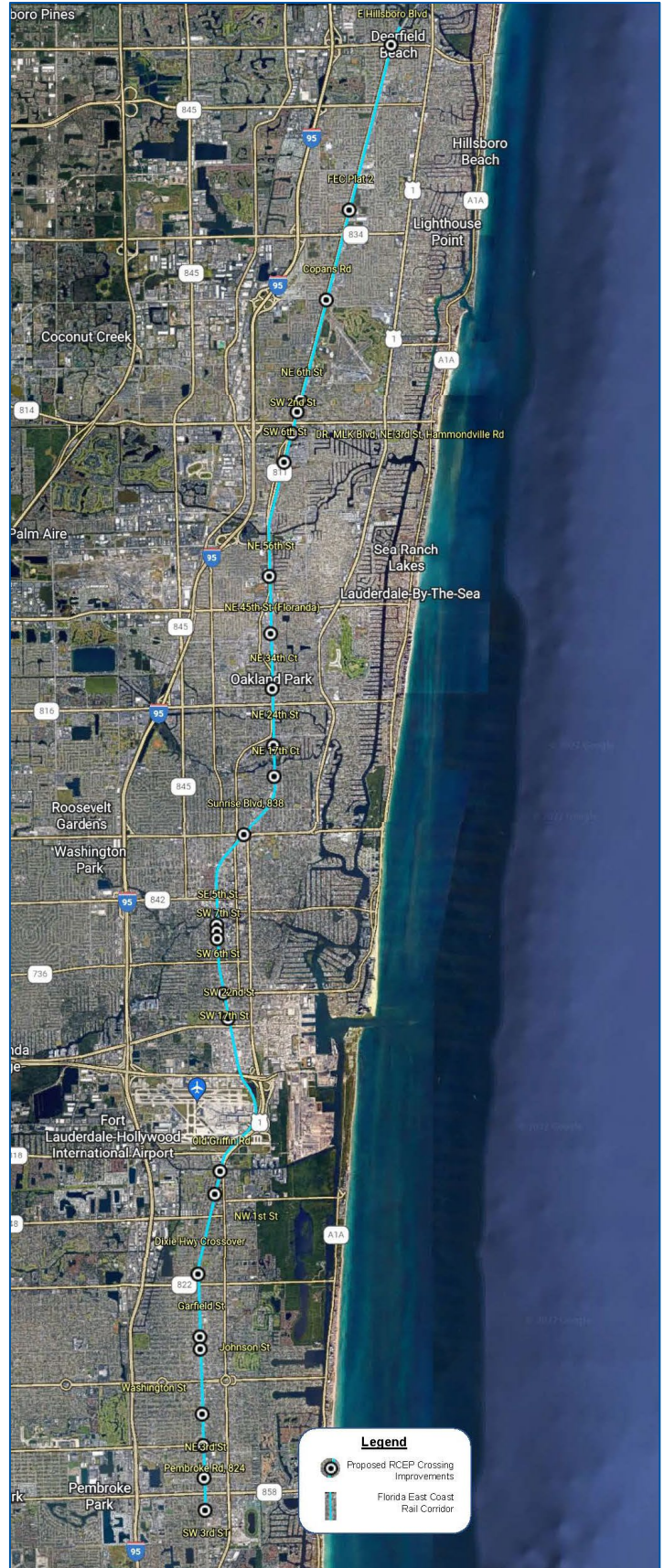
Figure 9: Proposed Project Performance Measures

PROJECT LOCATION

The Project is located in Broward County, Florida, the second-most populous County in the State. The 24.5-mile Project Corridor is located along the urbanized eastern edge of Broward County and comprises 66 highway-railroad grade crossings. According to the 2020 Census, Broward County's population is more than 1.9 million, with an expected growth of 13% by 2045.¹⁵ There are 31 municipalities within Broward County, of which 7 are directly adjacent to the Corridor and will be impacted by the Project's improvements: cities of Pompano Beach, Oakland Park, Fort Lauderdale, Wilton Manors, Dania Beach, Hollywood, and Hallandale Beach. Of the 21 crossings planned to be enhanced through this grant, more than 10 Historically Disadvantaged Communities (6 are also Areas of Persistent Poverty) are adjacent and directly impacted by the Project. On average, 23% of people in these areas live below the poverty line. The safety and reliability of the Corridor are critical for residents in effectively connecting to their communities and strengthening their overall quality of life.

¹⁵ *Florida Population Studies*, University of Florida, Bureau of Business and Economic Research, April 2021, www.bebr.ufl.edu/wp-content/uploads/2022/02/projections_2022.pdf

Figure 10: Project Map with RCEP Crossing Location
 Start Milepost: 326.97
 End Milepost: 350.81



There are three Congressional Districts that the Project Corridor traverses. The Project team has coordinated with each elected official, and the Representatives will provide letters of support.¹⁶

- Representative Sheila Cherfilus-McCormick – Florida's 20th District
- Representative Ted Deutch – Florida's 22nd District
- Representative Debbie Wasserman Schultz – Florida's 23rd District

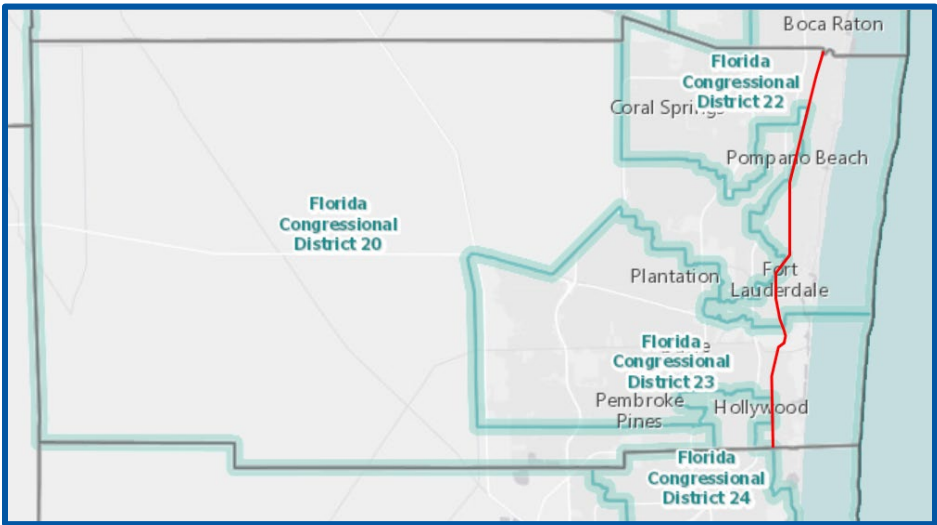


Figure 11: Congressional Districts along Project Corridor in Broward County

GRADE CROSSING INFORMATION

The site-specific Department of Transportation (DOT) National Grade Crossing Inventory information for each of the 21 highway-railroad grade crossings proposed to be improved through this Project is provided in Figure 12. Additional safety mitigation details for the crossings are provided in Appendix E. These details provide an overview of the comprehensive approach being implemented across the Corridor to maximize safety and the effectiveness of the improvements through various projects.

Crossing ID	Railroad	Street	Milepost	City	Crossing Infrastructure Maintenance Agreement Holder	Operating Railroads (Shared through a Joint Use Agreement)	Max Train Speed	Trains per Day	Total Tracks	Roadway Lanes	Vehicle Speed	AADT
272519P	FEC	COPANS RD	331.1	POMPANO BEACH	BROWARD COUNTY	FECR/Brightline	79	52	2	7	45	28758
272528N	FEC	NE 6TH ST	332.77	POMPANO BEACH	CITY OF POMPANO BEACH	FECR/Brightline	79	52	2	3	25	2,408
272531W	FEC	NE 3RD ST	332.97	POMPANO BEACH	CITY OF POMPANO BEACH	FECR/Brightline	79	52	2	3	35	135
272534S	FEC	SW 2ND ST	333.31	POMPANO BEACH	CITY OF POMPANO	FECR/Brightline	79	52	2	2	45	5000
272535Y	FEC	SW 6TH ST	333.79	POMPANO BEACH	BROWARD COUNTY	FECR/Brightline	79	52	2	4	25	2,145
272870B	FEC	NE 56TH ST	335.63	OAKLAND PARK	BROWARD COUNTY	FECR/Brightline	79	52	2	4	30	9,000
272546L	FEC	NE 24TH ST	338.31	WILTON MANORS	CITY OF WILTON MANOR	FECR/Brightline	79	52	2	2	25	1029
272547T	FEC	NE 17TH CT	338.8	FORT LAUDERDALE	CITY OF FT. LAUDERDALE	FECR/Brightline	79	52	2	2	25	7,800
272558F	FEC	SW 5TH ST	341.45	FORT LAUDERDALE	CITY OF FT. LAUDERDALE	FECR/Brightline	65	52	2	2	25	1,238
272559M	FEC	SW 6TH ST	341.56	FORT LAUDERDALE	CITY OF FT. LAUDERDALE	FECR/Brightline	65	52	2	2	25	1,106
272560G	FEC	SW 7TH ST	341.67	FORT LAUDERDALE	CITY OF FT. LAUDERDALE	FECR/Brightline	65	52	2	2	25	11,500
272564J	FEC	SW 17TH ST	342.55	FORT LAUDERDALE	CITY OF FT. LAUDERDALE	FECR/Brightline	65	52	2	4	30	3,900
272566X	FEC	SW 22ND ST	342.96	FORT LAUDERDALE	CITY OF FT. LAUDERDALE	FECR/Brightline	65	52	2	2	30	571
272572B	FEC	OLD GRIFFIN RD	345.44	DANIA BEACH	BROWARD COUNTY	FECR/Brightline	55	52	2	2	30	13,700
272573H	FEC	NW 1ST ST	345.81	DANIA BEACH	CITY OF DANIA BEACH	FECR/Brightline	79	52	3	2	30	8,792
272576D	FEC	DIXIE HWY	347.08	DANIA BEACH	BROWARD COUNTY	FECR/Brightline	79	52	2	2	30	2,650
272582G	FEC	GARFIELD ST	348.07	HOLLYWOOD	CITY OF HOLLYWOOD	FECR/Brightline	79	52	2	2	30	124
272584V	FEC	JOHNSON ST	348.27	HOLLYWOOD	CITY OF HOLLYWOOD	FECR/Brightline	79	52	2	4	30	12000
272589E	FEC	WASHINGTON ST	349.29	HOLLYWOOD	CITY OF HOLLYWOOD	FECR/Brightline	79	52	2	4	30	6100
272591F	FEC	NE 3RD ST	350.3	HALLANDALE BEACH	CITY OF HALLANDALE	FECR/Brightline	79	52	2	2	25	2340
272593U	FEC	SE 3RD ST	350.81	HALLANDALE BEACH	CITY OF HALLANDALE BEACH	FECR/Brightline	79	52	2	3	25	2,753

Figure 12: National Crossing Inventory Information

¹⁶ Letters of support will be sent directly to USDOT

EVALUATION AND SELECTION CRITERIA

Evaluation Criteria

Project Benefits

The Project will have multiple benefits:

- ✓ Improves safety at 21 highway-rail grade crossings in Broward County that currently do not have infrastructure that would prevent a driver from going around the entrance gates.
- ✓ Improves the mobility of both people and goods by reducing the number of incidents that impact residents from accessing their community and severely impact freight and passenger rail operations.
- ✓ Reduces emissions by reducing the amount of time vehicles need to idle because of each incident.
- ✓ Protects the environment by making freight and passenger/commuter rail a more reliable transportation mode—increasing truck to freight transfers and reducing single occupancy vehicles on the roadways.
- ✓ An increase in quality of life and noise abatement for residents and the ability to maintain "Quiet Zones" through Broward County.
- ✓ Improved access to emergency services and communities by reducing the number of times the grade crossings are blocked because of an incident.
- ✓ Supports economic growth by improving the movement of goods in the Region.
- ✓ Project construction will promote the use of local labor through disadvantaged business enterprise and equal employment opportunity goals.

Technical Merit

- Statement of Work

The scope of the Project will be to construct exit gates and centerline raised medians at 21 highway-rail grade crossings in Broward County. The activities supported by the RCEP funding will include final design and construction. A detailed Statement of Work addressing scope, schedule, budget, and performance measures is provided as Appendix A.

- Project Readiness

Project construction can start as soon as a grant agreement is executed, which is anticipated for September 2023. Once FRA has announced selected RCEP projects, the first step will be to request pre-award authority to complete the design and local permitting with each of the six municipalities and Broward County. The project's overall duration will take 2 years, with construction anticipated at 18 months. Initial coordination has already begun with each municipality, FDOT, Broward County, and FECR, as evidenced by letters of support that will be sent directly to USDOT. Through ongoing coordination with FRA, Brightline will progress over the next several months to complete a Categorical Exclusion under NEPA (see details in the Environmental Readiness section). This schedule can be

adjusted to fit within the process of obtaining pre-award authority and developing the terms of a grant agreement with the FRA.

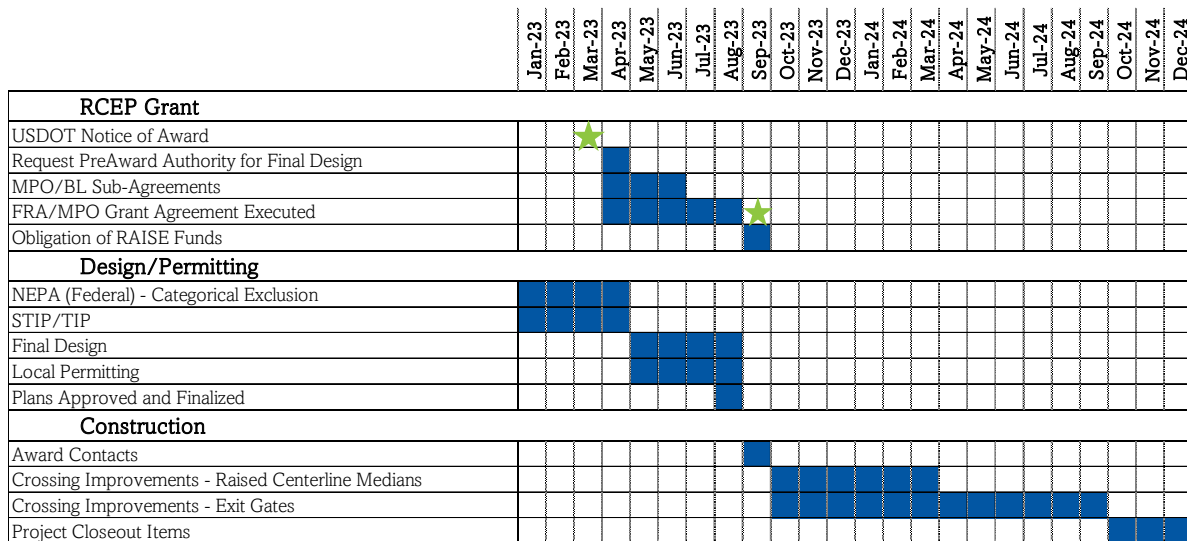


Figure 13: Project Schedule

- Team Qualifications and Experience

Through the strong partnership that has been established between all stakeholders, a skilled team of technical experts will be working on delivering this Project. The three primary organizations leading and performing the technical efforts are the Broward MPO, Broward County, and Brightline. The FDOT District 4 team and local municipalities will participate in design reviews and final approval.

The Broward MPO has experience leading the grant administration and oversight for previous USDOT grants. The project team is familiar with the transportation challenges of the County and has delivered similar projects under contract arrangements similar to what is proposed in this Project. An agreement between the Broward MPO, Broward County, and Brightline will be executed to address all the grant/project details, including a flow down of all federal requirements.

The Brightline team has a proven track record for implementing all aspects of a high-speed rail service. The team leading the design and construction of this Project would be much of the same team that has worked on implementing their current service. This team has demonstrated the capacity and capability to manage the engineering components. Brightline has recent USDOT grant experience implementing a 2017 CRISI Grant (South Florida East Coast Rail Corridor Intrusion Prevention Project) and a 2020 CRISI Grant (Boca Raton Station). Brightline has a proven record of completing major infrastructure and railroad projects on schedule, within budget, and with a critical emphasis on safety.

- Planning Support

This Project supports the advancement of freight and passenger rail in the State of Florida, which will help provide transportation alternatives for residents, visitors, and businesses, expand economic development, create jobs, and improve air quality. The 2045 Florida Transportation Plan (FTP) identifies seven goals for Florida's transportation future.¹⁷ Specifically, the Project helps accomplish these goals by increasing safety, creating better mobility for people and freight, strengthening the economy, supporting diverse communities, and reducing the impacts on Florida's environment.

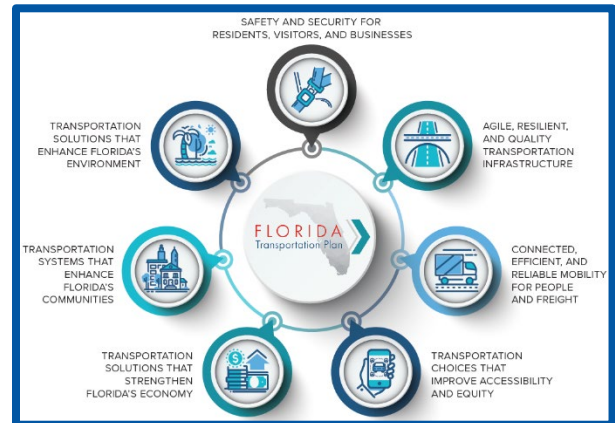


Figure 14: Florida's Transportation Goals
(Source: 2045 Florida Transportation Plan)

As part of Florida's long-range transportation planning, FDOT developed a statewide Rail System Plan¹⁸, which aligns with the vision and goals set in the FTP. Brightline's passenger rail service and the continuing need to increase safety through improvements are priorities in the Florida Rail System Plan (RSP). The RSP meets FRA's requirements for a comprehensive view of the State's rail system and helps identify short- and long-range program funding for statewide planning. The investments identified within the RSP include railroad infrastructure needs and highway-rail crossing safety improvements.

The Project also aligns with the goals of FDOT's Highway-Rail Grade Crossings Action Plan, which aims to eliminate safety hazards to the maximum extent possible.¹⁹ The plan explores how each safety challenge is selected and follows proactive and predictive measures to eliminate or significantly reduce risks in the short term and create favorable future impacts.

- Innovation

The Project's innovative elements are centered around an expedited project delivery which will result in the outcomes of the Project being realized as soon as possible. The Project stakeholders have built a solid partnership to safely and efficiently deliver the safety improvements. Broward County, FDOT, FECR, each municipality, and Brightline will conduct a unique simultaneous design review process for each crossing to assure a holistic analysis and improve schedule performance. The review includes both permanent design and maintenance of traffic. The various stakeholders associated with the Project have each partnered on other railroad corridor projects and will set up a similar agreement if this Project is selected.

¹⁷ Florida Transportation Plan, 2020, floridatransportationplan.com/

¹⁸ FDOT's Rail System Plan, 2018, www.fdot.gov/rail/plans/railplan

¹⁹ FDOT's Highway-Rail Grade Crossing Safety Action Plan, 2011, www.fdot.gov/rail/plandev/highway-rail-grade-crossing-safety-action-plan

- Impacted Rail Carrier

FECR owns the Corridor and operates the freight rail system between Jacksonville and Miami. FECR and Brightline share the use of the Corridor according to the terms of a Joint Use Agreement. FECR and Brightline have a long history of cooperating to increase the capacity and safety of this significant corridor to address transportation challenges in a rapidly densifying state. Although not a funding partner, FECR will participate in the design review of each crossing and provide access to the Corridor to construct the Project improvements.²⁰

- Multimodal Impacts

The Project will improve multimodal transportation options for the Region. By investing in the safety improvements today, the Project will help lay the groundwork for implementing a broader commuter rail transportation system that aligns with the USDOT goals of building access to opportunities for communities that have been underserved and overburdened. The planned Coastal Link, now in project development, will connect the eastern areas of Miami-Dade, Broward, and Palm Beach Counties and is proposed to use the same Corridor as Brightline and FECR.²¹ The service will attract over 2 million riders in the first year and expand a network of employment opportunities, education centers, and health assets to many disadvantaged communities.

In addition, by reducing the number of incidents along the Corridor, freight movement will be more efficient, significantly increasing capacity and reducing trip time for rail-bound intermodal freight movements, making rail a more competitive shipping option. This truck-to-rail transfer will increase capacity along the National Highway Freight Network and the National Highway System. These efficiencies will improve the distribution of goods and services and result in significant economic benefits for the South Florida region, the State of Florida, and North America.



Figure 15: Coastal Link Commuter Rail Corridor

Selection Criteria

Safety

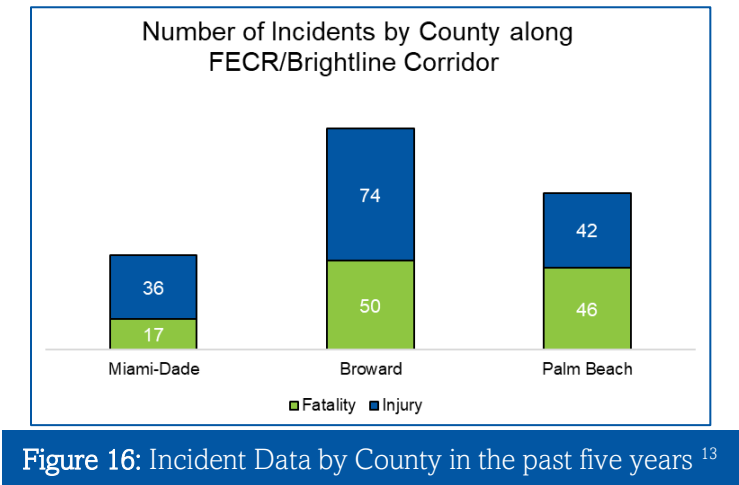
Safety is the top driver for this Project. The number of casualties along the FECR/Brightline Corridor have increased significantly over the past couple of years (see Figure 5). Worth noting, but not shown in the figures, is the number of reported suicides have also increased.²² Broward County has had the highest number of incidents (approx. 47%) of any County on the FECR/Brightline shared Corridor in the past couple of years. With the increased passenger rail service, potential commuter rail services, and

²⁰ Letters of support will be sent directly to USDOT

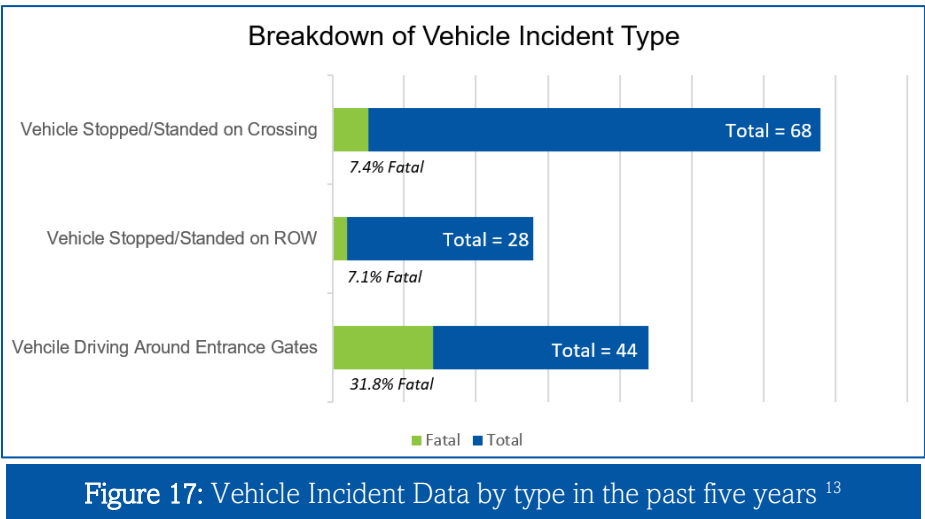
²¹ Coastal Link - browardmpo.org/coastal-link-commuter-rail-overview

²² Suicide Data - explore.dot.gov/t/FRA/views/TrespassandSuicideDashboard/SuicidesOverview. Incidents reported as suicides are classified by a coroner.

expanding freight service, coupled with higher/lower speed trains and trains coming from both directions, the number of incidents will likely increase if no additional action is taken to secure grade crossings.



Around half of all the incidents along the Corridor are vehicle incidents. Those are separated into three main categories: vehicles driving around the entrance gates, vehicles stopped on the crossing, and vehicles stopped or stranded on the right of way. The focus of the Project proposed in this RCEP application reduces the opportunities for a vehicle to drive around the entrance gates.²³ Across the shared Corridor, 17% of all trespassing incidents are caused by situations where a driver maneuvered around the entrance gate, and 57% of those incidents occurred in Broward County. Further, the data has shown that of all vehicle incidents experienced, 69% of them were caused by vehicles stopped on the crossing or on the right-of-way, but only 7% of those incidents resulted in a fatality. Meanwhile, the 31% of incidents that involved a driver going around the gates, resulted in a significantly higher fatality rate (32%).



²³ The recently selected RAISE grant that FDOT is leading is focused on addressing vehicles stopped on the crossing and vehicles stopped or stranded on the right-of-way (as well as trespasser/pedestrian incidents). The one major incident type not address by RAISE is vehicles driving around the gates.

On the current system under operation, FECR and Brightline meet or exceed FRA's railroad safety requirements and the federal laws and regulations governing the safety of rail operations nationwide. But various factors create a uniqueness to this Corridor requiring the State, railroad partners, and local stakeholders to seek innovative strategies to improve safety. Each of the supplemental safety measures installed through this Project are proven features that have reduced violations and incidents in similar applications across the United States. Based on past executions, FRA has developed effectiveness factors to determine the number of incidents and fatalities that could potentially be avoided. The crash modification factors related to the proposed mitigation improvements in this Project were determined to be in the range of 75% to 92%. An overview of the sources of data used to assess the impact of the countermeasures are detailed here:

- The Volpe Center performed a before and after evaluation of North Carolina's sealed corridor project, which found that four-quadrant gates, channelization, or a combination of both can have a crash reduction effectiveness in the range of 80-92%.²⁴
- FRA Office of Safety issued "Guidance on the Use of Traffic Channelizing Devices at Highway-Rail Grade Crossings." Channelization devices have become popular because of the initial and long-term affordability of these elements and the equivalent crash modification factor. Based on FRA's review of several demonstration studies, a 75% effectiveness rating has been established for traffic channelization devices.²⁵

The overall impact of the exit gates and centerline raised medians will significantly reduce the driver's risky behavior of attempting to maneuver around grade crossing entrance gates. Utilizing the identified crash modification factors and FRA's GradeDec model, it is anticipated that over the next 20 years, over 45 incidents may be avoided, including potentially saving the lives of more than 11 people.²⁶ This Project is consistent with the USDOT's strategic goal to minimize transportation-related fatalities and injuries across the transportation system.

Equitable Economic Strength and Improving Core Assets

In Florida, freight rail carries more than 80 million tons per year, valued at approximately \$11 billion.²⁷ Decreased reliability and increased travel time negatively affect competitiveness with other travel modes and the broad regional transportation network. The State of Florida anticipates considerable population and employment growth based on the analysis of local, regional, and national trends, population data, and employment data. This growth will require a comprehensive investment in transportation infrastructure to reduce congestion, prevent accidents, and build the Region's economic competitiveness. This Project improves the movement of workers and goods, decreases transportation costs, improves access, and supports the Region's economic growth.

²⁴ USDOT Report: North Carolina "Sealed Corridor" Phase I, II, and III Assessment, October 2009, railroads.dot.gov/sites/fra.dot.gov/files/fra_net/300/ord0917.pdf

²⁵ FRA Report: Use of Traffic Channelization Devices at Highway-Rail Grade Crossings, June 2010, railroads.dot.gov/sites/fra.dot.gov/files/fra_net/137/RR1003.pdf

²⁶ See Safety Benefits section for more detail

²⁷ Investment Element of the 2010 Florida Rail System Plan: fdotwww.blob.core.windows.net/sitefinity/docs/default-source/content/rail/plandevl/documents/finalinvestmentelement/g-chapter2-freightrail.pdf?sfvrsn=c5d7c85c_0

The Project will bring construction opportunities to the area in the short term. Brightline will manage a competitive process for selecting contractors that will perform the crossing work and aim to achieve a DBE goal set by the MPO. Although only temporary, the skillset gained through the railroad work may lead to other employment opportunities for residents.

Equity and Barriers to Opportunity

The Project has several positive impacts related to addressing equity and barriers to opportunity in Broward County. Directly adjacent to the Project Corridor are more than 10 Historically Disadvantaged Communities (6 are also Areas of Persistent Poverty) that will benefit from the improved safety.

- Reducing the number of incidents in the area will increase public safety and improve access to employment and economic development opportunities for surrounding communities.
- The mitigation of safety risks will improve overall quality of life and a secondary benefit is the supplemental safety measures will support the viability of a Quiet Zone through the County, which will reduce noise along the Corridor.
- This Project will support the long-term implementation of a commuter rail service which will bring a much-needed public transportation option along the eastern portion of the County, enhancing mobility in the Region and improving connectivity to daily needs and employment opportunities.

In addition, steps have been taken to consider the impacts on overburdened communities. The FDOT has woven equitable transportation planning into the 2045 Transportation Plan and public involvement. This has included specific steps during the outreach phase to provide equitable access to transportation, provide information clearly and early, and utilize multiple techniques to engage the public. The Broward MPO has also identified racial and ethnic minorities, transportation disadvantages, economic challenges, language proficiencies, elderly, and other populations that could be affected by disproportionate impacts that could result from public projects. The MPO created an Equity Assessment Tool that helps ensure that the benefits and impacts of plans, programs, and projects do not disproportionately impact certain communities during the planning process.

Climate Change and Sustainability

Similar to other parts of the nation, transportation accounts for 48% of the greenhouse gas emissions across the Southeast Florida region. This Project will help reduce incidents along the Corridor, minimizing the carbon monoxide emissions from vehicles queuing at grade crossings. A secondary impact of the Project is that freight and passenger rail service are more reliable from the reduced delays caused by each incident, resulting in an increased interest in using low-carbon transportation alternatives. This will help reduce the use of single-occupancy vehicles and increase truck to rail transfers, lowering the emission of air pollutants and building environmental resiliency. Consistent with Southeast Florida Regional Climate Action Plan, this

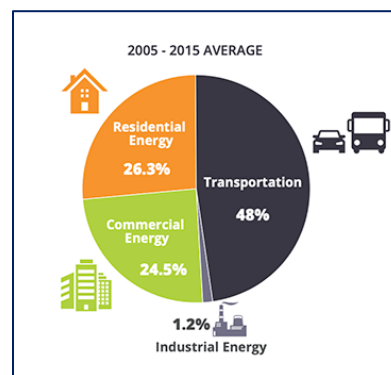


Figure 18: Regional Green House Gas Emissions by Sector (Source: Southeast Florida Regional Climate Change Compact)

Project complements transportation solutions that enhance Florida's environment and help to conserve energy.²⁸

As outlined in the Project Location section, the corridor and planned mitigations fall within multiple areas of persistent poverty and historically disadvantaged communities. Data have shown that low-income and minority communities are disproportionately impacted by compromised air quality.²⁹ This Project will help reduce the exposure of harmful transportation-related emissions to underserved and overburdened communities aligning with the Administration's Justice 40 goals.³⁰

Transformation of Our Nation's Transportation Infrastructure

This Project will improve the nation's rail network by enhancing reliability and fluidity, supporting the long-term growth of freight and passenger rail. FECR currently maintains critical rail infrastructure along the Corridor, with individual municipalities providing reimbursement per the existing maintenance agreements. Where maintenance agreements may need to be updated to cover the Project's supplemental safety measures, MPO will work with the partners to update such agreements.

Corridor-Wide Improvements

The Project, combined with other safety initiatives, will result in corridor-wide grade crossing improvements throughout Broward County. There are 66 highway-roadway grade crossings on the Corridor in Broward County, all crossings have entrance gates, and 39 have an exit gate or other element that helps to prevent drivers from going around the gates. This Project would improve the 21 of the remaining 27 crossings working towards a 'sealed corridor' through Broward County. The existing conditions and safety mitigation information for the 66 highway-railroad grade crossings in Broward County are provided in Appendix E. These details provide an overview of the comprehensive approach being implemented across the Corridor to maximize safety and the effectiveness of the improvements.

Geographic Diversity

South Florida has received various USDOT grants in the past couple of years to support safety along the FECR/Brightline shared corridor. These projects are unique and stand-alone but collectively have assisted with implementing a comprehensive approach to reducing incidents along the heavily populated and active rail Corridor. The two most significant grants have included the following:

- 2017 CRISI Grant for the South Florida East Coast Rail Corridor Intrusion Prevention Project focused on reducing incidents at 48 critical crossings where vehicles have driven around entrance gates. The construction of the exit gates, delineators, pavement markings, and raised medians is substantially complete. Improvements were made throughout the three counties in South Florida: Miami-Dade, Broward, and Palm Beach. (Grantee: Brightline)
- 2022 RAISE Grant for the Florida East Coast Corridor Trespassing and Intrusion Mitigation Project, which will focus on reducing incidents related to intrusion of the rail right-of-way. The

²⁸ Southeast Florida Regional Climate Change Compact - southeastfloridaclimatecompact.org/

²⁹ *Environmental Justice: Addressing the Burden of Air Pollution*, August 26, 2020, [Source](#)

³⁰ USDOT Justice40 Initiative - www.transportation.gov/equity-Justice40#more-about-justice-40

supplemental safety measures will be included the construction of delineators and pavement markers at 328 roadway-railroad grade crossings and the installation of 33 miles of pedestrian protection channelization features. The project was recently selected and is expected to start early next year. (Grantee: FDOT)

The Project proposed in this RCEP application is unique and separate from the work performed in the two previous grants. The focus of this Project is to construct engineering solutions at 21 highway-roadway grade crossings in the County. These activities are part of a comprehensive approach to improve safety in Broward County, which has experienced the most significant number of incidents related to vehicles maneuvering around the entrance gates along the entire corridor in South Florida.

SAFETY BENEFITS

The Project proposes to install exit gates and centerline raised medians at 21 highway-grade crossings in Broward County. These supplemental safety measures are considered non-standard technology but have been utilized nationally with positive results. FRA has sponsored several research studies to evaluate the safety benefits of these non-standard technologies. The recognition in these studies was to look at the supplemental safety measures that could be implemented beyond standard railroad crossing treatments to minimize as much risk as possible without completely closing or separating a crossing. FRA acknowledged that although closing or separating a crossing is the highest level of risk treatment, it is becoming increasingly difficult because of economic and community impacts.

Local South Florida partners are evaluating opportunities to separate or close certain railroad-highway grade crossings, but this is a long-term process that will take time and community engagement to achieve. In the meantime, there is an immediate need to install additional supplemental safety measures to curtail the number of incidents occurring in the Region. The Broward MPO, Brightline, and local municipalities evaluated several safety measures that could be installed. To assess which features were best suited to reduce situations where a vehicle can maneuver around entrance gates, the project team relied on USDOT research studies and FRA's GradeDec model.

As mentioned previously, one of the primary reports utilized was the North Carolina "Sealed Corridor" Phase I, II, and III Assessment, conducted by the Volpe Center in 2009.³¹ The North Carolina project installed a range of supplemental safety measures, such as four-quadrant gates, channelization, and a combination of both. The crash modification factors identified through a before and after assessment significantly improved safety (see Figure 19).

	Closure	Long Gate Arm	Traffic Channelization Devices	Video Enforcement	4-Quad Gates	4-Quad Gates with Channelization	Grade Separation
Effectiveness *	100%	75%**	80%	72%	82%	92%	100%
Cost Estimate	\$15K	\$5K	\$10K	\$55K	\$125K	\$135K	\$4M

* Effectiveness over standard gates in reducing crashes taken from the FRA NPRM on Railroad Horns
 ** Volpe estimate based on FRA NPRM estimates of other supplemental safety devices

Figure 19: Effectiveness and Cost of Crossing Improvement (Source: FRA Safety of Highway-Railroad Grade Crossings Report²⁹)

³¹ USDOT Report: North Carolina "Sealed Corridor" Phase I, II, and III Assessment, October 2009, railroads.dot.gov/sites/fra.dot.gov/files/fra_net/300/ord0917.pdf

The GradeDec model, specifically the new Accident Prediction and Severity (APS) tool, allowed the project team to analyze the impacts of the different supplemental safety measures. One of the critical features of this tool is that it can assess the statistical significance of variances in the measured risk at individual grade crossings. A recent FRA report indicated that the new APS model outperforms the previous version.³² GradeDec was used to determine a baseline of the outcomes and benefits of the Project. Still, based on the unique conditions and experience along the Broward segment of the FECR/Brightline shared Corridor, the project team anticipates that these are conservative assumptions.

Over the last five years, from 2022 to 2017, there have been 21 reported incidents at the 21 grade crossings proposed in this application. The new APS model predicted a 47% reduction in incidents between the build and no-build scenarios. Based on effectiveness results from previous studies, the results in GradeDec are lower because APS considers population and rail growth which will impact long-term effectiveness.

	Projected Incidents				Estimated Monetary Safety Savings over the next 20 years*
	No-Build Scenario (next 5 years)	Build Scenario (next 5 years)	No-Build Scenario (next 20 years)	Build Scenario (next 20 years)	
Fatal	5	2	20	9	\$ 122,960,000.00
Injury	8	4	32	15	\$ 9,409,408.00
Property Damage	8	4	32	15	\$ 332,416.00
Total	21	10	84	39	\$ 132,701,824.00
Total Reduced Incidents	11		45		

* Utilized average cost provided in USDOT Benefit-Cost Analysis Guidance

Figure 20: Results of Safety Analysis

Based on the results of the safety analysis, this Project will eliminate about 45 incidents over the next 20 years and save the lives of more than 11 people. Under conservative assumptions, the monetized safety benefit of the Project could total about \$132 million over the next 20 years.

PROJECT IMPLEMENTATION AND MANAGEMENT

This Project requires strong collaboration with multiple stakeholders, including Broward County and the individual cities who maintain jurisdiction over many of the road crossings traversing the rail tracks, Brightline - the owner, builder, and operator of the new higher-speed passenger rail service, FECR - the owner of the right of way and operator of the freight service, and FDOT, who creates the grade crossing standards for the State of Florida. The partners have a strong desire to balance corridor safety and quality of life through this Project which has been the foundation for identifying the best supplemental safety treatments. The lead project partners for implementation and funding are:

³² FRA Report: New Model for Highway-Rail Grade Crossing Accident Prediction and Severity, October 2020, railroads.dot.gov/sites/fra.dot.gov/files/2020-10/GX%20APS-A.pdf

- The **Broward MPO** is a federally-mandated agency responsible for setting policy on local transportation issues and deciding how to spend Federal and State funding on transportation projects in the Broward region. Broward MPO will serve as the lead sponsor and ensure that the Project scope conforms with the strategic goals and objectives of the USDOT and FRA grant agreement. The MPO will also ensure that all project stakeholders are adequately represented.
- **Broward County** is a co-lead partner on the Project and providing the majority of match funding. Broward County Government is comprised of more than 50 agencies, including the highway construction and engineering division which has jurisdiction over many of the crossings proposed in this application. Broward County will be actively involved in the design and construction of the Project elements to ensure alignment with County standards.
- The **Florida Department of Transportation (FDOT)** is an executive agency focused on providing a safe transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities. FDOT will review grade crossing designs to ensure they meet the State of Florida's evolving rail safety best practices.
- **Brightline Trains Florida LLC** (Brightline) is a privately owned and operated intercity passenger rail company that runs service along the corridor from downtown Miami to downtown West Palm Beach. Current stations include MiamiCentral, Fort Lauderdale, and West Palm Beach, with Aventura and Boca stations expected to open in 2022. In addition, an extension to Orlando is under construction, with service opening in 2023, and plans are underway to continue service to Tampa. Brightline will lead and be responsible for designing and constructing the safety improvements planned for this Project.
- **Florida East Coast Railway LLC (FECR)** is a Class II regional railroad that owns the freight rights for the 351-mile mainline track from Jacksonville to Miami. It is the exclusive freight rail provider for Port Miami, Port Everglades, and Port of Palm Beach. FECR connects freight rail service in and out of Georgia, Tennessee, South Carolina, and North Carolina. FECR will participate in the review of grade crossing designs and ensure long-term maintenance of the improvements.
- Several **Local Municipalities** will be actively involved in the design, permitting, and community support for the Project. These include the cities of **Pompano Beach, Oakland Park, Fort Lauderdale, Wilton Manors, Dania Beach, Hollywood, and Hallandale Beach**.³³

Implementation Roles and Responsibilities

The Broward MPO will provide overall oversight of the Broward County Sealed Corridor Project and will contract with Brightline to lead the implementation of the final design and construction activities. The partnership between the Broward MPO and Brightline will be formalized through a project agreement that will be executed in coordination with the FRA grant agreement and will lay out the funding and flow down provisions required as part of a federal award.

³³ Letters of support will be sent directly to USDOT

FECR and Brightline share the use of the Corridor according to the terms of a Joint Use Agreement (the "JUA"). The JUA grants Brightline the permanent, perpetual, exclusive right to develop and operate Passenger Railroad Service over the Corridor and reserves to FECR the permanent, perpetual, exclusive right to develop and operate Freight Railroad Service over the Corridor. FECR will provide a letter of support for the proposed Project improvements.³⁴

Under the rights of the JUA, Brightline, in collaboration with FDOT, Broward County, and each municipality, will lead the design and construction of the activities proposed through this Project. Many of the partners have experience working together in a similar manner for other safety-related projects that have been implemented on the corridor. FECR will maintain the improvements covered by the RCEP grant with individual municipalities or Broward County, providing reimbursement per the existing maintenance agreements.

The Broward MPO and Brightline have an experienced team of project managers, engineers, construction support, finance, and grant management to design and construct the Project. Brightline will manage the project under the structure of its development and construction division. The Project team has the expertise needed to oversee local, State, and federal regulatory items and processes that may exist.

As the Grantee, the MPO is responsible for facilitating the coordination of all activities necessary to implement the Project. Upon award of the Project, the Grantee will monitor and evaluate the Project's progress through regular meetings scheduled throughout the Project Performance Period.

Other Approvals and Permits

Brightline will lead a collaborative process with FDOT, Broward County, FECR, and individual municipalities to complete the design review and approval, which has proven effective for identifying and resolving design comments in past projects. In addition, maintenance of traffic permitting would occur in concurrence with each crossings design approval to expedite the Project's permitting process.

Risk and Mitigation Strategies

The Brightline team has conducted a risk analysis and has documented a list of potential risks and opportunities relevant to the Project. Each has been assessed relative to the probability, impact, and risk scoring matrix. All the data has been collected into the project risk register. The Brightline project manager, as part of the ongoing management activities, will review the Risk Register with a focus on actionable activities to mitigate risks and capitalize on opportunities. The assessment is reasonably straightforward as the Project consists of the design and construction of relatively well-known activities with well-established means and methods. A list of the risks identified for the Project is provided in Figure 21.

³⁴ Letters of support will be sent directly to USDOT

PXI Scope Category	Title	Details	P-Level	I-Level
Construction	Local Permitting	Delays by municipalities in timely issuance of permits could impact scope, schedule, and cost	Low	Moderate
	Contractor Productivity	Insufficient construction windows could delay schedule and impact cost	Moderate	High
	Material Escalation	Significant oncreases in the cost of materials	Moderate	Moderate
	Coordination with Other Projects	Multiple construction projects are underway with the potential for interference	Low	Low
Design	Design Constraints	FDOT needs to approve profile revisions that are unable to meet the Florida Greenbook Standards	Medium	Low
Other	Partner Coordination	Multiple partners are collaborating on project and need to continue to be active participants, including municipalities, FDOT, Brightline, FECR	Low	Low

Figure 21: Project Risk Register

ENVIRONMENTAL READINESS

The NEPA process for Brightline's Phase I and II introduction of service will serve as the starting point for evaluating the environmental impacts of this Project. Since all construction activities will occur within the existing railroad or roadway right of way, based on consultation with the FRA in September 2022, this Project would fall under a Categorical Exclusion (CE) classification. To support the discussion with FRA, a Categorical Exclusion Worksheet was drafted as part of a previous RAISE application submittal. The 21 crossings proposed in this application overlap with the previous analysis, which lays out the preliminary review of the environmental risks identified for the Project.³⁵ The MPO and Brightline will complete any required environmental documentation during preliminary engineering and are committed to demonstrating that the Project will cause no adverse effects on the environment, per applicable NEPA requirements, before a grant agreement is executed. The original environmental record includes the following:

- Miami to West Palm Beach – Final Environmental Assessment (October 2012)³⁶
- Miami to West Palm Beach - Finding of No Significant Impact (January 2013)³⁷
- Miami to Orlando – Final Environmental Impact Statement (August 2015)³⁸
- Miami to Orlando – Record of Decision (December 2017)³⁹

³⁵ See Appendix B for Preliminary CE Worksheet

³⁶ Final EA - railroads.dot.gov/environment/environmental-reviews/all-aboard-florida-passenger-rail-project-west-palm-beach-miami

³⁷ FONSI - railroads.dot.gov/elibrary/all-aboard-florida-passenger-rail-project-fonsi

³⁸ Final EIS - railroads.dot.gov/environmental-reviews/all-aboard-florida/all-aboard-florida-miami-orlando-passenger-rail-service-0

³⁹ ROD - railroads.dot.gov/environmental-reviews/all-aboard-florida/all-aboard-florida-miami-orlando-passenger-rail-service-1