

Collier Blvd CORRIDOR IMPROVEMENTS PROJECT TIGER 2015 APPLICATION

Submitted By: Collier County Growth Management Department
Location: Collier County, FL

Total Project Cost: \$ 33,400,000
Matching Funding: \$ 6,680,000
Grant Requested: \$ 26,720,000





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Application Attachments

- Attachment A: Cover Letter
- Attachment B: Letters of Support
- Attachment C: Benefit-Cost Analysis Spreadsheet
- Attachment D: Federal Wage Rate Certification Letter
- Attachment E: Letter of Commitment

Other Supporting Documents ([TIGER VII LINK](#))

- ✓ Future Land Use Maps
- ✓ Collier Area Transit (CAT) Transit Development Plan (TDP)
- ✓ 2035 Long Range Transportation Plan (LRTP)
- ✓ Collier MPO Pedestrian and Bicycle Safety Study
- ✓ Collier MPO 2012 Comprehensive Pathways Plan
- ✓ Shrinking the Carbon Footprint of the Metropolitan Area

Primary Point of Contact:

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1 Executive Summary

Project Name

Collier Boulevard Corridor Improvements

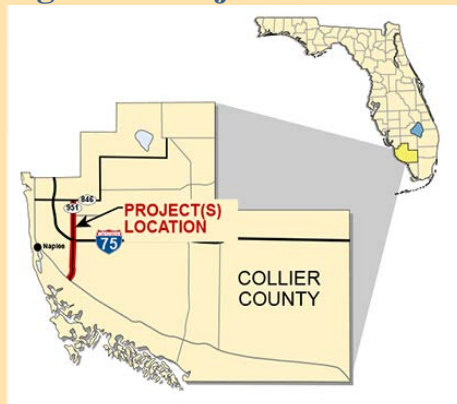
Project Type

Primary Project Type: Road - Highway (Urban) project that completes a 15-year, \$200 million (to date) reconstruction effort to upgrade 15 miles of Collier Boulevard This project includes roadway capacity improvements (widening from four-lane to six-lane), roadway safety improvements (replacement of structurally deficient bridge, added protective barriers, etc.), and multimodal connectivity improvements (Bike-Pedestrian-Transit).

Secondary Project Type: Bike/Ped-Complete Streets – Project will provide bicycle lanes, pathway, sidewalks, bus shelters and amenities, and will connect to the ongoing Golden Gates City Pedestrian/Stormwater Master Plan Improvement Project. *

*This project is an \$18 million sidewalk and storm water improvement project within the 4-square mile boundary of Golden Gate City, adjacent to this segment of Collier Blvd. Note: Not included in requested funding or Benefit-Cost Analysis (BCA).

Figure 1: Project Location



Project Location

Collier County, Florida

Funding Approach

Collier County Public Funds

Project Cost

Collier Boulevard Corridor Improvements Project	
Project Cost:	\$ 33,400,000
TIGER Funds:	80% (\$26,720,000)
Partnership:	US DOT and Collier County

Project Readiness

- ✓ Environmental Resource Permit: **Approved**
- ✓ Army Corp of Engineers Permit: **Approved**
- ✓ NEPA Approval: **July, 2016**
- ✓ Final Design Complete: **October, 2016**
- ✓ TIGER Funds Obligated: **February, 2017**
- ✓ Construction Start: **April, 2017**
- ✓ Construction Complete: **June, 2019**



Photo 1-Bicycle and Pedestrian Improvements will Benefit Local Residents



Project Benefits

- Roadway capacity, operational and access improvements
- Roadway and pedestrian **Safety** improvements
- Improves the **State of Good Repair** by replacing a structurally deficient bridges over the Main Golden Gate Canal and CR 951 Canal.
- **Multimodal** connectivity improvements through Bike-Ped-Transit
- Creates “**Ladders for Opportunity**” by supporting **Economic Competiveness** and movement of goods in rural areas of critical economic concern
- Enhances **Quality of Life** by addressing high priority needs for pedestrians and bicycles (located within one mile of eight schools). This completes 15 miles of pathway.
- Promotes **Environmental Sustainability** by reducing carbon emissions, reducing noxious emissions and reducing environmental impacts

Supporting Documentation

Links to documents referred in this application may be found at: [TIGER VII LINK](#)

Primary Point of Contact:

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2 Project Description

This TIGER Discretionary Grant application for the **Collier Boulevard Corridor Improvements** completes a 15-year, \$200 million (to date) reconstruction effort (**Table 1**) to upgrade 15 miles of Collier Boulevard. The project will construct transportation infrastructure improvements along the Collier Boulevard corridor from just north of Interstate 75 to Green Boulevard. **This critical corridor supports the movement of goods through both urban and rural areas by connecting neighborhoods to commercial and employment areas.** This project includes



Photo 2 - Pedestrians Enjoying Completed Pathway



Photo 3-Completed Collier II Segment



roadway capacity improvements, roadway safety improvements, and multimodal connectivity improvements.

Over the past 15 years, exponential population growth has resulted in an increased demand on Collier Boulevard from US 41/Tamiami Trail (south) to Immokalee Road (north). The local transportation investment to widen Collier Boulevard to six lanes has totaled more than \$200 Million (Table 1B) to date and has resulted in the following ten projects shown on the next page (Table 1A).

Table 1A: Collier Blvd Capital Improvements Projects

PROJECT No.	PROJECT NAME	LIMITS
PROJECTS COMPLETED		
1	Collier Blvd I	Golden Gate Blvd to Immokalee
2	Collier Blvd II	US 41 to Davis Blvd
3	Collier Blvd II Extension	Davis Blvd to Main Golden Gate Canal
4	Davis Blvd	Collier to Radio
PROJECTS UNDER CONSTRUCTION		
5	Collier Blvd/US 41 Intersection	Intersection Improvements
6	Collier Blvd III - Phase I	Green Blvd to Golden Gate Blvd
PROJECTS UNDER DESIGN/CONSTRUCTION		
7	Golden Gate City Sidewalk/Stormwater Improvements	4 Sq. Miles of Golden Gate City
PROJECTS UNDER DESIGN		
8	Collier/Immokalee Intersection	Intersection Improvement)
9	Collier/I-75 Interchange (FDOT)	FDOT: Interchange Improvements
2015 TIGER GRANT APPLICATION		
10	Collier Blvd III - Phase II	I-75 to Green Blvd)

In addition to the six lane capacity improvements, the past widening projects included intersection operational improvements, transit facilities, bike lanes, pathways and sidewalks that meet American Disabilities Act (ADA) compliance as well as improving local, residential and business access. In contrast, the remaining two mile segment of Collier Boulevard between Golden Gate Main

Canal and Golden Gate Boulevard, remains four lanes with no bike lanes and no sidewalk facilities along the east side of the corridor. This limits the safe and efficient mobility of motorized vehicles, non-motorized vehicles and pedestrians.



Recently, the Florida Department of Transportation (FDOT) completed a Project Development and Environment Study (PD&E) for the interchange area (Davis Boulevard to the Golden Gate Canal) which will result in a reconfigured interchange to improve vehicular operations while maintaining the six-lane Collier Boulevard through lanes, bike lanes, sidewalks and trails. The follow-on interchange design efforts, which began in 2015, will result in an additional \$60 million to this critical transportation corridor (**Note:** Investment not included in overall project cost or BCA.).



Photo 4- Construction on Collier III - Phase I

Collier Blvd CORRIDOR IMPROVEMENTS PROJECT

TIGER 2015 APPLICATION



The two-mile segment of Collier Boulevard from Green Boulevard to Golden Gate Boulevard began construction in February 2015, and will improve this section of roadway to a six-lane section with bike lanes, sidewalks and pathway along the east side of the CR 951 canal.

Funds provided by this grant will complete the remaining two mile, six-lane segment of Collier Boulevard between the Golden Gate Main Canal and Green Boulevard. Collier County has already invested funds to complete the 60% design plans, and has obtained permits for the project (Figure 2).

Figure 2: Project Rendering with 6 Lane Typical



As stated, construction activities have already been completed or are in progress on thirteen of the fifteen miles of Collier Boulevard, as well as the major intersection on the north and south project limits to address capacity and safety issues. The past, present, and future projects for this corridor are shown in Figure 3.



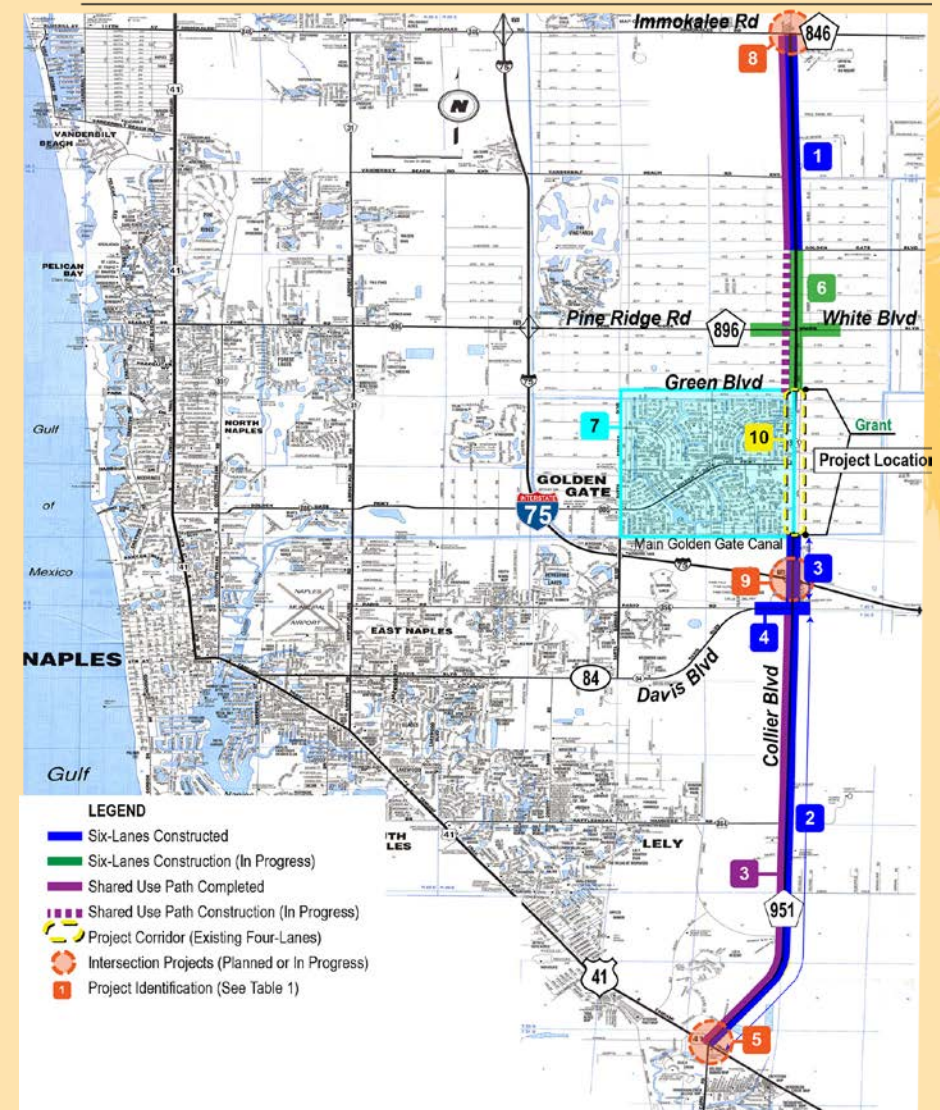
Photo 5 Collier III Phase I Under Construction



Table 1B: \$200 Million Reconstruction Efforts

Location (Figure 3)	Section	Cost Incurred & Projected	Designed	Constructed
1	Collier Blvd I	\$55,685,853	✓	✓
2	Collier Blvd II	\$37,161,003	✓	✓
3	Collier Blvd II Extension	\$18,622,041	✓	✓
4	Davis Blvd	\$11,112,406	✓	✓
5	Collier Blvd / US 41 Intersection	\$40,680,132	✓	IN PROGRESS
6	Collier Blvd III - Phase I	\$31,339,753	✓	IN PROGRESS
7	Golden Gate City Sidewalk/ Stormwater Improvements	\$18,000,000	IN PROGRESS	IN PROGRESS
8	Collier / Immokalee Intersection	\$4,350,000	IN PROGRESS	N/A
9	Collier / I-75 Interchange	\$67,500,000	IN PROGRESS (FDOT)	N/A
10	Collier Blvd III - Phase II	\$33,400,000		THIS GRANT APPLICATION
Total Investment		\$318,851,188		

Figure 3: Past/Present/Future Location Map



TBC08311102359TFA F1-2 Current Projects - MCG Canal to CG Blvd.pl

Past/Present/Future Location Map
Collier Boulevard (CR 951) Corridor
US 41 to Immokalee Road





This significant project is located within approximately one mile of eight schools (five elementary, one middle and two high schools) within Golden Gate City. Due to the project's proximity to schools, high-density residential areas and commercial areas, (Figure 4) the Collier Boulevard Corridor Improvements are essential for improving safety, improving multimodal connectivity and creating "Ladders of Opportunity".



Photo 8 Golden Gate Sunrise Plaza (Retail)



Photo 6 Golden Gate High School



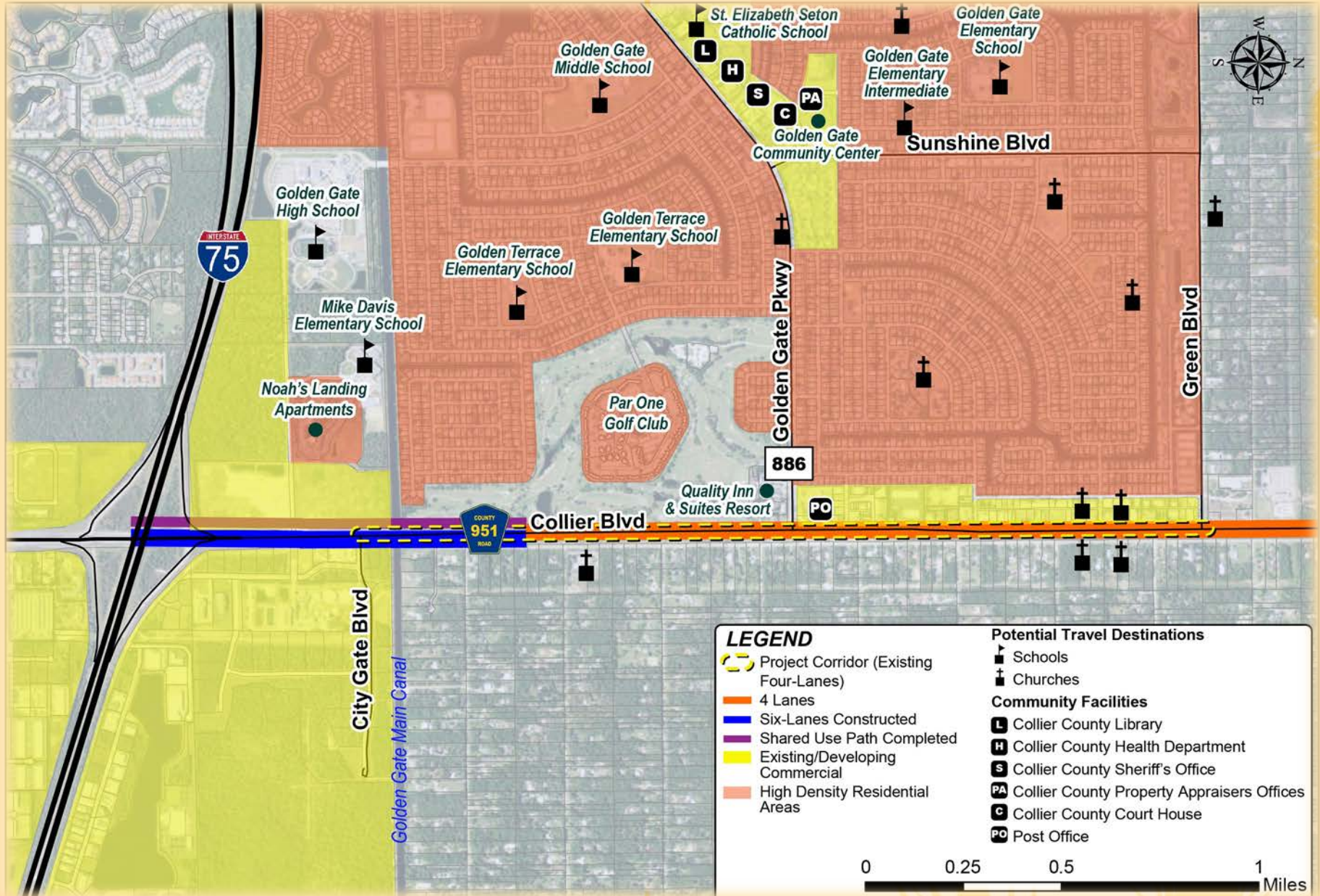
Photo 7 St. John Neumann High School



Photo 9 Golden Gate Elementary School



Figure 4: Corridor Features Map





To achieve the benefits outlined in this application the following improvements are proposed for this project:

- Roadway widening from four to six lanes
- Replacement of structurally deficient bridges over the Main Golden Gate Canal and CR 951 Canal.
- Canal realignment and re-grading
- Added bike lanes (none exist today),
- Added pathway (pathway amenities)
- Added sidewalk
- Bicycle - Pedestrian improvements interconnects 15 miles of bicycle lanes, sidewalks and pathways.
- Added transit facilities and amenities (bus shelter, benches, etc.)
- Added protective barriers between vehicles, pedestrians and hazards

Recognizing that TIGER funding is limited and highly competitive, Collier County and their supporting partners have identified a plan and strategy that will dramatically improve the areas surrounding the proposed project area. **This project is estimated to cost approximately \$33.4 million with the TIGER grant share (80%) requested at approximately \$26.72 million.**

This project will exhibit how directed investments in roadway, pedestrian and transit facilities can transform America's disconnected suburban areas into accessible, livable communities while stimulating economic development.

"This agency, as well as the residents and visitors of Collier, will benefit from this project. I hope you will join me in wholeheartedly supporting their application." – Representative Kathleen Passidomo

2.1 Project Location

The Collier Boulevard III – Phase II Project is located in southwest Florida within Collier County as shown in **Figure 3**. The project resides in the unincorporated portion of Collier County, east of the City of Naples bordering the neighborhood known as Golden Gate City.

The project will construct transportation infrastructure improvements along the Collier Boulevard corridor from just north of Interstate 75 (I-75) to Green Boulevard. The Collier Boulevard Corridor is a significant north-south link in the county roadway network. The **designated emergency evacuation route** also provides **direct access to Interstate 75**. Interstate 75 is Florida's main highway along the west coast of Florida which also moves traffic east across the state to Fort Lauderdale.

As I-75 turns east, it becomes known as Alligator Alley or Everglades Parkway. If you follow Alligator Alley to the east, Picayune Strand State Forest and Florida Panther National Wildlife Refuge are approximately eight and twelve miles, respectively, from the project limits.

The Naples Municipal Airport is located 5 miles west of the project while South West Florida International Airport is located approximately 25 miles north on I-75.

The Gulf of Mexico is approximately seven miles from the project limits to the west.





2.2 Community Demographics

Golden Gate City (zip code 34116) is a residential community primarily comprised of single family homes. Renters make up approximately 48% of the population.

Description	Measure	Source
Population		
Census 2010 Total Population	30,005	2010 Demographic Profile
2013 Population Estimate (as of July 1, 2013)	N/A	2013 Population Estimates
2013 ACS 5-Year Population Estimate	33,537	2009-2013 American Community Survey 5-Year Estimates
Median Age	31.6	2009-2013 American Community Survey 5-Year Estimates
Number of Companies	N/A	2007 Survey of Business Owners
Educational Attainment: Percent high school graduate or higher	70.5%	2009-2013 American Community Survey 5-Year Estimates
Count of Governments	N/A	2012 Census of Governments
Total housing units	10,102	2009-2013 American Community Survey 5-Year Estimates
Median Household Income	42,467	2009-2013 American Community Survey 5-Year Estimates
Foreign Born Population	14,926	2009-2013 American Community Survey 5-Year Estimates
Individuals below poverty level	22.8%	2009-2013 American Community Survey 5-Year Estimates

Description	Measure	Source
Race and Hispanic Origin		
White alone	24,747	2009-2013 American Community Survey 5-Year Estimates
Black or African American alone	4,587	2009-2013 American Community Survey 5-Year Estimates
American Indian and Alaska Native alone	108	2009-2013 American Community Survey 5-Year Estimates
Asian alone	697	2009-2013 American Community Survey 5-Year Estimates
Native Hawaiian and Other Pacific Islander alone	18	2009-2013 American Community Survey 5-Year Estimates
Some Other Race alone	2,968	2009-2013 American Community Survey 5-Year Estimates
Two or More Races	412	2009-2013 American Community Survey 5-Year Estimates
Hispanic or Latino (of any race)	18,856	2009-2013 American Community Survey 5-Year Estimates
White alone, Not Hispanic or Latino	9,355	2009-2013 American Community Survey 5-Year Estimates
Veterans	1,181	2009-2013 American Community Survey 5-Year Estimates

Source:

http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml#none



2.3 Connections to Existing Transportation Systems

The Collier Boulevard Corridor Improvement Project improves the existing transportation system so that it serves more users within existing right-of-way and maximizes the transit and pedestrian network. The project is approximately one mile north and three miles east of I-75. There are four interchanges with I-75 in Collier County: Immokalee Road, Pine Ridge Road, Golden Gate Parkway, and Collier Boulevard. Since Collier Boulevard is the first interchange heading west from Ft. Lauderdale/Miami as well as the eastern-most major north-south arterial, it receives a heavy amount of traffic.

- 2014 AADT – 42,800
- 2016 AADT – 44,700
- 2036 AADT – 57,600
- 9.28% Trucks

The capacity improvements from just north of I-75 to Green Boulevard will help alleviate congestion on I-75 as well as other north-south major arterial roads in Collier County such as Livingston Road and Airport Road.

The Collier Area Transit (CAT) Transit Development Plan (TDP) has four bus routes listed as needs in this area.

Route 19 provides direct connections from Immokalee (2nd Rural Area of Economic Concern Executive Order 11-81) to this corridor and route 25 serves part of this area. Routes 15 and 16 are currently in the area as well.

Route 27, a new route that just started service on January 2, 2015, serves this corridor and provides connections to the Creekside Transfer Station, the only transfer point with our regional transit partner, Lee County, FL Transit System.

Based on the TDP and the 2040 Long Range Transportation Plan (LRTP), future needs may expand service to include Collier Boulevard. Additional information on the CAT TDP is located at: [TIGER VII LINK](#)



Photo 10 - Collier Area Transit utilizes Collier Blvd as a major connector for the system. Route 19 connects City of Immokalee (Designated of area of Economic Concern) with Southwest Collier County.



The prospective roadway segment provides a Pedestrian Crossing over the Main Golden Gate Canal and bike lanes that do not currently exist. The proposed improvements will create connectivity to pathways and bike lanes that exists today to the north and south on Collier Boulevard. The improvements will fill in the bicycle/pedestrian facility gap on Collier Boulevard and create a regional facility.

2.4 Needs Addressed

This project is one of the highest priority (Ranked 2nd) projects in Collier County's Metropolitan Planning Organization (MPO)'s 2035 Long Range Transportation Plan (LRTP). ([TIGER VII LINK](#)) In addition, there are ten projects in the LRTP that are within two miles of the limits of the Collier Boulevard Corridor Improvements Project. This indicates that there is a considerable need for transportation infrastructure improvements in this area. The proposed project aims to address both short-term and long-term transportation needs in the region.

In the short-term, the proposed project will increase the overall safety of the corridor for all users. By providing additional roadway capacity, bike lanes, pathways, transit system improvements and sidewalks, the improvements will provide for a safer, more convenient and easily accessible movement of people and goods through the area. The widening of the road will minimize potential congestion on I-75, Livingston Road and Airport Road and provide efficient and safe truck routes. Relocating the existing bridge over the CR 951 canal at 25th Avenue to a location such as the Golden Gate Parkway Intersection, will provide a pedestrian connection that does not exist today and could improve transit ridership. Bridge replacement over the Main Golden Gate Canal is a safety improvement and provides a pedestrian and cyclist connection that does not exist today and could improve transit ridership. Creating sidewalk extensions along the east side of Collier Boulevard will also enhance safety and improve accessibility for transit riders.

The Comprehensive Pathways Plan (December 2012) deemed this area in need of bicycle/pedestrian connectivity. The Plan also pointed out that the study area would create a significant and continuous pathway and bicycle corridor

from Marco Island to Immokalee Road. The proposed pedestrian crossings and connectivity of bike lanes produce infrastructure that supports intermodal transportation. Additional information on the Comprehensive Pathways Plan is located at: [TIGER VII LINK](#)

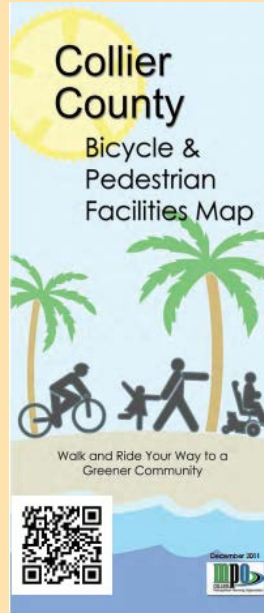
Figure 5: Rendering of Shared Use Path



The project is in a high density area that has numerous businesses within walking distance (hotels, restaurants, a hardware store, a post office, banks, pharmacies, animal hospitals, etc.) The proposed improvements are also close to community centers, parks, churches and schools within the Golden Gate community. The entire project is within approximately one mile of eight schools (five elementary schools, one middle school and two high schools). Promoting safe access to intermodal transportation opportunities on a central road, which splits the urban and rural areas of Collier County, will decrease traffic and promote safer conditions. Overall, the regional facility will enhance the quality of life by a completing a much needed link in the transportation infrastructure.



In the long-term, the proposed widening will prepare Collier Boulevard for future traffic conditions. The project will reduce crash rates at intersections and minimize congestion along the corridor by conveying traffic through at a more efficient rate. It will also increase the mobility of the public by providing safe, accessible intermodal transportation options. Completion of the Collier Boulevard corridor will improve the safety of all users of the facility, economic health of the community, the physical health of the residents and the general quality of life for all in the region.



3 Project Parties

3.1 Collier County



The applicant for this grant is Collier County, Florida. Collier County is located in Southwest Florida along Florida's Gulf Coast. Per the Collier Metropolitan Planning Organization's (MPO's) latest data, the county is approximately 2,025 square miles. According to the Bureau of Economic and Business Research (BEBR), in 2012, 89% of the county's population lived in unincorporated areas. The County is governed by the five-member Collier County Board of County Commissioners. According to the 2010 U.S. Census, the County population is 321,520 with a median age of 46.9 years. According to the FY 14-15 Collier County Budget, the Collier County Comprehensive Planning Department indicates that the County's population will grow by 65,990 over the next decade – an average of 1.9% annually. Collier County continues to be a favorite seasonal and tourist destination during the winter months between November and April when the population rises by an estimated 20%.

The estimated current seasonal population is 418,048 and it is projected that the seasonal population will increase to 466,233 by the year 2021.

Collier County boasts attractions and amenities that will foster economic and community development. These include the North Collier Regional Park home to a popular water park, fitness complex, and host to nationally sanctioned sporting events; numerous recreation and educational opportunities enjoyed by visitors due to close proximity to the Everglades; frequent inclusion of recently re-nourished county and city owned beaches as some of the best in the U.S.; as well as popular upscale shopping and dining throughout the County.

County Park System

- Eagle Lakes Community Park
- East Naples Community Park
- Golden Gate Community Center
- Golden Gate Community Park
- Immokalee Airport Park
- Immokalee Community Park
- Immokalee Sports Complex
- Manatee Park
- Max Hasse Jr. Community Park
- Pelican Bay Community Park
- South Immokalee Park
- Tony Rosbough Park
- Veterans Community Park
- Vineyards Community Park
- Gordon River Greenway



Photo 113- Freedom Park



Photo 12- Naples Beach



Photo 13- Golden Gate Community Park Sign



3.2 FDOT



Collier County will partner with the Florida Department of Transportation (FDOT) District One for the Federal Highway Administration (FHWA) approvals for Collier Boulevard. Based on the current

permits, the project has no social, cultural, or physical impacts and has minimal natural environment impacts for which mitigation has been approved by the state (South Florida Water Management District) and the United States Army Corps of Engineers (USACE). The USACE Individual Permit demonstrates the project's compliance with the National Environmental Policy Act (NEPA) as required by law.

FDOT along with Collier County has invested heavily within this corridor. Currently FDOT District 1 is designing improvement to the Collier Boulevard and I-75 Interchange.

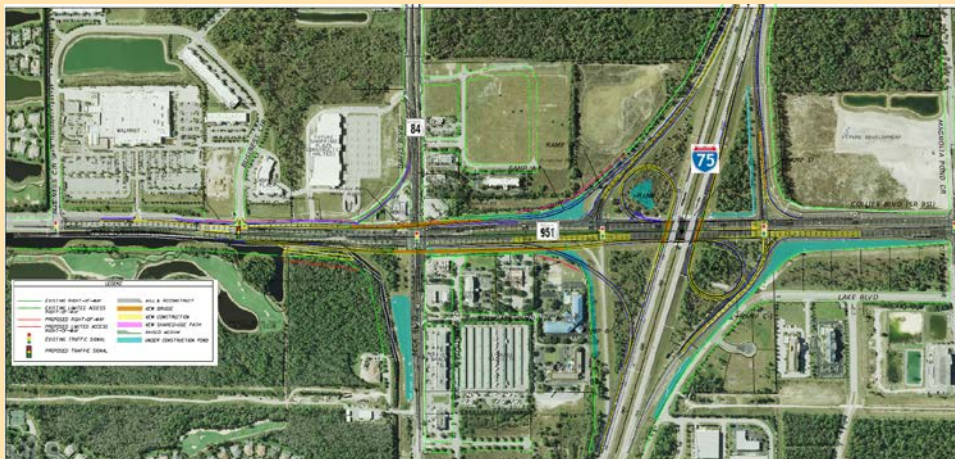


Photo 14: FDOT PD&E Preferred Alternative

4 Grant Funds and Sources/Uses of Project Funds

The project funds will provide for the design and construction of this critical corridor, which functions as the border between the urban and rural areas of Collier County. Over the past decade, the population of Collier County has experienced tremendous growth and moved past the urban boundary into the rural area. This, in addition to the forecasted population growth of Collier County, necessitates the expansion of Collier Boulevard for capacity improvements and connectivity improvements from the growing neighborhoods to the established employment and commercial areas. This project supports the ideals of the TIGER grant by creating a "Ladder of Opportunity" and increasing connectivity to employment, education, entertainment and a multitude of other services and opportunities.

The total capital costs of the project are estimated at approximately \$33.4 million. Collier County has leveraged its existing financial capacity to facilitate project implementation and is contributing 20% of the capital costs. **Therefore, Collier County is seeking \$26.72 million (2015 dollars) in Federal TIGER grant funds for the Collier Boulevard Corridor Improvements Project, which is approximately 80% of the overall capital costs.** It should be noted that Collier County has already invested over \$200 Million to date to improve Collier Boulevard and that the improvements outlined in this application represent a critical segment of an overall \$317 Million investment along this corridor. In addition, the county is performing an \$18 million sidewalk and storm water improvement project within the 4-square mile boundary of Golden Gate City, adjacent to this segment of Collier Blvd. (Not included in requested funding or BCA).

Table 2 summarizes the funding sources for the project costs including the potential TIGER grant.



Table 2: Project Funding Sources

Source	Percent Contribution	Funding Amount
TIGER	80%	\$ 26,720,000
Collier County	20%	\$ 6,680,000
TOTAL	100.0%	\$ 33,400,000

No Federal funds will be used to match the requested TIGER grant funds. Collier County has committed \$6.68 million from County taxes collected for transportation infrastructure improvement projects.

Table 3 summarizes the utilization of project funds by cost category. The capital costs (2015 dollars) include roadway (widening, new pathways, etc.), structures, signing and pavement markings (SAPM), signals, lighting, utilities, landscaping and amenities, maintenance of traffic (MOT), mobilization, construction engineering and inspection, professional services (design), and project unknowns and contingencies.

Table 3: Uses of Project Funds

Cost Category	Percent of Project Cost	Total Costs (2015 Dollars)
Roadway	43.1%	\$ 14,383,940
Structures	24.3%	\$ 8,100,000
SAPM, Signals, Lighting and Utilities	7.3%	\$ 2,436,000
Landscaping and Amenities	3.0%	\$ 1,000,000
Maintenance of Traffic (MOT)	3.0%	\$ 1,000,000
Mobilization	3.0%	\$ 1,000,000
Construction Engineering and Inspection	5.2%	\$ 1,750,000
Professional Services	3.0%	\$ 1,000,000
Project Unknowns and Contingency	8.2%	\$ 2,730,060
TOTAL	100%	\$ 33,400,000

In summary, the requested TIGER grant fund of \$26.72 million will significantly support necessary design and construction activities for the project comprising approximately 80% of the overall project development costs. This transportation infrastructure improvement project will help Collier County complete the gap in the 15-year, \$200 million reconstruction effort to dramatically improve the Collier Boulevard corridor.

5 Selection Criteria

5.1 Long Term Outcomes

5.1.1 State of Good Repair

The Collier Boulevard Corridor Improvements Project will improve the condition of the existing roadway, pedestrian facilities and bicycle lanes. The increase in capacity will reduce delay and congestion on the regional network and lower maintenance costs. Reduced maintenance costs will allow public dollars to be used for other necessary transportation projects that may not otherwise have available funding.

Providing more transit, bicycle and pedestrian opportunities also reduces maintenance cost. Reducing the number of cars on the road not only lowers road maintenance, it also constructs a more safe intermodal transportation system. The proposed project will improve the existing transportation system so that it serves more users within the existing right-of-way while minimizing network lifecycle costs and environmental impacts.

The project is consistent with the MPO's 2035 LRTP. The Collier MPO, the State of Florida, and the local jurisdictions plan for and set aside funds to ensure that the infrastructure remains in a state of good repair.

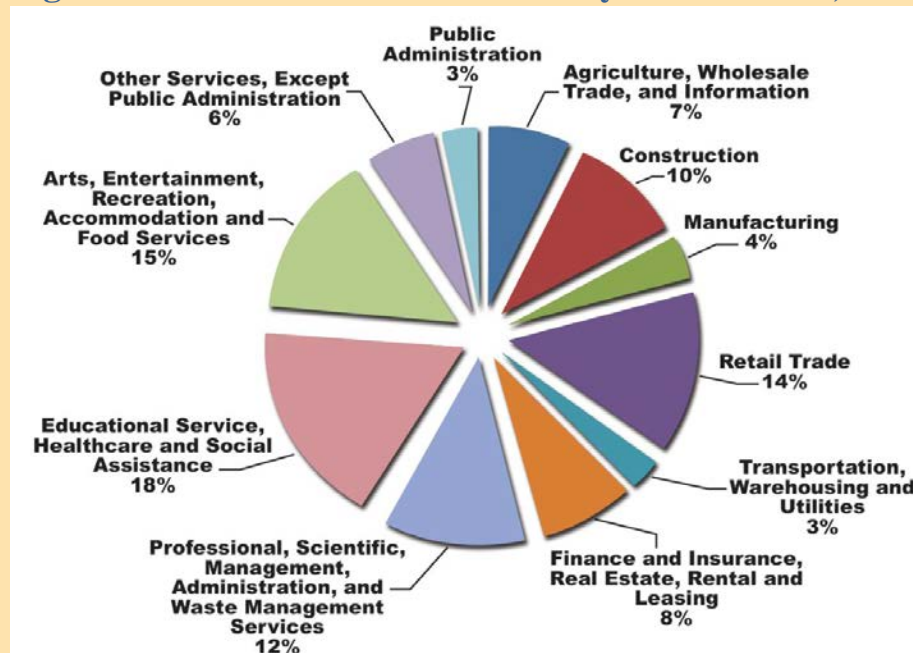


The LRTP includes over 693 million dollars in funding for operations and maintenance of the local transportation system. The funding used for maintenance and operations is a sustainable source of revenue over the long term that includes gas taxes, general revenue, user fees, toll funding, and Municipal Services Taxing Unit funding. The LRTP has set aside 32.65 million present day dollars for this project, including the state of repair.

5.1.2 Economic Competitiveness

According to the American Community Survey (ACS) three-year estimates in 2012, the major industries in Collier County are shown in Figure 6.

Figure 6: Labor Force Distribution by Service Area, 2012



Collier County's February 2015 unemployment rate is 5% according to the U.S. Bureau of Labor Statistics.

According to the *Collier County Freight and Goods Mobility Analysis (June 2008)*, the U.S. Census Bureau and the Florida Office of Economic and Demographic Research:

- "Adding 56,000 jobs, Collier County accounted for almost one-third of Southwest Florida's net job growth between 1995 and 2005. The County's growth rate, 65%, was the fastest in Southwest Florida."
- "Florida's population is expected to grow by 65% from 2000 to 2030, or twice as fast as the United States (more than 29%). During the same time period, Collier County is expected to grow by over 145%."

The Collier MPO *2035 Long Range Transportation Plan Minor Update Cost Feasible Plan Report* (March, 2013) uses the BEBR mid-range 2035 population forecast of 504,142 and an employment forecast of 243,022.

This TIGER Discretionary Grant application for the Collier Boulevard Corridor Improvements completes a 15-year, \$200 million (to date) reconstruction effort to upgrade 15 miles of Collier Boulevard. The project will construct transportation infrastructure improvements along Collier Boulevard from just north of Interstate 75 (City Gate Boulevard) to Green Boulevard. The project has been in the Collier Long Range Financially Feasible Plan for more than 15 years. The intersection with I-75 is included in the Collier MPO Long Range Transportation Plan as a "Critical Needs Intersection" as the eighth priority on the Needs Plan although it is unfunded for construction. The plan can be found at <http://www.colliermopo.com/index.aspx?page=59>. The FDOT completed a Project Development and Environment Study for the I-75 interchange in 2014. Design is fully funded in Fiscal Year 14/15 and right of way acquisition is fully funded in Fiscal Years 15/16 and 16/17.

This critical corridor supports the movement of goods by connecting neighborhoods to commercial and employment areas and goods to market due to its proximity to I-75. This project includes roadway capacity improvements, replacement of a structurally deficient bridge over the Golden Gate Main Canal, roadway safety improvements, bike lanes, pathways, sidewalks and transit facilities. The total cost of the project is estimated at approximately \$33.4 million and will provide a variety of design and construction jobs through its



implementation. According to Collier County 2014 traffic counts, the current 4-lane road operates at Level of Service C.

The west side of Collier Boulevard is heavily developed residential (Golden Gate City) with some commercial and community uses at the intersection with Golden Gate Boulevard including a post office, realty office, and churches while the east side is sparsely developed residential until just north of the I-75 interchange where there is some industrial and warehouse usage. The entire project is within approximately one mile of eight schools (five elementary schools, one middle school and two high school) within Golden Gate City. There is also some non-residential development along Golden Gate Boulevard itself including churches, government offices, a library, private school and day care centers.

The County's Future Land Use Map for the Golden Gate area includes:

- Neighborhood Center Subdistrict on both sides of Collier Boulevard at White Boulevard
- Downtown Center Commercial Subdistrict
- Mixed use activity center Subdistrict
- Professional office Subdistrict,
- Santa Barbara Commercial Subdistrict along Golden Gate Parkway as well as Golden Gate Urban Commercial Infill Subdistrict
- Collier Boulevard Commercial Subdistrict on the west side of Collier Boulevard at the intersection with Golden Gate Parkway.

The County is clearly planning for increased commercial uses within the Golden Gate area that will contribute to increased traffic growth and economic development in the area.

5.1.3 Quality of Life

Collier County is served by Collier Area Transit (CAT). In addition, Collier County provides transportation to the Transportation Disadvantaged (TD) population. According to the *Draft Transit Development Plan (TDP) Major Update for 2015* (May 2015), the service is only available to individuals who do

not have access to any other means of transportation including CAT. Table 4 shows Collier County's TD Population.



Photo 15- Transit Route to Commercial Areas

Table 4: Collier County TD Population

Year	2008	2009	2010	2011	2012	% Change (2008-2012)
Potential TD Population	122,912	127,963	131,575	136,153	140,900	14.6%
TD Passengers Served	2,305	2,480	2,660	2,879	2,982	29.3%

Source: Annual Operations Reports



According to the 2010 U.S. Census and the 1-year and 2-year American Community Survey (ACS), between 2010 and 2012, the percentage of people living below the poverty level decreased from 16.2% to 15.4% and the number of zero-car households increased from 5.2% to 5.9%. In 2012, households making less than \$25,000 annually represented 20.2% of the households in the county. The use of public transit to travel to work increased from 1.6% to 2.2% while walking to work decreased from 1.8% to 1.6%. About 16% of the population is under 15 years of age and 16.5% is 65 years of age or older. All of these are characteristics that generally contribute to usage of public transit.



Photo 16 – Bicycle Racks

In April 2014, CAT conducted a *Bus Stop Americans with Disabilities Act (ADA) Assessment* that included an evaluation of the 527 existing bus stops and two transfer centers. The study included a comprehensive inventory of the conditions at CAT’s bus stops and facilities and identifies and helps prioritize improvements to address accessibility, security, operation, and passenger comfort issues. This study made recommendations for improvements, order of magnitude cost estimates, and next steps. The draft report is available at <http://www.colliermmpo.com/index.aspx?page=182> The CAT transit system serves the Collier Boulevard area with Route 19 and Route 25. Routes 15 and 16 also serve the area and based upon the TDP, these routes may be expanded in the future. Table 5 shows the 2013/2014 ridership in the area.

Table 5: 2013/14 Transit Ridership

Stop ID	Location	Direction	Boardings	Alightings	Total Ridership	Bicycles	Wheel-chairs
275	Collier Boulevard and City Gate Boulevard	NB	320	322	642	70	1
276	Collier Boulevard and 17 th Ave. SW	NB	8,997	3,220	12,217	610	0
294	Collier Boulevard and Green Boulevard	SB	1,820	4,132	5,952	153	0
295	Collier Boulevard and 20 th PL. SW	SB	441	1,002	1,443	29	0
296	Collier Boulevard and Golden Gate Parkway	SB	1,171	3,590	4,761	151	0
297	Collier Boulevard and Magnolia Pond Drive	SB	924	1,362	2,286	112	1



Photo 17 – Collier Area Transit Transfer Facility

The canal to the east of the project currently impedes connectivity and the ability to run transit across Collier Boulevard. The project provides several improvements to support transportation choices:

- Relocating the bridge at 25th Avenue (over the CR 951 Canal) to a more suitable location such as the Golden Gate Parkway intersection would provide a pedestrian connection that does not exist today and could improve transit ridership.
- Bridge replacement over Golden Gate Main Canal is a safety improvement and provides a pedestrian and cyclist connection that does not exist today and could improve transit ridership.
- The pathway in this project on the east side of the 951 canal connects to the pathway south of I-75 by crossing at the Golden Gate Parkway intersection and following the sidewalk on Collier Boulevard. The pathway improvement will include amenities such as benches.
- Creating a sidewalk extension along portions of the east side of Collier Boulevard enhances the safety and accessibility for transit.

- The roadway section on Collier Boulevard provides bike lanes that don't exist today and creates connectivity to bike lanes that exist to the north and south. This will fill the pedestrian facility gap on Collier Boulevard and create a regional facility.

5.1.4 Environmental Sustainability

Expansive suburban development and an automobile focused culture have contributed to the high level of greenhouse gas emissions in Collier County. According to the Brookings Institute's report, *Shrinking the Carbon Footprint of the Metropolitan Area*, "Meeting the climate challenge requires adaptations and innovation in metropolitan America. With two-thirds of the U.S. population and nearly three quarters of the nation's economic activity residing in the nation's 100 largest metropolitan areas, urban centers account for much of the nation's GHG emissions." ([TIGER VII LINK](#)). Collier County has been proactively reducing their carbon footprint by providing alternative transportation needs. By adding new pathways and enhancing multimodal connectivity, the Collier Boulevard Corridor Improvements Project will reduce carbon emissions, noxious emissions, and reduce environmental impacts, while allowing for population and economic growth. Based on the BCA, Summarized in Section 5.4, **the Collier Boulevard Corridor Improvements Project will reduce vehicle miles Traveled (VMT) by 5 million. This VMT savings will result in significant emissions benefits by preventing the emission of over 2,000 tons of carbon dioxide and other noxious emissions, for a total value of \$157,795.**

According to the Florida Department of Economic Opportunity (DEO), over 40% of greenhouse gas emissions in Florida are transportation-related. Of these emissions, over 80% are from motor vehicles. Today in Collier County, there exists the potential for an integrated network of bicycle, pedestrian, and transit facilities that will provide a safe, clean, healthy, and efficient opportunity for travel throughout the urban area. Improving the available transportation options in Collier County will help reduce greenhouse gas emissions and lead to numerous other environmental impacts:

- Reduced land needed for roads and parking facilities
- Reduced need for new roadways
- Reduced energy consumption

The Collier Boulevard Corridor Improvements Project is located within the existing right-of-way, with the exception of a minor impact to a commercial (golf course maintenance facility) property. The project will add new pathways, sidewalks, and replace many existing roadway elements, but the overall environmental impact is much lower than would result from the construction of new roadways. By improving multimodal transportation and improving capacity, this proposal seeks to reduce the need for more roads, thus reducing future impacts to Collier County's future land use.

5.1.5 Safety

Individuals who bicycle and walk in Collier County today are at risk of being injured in crashes by automobiles. According to the Collier MPO Pedestrian and Safety Study, the average number of bicyclists killed in Collier County (0.62 per 100,000) ranks above the Florida average (0.57 per 100,000). In addition, the average number of bicyclists injured in Collier County (29.24 per 100,000) ranks above the Florida average (23.71 per 100,000). Additional information on the Collier MPO Pedestrian and Bicycle Safety Study is located at: [TIGER VII LINK](#)

The Collier Boulevard Corridor Improvements Project will improve the safety of the existing facility for all modes of transportation and users. Collier Boulevard is a primary collector road in Collier County, receiving large volumes of traffic from I-75 and other vital roadway networks that service the local community and the high demands of tourism. Currently, there are various safety issues within the project limits that will be addressed with the proposed improvements. The following items are the main safety issues:

- Lack of bike lanes
- Lack of connections between existing pedestrian pathways
- Roadway capacity issues
- Structural deficient bridge over the Main Golden Gate Canal

One of the primary safety benefits from the project is the pedestrian, bicyclists and transit flexibility created from the proposed new connections. Fewer vehicles on the road and safer options for pedestrians equates to reduced crash rates and economical savings. **The Collier Boulevard Corridor Improvements Project will reduce the heartbreaking toll crashes take on lives; the value of reduced crashes is estimated to be \$16,676,864.**

5.1.6 Project Readiness

The Collier Boulevard Corridor Improvements Project will allow US DOT to obligate TIGER funds as required. The following sections discuss the Project's Technical Feasibility, Financial Feasibility, Project Schedule and Assessment of Potential Risks and Mitigation Strategies. Collier County is committed to implementing this important project as proposed in this TIGER grant application.

Technical Feasibility

The project does not present any significant challenges or any design or constructability issues. The technical feasibility of this project is typical for the industry.

The design criteria used on this project is based on FDOT standards and specifications as well as Collier County preferences. The specific design elements are as follows:

- Widening Collier Boulevard from 4 lanes to 6 lanes (see Figure 4)
 - Widening primarily in existing median and east side of Collier Boulevard from Main Golden Gate Canal Bridge north to 20th PI SW
 - Widening in existing median and west side of Collier Boulevard from south of 20th PI SW to end of project.
- Replacement of Main Golden Gate Canal Bridge
- Replacement of 17th St SW Bridge
- New 6' Concrete Sidewalk:
- New 10' Multi-use path.

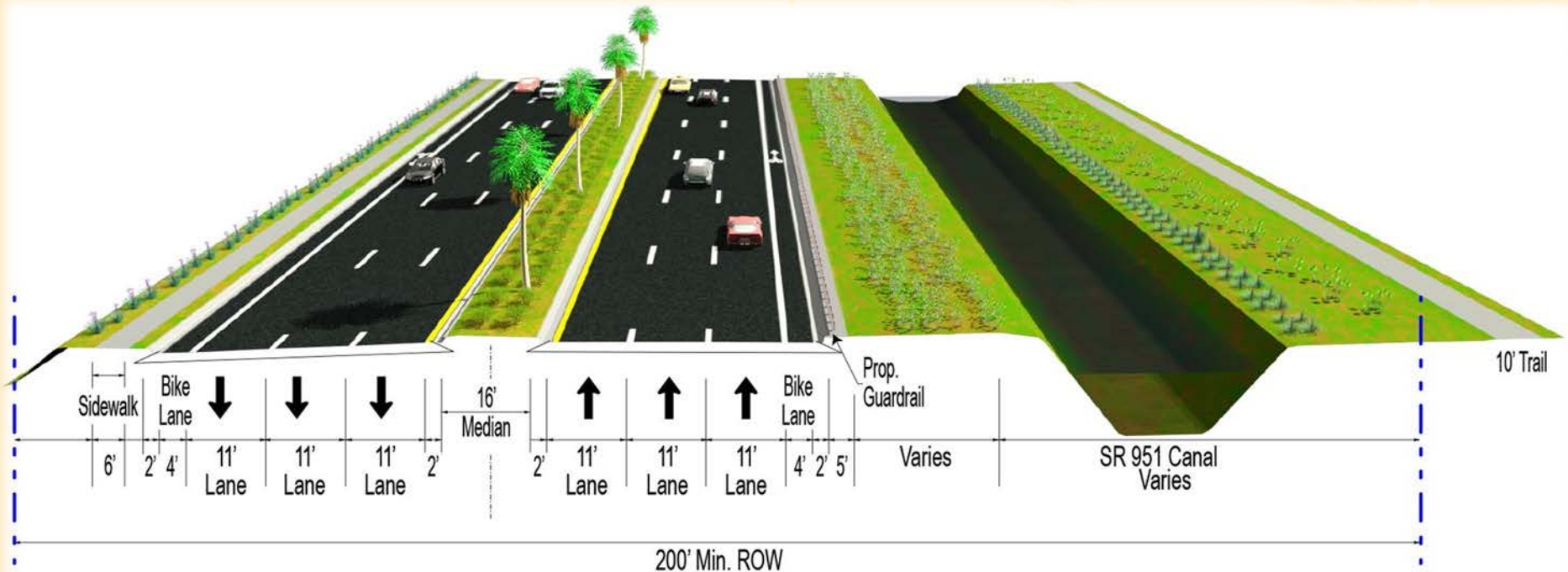


- Re-alignment of the canal on the east side of Collier Boulevard from the Main Golden Gate Canal to south of 21st Ave SW
- Bike Lanes (entire project).
- New Driveways and buffer areas along the west side of Collier Boulevard (entire project).
- Handrail and gravity wall behind proposed sidewalk on west side of the road from north of the Golden Gate Canal Bridge to south of Golden Gate Pkwy

- Guardrail along east side of Collier Boulevard (entire project)

The approximate cost of \$33.4 million associated with this project is based on Engineer's Estimates from the roadway and bridge plans within the project limits. These estimates were determined using the typical method used on Florida roadway and bridge projects, which is to identify all items involved in the design, the quantity of each item, and the unit cost per item from historical cost data. Refer to Section 4 for a detailed discussion on the use of grant and project funds and the following section for a discussion of Financial Feasibility.

Figure 7: Proposed Typical Section





The Collier Boulevard Corridor Improvements Project presents minimal implementation challenges related to right-of-way acquisition as the majority of the project is within existing Collier County right-of-way. Temporary construction easements will need to be acquired.

For the work to be completed within the project right-of-way the permits required have already been issued. The issued permits meet NEPA requirements but re-evaluation will be necessary, mainly due to the replacement of the structurally deficient bridge of the Golden Gate Main Canal. The permit is not expected to change significantly. Refer to Section 6.1 for more in-depth discussion on the permits and NEPA process.

Maintenance of traffic operations will utilize current FDOT standards to ensure safe passage of all travelers during construction. Access to local businesses during construction should not be adversely affected. The project will utilize conventional construction techniques, and the design will conform to federal, state, and local standards, as well as current ADA standards. The Main Golden Gate Canal Bridge will be designed to be wide enough to maintain traffic during construction.

To summarize the above information, this project is technically feasible because:

- Design elements and design criteria are typical to the industry
- Approximate Project Cost was determined using standard engineering estimate methods (historical as well as current bid data).
- Minimal Right-of-Way acquisition (temporary construction easements)
- Majority of NEPA/ Permitting process is complete
- Project is constructible

Financial Feasibility

The County is governed by the five-member Collier County Board of County Commissioners. Collier County adopts an annual budget that includes capital and operating and maintenance cost for a variety of public services including transportation.

Collier County continues to maintain a stable investment quality credit rating from all three major rating agencies. In November 2014, Standard and Poor's (S&P) upgraded the County's issuer credit rating to AAA and increased the County's Special Obligation Non Ad Valorem Bond Rating to AA+. S&P cited in its ratings report that "the stable outlook reflects our view of Collier County's strong financial position and what we consider its flexible and strong management conditions, which have enabled it to make adjustments to maintain strength throughout economic cycles." The County is now one of only a handful of local governments in the State of Florida that have an issuer credit rating of AAA.

According to the *Collier County FY 2015 Tentative July Budget*, the following described the FY 2015 (10/1/14 – 9/30/15) Economic Landscape:

- Countywide taxable value increase of 6.55% to \$64,611,016,632 – third consecutive year of tax base growth
- Taxable sales for Collier County rose sharply to \$732.3 million for February 2014, up 13% over February 2013
- Median home price increased from \$302,400 in April 2013 to \$375,000 in April 2014
- Sales tax and State shared revenues increasing under a positive State outlook for all sales and general revenue categories
- Peak season April 2014 visitation was up year over year by 4.4%
- Generally all categories of permitting for April 2014 continue to grow - up 13.9% year over year
- Unemployment rate dropped 1.6% from April 2013 to 5.5%.

The County is divided into eight Road Impact Fee Districts to collect fees on residential and commercial development. The local funds to support this grant include ad valorem revenues as well as Road Impact Fees and utility funds.

On February 5, 2015, Collier County began construction on a \$22 million project (construction cost) to widen Collier Boulevard from four to six lanes from Green Boulevard to Golden Gate Boulevard a distance of two miles. Construction is

Collier Blvd CORRIDOR IMPROVEMENTS PROJECT

TIGER 2015 APPLICATION



expected to last about two years. This section is immediately adjacent to the project that is the subject of this grant application which will widen the remaining two miles from four to six lanes.

Project Schedule

The Collier Boulevard widening from the Golden Gate Main Canal (just north of I-75) to Green Boulevard (north end of project) provides the final link to improve mobility for motorized vehicles, bicycles, and pedestrians. Based on the current permits, the project has no social, cultural, or physical impacts and has minimal natural environment impacts for which mitigation has already been approved by the state (SFWMD) and the USACE. The USACE Individual Permit demonstrates the project complies with the NEPA as required by law. In fact, the permit provides an Environmental Assessment action with the USACE as the lead agency. The effort for this project will be simply following the FHWA process. The first step is a summary of the data available, corridor history, and enhancements that result from the project. This along with the re-evaluation checklist, will be the basis for FHWA approval. Further, this coordination with the FHWA will confirm that a public hearing is not required because the public had sufficient opportunity to comment through 1) the USACE public notice

process during permitting, and 2) the outreach and project information meetings held by Collier County during the previous design efforts.

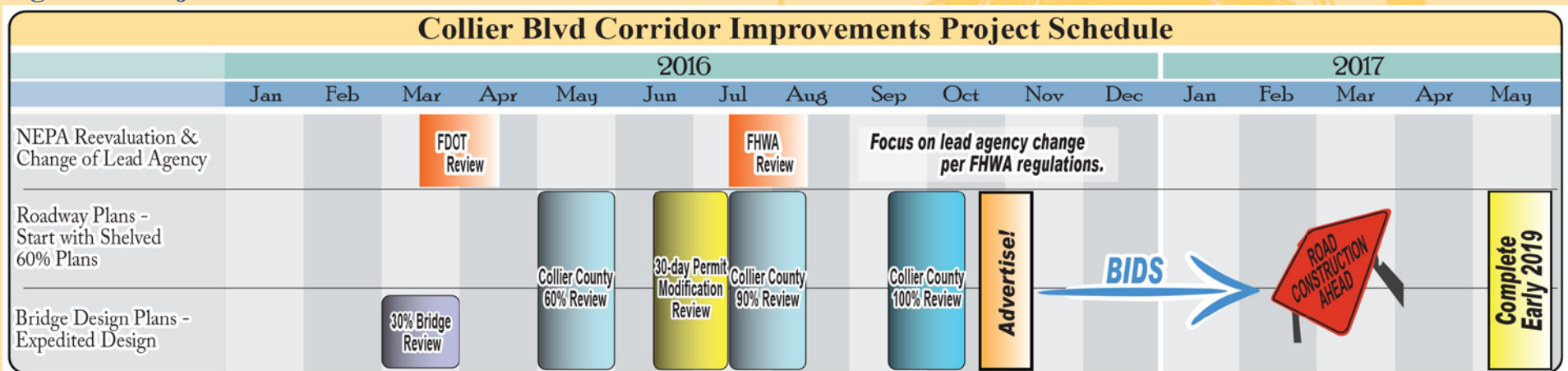
In short, Collier County will partner with the FDOT District One to coordinate with the FHWA for approvals within one year. This straight-forward re-evaluation will allow the FHWA to take over as the lead agency from the previous NEPA decision (USACE Permit Environmental Assessment). Further, the permits will be updated and extended as needed for the construction schedule that is expected to extend into early 2019. Further this process is concurrent with the design updates and bridge replacement designs as shown in the schedule above. With a 4-month bid period after advertisement, the construction will be approximately 24 months. The total timeframe easily meets the TIGER requirement for completion prior to 2022.

Project Risks and Mitigation

Little risk is associated with this project. Potential issues common with similar projects have been considered and our findings are as follows:

- Funding Partner Issues: There are no funding partners. Collier County is the sole source of the remaining funds (\$6.48 million) not being asked for therefore no potential funding partner issues.

Figure 8: Project Schedule





- Procurement Delays: The size and scale of the work is well within the range handled on a routine basis by Collier County, and as such, procurement is not considered unusual in any way for this project. No procurement delays are anticipated.
- Environmental Uncertainties: Permits have already been issued within the project limits. The only remaining environmental task is preparation of NEPA re-evaluation documentation (refer to Section 6.1 for more NEPA discussion). Little risk is associated from an environmental standpoint, and no legislative approvals are necessary.
- Increase in real estate acquisition costs: The small amount of right-of-way needed on the west side of the road from approximately 500 ft south of Golden Gate Pkwy to Golden Gate Pkwy does not displace any businesses or residences. No complications in acquiring this right-of-way are anticipated.
- Grant Management: Collier County has a well-established procedure and plan for managing grant funds, designed to ensure good oversight and formal documenting processes. Collier County successfully administers an average of \$50 million in federal and state grant funding each year, 42% of which is managed by the Transportation Division. These grants include large operational and capital grants for stormwater improvement, capital improvements, transit development, and transportation disadvantaged programs. Transportation grants over the last several years specifically include \$4 million in stormwater improvements, \$2 million for transportation disadvantaged program, \$4 million in transit development, including another \$3.5 million in Recovery Act transit funding and \$10 million in transportation capital improvements. Collier County may elect to use one of their qualified Consultants that are currently under contract to provide oversight of the grant as well as construction (Construction Engineering and Inspection).

5.2 Innovation

The Collier Boulevard Corridor Improvements Project incorporates various innovative strategies that aid in the pursuit of the short-term and long-term outcomes outlined in this application. Innovation in technology, safety and funding are all part of these strategies.

Technology Innovation:

Pavement rehabilitation strategies. Collier County is currently identifying alternative methods for repairing roadways. These include asphalt patching, chip seal, asphalt reclamation, slurry seal, construction analysis for pavement rehabilitation strategies (CA4PRS) (<http://www.fhwa.dot.gov/research/deployment/ca4prs.cfm>), and using 3D modeling for more accurate milling and overbuild quantities.

High Definition Surveying (HDS) using a terrestrial-mounted laser scanner. This type of survey is ideal for roadway and intersection locations, as it is faster, non-intrusive, and safer (field personnel are not required to physically locate the various objects within the active roadway). Topographic surveys are expedited and provide significantly more detail.

Subaqueous surveys with a Z-Boat (a small remote controlled boat) facilitating data collection in canals ponds, rivers, and small lakes keeping field personnel out of hazardous conditions. On board the Z-Boat, there is a small



Photo 18 - Z-Boat shown surveying a local canal



computer, a long-range Bluetooth device (+/- 2000 feet), GPS antenna, a sonar system, RC communication, two electric boat motors, a servo motor to turn the motors, and three large batteries to power the system facilitating delivery of accurate underwater topographic information.

Safety Innovation: Collier County performs Roadway Safety Audit (RSA) and pedestrian safety studies to identify and correct dangerous roadway conditions. RSAs have proven to save lives, reduce delays, reduce resources needed for motor vehicle crashes (police and fire departments, roadway repairs, etc.).

Funding Innovation: The Collier Boulevard Corridor Improvements Project is being funded by Collier County in addition to the requested TIGER grant funds. The public funds are a traditional source of funding, but how the public funds were obtained (ad valorem, roadway impact fees and utility funds) provides an innovative method for procuring project funding sources.

5.3 Partnership

The applicant for this grant is Collier County, Florida. All five members of the Collier County Board of County Commissioners are members of the Collier MPO established in 1982. Additional MPO members include two from the City of Naples, one from Everglades City, and one from the City of Marco Island. FDOT is represented on the board as a non-voting member.

The Collier MPO is responsible for the development and implementation of a balanced, integrated, and multimodal program which efficiently moves traffic. The MPO's goal is to ensure that a continuing, comprehensive and cooperative approach to planning for transportation needs is maintained and properly coordinated with other MPOs, FDOT and FHWA, as well as MPO committee members and members of the public. The Collier MPO works with Collier County and other member governments to establish transportation plans and priorities including roads, aviation, transit, bicycle and pedestrian facilities.

Collier County had 46 Advisory Boards and Committees and they actively solicit for new members on the Collier County website:

<http://www.colliergov.net/Index.aspx?page=1629> .

Jurisdictional and Stakeholder Collaboration: The Collier MPO encourages public involvement from its committees and members of the public and strives to maintain transparency in the transportation planning process and they consider public involvement to be one of their most important responsibilities.

In addition to the MPO Board there are five MPO Advisory Committees including the Technical Advisory Committee (TAC), Citizens Advisory Committee (CAC), Pathways Advisory Committee (PAC), Congestion Management System / Intelligent Transportation System Committee (CMS/ITS) and the Local Coordinating Board (LCB). The Committees range in size from 9 to 17 members and some include non-voting members. Depending on the Committee, they may be composed of all public agency members, all citizen members, or a mix of the two. On its website, the MPO solicits candidates for vacancies on its Advisory Committees:

<http://colliermmpo.com/index.aspx?page=25&recordid=126&returnURL=%2findex.aspx%3fpage%3d1>

Disciplinary Integration: The MPO's LCB is a 17 member Board that identifies local transportation service needs and provides information, advice, and direction on the coordination of services to be provided to the transportation disadvantaged. Also, the LCB reviews the amount and quality of service being provided to the County's transportation disadvantaged population. Although focused on transportation, member agencies represent a variety of non-transportation public agencies including Public Education, Florida Department of Children and Families, Education Division of Vocational Rehabilitation Services, Florida Department of Elderly Affairs, Florida Agency for Health Care Administration, Children at Risk, and the Southwest Florida Workforce Development Board. It is an excellent example of transportation supporting non-transportation public agencies.

In addition to these partners, letters of support were received from the following individuals, government agencies, and other organizations. The actual letters are included **Attachment B: Letters of Support**.

- **United States Senator Bill Nelson**
- **United States House of Representatives –Curt Clawson**



- Florida House of Representatives –Kathleen Passidomo
- Florida House of Representatives –Matt Hudson
- Florida State Senator - District 23
- Collier County Public Services Department
- Collier MPO
- Florida Health
- Florida Bicycle Association
- Urban Land Institute
- Lee County MPO
- Collier County Public Schools
- JFCS of Southwest Florida
- Community Traffic Safety Team
- Naples Pathways Coalition (NPC)

5.4 Benefit-Cost Analysis

The Collier Boulevard Benefit-Cost Analysis (BCA) has been developed using the TIGER BCA Guidance¹ and the TIGER BCA Resource Guide². The Collier Boulevard Corridor Improvements Project will cost \$33.4m (2015 dollars), of which \$26.72m or 80% is being requested as a TIGER grant with the remainder being provided through Collier County public funds.

The following economic benefits of the scheme have been estimated:

- Reduced delays (travel time) due to the improved road layout
- A reduction in vehicle miles traveled (VMT) through encouraging more cycling and walking trips, leading to:
 - Reduced vehicle operating costs
 - Reduced highway maintenance expenditure
 - Reduced vehicle emissions
 - Reduced healthcare costs

¹ <http://www.dot.gov/sites/dot.gov/files/docs/TIGER%20BCA%20Guidance%202014.pdf>

² <http://www.dot.gov/sites/dot.gov/files/docs/TIGER%20BCA%20Resource%20Guide%202014.pdf>

- Benefits from reducing the number of pedestrian and bicycle crashes along Collier Boulevard due to the scheme providing segregated sidewalk and bicycle routes.

In addition, by replacing a structurally deficient bridge over the Main Golden Gate Canal, the project will improve the state of good repair and reduce future maintenance costs, although this has not been quantified as part of the BCA.

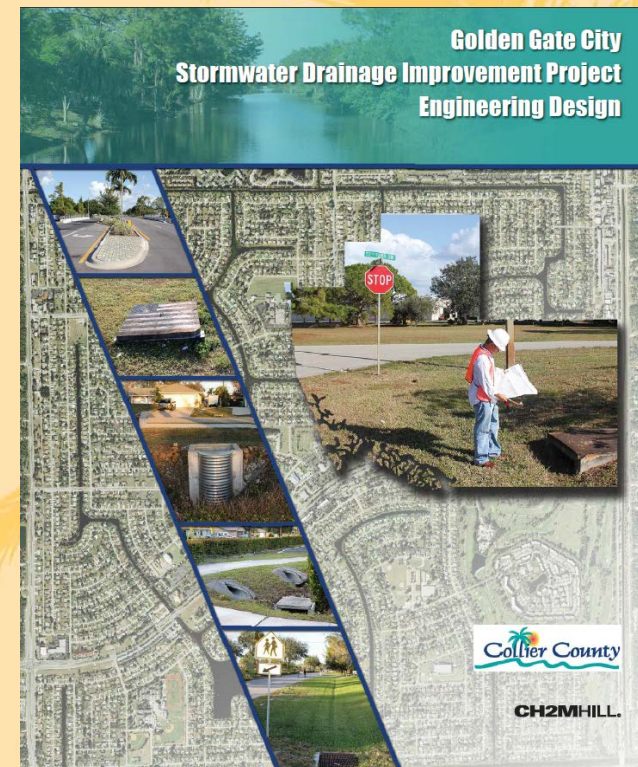


Photo 19-Collier County is currently conducting an \$18 million sidewalk and storm water improvement project within the 4-square mile boundary of Golden Gate City, adjacent to this segment of Collier Blvd. Note: Not included in requested funding or BCA.



In agreement with TIGER applications guidance we have converted prices to 2013 \$ values and calculated present values using discount of 3% because the funds would otherwise be used for public expenditures. The project has been appraised over a 20-year period following the end of construction. **Table 6** below summarizes the benefits and costs of the project over the appraisal period. The project delivers a Net Present Value (NPV) of \$1.0 million.

Table 6: Benefits and Costs

Time savings (\$2013)	\$27,896,806
Vehicle operating cost savings (\$2013)	\$4,440,874
Highway maintenance savings (\$2013)	\$796,446
Safety benefits (\$2013)	\$16,676,864
Emissions excluding CO2 (\$2013)	\$73,494
Healthcare benefits (\$2013)	\$1,209,230
Capital costs (\$2013)	(\$32,392,368)
Operating and maintenance costs (\$2013)	(\$3,239,237)
Undiscounted net benefits (\$2013)	\$15,462,109
Discounted net benefits (NPV, 3%)	\$910,834
CO2 emissions benefits (NPV, 3%)	\$84,301
3% NPV total benefits	\$995,135

Over the 20-year appraisal period, the project will take 5 million vehicle miles off the road, resulting in the avoidance of over 2,000 tons of CO2 from vehicle emissions.

Capital Costs: The capital cost for the scheme is \$33.4m expressed in 2015 dollars and disaggregated as shown in Table 2, Section 4. TIGER grant

contribution of 80% or \$26.72m is being sought with the remaining 20% or \$6.68m being provided by Collier County. It is assumed for the purpose of the BCA that the capital costs are incurred equally in 2017 and 2018, with construction complete in 2019.

Operating and Maintenance Costs: The additional infrastructure being introduced as part of the project will incur an incremental operating and maintenance cost compared with the No Build alternative. This is assumed to be 0.5% of the capital expenditure. Note that while the project introduces additional infrastructure, it is replacing an old bridge which will lower the future maintenance costs compared with the No Build.

Time saving benefits: Time savings have been estimated as follows. The 2014 all day traffic volumes (ADT) for the project area have been assumed to grow at the average growth rate of the previous 4 years, i.e. 2.3% per year. The signalized delay for the build and no build scenarios has been estimated using two different methods and the average of the two methods gives the average delay saving for a given year between build and no build. These savings are converted into a total daily saving using a time of day profile. The value of this time saving is estimated using the recommended monetized values in the TIGER BCA Resource Guide, assuming a split of 95.2% autos and 4.8% trucks based on vehicle classification counts on Collier Boulevard, and an average vehicle occupancy of 1.285 estimated by comparing the number of registered vehicles to the total population in Collier County.

Safety benefits: The introduction of a segregated sidewalk and cycle route is assumed to remove all pedestrian and bicycle crashes along Collier Boulevard between Golden Gate Canal and Green Boulevard. Crash data from 2000 to 2004³ has been analyzed to estimate an average number of pedestrian and cycle crashes per year along this segment of the route, as shown in **Table 7 and Table 8**.

³ <http://www.colliergov.net/index.aspx?page=580>



Table 7: Pedestrian and Bicyclists Crash Data (2000-2015)

Year	Collier Boulevard	
	Bicycle	Pedestrian
2000	0	0
2001	0	1
2002	0	0
2003	0	1
2004	1	1
2005	0	0
2006	2	0
2007	1	1
2008	2	1
2009	1	0
2010	0	0
2011	0	1
2012	0	1
2013	1	0
2014	1	1
2015	0	0
Total	9	8
Avg. per year	0.6	0.5

Analysis of historical crashes⁴ provides a likelihood of a fatality or an injury per crash.

Table 8: Pedestrian and Bicyclists Crash Data Proportions

Collier County Average		Number	Proportion
Pedestrian	Killed	6	6%
	Injured	88	94%
Bicycle	Killed	2	2%
	Injured	94	98%

It is assumed that non-reported crashes do not cause any injuries. The number of crashes is assumed to increase in line with overall growth in ADT.

Reduction in Vehicle Miles Traveled: The reduction in VMT drives benefits in terms of vehicle operating costs, highways maintenance costs, emissions and healthcare costs. A reduction in VMT has been assumed based on 5% of trips along Collier Boulevard between Golden Gate Canal and Green Boulevard being replaced by equivalent walk or cycle trips of an average 2 mile length.

Vehicle Operating Costs: A reduction in vehicle operating costs of \$0.59 per VMT has been assumed based on the Bureau of Transportation Statistics (Cost of Owning and Operating an Automobile, 2011)⁵. This is assumed to appreciate at 2.12% per annum.

Highway Maintenance: Highway maintenance costs will also be reduced as a result of a reduction in VMT. A rate of \$0.15 per VMT saved has been applied⁶.

Emissions: Emissions benefits occur as a result of the reduction in VMT. The following emissions rates have been used, sourced from the Average annual

⁴ <http://www.colliermmpo.com/modules/showdocument.aspx?documentid=5389>

⁵ http://www.rita.dot.gov/bts/sites/rita.dot.gov/bts/files/publications/national_transportation_statistics/html/table_03_17.html

⁶ Development of a Pavement Maintenance Cost Allocation Model, Institute of Transportation Studies – University of California, Davis.



Emissions and Fuel Consumption for Gasoline-Fuelled Passenger Cars and Light Trucks⁷:

- Carbon dioxide – 369g/VMT
- Hydrocarbons (Volatile Organic Compounds) – 1.36g/VMT
- Particulate Matter – PM10 0.0052g/VMT, PM2.5 0.0049g/VMT
- Nitrous Oxides – 0.95g/VMT

Economic costs associated with these emissions have been valued using the TIGER BCA Resource Guide.

Health benefits: The reduction in VMT will lead to an increase in the number of walking and cycle trips, thereby leading to health benefits. In Florida, the physical inactivity rate is 25.4%⁸. A healthcare cost saving of \$585.97 per year has been assumed⁹ and for every 1,000 trips removed from the road it is assumed that 254 of them will involve people who are physically inactive, thereby providing a cost saving.

5.5 Federal Wage Rate Certification

Attachment D contains certification that Collier County will comply with the requirements of subchapter IV of chapter 31 of title 40, United States Code (Federal wage rate requirements), as required by the FY 2015 Appropriations Act.

⁷ EPA Report 420-F-05-022

⁸ State Indicator Report on Physical Activity, 2010

6 Planning Approvals

6.1 NEPA

Over the past 15 years, population growth has resulted in an increased demand on Collier Boulevard from US 41/Tamiami Trail (south) to Immokalee Road (north) that requires a six-lane facility. The only remaining four-lane segment along this corridor includes this project (Golden Gate Main Canal to Green Boulevard) and the segment currently under construction (Green Boulevard to Golden Gate Boulevard). These two segments were permitted together.

A state Environmental Resources Permit (#11-03184-P) was issued by South Florida Water Management District (SFWMD) November 19, 2012. This permit authorizes construction through November 19, 2017 and extensions are generally granted upon request. An US Army Corps of Engineers (USACE) Individual Permit (#SAJ-2007-04904) was issued on July 31, 2013. This permit authorizes construction through July 31, 2018, however the permit does state the Corps will generally grant time extensions upon request. The Individual USACE Permit included a public notice providing the public the opportunity for input and the opportunity to request a public hearing. The USACE permit provides documentation of compliance with the National Environmental Policy Act (NEPA). The permit concludes the NEPA documentation of an Environmental Assessment with the USACE as the lead agency. The design also included public outreach and public information meetings.

As discussed, this project is part of a larger effort for mobility and safety along a 15-mile stretch of Collier Boulevard. Initially all of the Collier Boulevard projects except the interchange were 100% local funds, so the Federal Highway Administration (FHWA) was not consulted as a lead agency or cooperating agency for NEPA compliance. But, the permits required for the construction of the corridor has required USACE permits, which provide the NEPA consistency

⁹ Relationship of Body Mass Index and Physical Activity to Health Care Costs Among Employees; Guidelines for Analysis of Investments in Bicycle Facilities (NCHRP Report 552, Transportation Research Board, 2006)



and a decisions with the USACE as the lead agency. At this point Collier County will partner with FDOT to change the lead agency from USACE to the FHWA. The FHWA re-evaluation process will be followed, which is a simple checklist noting any changes to the project.

The first step in this project will be to initiate the NEPA coordination with the FHWA and prepare the re-evaluation documentation. The only difference from the previous permit is the replacement of the structurally deficient bridge of the Golden Gate Main Canal. This bridge could be replaced as a maintenance item, so the addition to the project is easily handled with a permit modification. A few of the key NEPA compliance elements documented in the permits, design plans, and Geographic Information System (GIS) desktop information are:

- There are no parks, public conservation lands, or other publicly owned lands within the corridor, therefore no Section 4(f) or Section 6(f) involvement.
- Both permits document no historical or archaeological resources within the project area, therefore no Section 106/4(f) involvement.
- With only a small strip of right-of-way required, no residential or business relocations, therefore no disproportionate impact to disadvantaged and transit dependent populations.
- The only floodplains mapped by the Federal Emergency Management Agency are the manmade canals. The canal shift on the east side of Collier Boulevard is included in the permit. The bridge replacement will require a minor modification to the permit with no net effect to the function of the floodplain.
- There are no wetland impacts associated with this project.
- Within US Fish and Wildlife Service Consultation Areas, the USACE permit provides concurrence with Section 7 of the Endangered Species Act. The Standard Protection Measures for Eastern Indigo Snake were the only requirement that resulted as part of the permit Environmental Assessment.

- The state permit indicates the project is within the range of the wood stork, Florida black bear, and fox squirrel, but no adverse effect.
- The USACE public notice initiated consultation with the National Marine Fisheries as required by the Magnuson –Stevens Fishery Conservation and Management Act of 1996. The USACE permit demonstrates consultation is successfully completed.
- The issuance of the state permit documents consistency with the Florida Coastal Management Program.

In addition, the widened roadway with bike lanes and pedestrian facilities will provide benefits, such as:

- Enhanced emergency access due to improved traffic level of service.
- Improved safety with upgraded bike and ADA compliant pedestrian facilities.
- Corridor consistency for six-lanes.
- Improved transportation options with the completed multi-use path for pedestrians and non-motorized vehicles.
- Better connectivity between the residences and the commercial facilities along Collier Boulevard.

Finally, the project is also on the Long Range Transportation Plan Cost Feasible List, which provides the planning consistency that the FHWA requires. Based on planning consistency and the previous NEPA decision, this project will be a straight-forward NEPA re-evaluation and no public controversy is expected. Therefore, no significant effort will be required to document the re-evaluation and transfer the lead agency to the FHWA.

6.2 Legislative Approvals

There are no requirements for state legislative approvals for the Collier Boulevard Corridor Improvement Project.



Deviation from TIGER Grant Pre-Application

The Project budget and requested funding has deviated from the data provided during the Pre-application stage of the application process.

TIGER 2015 Grant Pre-Application

Total Project Cost: \$29,000,000

Matching Funding: \$6,000,000

Grant Requested: \$23,000,000

Final TIGER 2015 Grant Application

Total Project Cost: \$33,400,000

Matching Funding: \$6,680,000

Grant Requested: \$26,720,000

The scope of the project remains the same. The deviation in project cost can be attributed to escalating material and labor cost in the local market. Estimates were updated based on recent bid data for projects within the corridor area.

Thank you to the U.S. Department of Transportation (DOT) for giving Collier County the opportunity to be a part of the TIGER 2015 discretionary grant application process. With the support of the U.S. DOT, the community of Collier County and its visitors will greatly benefit from the Collier Boulevard Corridor Improvements Project.

