

John E. Manning District One

June 24, 2020

Cecil L. Pendergrass District Two

Ray Sandelli District Three

Brian Hamman District Four

Frank Mann District Five

Roger Desjarlais County Manager

Richard Wesch County Attorney

Donna Marie Collins County Hearing Examiner To Whom It May Concern:

Please accept the enclosed application and attachments for the Community Development Block Grant-Disaster Recovery-Infrastructure Repair_Cycle 2 (CDBG-DR) administered by the Florida Department of Economic Opportunity for Hurricane Irma Recovery.

Units of General Local Government (UGLG) and Contacts

Lee County is the Unit of General Local Government (UGLG) coordinating this application.

Point of Contact: Joan LaGuardia Performance Management and Analytics Lee County Administration P.O. Box 398 Fort Myers, FL 33902-0398 <u>ilaguardia@leegov.com</u> 239-839-6038

Proposed Project and Capacity to Succeed

Lee County proposes to replace a pedestrian bridge over the Able Canal that was destroyed by Hurricane Irma. The missing bridge interrupts the sidewalk connection along a busy two-lane highway that serves low- and moderate-income populations, including students of Lehigh Elementary School. Those students are now forced to walk along the narrow shoulder of Richmond Avenue's vehicle lanes. Lee County School District policy does not provide busing for pupils living within 2 miles of a school. The surrounding neighborhood of low- and moderate-income families is an important source of affordable housing. The bridge provides a safe connection for families north and south of the canal.

Lee County has sufficient capacity, experience and fiscal reserves to manage this project, which will be coordinated by our Department of Transportation. Lee DOT staff has decades of experience and currently manages 460 miles of sidewalks and multiple bridges countywide.

Signature of Executive Officer

The Board of County Commissioners of Lee County, Fla., on June 2, 2020 authorized me as County Manager to submit this application and respond to subsequent requests for information and to sign all grant-related documents as necessary.

Thank you for your consideration.

Sincerely,

Roger Desjarlais Lee County Manager

APPLICANT INFORMATION FORM

LOCAL GOVERNMENT INFO	RMATION					
Local Government Applicant:				Eligible County:		
Local Contact:						
Title:	E-mail:					
Mailing Street Address				Phone		
Maning Street Address.				Number		
City:		State:		Zip Code:		
Executive Official with Authority to Sign Application:				Phone Number		
Title:			E-mail:			
Executive Official Address (if different):						
City:		State:		Zip Code:		
Please list any other UGLG n Team,	Please list any other UGLG members of this Application Team, if any:		Contact Person:	Email Address:		
Please confirm you submite	ed a signed resolution authorizi	ng Executive			N	_
C	fficial to sign application and c	ertifications.	Yes:		NO:	
APPLICATION PREPARER INF	ORMATION					
Application Preparation						
Agency of Firm. Contact:						
Address:						
Phone Number:		Email:]	
Check Type of Agency	Private Firm:	Government Agency:				
Preparing Application:	Regional Planning Council:		Other, specify:			
APPLICATION INFORMATION	N					
	Total CDBG-DR \$ Requested:					

No:

No:

Insurance Program?

comprehensive plan?

Yes:

Yes:

List jurisdictions for proposed recovery activities

Please confirm the local government covered by the National Flood

Please confirm the proposed activities are consistent with the local

(municipalities, Tribal governments, unincorporated areas):

PROPOSAL INFORMATION FORM

	Applicant Project	Date:
	Name Location	
	Address Project	
	Description	
	Total CDBG DR Funds Requested	Use Budget template to calculate total units served and estimated CDBG-DR funds per unit
Ι.	CDBG DR THRESHOLD COMPLIANCE NOTE: DEO will not approve proposals where a CDBG-DR National States of the states	tional Objective is not met and Eligible Activities are not included.
Α.	National Objective: Please mark "Yes" in box next to	which National Objective:

Low- / Mod-Income Area Urgent Need

1 List all the Florida Congressional and Legislative districts to be serviced by this project.

2 List the total population, Low-Mod population and the percent of the population that is Low Mod for the service area.

Total Service Area Population:	# Low-Mod Income Households:	% Low-Mod Households:

3 Provide a brief description of how the service area was determined.

B. Eligible Activity

Please mark "Yes" in box next to the *Eligible Activity* your program or project will serve:

Restoration of infrastructure (e.g. water and sewer facilities, streets, generators, debris removal, drainage, bridges, etc.);

Public facilities such as emergency community shelters;

Demolition, rehabilitation of publicly or privately owned commercial or industrial buildings; and

Re-nourishment of protective coastal dunes systems

Please mark "Yes" to specify *Vulnerable Populations* to be served:

Transitional housing, permanent supportive housing, and permanent housing needs of individuals and families that are homeless and at-risk of homelessness

Prevention of low-income individuals and families with children from becoming homeless

Special needs of persons who are not homeless but require supportive housing

C. Unmet Needs

NOTE: All CDBG-DR activities must clearly address an impact of the disaster. Mitigation or preparedness activities that are not part of rebuilding efforts are generally ineligible as CDBG-DR recovery activities.

Unmet Need Tied to the Hurricane Irma Disaster Event.

Describe how the proposed activity will address an Unmet Need tied to the impact of damage from the disaster.

1

2 Describe how proposed program or project primarily addresses Unmet Housing Needs as specified in CDBG-DR Action Plan.

3 Specify Units and Funding Serving LMI Populations and Cost Benefit Analysis

Proposed CDBG-DR	Total Estimated	Maximum CDBG-DR	% of Units Serving	# Units Serving LMI	Grant \$ Serving LMI
Contract Amount	Units	Assistance Per Unit	LMI Populations	Populations	Populations

Florida DEO Irma CDBG-DR Application

- 4 Describe how proposed program or project **primarily serves Low- and Moderate-Income populations** as specified in CDBG DR Action Plan.
- 5 Infrastructure Improvements, provide a brief description of how proposed improvements primarily serves housing serving Lowand Moderate-Income populations as specified in CDBG-DR Action Plan.
- 6 Describe how the proposed infrastructure improvements aligns with local mitigation and resilience plans.

II. MANAGEMENT CAPACITY

1 Describe roles of key staff, contractors and/or vendors in operations management of the proposed CDBG-DR funded program and/or project. List any additional staff to be hired and/or procured and for what roles.

- 2 a. What is the *experience and capacity of key members of the management team*?
 - b. Describe any projects comparable to the one in this application that the applicant has administered in the last five (5) years.
 - c. Please provide an assessment of what worked well, what needed improvement and steps taken to resolve such capacity gaps.

Florida DEO Irma CDBG-DR Application

3 If the management team is not fully formed, please provide a description of the *procurement process* the Applicant will follow to cultivate program and project management capacity.

4 If allocated CDBG-DR funds and if needed, what is your strategy to augment staff and operations management capacity? What is your plan for program and project management in terms of hired staff, contractors and/or vendor?

✓ Organization Charts and description of roles are encouraged, but not required for this Application.

5 <u>Citizen Complaint Policy</u>

Does the applicant have a citizen complaint policy, acquisition and relocation policy, housing assistance plan and procurement policy in place that meets HUD guidelines?

Citizen Complaint PolicyAs this is a requirement for funding, please see the CDBG website for examples:
http://floridajobs.org/docs/default-source/office-of-disaster-recovery/hurricane-irma/irma-
comprehensive-policies-and-procedures-draft-5-3-2019.pdf?sfvrsn=2

Housing Assistance Plan

Procurement Policy

III. READINESS TO PROCEED

A. Select "Yes" or "No" for key factors achieved to support that the program or project is ready to proceed:

Supporting Documentation

Site Control:

Zoning & Community Approval:

Environmental Clearance:

Procured and Contracted Members of Development and Construction Team:

Commitment of Matching Funds:

B. Describe any issues and proposed solutions to address Readiness To Proceed:

C. Confirm you submitted a **Production Work Plan** that shows on a month-by-month basis how much time and staff needed to achieve key Milestones

IV. COST REASONABLE BUDGET

A. Proposal budgets must reflect cost reasonableness and affirmative efforts to leverage CDBG-DR funds with additional funding to address unmet needs. Budget narrative reflects research, quotes and/or contracted pricing for proposed programs and projects.

Provide a Budget Narrative that describes:

1. Cost estimates and sources of funding. Approach to managing and paying for proposed program or project.

2. Basis of cost estimates and method for generating cost reasonable budget. Provide quotes, bids, schedules and/or estimates from other comparable projects.

3. Description of how proposed project shall not duplicate benefits as specified in CDBG-DR Action Plan.

в. Leverage and Committed Additional Sources.

Source	Amount	Committed (Yes / No)	If not committed, list status towards reaching commitment			
total:			 List \$ value of Waiver of Local Impact Fees if available. 			
If additional funds comr	If additional funds committed, provide copies of commitment letters or other evidence of commitment.			□Yes	□No	
Confirm that the proposed funding request is for FEMA PA program or project match and submit PA commitment				□Yes	□No	

FEMA PA program or project match and submit PA commitment

v. STORM DISASTER RESILIENCE

Describe how the proposed CDBG DR-funded program and/or project will pro-actively invest in resilience to damage from future storms as 1 specified in the Federal Register and Action Plan.

VI. SUPPORTING DOCUMENTATION

A. Service Area Maps

For Infrastructure and Economic Revitalization proposals, please provide a Map with an overlay that clearly shows:

- 1 Project Location and/or Service Area
- 2 Low- and Moderate-Income Service Area
- 3 Most Recent Flood Plain Map

B. Other Considerations

Describe any other regulatory reviews such as Federal or State review or regulatory system which may have jurisdiction over the proposed activity(s), such as, federal programs of the Corps of Engineers and the Environmental Protection Agency; and State programs.

The bridge is owned by the Lehigh Acres Municipal Services Improvement District, an independent authority. Lee County has agreed to take responsibility for maintenance of the bridge. The County, LAMSID and Lee County Schools District will negotiate to cover the cost of future capital needs.

A LETTER OF SUPPORT FROM LAMSID IS SUBMITTED AS AN ADDENDUM TO THIS PROPOSAL FORM.

VI. CERTIFICATION

As authorized Executive Officer, I certify that staff, contractors, vendors and community partners of our storm recovery initiative:

A. Will comply with all HUD and Florida requirements in the administration of the proposed CDBG-DR funded activities;

B. Will work in a cooperative manner to execute the Subrecipient Agreement that provides the pathway for successful CDBG-DR program(s) and/or project(s) and;

C. Certify that all information submitted in this Application is true and accurate.

Signature: Roger Desjarlais	ly signed by Roger lais 2020.06.24 12:00:38 -04'00'
-----------------------------	---

Name: Roger Desjarlais

Date

6/24/20



COMMISSIONERS

Chair: Katyna Hoover Vice Chair: Kenneth K. Thompson Treasurer: Michael J. Welch Secretary: Julie Camp Commissioner: Michael Bonacolta

DISTRICT STAFF Manager: David E. Lindsay Asst. Manager: Michael S. Cook

AFFLIATIONS

The Greater Lehigh Acres Chamber of Commerce

> Florida Association of Special Districts

> > Florida Stormwater Association

May 12, 2020

To Whom It May Concern: Florida Department of Economic Opportunity Office of Disaster Recovery

RE: Lee County's CDBG-DR Application

The Lehigh Acres Municipal Services Improvement District (LA-MSID) supports Lee County quest to be awarded CDBG-DR funds to repair the Richmond Avenue pedestrian crossing that Hurricane Irma damaged. This is an unmet need for pedestrian access used primarily by children walking to school from housing occupied by Lee County's low-to-moderate income families.

Please give Lee County's request your greatest consideration.

Sincerely

David E. Lindsay, District Manager



EJSCREEN Report (Version 2019)



2 miles Ring Centered at 26.606689,-81.624976, FLORIDA, EPA Region 4

Approximate Population: 25,050

Input Area (sq. miles): 12.56

Richmond Bridge

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile		
EJ Indexes					
EJ Index for PM2.5	66	71 74			
EJ Index for Ozone	66	71 73			
EJ Index for NATA [*] Diesel PM	ATA [*] Diesel PM 61 72 72				
EJ Index for NATA [*] Air Toxics Cancer Risk	72	76			
EJ Index for NATA [*] Respiratory Hazard Index	66	73 77			
EJ Index for Traffic Proximity and Volume	61	72	69		
EJ Index for Lead Paint Indicator	73	73 71			
EJ Index for Superfund Proximity	52	61	63		
EJ Index for RMP Proximity	55	55 64 65			
EJ Index for Hazardous Waste Proximity	58	66	64		
EJ Index for Wastewater Discharge Indicator	N/A	74	74		



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.



EJSCREEN Report (Version 2019)



2 miles Ring Centered at 26.606689,-81.624976, FLORIDA, EPA Region 4

Approximate Population: 25,050 Input Area (sq. miles): 12.56 Richmond Bridge



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0



EJSCREEN Report (Version 2019)



2 miles Ring Centered at 26.606689,-81.624976, FLORIDA, EPA Region 4

Approximate Population: 25,050

Input Area (sq. miles): 12.56

Richmond Bridge

Selected Variables	Value	Value State %ile in Avg. State			%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu g/m^3$)	6.69	7.43	13	8.59	5	8.3	14
Ozone (ppb)	30.8	33.7	30	40	9	43	4
NATA [*] Diesel PM (µg/m ³)	0.268	0.557	14	0.417	<50th	0.479	<50th
NATA [*] Cancer Risk (lifetime risk per million)	31	33	35	36	<50th	32	<50th
NATA [*] Respiratory Hazard Index	0.47	0.49	39	0.52	<50th	0.44	60-70th
Traffic Proximity and Volume (daily traffic count/distance to road)		550	31	350	47	750	34
Lead Paint Indicator (% Pre-1960 Housing)		0.11	57	0.15	41	0.28	27
Superfund Proximity (site count/km distance)	0.0082	0.13	4	0.083	2	0.13	2
RMP Proximity (facility count/km distance)	0.088	0.79	8	0.6	16	0.74	13
Hazardous Waste Proximity (facility count/km distance)	0.073	0.47	15	0.52	18	4	12
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0	0.48	N/A	0.45	42	14	37
Demographic Indicators							
Demographic Index	52%	41%	69	38%	75	36%	75
Minority Population	56%	45%	64	38%	72	39%	70
Low Income Population	49%	36%	73	37%	71	33%	77
Linguistically Isolated Population	15%	7%	84	3%	93	4%	89
Population With Less Than High School Education	22%	12%	83	13%	81	13%	81
Population Under 5 years of age	5%	5%	54	6%	49	6%	46
Population over 64 years of age	21%	19%	68	16%	76	15%	79

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

PROJECT COSTS

Bridge Development Report Cost Estimating (Effective 1/1/2019)

Replacement Pedestrian Bridge						
PROJECT LOCATION: RICHMOND AVENUE PEDESTRIAN BRIDGE OVER ABLE CANAL LEHIGH ACRES, LEE COUNTY, FL						
Engineer's Opinion of Probable Cost (concept phase)						
ITEM DESCRIPTION	PRICE	QUANTITY	COST			
Mobilization	\$83,516	1	\$83,516			
Bridge Substructure Components	\$84,800	1	\$84,800			
Bridge Superstructure Components	1	\$140,450				
Walls \$18,000			\$18,000			
Approach Slabs	Approach Slabs \$16,000					
Conditional Variables	\$64,813	1	\$64,813			
Maintenance of Traffic	\$10,000	1	\$10,000			
	Subtotal		\$417,579			
	Contingency	25%	\$104,395			
Total Estimate	ed Construction Cost		\$521,974			
	Project Design Fees	15%	\$78,296			
Contract	Contract Administration Fees 15% \$78,296					
Total Estimated Project Cost - Pedestrian Bridge \$678,566						
Estimated Yearly Maintenance Cos	t - Pedestrian Bridge		\$1,500			



Richmond Ave. Pedestrian Bridge Bridge Concept Report

Performed for:

Lee County DOT Operations

4-2020





Table of Contents

Richn	nond Ave. Pedestrian Bridge	. 1
Bridg	e Concept Report	. 1
1.	Summary	. 3
2.	Project Location and Hurricane Irma Path	.4
3.	Photo of Existing Bridge (post-Irma)	. 5
4.	Concept Plans	. 6
5.	Summary of Anticipated Costs	.9
6.	Bridge Development Report Cost Details	11



1. Summary

Lee County DOT Operations requested that HighSpans Engineering, Inc. review the pedestrian bridge at Richmond Avenue over Able Canal in Lehigh Acres, which had been damaged by Hurricane Irma in 2018. The bridge runs north south along the right side of Richmond Avenue; it is utilized by pedestrians and school children to access the nearby school and the neighborhood in general. The existing pedestrian bridge was damaged by the high winds experienced during Hurricane Irma. Due to public safety, the damaged bridge was removed promptly after the storm. HighSpans inspected the site and remaining foundations (wood piles). Since the storm, school children and pedestrians have been utilizing the vehicle bridge shoulder to cross the canal. This is not a safe option as the shoulders are not designed for pedestrian use.

This report summarizes the concept envisioned for the replacement bridge and includes Bridge Development Report Level Cost Estimate of the replacement bridge as well as design and construction administration fees anticipated.

Design will be in accordance with the AASHTO LRFD Bridge Design Specification, the FDOT Structures Design Guidelines, and the AASHTO LRFD Guide Specification for the Design of Pedestrian Bridges. Ultimate design wind speeds will adhere to those prescribed by Lee County Board of County Commissioners or FDOT, whichever are higher. Pedestrian loads will conform to the AASHTO LRFD Specification.



2. Project Location and Hurricane Irma Path



Hurricane Irma Path and Pedestrian Bridge Location



3. Photo of Existing Bridge (post-Irma)





4. Concept Plans



SHEET TITLE:	ARTMENT OF	E COUNTY DEPA	LE	VINCENT ZALIAUSKAS, P.E. DRAWN BY:			3	SIONS	REVI		
	CHECKED BY: TRANSPORTATION - OPERATIONS DIVISION		TDANGDO		P.E. LICENSE NUMBER 60524	DESCRIPTION	BY	DATE	DESCRIPTION	BY	DATE
			HIGHSPANS ENGINEERING INC								
PROJECT NAME	FINANCIAL PROJECT ID	COUNTY	ROAD NO.	DESIGNED BY	2121 MCGREGOR BOULEVARD						
				DEGIGINED DT.	SUITE 200						
RICHMOND AV		LEE	N/A	CHECKED BY	FORT MYERS, FL 33901						
		1			REGISTRY NO. 27559						

B - 1





ELEVATION

VINCENT ZALIAUSKAS, P.E. LEE COUNTY DEPARTMENT OF	SHEET TILE.
DATE BY DESCRIPTION DATE BY DESCRIPTION P.E. LICENSE NUMBER 60524 TRANSPORTATIONS DIVISION	
HIGHSPANS ENGINEERING, INC.	
2121 MCGREGOR BOULEVARD DESIGNED BY ROAD NO. COUNTY FINANCIAL PROJECT ID P	PROJECT NAME:
SUITE 200 FORT MYERS, FL 33901 REGISTRY NO. 27559	RICHMOND AVI



52 AM H:_Project18\1819_RichmondPedBridge\struct\B1PlanElev01.DGN



5. Summary of Anticipated Costs

Bridge Construction Cost:	\$521,973.00
Design Fees:	\$78,296.00
Construction Administration Fees:	\$78,296.00
Total Project Cost:	\$678,564.00

Bridge Development Report Cost Estimating Effective 01/01/2019

PROJECT: RICHMOND AVENUE PEDESTRIAN BRIDGE OVER ABLE CANAL, LEHIGH ACRES, LEE COUNTY, FL

REPLACEMENT PEDESTRIAN BRIDGE

ITEM DESCRIPTION	PRICE	QUANTITY	COST
Mobilization	\$83,516	1	\$83,510
Bridge Substructure Components	\$84,800	1	\$84,800
Bridge Superstructure Components	\$140,450	1	\$140,450
Valls	\$18,000	1	\$18,000
Approach Slabs	\$16,000	1	\$16,000
Conditional Variables	\$64,813	1	\$64,813
Maintenance of Traffic	\$10,000	1	\$10,000
	Subtototal		\$417,578
	Contingency	25%	\$104,395
	Total Estimated Construction Cost		\$521,973
	Project Design Fees	15%	\$78,296
	Contract Adminstration Fees	15%	\$78,290
	Total Project Estimated Cost		\$678,564



6. Bridge Development Report Cost Details

Bridge Development Report Cost Estimating Effective 01/01/2019

PROJECT: RICHMOND AVENUE PEDESTRIAN BRIDGE OVER ABLE CANAL, LEHIGH ACRES, LEE COUNTY, FL

Step One: Estimate Component Items

Utilizing the cost provided herein, develop the cost estimate for each bridge type under consideration.

A. Bridge Substructure

1. Prestressed Concrete Piling, (furnished and installed)			
Size of Piling Cos	st per Lin. Foot 1	Quantity	Cost
18" w/Carbon-Steel Strands (Driven Plumb or 1" Batter) ²	\$110	400	\$44,000
18" w/Carbon-Steel Strands (Driven Battered) ²	\$125		
24" w/Carbon-Steel Strands (Driven Plumb or 1" Batter) ²	\$100		
24" w/Carbon-Steel Strands (Driven Battered) ²	\$140		
30" w/Carbon-Steel Strands (Driven Plumb or 1" Batter) ²	\$150		
30" w/Carbon-Steel Strands (Driven Battered) ²	\$210		
18" w/CFRP or Stainless-Steel Strand (Driven Plumb or 1" Batter)	\$135		
18" w/CFRP or Stainless-Steel Strand (Driven Battered)	\$160		
24" w/CFRP or Stainless-Steel Strand (Driven Plumb or 1" Batter)	\$150		
24" w/CFRP or Stainless-Steel Strand (Driven Battered)	\$210		
30" w/CFRP or Stainless-Steel Strand (Driven Plumb or 1" Batter)	\$225		
30" w/CFRP or Stainless-Steel Strand (Driven Battered)	\$280		
Heavy mild steel reinforcing in pile head (each) ²	\$250		
¹ When silica fume, metakaolin or ultrafine fly ash is used add \$6/LF to the	piling cost.	Subtotal	\$44,000

² When heavy mild steel reinforcing is used in the pile head, add \$250.

2. Steel Piling, (furnished and installed)			
Size of Piling	Cost per Lin. Foot	Quantity	Cost
14 x 73 H Section	\$90		
14 x 89 H Section	\$100		
18" Pipe Pile	\$100		
20" Pipe Pile	\$125		
24" Pipe Pile	\$145		
30" Pipe Pile	\$200		
		Subtotal	

3. Drilled Shaft (Total in-place cost)			
Dia. (on land, casing salvaged)	Cost per Lin. Foot	Quantity	Cost
3 ft	\$450		
4 ft	\$550		
5 ft	\$600		
6 ft	\$680		
7 ft	\$825		
8 ft	\$1,550		
9 ft	\$1,800		
Dia. (in water, casing salvaged)	Cost per Lin. Foot	Quantity	Cost
3 ft	\$500		
4 ft	\$625		
5 ft	\$700		
6 ft	\$825		
7 ft	\$950		
8 ft	\$1,650		
9 ft	\$1,900		
Dia. (in water, permanent casing)	Cost per Lin. Foot	Quantity	Cost
3 ft	\$625		
4 ft	\$750		
5 ft	\$850		
6 ft	\$990		
7 ft	\$1,250		
8 ft	\$2,200		
9 ft	\$2,400		
		Subtotal	

A. Bridge Substructure (continued)

4. Cofferdam Footing (Cofferdam and Seal Concrete ¹)			
Prorate the cost provided herein based on area and depth of water. A	cofferdam footing having	g the following	attributes cost
\$600,000: Area 63 ft x 37.25 ft; Depth of seal 5 ft; Depth of water ov	er footing 16 ft		
Туре	Cost per Footing	Quantity	Cost
Cofferdam Footing			
¹ Cost of seal concrete included in pay item 400-3-20 or 400-4-200.	S	Subtotal	
	_		

5. Substructure Concrete			
Type Cost per C	ubic Yard	Quantity	Cost
Concrete ¹	\$1,200	24	\$28,800
Mass Concrete ¹	\$625		
Seal Concrete ¹	\$650		
Bulkhead Concrete ¹	\$1,000		
Shell Fill ¹	\$30		
¹ Admixtures: For Calcium Nitrite add \$40/cy (@4.5 gal/cy) and for silica fume,		Subtotal	\$28,800

metakaolin or ultrafine fly ash add \$40/cy (@ 60 lb./cy)

6. Substructure Reinforcing			
Туре	Cost per Pound	Quantity	Cost
Carbon-Steel Bars	\$2.00	6000	\$12,000
Low-Carbon Chromium Steel Bars	\$1.25		
Stainless-Steel Bars	\$4.00		
Carbon-Steel Post-Tensioning, Strand; Longitudinal	\$2.50		
Carbon-Steel Post-Tensioning, Strand; Transverse	\$4.00		
Carbon-Steel Post-Tensioning Bars	\$6.00		
Туре	Cost per Lin. Foot	Quantity	Cost
GFRP Bars #3	\$0.60		
GFRP Bars #4	\$0.95		
GFRP Bars #5	\$1.15		
GFRP Bars #6	\$1.40		
GFRP Bars #7	\$1.80		
GFRP Bars #8	\$2.25		
GFRP Bars #9	\$3.15		
GFRP Bars #10	\$3.75		
GFRP Bars #11	\$4.45		
		Subtotal	\$12,000

Substructure Subtotal \$84,800

B. Walls

1. Retaining Walls			
MSE Walls	Cost per Sq. Foot	Quantity	
Permanent (wall type TBD)	\$60	300	\$1
Temporary	\$15		
Sheet Pile Walls, Prestressed Concrete	Cost per Lin. Foot	Quantity	
10" x 30"	\$150		
12" x 30"	\$185		
12" x 30" with FRP	\$265		
Sheet Pile Walls, Steel	Cost per Sq. Foot	Quantity	
Permanent Cantilever Wall	\$30		
Permanent Anchored Wall ¹	\$55		
Temporary Cantilever Wall	\$16		
Temporary Anchored Wall ¹	\$35		
Soil Nail Wall with Permanent Facing	Cost per Sq. Foot	Quantity	
Soil Nail Wall with Permanent Facing	\$110		
Traffic Railings with Junction Slabs	Cost per Lin. Foot	Quantity	
32" Vertical Face	\$260		
42" Vertical Face	\$280		
36" Single-Slope	\$255		
42" Single-Slope	\$275		
¹ Includes the cost of anchors, waler steel, miscellaneous	steel for permanent/temporary	Subtotal	\$1

walls and concrete face for permanent walls.

2. Noise Wall			
Туре	Cost per Sq. Foot	Quantity	Cost
Noise Wall	\$30.0		
		Subtotal	

Walls Subtotal \$18,000

C. Box Culverts

1 · · · · · · · · · · · · · · · · · · ·			
1. Box Culverts			
			a .
Concrete	Cost per Cubic Yard	Quantity	Cost
Class II Concrete	\$950		
Class IV Concrete	\$990		
Reinforcing Steel	Cost per Pound	Quantity	Cost
Carbon Reinforcing Steel	\$1.00		
		Subtotal	

Box Culvert Subtotal

D. Bridge Superstructure

1. Bearing Type			
Neoprene Bearing Pads	Cost per Cubic Foot	Quantity	Cost
Composite Neoprene Bearing Pads	\$1,000		
Plain Neoprene Bearing Pads	\$1,000	4	\$4,000
Multirotational Bearings (Capacity in kips)	Cost per Each	Quantity	Cost
1- 250	\$6,000		
251- 500	\$8,000		
501- 750	\$8,750		
751-1000	\$9,500		
1001-1250	\$10,000		
1251-1500	\$11,000		
1501-1750	\$13,000		
1751-2000	\$15,000		
>2000	\$17,000		
		Subtotal	\$4,000

2. Bridge Girders			
Structural Steel (includes coating costs)	Cost per Pound	Quantity	Cost
Rolled Wide Flange Sections, straight ¹	\$1.65		
Rolled Wide Flange Sections, curved ¹	\$1.85		
SST Welded Truss HDG	\$4.00	18000	\$72,000
Plate Girders, Curved ¹	\$1.95		
Box Girders, Straight ¹	\$1.95		
Box Girders, Curved ¹	\$2.15		
Prestressed Concrete Girders and Slabs	Cost per Lin. Foot	Quantity	Cost
Florida Inverted Tee; 16" ²	\$110		
Florida Inverted Tee; 20"	\$120		
Florida Inverted Tee; 24" ²	\$130		
Truncated Florida-I Beam; 27"	\$210		
Florida U-Beam; 48" ²	\$650		
Florida U-Beam; 54"	\$700		
Florida U-Beam; 63"	\$750		
Florida U-Beam; 72"	\$800		
Solid Flat Slab (<48"x12")	\$190		
Solid Flat Slab (<48"x15")	\$200		
Solid Flat Slab (48"x12")	\$200		
Solid Flat Slab (48"x15")	\$220		
Solid Flat Slab (60"x12")	\$230		
Solid Flat Slab (60"x15")	\$250		
Florida Slab Beam 12" x 48" 3	\$200		
Florida Slab Beam 12" x 60" 3	\$260		
Florida Slab Beam 15" x 48" 3	\$275		
Florida Slab Beam 15" x 60" 3	\$350		
Florida Slab Beam 18" x 48" 3	\$325		
Florida Slab Beam 18" x 60" 3	\$380		
AASHTO Type II Beam	\$160		
Florida-I Beam; 36	\$220		
Florida-I Beam; 45	\$225		
Florida-I Beam; 54	\$240		
Florida-I Beam; 63	\$255		
Florida-I Beam; 72	\$270		
Florida-I Beam; 78	\$280		
Florida-I Beam; 84	\$295		
Florida-I Beam; 96	\$350		
Haunched Florida-I Beam; 78	\$750		
Haunched Florida-I Beam; 84	\$850		
¹ When weathering steel (uncoated) is used, reduce the price	by \$0.04 per pound. Inorganic	Subtotal	\$72,000

zinc coating systems have an expected life cycle of 20 years. ² Price is based on ability to furnish products without any conversions of casting beds and without purchasing of

forms. If these conditions do not exist, add the following cost: Florida Inverted Tee - \$202,000; Florida-U Beam - \$403,000 ³ Interpolate between given prices for intermediate width FSBs.

D. Bridge Superstructure (continued)

Туре	Cost per Cubic Yard	Quantity	Cost
Box Girder Concrete, Straight	\$950		
Box Girder Concrete, Curved	\$1,200		
Deck Concrete Class II	\$1,200	20	\$24,000
Deck Concrete Class IV	\$1,200		
Precast Deck Overlay Concrete Class IV	\$1,000		
Topping Concrete for slab beams and units (including cost of			
shrinkage reducing admixture)	\$800		
		Subtotal	\$24,000

4. Concrete for Precast Segmental Box Girders, Cantilever Construction			
Concrete Cost by Deck Area	Cost per Cubic Yard	Quantity	Cost
≤ 300,000 SF	\$1,250		
< 500,000 SF	\$1,200		
> 500,000 SF	\$1,150		
For deck area between 300,000 and 500,000 interpolate between	the stated cost per cubic yard.	Subtotal	

5. Superstructure Reinforcing			
Туре	Cost per Pound	Quantity	Cost
Carbon-Steel Bars	\$1.05	1000	\$1,050
Low-Carbon Chromium Steel Bars	\$1.30		
Stainless-Steel Bars	\$4.05		
Carbon-Steel Post-Tensioning Strand; Longitudinal	\$2.50		
Carbon-Steel Post-Tensioning Strand; Transverse	\$4.00		
Carbon-Steel Post-Tensioning Bars	\$6.00		
Туре	Cost per Lin. Foot	Quantity	Cost
GFRP Bars #3	\$0.60		
GFRP Bars #4	\$0.95		
GFRP Bars #5	\$1.15		
GFRP Bars #6	\$1.40		
GFRP Bars #7	\$1.80		
GFRP Bars #8	\$2.25		
n		Subtotal	\$1.050

6. Railings and Barriers			
Traffic Railings ¹	Cost per Lin. Foot	Quantity	Cost
32" Vertical Face	\$90		
42" Vertical Face	\$100		
36" Single-Slope Median	\$100		
36" Single-Slope	\$85		
42" Single-Slope	\$105		
Thrie Beam Retrofit	\$180		
Thrie Beam Panel Retrofit	\$110		
Vertical Face Retrofit	\$125		
Rectangular Tube Retrofit	\$100		
Pedestrian/Bicycle Railings:	Cost per Lin. Foot	Quantity	Cost
Concrete Parapet (27") ¹	\$65		
Single Bullet Railing ¹	\$40		
Double Bullet Railing ¹	\$50		
Panel/Picket Railing (42") steel (Type 1 & 2)	\$95		
Panel/Picket Railing (42") steel (Type 3-5)	\$130		
Panel/Picket Railing (42") aluminum (Type 1 & 2)	\$70		
Panel/Picket Railing (42") aluminum (Type 3-5)	\$105		
Panel/Picket Railing (48") steel (Type 1 & 2)	\$115		
Panel/Picket Railing (48") steel (Type 3-5)	\$175	220	\$38,500
Panel/Picket Railing (48") aluminum (Type 1 & 2)	\$85		
Panel/Picket Railing (48") aluminum (Type 3-5)	\$120		
¹ Combine cost of Bullet Railings with Concrete Parapet or Traffic Ra	iling, as appropriate.	Subtotal	\$38,500

Туре	Cost per Lin. Foot	Quantity	Cost
Poured Joint With Backer Rod	\$45	20	\$900
Strip Seal	\$250		
Finger Joint <6"	\$850		
Finger Joint >6"	\$1,500		
Modular 6"	\$500		
Modular 8"	\$700		
Modular 12"	\$900		
	S	ubtotal	\$900

Superstructure Subtotal

\$140,450

E. Miscellaneous Items

1. Bridge Deck Grooving and Planing			
Туре	Cost per Sq. Yard	Quantity	Cos
Grooving - Deck Thickness less than 8.5"	\$7.00		
Grooving and Planing- Deck Thickness 8.5"+	\$10.00		
	Grooving and Pl	aning Subtotal	

2. Detour Bridges			
Туре	Cost per Sq. Foot	Quantity	Cost
Acrow Detour Bridge 1	\$55		
¹ Using FDOT supplied components. The cost is for the bridge	Detour B	ridge Subtotal	
proper (measured out-to-out) and does not include approach work,			

surfacing, or guardrail.

3. Approach Slab			
Approach Slab Material	Cost per Unit	Quantity	Cost
Cast-in-Place Concrete (per Cubic Yard)	\$400	40	\$16,000
Reinforcing Steel (per Pound)	\$1.05		
Railing Type per Superstructure Section 6			
(per Lin. Foot)			
	Approach	Slab Subtotal	\$16,000

Unadjusted Total \$259,250

Step Two: Estimate Conditional Variables and Cost per Square Foot After developing the total cost estimate utilizing the unit cost, modify the cost to account for site condition variables. If appropriate, the cost will be modified by the following variables:

** Phased construction is defined as construction over traffic or construction requiring multiple phases to complete the construction of the entire cross section of the bridge. The 20 percent premium is applied to the effected units of the superstructure and/or substructure.

	% Increase/	
Conditional Variables	Decrease	Cost (+/-)
For construction over open water, floodplains that flood frequently or other similar areas,		
increase cost by 3 %.	5%	\$12,963
For construction over/near traffic and/or phased construction, increase by 20 %. 1	20%	\$51,850
¹ Phased construction is defined as construction requiring multiple phases to complete the	25%	\$64,813
construction of the entire cross section of the bridge. The 20 percent premium is applied to the		
affected units of the superstructure and/or substructure. Also, includes costs for protecting the		

existing seawall	during bridge	foundation	construction.
entrothing beattern	aaring orrage	100000000000000000000000000000000000000	• • • • • • • • • • • • • • • • • • • •

\$84,800	Substructure Subtotal
\$140,450	Superstructure Subtotal
\$18,000	Walls Subtotal
	Box Culverts Subtotal
	Grooving and Planing Subtotal
	Detour Bridge Subtotal
\$16,000	Approach Slab Subtotal
\$64,813	Conditional Variables
\$324,062.50	Total Cost
1000	Total Square Feet of Deck
	-
\$308	Cost per Square Foot (not including Approach Slab)

Design Aid for Determination of Reinforcing Steel

In the absence of better information, use the following quantities of reinforcing steel pounds per cubic yard of concrete.

	Pounds of Steel per		
Location	Cubic Yard	Cubic Yds.	Tot. Pounds
Pile Abutments	135		
Pile Bents	145		
Single Column Piers >25'	210		
Single Column Piers <25'	150		
Multiple Column Piers >25'	215		
Multiple Column Piers <25'	195		
Bascule Piers	110		
Standard Deck Slabs	205		
Isotropic Deck Slabs	125		
Congrate Day Cirdara Diar Sacmant	225		
Concrete Box Girders, Pier Segment	225		
C LP Flat Slabs @ 30ft & 15" Deep	220		
	220		
Approach Slab	200		

Step Three: Cost Estimate Comparison to Historical Bridge Cost

The final step is a comparison of the cost estimate by comparison with historic bridge cost based on a cost per square foot. These total cost numbers are calculated exclusively for the bridge cost as defined in the General Section of this chapter. Price computed by Steps 1 and 2 should be generally within the range of cost as supplied herein. If the cost falls outside the provided range, good justification must be provided.

	Total Cost p	Total Cost per Square Foot	
Bridge Superstructure Type	Low	High	
Short Span Bridges:			
Reinforced Concrete Flat Slab- Simple Span ¹	\$115	\$160	
Pre-cast Concrete Slab - Simple Span ¹	\$110	\$200	
Medium Span Bridges:			
Concrete Deck / Steel Girder - Simple Span ¹	\$125	\$142	
Concrete Deck / Steel Girder - Continuous Span ¹	\$135	\$170	
Concrete Deck / Prestressed Girder - Simple Span	\$105	\$145	
Concrete Deck / Prestressed Girder - Continuous Span	\$110	\$211	
Concrete Deck / Steel Box Girder -	\$140	\$180	
Span range from 150' to 280' (for curvature, add 15% premium)			
Segmental Concrete Box Girders - Cantilever Construction	\$140	\$160	
Span range from 150' to 280'			
Movable Bridge - Bascule Spans & Piers	\$1,800	\$2,000	
Demolition Costs:			
Typical	\$35	\$60	
Bascule	\$90	\$110	
Project Type			
Widening (Construction Only)	\$125	\$180	
Widening Removal Work	\$85	\$160	
¹ Increase the cost by twenty percent for phased construction			

Estimated Cost per Square Foot

\$308



CDBG-DR Cycle 2 RICHMOND AVE PEDESTRIAN BRIDGE ANTICIPATED PROJECT PROCUREMENT SCHEDULE June 2020					
CCNA PROFESSIONAL SERVICES TIMELINE					
TASK DESCRIPTION	START	FINISH	DATE FROM START	DATE FROM FINISH	NOTES
Departmental drafting and County approval of procurement documents	6/30/2020	1/4/2021	188		
Procurement Manager Receive and Approve Package	1/10/2021	1/14/2021	4	3	
Department Submits Package to Grant Source for Concurrence to Advertise	1/17/2021	1/21/2021	4	3	Concurrence request must be 15 days prior to advertisement.
Grant Source Provides Concurrence to Advertise + Final Package	1/24/2021	1/28/2021	4	7	
Advertisement	2/4/2021	3/8/2021	32	0	
Due Diligence	3/8/2021	3/18/2021	10	3	
Prep and Host Evaluation 1	3/21/2021	4/1/2021	11	3	
Prep and Host Evaluation 2	4/4/2021	4/22/2021	18	3	
Negotiations + Cost Analysis	4/25/2021	6/3/2021	39	3	Cost Analysis process needs time + Holidays.
Draft Contract and AIR	6/6/2021	6/10/2021	4	3	
Contracts Review of Contract and AIR	6/13/2021	6/17/2021	4	3	
Final Contract for Concurrence Request	6/20/2021	6/24/2021	4	3	
Department Submits Draft Contract to Grant Source for Concurrence to Award	6/27/2021	7/1/2021	4	3	Per Grant Procurement requirements.
Final Contract for Vendor Execution	7/4/2021	7/8/2021	4	3	
Vendor Execution and Return of Contract	7/11/2021	7/15/2021	4	3	
Final NOVUS Upload	7/18/2021	7/19/2021	1	22	
BOARD APPROVAL	8/10/2021		0	0	
Route Final Signatures	8/10/2021	8/20/2021	10	3	
Issue and Final Notice to Proceed	8/23/2021	8/27/2021	4	3	
Commencement Date to Final Completion (90 Calendar Days)	8/30/2021	11/28/2021	90	1	
CCNA - RTI TO BOARD DEADLINE	7	Months			
CCNA - RTI to NTP	8	Months			
			1	1	

CONSTRUCTION INVITATION TO BID TIMELINE					
TASK DESCRIPTION	START	FINISH	DATE FROM START	DATE FROM FINISH	NOTES
Department Draft Request to Initiate Package	11/29/2021	12/3/2021	4	3	
Department Submit Request to Initiate to Procurement	12/6/2021	12/7/2021	1	0	
Request to Initiate Assigned to Procurement Analyst	12/7/2021	12/10/2021	3	3	
Procurement Analyst Build Draft Package	12/13/2021	12/17/2021	4	3	
Department Review and Approve Draft Package	12/20/2021	12/24/2021	4	3	
Procurement Manager Receive and Approve Package	12/27/2021	12/31/2021	4	3	
Department Submits Package to Grant Source for Concurrence to Advertise	1/3/2022	1/5/2022	2	0	Concurrence request must be 15 days prior to advertisement.
Grant Source Provides Concurrence to Advertise	1/5/2022	1/7/2022	2	11	
Advertisement	1/18/2022	2/21/2022	34	0	
Due Diligence and Price Analysis	2/21/2022	2/25/2022	4	3	
Department + EOR Concurrence and Recommendation of Award Received	2/28/2022	3/4/2022	4	3	
Post Notice of Intended Decision and Protest Period	3/7/2022	3/11/2022	4	3	
Draft Contract and AIR	3/14/2022	3/18/2022	4	3	
Contracts Review of Contract and AIR	3/21/2022	3/25/2022	4	3	
Finalize Contract for Concurrence Request	3/28/2022	4/1/2022	4	3	
Department Submits Draft Contract to Grant Source for Concurrence to Award	4/4/2022	4/5/2022	1	0	Per Procurement requirements.
Grant Source Provides Concurrence to Award	4/5/2022	4/8/2022	3	3	
Final Contract for Vendor Execution - Department Finalize AIR	4/11/2022	4/15/2022	4	3	
Vendor Execution and Return of Contract	4/18/2022	4/22/2022	4	3	
Final NOVUS Upload	4/25/2022	4/26/2022	1	14	
BOARD APPROVAL	5/10/2022		0		
Request Performance and Payment Bond	5/10/2022	5/13/2022	3	0	
Route Final Signatures	5/10/2022	5/20/2022	10	3	
Issue and Final Notice to Proceed	5/23/2022	5/27/2022	4	3	
Commencement Date to Substantial Completion (150 Calendar Days)	5/30/2022	10/27/2022	150	3	
Substantial Completion to Final Completion (30 Calendar Days)	10/30/2022	11/29/2022	30	1	
Final Invoicing to Grant Source	11/30/2022	12/15/2022	15	0	
Grant Expires	1/4/	2023	0	0	*730 Calendar Days from Grant Start (2 Years)
CCNA - RTI TO BOARD DEADLINE	4	Months			
CCNA - RTI to NTP	5	Months			

June 17, 2020

