VILLAGE OF KEY BISCAYNE

Office of the Village Manager

Village Council
Mayra P. Lindsay, *Mayor*
Franklin H. Caplan, *Vice Mayor*
Luis F. de la Cruz
Gary R. Gross
Allison McCormick
Brett G. Moss
Katie Petros

Village Manager
Andrea Agha

MEMORANDUM

DATE: October 30, 2018

TO: Honorable Mayor and Council Members

FROM: Andrea Agha, Village Manager

RE: Professional Engineering Services for West Mashta Drive Bridge Repairs

RECOMMENDATION

It is recommended that the Village Council authorize the Village Manager to issue a work order to the Corradino Group, Inc. ("Consultant") pursuant to the competitively awarded continuing professional engineering services contract for the structural analysis and design of the repairs for West Mashta Drive Bridge for a sum not to exceed $15,000. Funding was allocated in the Capital Improvement Plan.

BACKGROUND

Pursuant to the FY19 Adopted Budget and Capital Improvement Plan, the Village is initiating the process to repair the Mashta bridge. The goal for the current year is to complete the analysis and design for the repair work.

Under this work order, the consultant will conduct structural analysis and design for remedial repair for the bridge as per the bridge inspection report prepared by Ammann Whitney (Louis Berger) dated November 10, 2016. The Consultant will also prepare a construction cost estimate. Construction administration, and construction engineering & inspection services are not included in this work order.

The Consultant has provided a proposal, attached as Exhibit "A", pursuant to the Continuing Professional Services Agreement.

Reviewed by Mr. Chad Friedman from Weiss Serota Helfman Cole & Bierman as to form and legal sufficiency.

RESOLUTION NO. 2018-_____

A RESOLUTION OF THE VILLAGE COUNCIL OF THE VILLAGE OF KEY BISCAYNE, FLORIDA, AUTHORIZING THE VILLAGE MANAGER TO ISSUE A WORK ORDER TO THE CORRADINO GROUP, INC. TO PERFORM STRUCTURAL ANALYSIS AND DESIGN SERVICES FOR WEST MASHTA DRIVE BRIDGE REMEDIAL REPAIRS; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Village of Key Biscayne (the "Village") issued Request for Qualifications No. 2016-02-09 (the "RFQ") for continuing professional engineering services; and

WHEREAS, pursuant to the RFQ, the Village Council selected the Corradino Group, Inc. (the "Consultant") as one of the consultants to provide continuing professional services relating to general civil engineering, transportation planning and engineering, environmental engineering, and landscape architecture, and authorized the Village Manager to execute an agreement with Consultant; and

WHEREAS, Consultant has provided a proposal, attached as Exhibit "A," (the "Proposal") to perform Structural Analysis and Design Services for West Mashta Drive Bridge Remedial Repairs (the "Project"); and

WHEREAS, the Village Council desires to authorize the Village Manager to issue a work order for the Project consistent with the Proposal and the professional services agreement entered into between the Village and Consultant; and

WHEREAS, the Village Council finds that this Resolution is in the best interest and welfare of the residents of the Village.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE VILLAGE OF KEY BISCAYNE, FLORIDA, AS FOLLOWS:

Section 1. **Recitals Adopted.** That each of the recitals stated above is hereby adopted and confirmed.

Section 2. **Authorization.** That the Village Manager is hereby authorized to issue a work order to Consultant for the Project that is consistent with the Proposal in an amount not to exceed $14,230.00.

Section 3. **Effective Date.** That this Resolution shall be effective immediately upon adoption hereof.

PASSED AND ADOPTED this 30th day of October, 2018.

_____
MAYOR MAYRA PEÑA LINDSAY

ATTEST:

_____
JENNIFER MEDINA, CMC, VILLAGE CLERK

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

_____
VILLAGE ATTORNEY

Exhibit "A"

THE CORRADINO GROUP, INC.

CORRADINO

ENGINEERS · PLANNERS · PROGRAM MANAGERS · ENVIRONMENTAL SCIENTISTS

October 2, 2018

Jake Ozyman, MSCM, PE, ENV SP
Director of Public Works
Village of Key Biscayne
Public Works Department
88 West McIntyre Street
Key Biscayne, FL 33149

Re: West Mashta Drive Bridge (Bridge No. 878400) Remedial Repairs

Dear, Mr. Ozyman,

As requested, The Corradino Group, Inc. (CORRADINO) is pleased to present this letter scope and fee estimate to perform Structural Analysis and Design Services for the above referenced project.

BACKGROUND INFORMATION
The Village of Key Biscayne requires the following scope of services for the above-mentioned structure:

- **Part A:** Conduct a structural analysis and remedial repair plans for the above-mentioned structure based on the Ammann Whitney (Louis Berger) Inspection Report dated Nov. 10, 2016, our site visit and the existing bridge plans.
- **Part B:** Provide Construction Administration and Inspections Services for the recommended repairs. A separate proposal for Part B will be provided to the Village by Corradino once the recommended repairs and plans are received.

PROPOSED SCOPE OF SERVICES (Part A)
Based on the available information, the existing bridge consists of one span with precast arched units. Our scope will consist of detailing the remedial repair for the existing spalls, cracks and any exposed rebars; also, an estimate of probable remedial repair cost will be submitted. The repair specifications will be part of the repair plans.

SCHEDULE (Part A)
The scope of work is anticipated to be completed within three (3) weeks from your notice to proceed.

COMPENSATION (Part A)
CORRADINO agrees to provide the scope of services above for the lump sum compensation of $ 14,230.00, based on a Lump Sum contract. This proposal includes the services for Botas Engineering, Inc. (structural analysis and design). Additional work not anticipated in this proposal will be billed as additional services as a negotiated lump sum. Written authorization will be required prior to the commencement of additional services.

Invoices will be submitted by CORRADINO upon project completion. CORRADINO will provide project management of its team resources, review of available project data and provision effective

4055 NW 97TH AVENUE · SUITE 200 · MIAMI, FL 33178
TEL 800.887.5551 · 305.594.0735
FAX 305.594.0755
WWW.CORRADINO.COM

overall quality control of all deliverables. A breakdown of tasks and related costs is included below. Additional services will be negotiated as required.

Task			Totals
1	Structural Analysis and Plans		$ 12,374.00
2	Quality Control	15%	$ 1,856.00
		Total	$ 14,230.00

CORRADINO appreciates your consideration of our firm for this project. To formally authorize us, kindly indicate so by returning a signed copy of our proposal. We look forward to working with you on this project. If you have any questions or if you require additional information, please do not hesitate to contact Cecilia Villoria at (305) 594-0735.

Presented by:

Mike Ciscar, P.E.
VP of Engineering and Planning
The Corradino Group, Inc.
October 2, 2018

Accepted by:

Jake Ozyman, MSCM, PE, ENV SP
Director of Public Works
Village of Key Biscayne

Date

Attachments:
Exhibit A

"EXHIBIT A"

BOTAS Engineering, Inc.
STRUCTURAL ENGINEERS

September 17, 2018; rev. September 25, 2018

The CORRADINO Group
4055 NW 97th Ave.
Miami, FL 33178
Attn: Cecilia Villoria, PE

Project: West Mashta Drive Bridge (Bridge No. 878400)
Subject: Fee Proposal for the Remedial Repair Plans for Existing Cracks along Precast Units and Spalls.

Dear Cecilia:

As requested, we are submitting our proposal to develop the remedial repair plans for the above-mentioned structure.

Our repair plans will be based on the Ammann Whitney (Louis Berger) Inspection Report dated Nov. 10, 2016, our site visit and the existing bridge plans.

Based on the available information, the existing bridge consists of one span with precast arched units. Our scope will consist of detailing the remedial repair for the existing spalls, cracks and any exposed rebars; also, an estimate of probable remedial repair cost will be submitted. The repair specifications will be part of the repair plans.

We estimate for the repair time to be approximately 6 months; this includes product shop drawings submittals and approvals, however it does not include any permitting that may be required.

Our fee for the above-mentioned scope will be a lump sum of **$12,374.**

We estimate the work effort to develop the repair plans and the repair cost will take approximately 2.5 weeks.

Please, let us know if you have any question(s) or need any additional information.

Thank you for considering us for this project.

Regards,
BOTAS Engineering, Inc.

Patricia M. Botas, P.E.
President

Accepted

10/2/2018
Date

7875 NW 12th Street, Suite #120 • Doral, FL 33126 • Tel: 305-418-9111 • Fax: 305-418-9112

Project Activity 9: Structures Summary and Miscellaneous Tasks and Drawings

Estimator:

Mashta Bridge Remedial Repair

Task No.	Task	Units	Design and Production Staffhours				Comments
			No. of Units	Hours per Unit	No. of Sheets	Total	
	General Drawings						
9.1	Index of Drawings	sheet	1	0	0	0	
9.2	Project Layout	sheet	0	0	0	0	
9.3	General Notes and Bid Item Notes	sheet	1	12	1	12	
9.4	Incorporate FDOT Standards	sheet	1	0	0	0	
9.5	Incorporate Report of Core Borings	sheet	0	0	0	0	
9.6	Existing Bridge Plans	LS	1	0		0	
9.7	Computation Book and Quantities	LS	1	0		0	
9.8	Cost Estimate	LS	1	12		12	
9.9	Technical Special Provisions	LS	1	0		0	
Structures - Miscellaneous Tasks & Drawings Subtotal					1	24	

Task No.	Task	Total	Task 10	Task 11	Task 12	Task 13	Task 14	Task 15	Task 16	Task 17	Task 18
10-16	Bridge 1	70	0	0	0	70	0	0	0		
10-16	Bridge 2	0									
10-16	Bridge 3	0									
17	Retaining Walls	0								0	
18	Miscellaneous Structures	0									0
Structures Technical Subtotals		70	0	0	0	70	0	0	0	0	0

Task No.	Task	Units	No. of Units	Hours per Unit	Total	Comments
9.10	Field Reviews	LS	1	8	8	1 Inspection
9.11	Technical Meetings	LS	1	0	0	
9.12	Quality Assurance / Quality Control	LS	%	10%	9	
9.13	Independent Peer Review	LS	%	0%	0	
9.14	Supervison	LS	%	0%	0	
Structures Non-Technical Subtotal					17	
9.15	Coordination	LS	%	0%	0	
9. Structures - Miscellaneous Tasks & Drawings, Non-Technical, & Coordination Total					41	

Project Activity 13: Structures- Medium Span Concrete

Estimator:
Bridge Identfier (Number or Name): Mashta Bridge Remedial Repair

Task No.	Task	Units	No. of Units	Hours / Unit	No. of Sheets	Total Hours	Comments
General Layout Design and Plans							
13.1	Overall Bridge Final Geometry	LS	0	0	0	0	
13.2	Expansion/Contraction Analysis	EA Unit	0	0	0	0	
13.3	General Plan and Elevation	Sheet	1	18	1	18	
13.4	Construction Staging	Sheet	0	0	0	0	
13.5	Approach Slab Plan and Details	Sheet	1	0	1	0	
13.6	Miscellaneous Details	Sheet	1	40	1	40	Spalls, Crack Injection, Strands Repair, sheet pile repair
End Bent Design and Plans							
13.7	End Bent Geometry	EA	0	0	0	0	
13.8	Wingwall Design and Geometry	EA Bent	1	0	0	0	
13.9	End Bent Structural Design	EA	0	0	0	0	
13.10	End Bent Plan and Elevation	Sheet	0	0	0	0	
13.11	End Bent Details	Sheet	0	0	0	0	
Intermediate Bent Design and Plans							
13.12	Bent Geometry	EA bent	0	0	0	0	
13.13	Bent Stability Analysis	EA Design	0	0	0	0	
13.14	Bent Structural Analysis	EA Design	0	0	0	0	
13.15	Bent Plan and Elevation	Sheet	0	0	0	0	
13.16	Bent Details	Sheet	0	0	0	0	

Project Activity 13: Structures- Medium Span Concrete

Task No.	Task	Units	No. of Units	Hours / Unit	No. of Sheets	Total Hours	Comments
Pier Design and Plans							
13.17	Pier Geometry	EA Pier	0	0	0	0	
13.18	Pier Stability Analysis	EA Design	0	0	0	0	
13.19	Pier Structural Analysis	EA Design	0	0	0	0	
13.20	Pier Plan and Elevation	Sheet	0	0	0	0	
13.21	Pier Details	Sheet	0	0	0	0	
Misc. Substructure Design and Plans							
13.22	Foundation Layout	Sheet	0	0	0	0	
13.23	Fender System	LS	0	0	0	0	
Superstructure Deck Design and Plans							
13.24	Finish Grade Elevation (FGE) Calculation	LS	0	0	0	0	
13.25	Finish Grade Elevations	Sheet	0	0	0	0	
13.26	Existing Bridge Deck Analysis	EA Section	1	0	0	0	
13.27	Superstructure Analysis	EA Unit	1	0	0	0	
13.28	Diaphragm design/ jacking loads	EA Section	0	0	0	0	
13.29	Superstructure Plan	Sheet	0	0	1	0	
13.30	Superstructure Section	Sheet	1	12	1	12	Plan with precast segments
13.31	Miscellaneous Superstructure Details for Alternatives	Sheet	1	0	0	0	
Reinforcing Bar Lists							
13.32	Reinforcing Bar List	Sheet	1	0	1	0	

Project Activity 13: Structures- Medium Span Concrete

Task No.	Task	Units	No. of Units	Hours / Unit	No. of Sheets	Total Hours	Comments
Continuous Concrete Girder Design							
Longitudinal Analysis							
13.33	Section Properties	LS	0	0		0	
13.34	Material Properties	LS	0	0		0	
13.35	Construction Sequence	EA Unit	0	0		0	
13.36	Tendon Layouts	EA Unit	0	0		0	
13.37	Live Load Analysis	EA Unit	0	0		0	
13.38	Temperature Gradient	EA Unit	0	0		0	
13.39	Time Dependent Analysis	EA Unit	0	0		0	
13.4	Stress Summary	EA Unit	0	0		0	
13.41	Ultimate Moments	EA Unit	0	0		0	
13.42	Ultimate Shear	EA Unit	0	0		0	
13.43	Construction Loading	EA Unit	0	0		0	
13.44	Framing Plan	Sheet	0	0	0	0	
13.45	Girder Elevation	Sheet	0	0	0	0	
13.46	Girder Details	Sheet	0	0	0	0	
13.47	Structural Steel Details	Sheet	0	0	0	0	
13.48	Splice Details	Sheet	0	0	0	0	
13.49	Girder Deflections and Camber	Sheet	0	0	0	0	

Project Activity 13: Structures- Medium Span Concrete

Task No.	Task	Units	No. of Units	Hours / Unit	No. of Sheets	Total Hours	Comments
Simple Span Concrete Design							
13.50	Prestressed Beam	EA Beam	0	0		0	
13.51	Prestressed Beam Schedules	Sheet	0	0	0	0	
13.52	Framing Plan	Sheet	0	0	0	0	
Load Rating							
13.53	Load Rating	EA Unit	1	0		0	
13. Structures-Medium Span Concrete Total					**6**	**70**	