

Memorandum



Date: January 2, 2018

To: Gary Hartfiled, Division Director
Internal Services Department, Small Business Development

From: Milton L. Collins, Associate Director *MJC*
Miami-Dade Aviation Department, Minority Affairs Division

Subject: Recommendation of Contract Measures:
MIA-Bearing Modifications Bridges 3062 B & C
Project No. MCC-P-109-A

RECOMMENDATION:

This is a request for Small Business Development (SBD) to approve the subject project in order for the Department to proceed with the approval for the MIA-Bearing Modifications Bridges 3062 B & C, Project No. MCC-P-019-A. The Minority Affairs Division and User Department staff have evaluated the subject project and recommend an SBE/Construction Trade Set-Aside for the following packages: Package "A" – Miscellaneous General Work; Package "B" – Shoring/Structural Steel; Package "C" – Expansion Joints. The Community Workforce Program (CWP) breakdown of services is attached for the required goal.

PROJECT DESCRIPTION:

This is a request for SBD to review the following recommendation in order for the MCC-8-10 Contractor to proceed with the work associated with the MIA-Bearing Modifications Bridges 3062 B & C. The work includes but is not limited to upgrades to structural supports by removing and replacing the bearing pads and the expansion joints as well as repairs to spalled concrete.

The Project estimated cost is \$232,057.58. The total suggested SBE/Construction participation for this project is 91% or \$232,057.58 of \$250,529.37. This project is to be completed in approximately (120) calendar days.

Attachments

c: L. Johnson, SBD
A. Calderin, MCM
V. Mirabal, MCM
R. Solorzano, MDAD
C. Corrales, MDAD
File

**DEPARTMENT CONTRACT MEASURES RECOMMENDATION AND ANALYSIS
CSBE**

To: Miton Collins - Associate Director
MDAD - Minority Affairs Division

From: Alberto Calderin MCC-8-10
General Manager/Munilla Construction Management, LLC (MCM) MCC-8-10

Project/Contract Title: MIA - Bearing Modifications Bridges 3062 B & C

Contract Number: MCC-P-109-A

Department: Aviation

Estimated Cost of Project/Bid: 250,528.92 *Funding Source:* Aviation Bonds

Description of Project/Bid: Upgrade to structural supports by removing and replacing of the bridges bearing pads and expansion joints, and repair to spalled concrete

Contract Measures Recommendations

Set aside Trade Set aside | 210,961 | Bid Preference
Goal No Measures

Reasons for Recommendation

This is a reasonable contract measure, based on the availability of CSBE firms for the trades available on this project.

Analysis for Recommendation of a Goal

<u>Subtrade</u>	<u>Estimated Cost</u>	<u>% Of Item to Base Bid</u>	<u>SBE/Construction Availability</u>
Misc. General Work - Pkg "A"	54,470	23.5%	
Shoring/Structural Steel Pkg. "B"	109,759	47.3%	
Expansion Joints - Pkg. "C"	46,732	20.1%	

Total	210,961	91%
<i>Project cost</i>	210,961	input from bid line item
<i>Allow.</i>	21,096	input from bid line item
<i>Project Cost + Allow</i>	232,057	
<i>MCC Fee 7.96%</i>	18,472	input from bid line item
<i>Goal basis</i>	250,529	

DEPARTMENT INPUT
CONSTRUCTION CONTRACT/PROJECT MEASURE ANALYSIS AND RECOMMENDATION

Check applicable Ordinance(s): 90-143 Responsible Wage and Benefits 03-237 (formerly 03-1) Community Workforce Program

PROJECT INFORMATION See attachment

Contract/Project/*Work Order No.: MCC-P-109-A

*Reference corresponding project number when submitting a work order

Contract/Project Title: MIA - Bearing Modification Bridges 3062 B+C

Description/Scope of Work: Upgrade to the structural supports by removing and replacing the bearing pads and expansion joints as well as repairs to spalled concrete

Estimated Cost: \$ 250,529.00 Funding Source: MIA Bonds

Location of Project (street address or beginning and ending points) i.e. 12345 NE 23rd Ct or Starts at 135 St. ends at 145 St.
MIA - Central Terminal Drive

PROJECT ANALYSIS FOR GOAL RECOMMENDATION (CWP) See attachment

Engineer/Department or Agency's estimated required workforce for Project Work Order :

Trade/Skills Required	Est. # of workforce required per trade	Est. # of total days to complete job

Comments: _____

PROJECT ANALYSIS FOR GOAL RECOMMENDATION (CSBE) See attachment

Sub-Trade	Est. Cost	% of Item to Base Bid	Availability

RECOMMENDATION

Set-Aside: Level 1 Level 2 Level 3 Trade Set-Aside Sub-Contractor Goal Workforce Goal No Measure

Basis for Recommendation: _____

Date submitted to DBD: _____
 Contact Person: _____
 Telephone No.: _____

PROJECT ANALYSIS FOR GOAL RECOMMENDATION (CWP)

Construction Contract/Project Measure Analysis & Recommendation

Project Name: MIA-Bearing Modifications Bridges 3062 B & C

Project Number: MCC-P-109-A

Trade/Skills Required	Estimated # of Workforce Required	Estimated # of Total Days to Complete
General Miscellaneous Work	4 Person	70 Days
Shoring/Structural Steel	5 Person	60 Days
Expansion Joints	3 Person	20 Days



December 11, 2017

Mr. Richard Cabrera
Project Manager
Miami Dade Aviation Department
P.O. Box 025504
Miami, Florida 33102-5504

RE: MIA- Bearing Modifications Bridges 3062 B & C
MCC- P-109-A

Dear Mr. Cabrera:

We are pleased to present to you the following **Project Construction Packaging Plan** for the above referenced project, based on 100 % completed drawing and notes prepared by:

New Millennium Design Consultants, Inc.
4868 SW 72nd Avenue
Miami, Fl 33155
305-667-4772

Project Estimate: **\$250,529.37** (Two Three Hundred Fifty Thousand Five Hundred Twenty Nine Dollars and Thirty Seven Cents).

Liquidated Damages / Liquidated Indirect Costs: \$TBD

This project is to be completed in approximately 120 calendar days.

This estimate is broken down on the attached spreadsheet, and is based on the following conditions.

Drawing	Title	Date
	Cover Page	10/27/2017
S-1	Key Sheet	10/27/2017
S-2	General Notes (1 of 2)	10/27/2017
S-3	General Notes (2 of 2)	10/27/2017
S-4	Temporary Shoring Plan and Elevation Bridge 3062B	10/27/2017
S-5	Temporary Shoring Plan and Elevation Bridge 3062C	10/27/2017
S-6	Temporary Shoring Typical Section and Foundation Details	10/27/2017
S-7	Temporary Shoring Sections and Details	10/27/2017
S-8	Existing Bridge Framing Plan and Main Girder Elevation	10/27/2017
S-9	Expansion Joint Details	10/27/2017
S-10	Structural Repair and Rehabilitation General Notes	10/27/2017

Mr. Richard Cabrera
Miami Dade Aviation Department
MCC-P109A

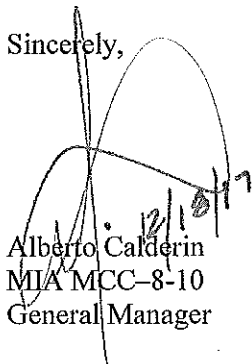
December 11, 2017
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S-11	Traffic Control General Notes	10/27/2017
S-12	Traffic Control Plan	10/27/2017
EX-1	Existing Plan (S-15) (As-Built)	04/01/1974
EX-2	Existing Plan (S-16) (As-Built)	04/01/1974

1. Work to begin, after approved Project Order and after receipt of approved Building Permits and Notice to Proceed.
2. This estimate includes an allowance account for unforeseen conditions.
3. This estimate will stay in effect for a period of not more than thirty (30) days from the date of this correspondence.

If there are any questions, please do not hesitate to contact me.

Sincerely,



Albeto Calderin
MIA MCC-8-10
General Manager

/gm

Cc: File

Subtotal \$ 238,612.08
 Bond 1.55% \$ -
 OH&P 0% \$ -
Total Estimate \$ 238,612.08

Project P-109-A
 IMA Bearing Mod. Bridges 3062 B & C 120
 Duration in Calendar Days 17
 Estimated Early Start 1/10/2018
 Estimated Early Completion 5/9/2018

Div/Co.	Item	MATERIALS			LABOR			SUB			OTHER COST	Subtotal
		unit	Qty	Wt/\$	Qty	u./lab	Qty	u./sub.	Qty	u./cost		
	GENERAL REQUIREMENTS/MOBILIZATION											
	Mobilization / MOT	ea	1									10,000.00
	MOT - Pedestrian / Vehicular	ls	2									6,000.00
	Carpenter / Journeyman	ls	1									
	Laborer / Journeyman	ls										
	Labor for Demolition	ls										
	Watchmen	ls										
	Asbestos Abatement	ls										
	Builder Risk	ls										
	Contingency	ls										
	Temporary Sanitary Facilities/Folets	ea	18	98.00								1,440.00
	Temporary First Aid Facilities	ea	10	503.00								5,030.00
	Construction Aids-Dumpsters	hr	0									
	Contaminated water Treatment	ls	0									
	Crane 45 Ton Truck-Mounted	ls	0	7500.00								
	Hurricane Protection	ls										
	Cleaning Up	ls										
	Record Documents	ls										
	Start-up	ls										
	Punch List	ls										
	Touch-up and Repair	ls										

BRIDGE 3062-B
SHORING/STRUCT. STEEL

Div/Co.	Item	MATERIALS			LABOR			SUB			OTHER COST	Subtotal
		unit	Qty	Wt/\$	Qty	u./lab	Qty	u./sub.	Qty	u./cost		
	SHORING/STRUCT. STEEL											
	Speed Load:											
	Reinforced Concrete 150 PCF											
	Structural Steel 490 PCF											
	Al. Pedestrian Railings 10LB/FT											
	Stationary Forms 20 PSF											
	Live Load: 85 PSF											
	Wind Load: 175 MPH											
	Foundation Soil Pressure: 2000 PSF											
	Structural Steel:											
	HSS A500 grade B 46 KSI											
	Wide Flange A992 grade 50 50 KSI											
	Channel A572 grade 50 50 KSI											
	Plate A572 grade 50 50 KSI											
	Angles A96 grade 50 50 KSI											
	Shoring Foundations:											
	Excavation	cy	40	1,800.00								1,800.00
	Excavation/Compaction - Equip. Rental	ls	1	2500								2,500.00
	Lime rock / Soil Compaction	ls	1	1,000.00								1,000.00
	Formwork	sf	40	36.00								1,200.00
	Reinforcement	lb	400	5.00								2,000.00
	Concrete Paving	cy	2.00	350.00								700.00
	Miscellaneous	ls	1.0	500.00								500.00
	Temporary Shoring:											
	Installation of W12x60 Beam	hr	1.0	3,500.00								3,500.00
	Installation of HSS Columns 8x4x3/4	hr	1.4	3,707.00								5,189.80
	Provide Jacks RSCS-502	ea	2	1,000.00								2,000.00
	Bulk-up: Plates, angles, channels, bolts:	lb	774	3.50								2,710.12
	Installation of S/finers on W12x60	sf	6.0	122								732.00
	Installation of Stub Angles L 6x6x5/8	lf	12.0	290								3,480.00
	Installation of Base Plates 3/4x36x12x16	sf	4.0	122								488.00
	Installation of Bearing Seat Plates for HSS 6x3	sf	2.0	41								82.00

OTHER COST
 1 1500 1,500.00
TOTAL ESTIMATE \$ 11,500.00

Estimated Early Completion

Div/Co	Unit	Qty	MATERIALS			LABOR			SUB			OTHER COST			Subtotal
			L	H	W/S	Qty	u./sub	tot	u./sub	tot	u./cost	tot			
Installation of Bearing - HSS 96x172	lf	20	100											\$	
Installation of Shimlugs to W17x265	ea	6	94											\$	
Replace Bolts (fr-king) after jacking	lf	4	5											\$	
Installation of Shims as required	hr	16				120		1,920.00						\$	
Remove existing concrete blocks and pads	hr	19				120		2,280.00						\$	
Install new steel blocks and pads	hr	16				120		1,920.00						\$	
Release load and removed jacks	hr	16				120		1,920.00						\$	
Remove temp. shoring	hr	16				120		1,920.00						\$	
Reconstruct Sidewalk area	ls	1				3000		3,000.00						\$	
						hr/crew		\$ 16,896.00						\$	
EXPANSION JOINTS															
Remove existing expansion joints/sealing system	lf	30				48		4,608.00						\$	
Remove existing joint system concrete bed	lf	30				96		4,608.00						\$	
Clean concrete substrate free from contaminants	ea	10				35.00		350.00						\$	
Install Concrete Header: IPATOP HES	lf	30				2,040.00		2,040.00						\$	
Install Joint System at Roadway	lf	30				64		2,048.00						\$	
Install Joint System at Sidewalk	lf	30				64		2,048.00						\$	
Install Backer Rod to 1'-1/2"	lf	30				32		2,048.00						\$	
Pour Joint Mastic	lf	30				8		256.00						\$	
Install Safety/Fix cover	lf	30				32		256.00						\$	
						hr		\$ 15,000.00						\$	
SPALLING REPAIRS															
Contractor to identify deteriorated concrete and spalling to assess repair limits determine by EOR															
Payment for spalling shall be based on unit price															
All spalls shall be repaired with a Polymer-Latex Modified Mortar as per FDOT Specs:															
- Sikka Armalox-110 Epocem															
- Sikka Top Seal 107															
- Sikka Top Seal 122 Plus															
- Sikka Top Seal 137															
All cracks shall be repaired by epoxy injection with low viscosity epoxy material															
- Seal Crecks-Sikadur 31 Hi-Mod Gel															
- Sikadur 35 H-MOD LV															
- Corrosion Inhibitor - Sikka Ferrogard 903															
Concrete Cracks															
						hr		\$ 15,000.00						\$	
						hr/crew		\$ 20,280.00						\$	
BRIDGE 3062-C															
SHORING/STRUCT. STEEL															
Dead Load:															
Reinforced Concrete 150 PCF															
Structural Steel 450 PCF															
Al. Pedestrian Railings 10LB/FT															
Stationary Forms 20 PSF															
Live Load: 85 PSF															
Wind Load: 175 MPH															
Foundation Soil Pressure: 2000 PSF															
Structural Steel:															
HSS A200 grade B 46 KSI															
Wide Flange A992 grade 50 50 KSI															
Channels A572 grade 50 50 KSI															
Plate A572 grade 50 50 KSI															
Angles A36 grade 50 50 KSI															
Shoring Foundations:															
Excavation															
Excavation	cy	40				45		1,800.00						\$	
Excavation/Compaction - Equip. Rental	ls	1				2500		2,500.00						\$	
Limecrack / Soil Compaction	ls	1				1000.00		1,000.00						\$	
Formwork	sf	40				30.00		1,200.00						\$	
Reinforcement	lb	400				5.00		2,000.00						\$	
						hr		\$ 23,099.92						\$	
						hr/crew		\$ 20,280.00						\$	
						hr		\$ 11,500.00						\$	

Estimated Early Completion 5/9/2018

Div/Co	Description	MATERIALS			LABOR			SUB			OTHER COST		
		unit	QTY	W/S	QTY	u./sq	tot	QTY	u./sq	tot	QTY	u./cost	tot
Concrete Paving	2(8'x7'x4'x0.10')	cy	2.00	353.00	700.00								700.00
Miscellaneous		ls	1.0	500.00	500.00								500.00
Temporary Shoring:	Crew: 4 men @ 1hr @ \$80/hr	hr	1.0	3,500.00	3,500.00								12,860.00
Installation of W12x50 Beam	4 columns of 14ft/ea=56ft=2800lbs	ln	1.4	3,707.00	5,189.80						1	1500	5,189.80
Installation of HSS Columns Bx4x4	Provide Jacks RSCS-302	ea	2	1,000.00	2,000.00								2,000.00
Bolt-Up: Plates, angles, channels, bolts:		lb	774	3.50	2,710.12								2,710.12
Installation of Sillformers on W12x50	PL 1/2" - (8x12)=6ft, 20.4lbs/sf	sf	6.0										
Installation of Sillformers on W12x50	LS6x6x8, 24.2lbs/sf	sf	12.0										
Installation of Base Plates 3/4"x8"x12" T&S	PL 3/4x8x12, 50.6lbs/sf	sf	4.0										
Installation of Bearing Seal Plates for HSS 6x3	PL 1/2" 20.4lbs/sf	sf	2.0										
Installation of Bearing HSS 6x3x1/2	HSS 6x3x1/2, 50.3lbs/sf	sf	6										
Installation of Sillformers to W12x50	FL6x3/8, 15.3lbs/sf	sf	4										
Replace Bolts (in-kind) after jacking	4-3/4x6" Bolts, 118lbs/100 units	ea	4										
Installation of Shimms as required		hr	16										1,920.00
Remove existing concrete blocks and pads		hr	16										1,920.00
Install new steel blocks and pads		hr	16										1,920.00
Release load and removed jacks		hr	15										1,820.00
Remove forms, shoring		hr	120										1,920.00
Reconstruct Sidewalk area		ls	1								1	10000	13,000.00
EXPANSION JOINTS													
	Remove existing expansion joint/sealing system		30		6,470.00								6,470.00
	Remove existing joint system concrete bed		48		4,608.00								4,608.00
	Chase concrete substrate free from contaminants		16		1,024.00								1,024.00
	Install Concrete Header (PATOP-HES)		32	35.00	1,120.00								1,120.00
	Install Joints Joint System at Roadway		30	68.00	2,040.00								2,040.00
	Install Joints Joint System at Sidewalk		30	68.00	2,040.00								2,040.00
	Install Backer Rod to 1'-1/2"		8	12.00	96.00								96.00
	Four Joint Materials		30	66.00	1,980.00								1,980.00
	Install Safety/Flex cover		30										
SPALLING REPAIRS													
	Contractor to identify deteriorated concrete and spalling to assess repair limits determine by EOR												
	Payment for spalling shall be based on unit price												
	All spalls shall be repaired with a Polymer-Latex Modified Mortar as per FDOT Specs:												
	- Silca-Amblox-110 Epoxy												
	- Silcaop-123-Plus												
	- Silcrete-211 SCC Plus												
	- Silcaop-122 Plus												
	- Silca Top Seal 107												
	All cracks shall be repaired by epoxy injection with low viscosity epoxy material:												
	- Seal Cracks-Sikadur 31 HI-Mod Gel												
	- Sikadur 35 HI-MOD LV												
	- Concrain Inhibitor - Silca Ferrogard 803												
	Concrete Cracks		400	40.00	16,000.00								16,000.00
Sub. Total					\$ 97,609.84								\$ 210,961.84
													\$ 22,305.60
													\$ 6,344.64
													\$ 239,612.08

Payroll Burden	30.00%	\$ 74,852.00
Sales Taxes	7%	\$ 16,000.00
Inspector General		\$ 2,500.00
User Access Program		\$ 1,867.52
OH&P		\$ 4,467.52
Dedicated Allowance	20%	\$ 3,027.42
Contingency Ac		\$ 17,531.50
P&P Bond		\$ 4,467.52
Total Bid		\$ 231,168.00

Estimated Early Completion 5/9/2018

Div/Co \$

292,002.02

unit	MATERIALS			LABOR		SUB		OTHER COST					
	qty	L	H	W/\$	CDY	qty	u./lab	tot	u./sub.	tot	u./cost	tot	Subtotal
LOCAL Estimate													
2018													