CARTER ASSOCIATES, INC.

CONSULTING ENGINEERS AND LAND SURVEYORS

1708 21st STREET * VERO BEACH, FLORIDA 32960-3472 * 772-562-4191 * 772-562-7180 (FAX)

JOHN H. BLUM, P.E., PRINCIPAL DAVID E. LUETHJE, P.S.M., PRINCIPAL GEORGE A. SIMONS, P.E., PRINCIPAL PATRICK S. WALTHER, P.E., PRINCIPAL

MARVIN E. CARTER, P.S.M., Consultant to the Firm DEAN F. LUETHJE, P.E., PL&NC) Consultant to the Firm

FRANK S. CUCCURESE, P.S.M. CLINTON J. RAHJES, P.E. TYLER N. SPENCER, P.E.

May 8, 2020

Ms. Elizabeth Powell Assistant Director, Parks & Conservation Resources Indian River County 5500 77th Street Vero Beach, Florida 32967

RE: Jones Pier Wetland Restoration and Conservation Improvements Change Order Description

Dear Beth:

Please see below a brief description of the attached change order items provided by the contractor, XGD Systems LLC:

Change Order 001

- 18A Bid plans by Architect did not provide for lighting in the restrooms but were added later during the building permit approval process.
- 49A Statement on phase 1 drawings indicates all passing density tests shall be paid by the County.
- 52A Phase 2 drawings provided for rip-rap rubble in bottom of north outfall ditch. Owner's representatives revised this area to be stabilized with fiber mat and planted with native grasses. The rip-rap rubble will be re-purposed on-site.
- Add 60 lineal feet of rip-rap revetment along the north bank of the south ditch adjacent to the parking lot entrance to stabilize ditch bank from adjacent stormwater runoff.
- The existing grade transition from the rear yards of the homesites north of the north ditch created a slope in the ditch bank that caused concerns for future erosion. The sloping along with vegetation removal in this area made it necessary to shift the walking trail south to allow more room to re-stabilize the ditch bank.



- Added rip-rap endwall and pipe bedding to south culvert in Jungle Trail per IRC right-ofway permit comments.
- Revised north culvert in Jungle Trail from 60"x36" box culvert to a 53"x34" elliptical reinforced concrete pipe due to fabrication delays with the box culvert. Added rip-rap endwall and pipe bedding per IRC right-of-way permit comments.
- 67A Eliminated bid items for fencing and Owner direct purchased split-rail fencing. Hog wire & 68A fencing, guard rail, and pole gate materials are being provided by the contractor / fence contractor. The revision resulted in a credit from the original bid.
- 69A Added pressure treated bulkheads at ends of boardwalks for slope transition to walking trail.
- 73A Supply for wild flower seed for purchase by Owner were not available as per bid. Contractor purchased seed directly and hydroseeded garden, wetland top of bank, and ditch banks to prevent erosion until wetland plantings are installed.

Change Order 002

The fees presented in change order 002 were a result of the coordination with FPL, AT&T, and Comcast to remove the existing overhead lines that run through the center of the proposed parking lot and install underground with services to the proposed restroom pavilion and existing structures. It should be noted that the existing overhead facilities were not located within a recorded easement on the property.

The following is a breakdown of the of the necessary materials to be installed for the utility providers. All of the items presented in change order 002 were not part of the original scope of work.

FPL

- 205 LF directional bore for 2-inch conduit from handhole at new pole location to service pavilion.
- 220 LF directional bore for 2-inch conduit (material provided by FPL) for primary.

AT&T

- 220 LF directional bore 2-inch conduit for primary.
- 135 LF directional bore 1.5-inch conduit from handhole to service house

Comcast

135 LF directional bore 2-inch conduit from handhole to service house



Site Electric

- 135 LF directional bore 1.25-inch conduit from pavilion to garage and from pavilion to house.
- 145 LF directional bore 1-inch conduit from house to start of dock.
- 290 LF directional bore 2-inch from screw pump to pavilion.
- Services for an electrician to pull CU conductors between FPL handhole to pavilion, pavilion to house, and pavilion to garage.

I have reviewed the fees associated with the change orders and recommend payment. Should you have any questions, please do not hesitate to contact me at our office.

Sincerely,

CARTER ASSOCIATES, INC.

John H. Blum, P.E.

Principal

Jones Pier Wetland Restoration Project Contractor: XGD Systems, LLC

C.O. #1 and C.O. #2 Date: May 6, 2020

Item	Description	Contract							
		Unit Price	Unit	Quantity	Amount				
Base Bid									
18	Construct Restroom / Pavilion	\$132,000.00	LS	1	\$132,000.00				
49	Engineer Construction Coord. / Asbuilts / Certifications	\$9,185.00	LS	1	\$9,185.00				
52	Excavation of wetland creation area and north outfall ditch	\$3.82	CY	24,950	\$95,309.00				
53	Construct 4' Bottom Width, 2:1 Slopes 3' Depth Influent Ditch Along S Property Line	\$9.30	CY	510	\$4,743.00				
56	Construct 1.5' Above Grade Walking Trail	\$0.94	CY	4,450	\$4,183.00				
58	Furnish & install 45"x29" RCP Culvert /w Inlet Protection	\$249.10	LF	68	\$16,938.80				
60	Furnish & install 60"x36" RCP Box Culvert /w Inlet Protection & Stop Logs	\$393.03	LF	64	\$25,153.92				
67 & 68a	Furnish & install 4' High Split Rail Fence (1180 LF @ \$13.15/LF) and 4' High Black Vinyl Chain Link Fence (Option A) (830 LF @ \$18.57/LF).	\$30,930.10	LS	1	\$30,930.10				
69	Furnish & install Boardwalks	\$203,170.00	LS	1	\$203,170.00				
73	Seed & Mulch (Seed Purchased By Owner)	\$2,874.96	Acre	6	\$17,249.76				
Base Bid Subtotal \$538,862.58									
Change Order 001									
18A	Construct Restroom / Pavilion - Add one light fixture to each of the 2 restrooms and add the add'l. cost due to the building slab change.	\$1,945.00	LS	1	\$1,945.00				
49A	Engineer Construction Coord. / Asbuilts / Certifications - Add the costs of passing compaction testing.	\$3,500.00	LS	1	\$3,500.00				
52A	Excavation of wetland creation area and north outfall ditch - Additional ditch work east of 53" x 34" ERCP Culvert.	\$1,061.50	LS	1	\$1,061.50				
53A	Construct 4' Bottom Width, 2:1 Slopes 3' Depth Influent Ditch Along S Property Line - Add revetment along north side of south ditch bank.	\$9,079.33	LS	1	\$9,079.33				
56A	Construct 1.5' Above Grade Walking Trail - Add the shifting & reconstructing the North Path adjacent to ponds approx. 6' to the south in order to provide room to reconstruct & deepen the ditch.	\$9,659.90	LS	1	\$9,659.90				
58A	Furnish & install 45"x29" RCP Culvert /w Inlet Protection - lower invert by 4" and add 4" depth of bedding stone under culvert; add Rip-Rap at west end (rip-rap provided by county).	\$4,506.34	LS	1	\$4,506.34				
60A	Furnish & install 60"x36" RCP Box Culvert /w Inlet Protection & Stop Logs - change to 53" x 34" ERCP Culvert, add 4" depth of bedding stone under culvert; add Rip-Rap at west end (rip-rap provided by county).	\$0.00	LS	1	\$0.00				

67A & 68aA	Furnish & install 4' High Split Rail Fence (1180 LF @ \$13.15/LF) and 4' High Black Vinyl Chain Link Fence (Option A) (830 LF @ \$18.57/LF) - delete both items from contract and add new fencing from Adron Fence to contract (note entrance and maintenance gates will be handled in a future CO).	(\$2,469.94)	LS	1	(\$2,469.94)			
69A	Furnish & install Boardwalks - add 5 bulkheads. Seed & Mulch (Seed Purchased By Owner) - Add the purchase of	\$2,502.00	LS	1	\$2,502.00			
73A	Bahiagrass/Millet blend seed and add hydroseeding to stabilize pond banks.	\$6,894.34	LS	1	\$6,894.34			
New Item	Additional bond cost associated with CO#1 net increase.	\$293.43	LS	1	\$293.43			
Change Order 001 Subtotal \$36,971.90								
Change Order 002								
New Item Phase 1 Utilities	FPL Directional Bore 2" (service line to pavilion)	\$30.80	LF	205	\$6,314.00			
New Item Phase 1 Utilities	FPL Directional Bore 2" (installation only - FPL to provide material)	\$27.50	LF	220	\$6,050.00			
New Item Phase 1 Utilities	AT&T Directional Bore 2" (primary)	\$30.80	LF	220	\$6,776.00			
New Item Phase 1 Utilities	AT&T Directional Bore 1.5" (service to house)	\$30.80	LF	135	\$4,158.00			
New Item Phase 1 Utilities	COMCAST Directional Bore 2" (service to house)	\$30.80	LF	135	\$4,158.00			
New Item Phase 1 Utilities	Site Electric Directional Bore 1.25" (pavilion to garage / pavilion to house)	\$28.60	LF	135	\$3,861.00			
New Item Phase 1 Utilities	Site Electric Directional Bore 1" (house to start of dock)	\$28.60	LF	145	\$4,147.00			
New Item Phase 1 Utilities	Site Electric Directional Bore 2" (screw pump to pavilion)	\$30.80	LF	290	\$8,932.00			
New Item Phase 1 Utilities	Site Electric - Electrician pulling CU conductors between FPL hand hole to pavilion, pavilion to south building and pavilion to staff house	\$15,262.50	LS	1	\$15,262.50			
New Item Phase 1 Utilities	Additional bond cost associated with CO#2 increase	\$477.27	LS	1	\$477.27			
Change Order 002 Subtotal \$60,135.77								
Total \$635,970.25								