nia Beach Basin 5 Drainge Project Wetland Enhancements Engineers Cost Estimate						
. Planting Materials for the exc	Planting Materials for the excavated area, 0.506 acres					Product
Scientific Name	Common Name	Specification	Spacing	Quantity	Installed	Cost
Spartina alterniflora	SALTMARSH CORDGRASS	1 gallon	3'o.c.	300	\$2.00	\$600.00
Juncus roemerianus	BLACK RUSH	1 gallon	3'o.c.	300	\$2.50	\$750.00
Batis maritima	SALTWORT	6"	3'o.c.	25	\$3.50	\$87.50
Sarcocornia ambigua	PERENNIAL GLASSWORT	4"	3'o.c.	25	\$3.50	\$87.50
Eustachys glauca	SALTMARSH FINGERGRASS	4"	3'o.c.	25	\$3.50	\$87.50
Schoenoplectus robustus	SALTMARSH BULRUSH	B.R.	3'o.c.	300	\$1.50	\$450.00
Borrichia frutescens	BUSHY SEASIDE OXEYE	1 gallon	3'o.c.	300	\$2.50	\$750.00
Borrichia arborescens	SEASIDE OXEYE	1 gallon	3'o.c.	300	\$2.50	\$750.00
Suaeda linearis	SEA BLITE	4"	3'o.c.	25	\$3.50	\$87.50
Symphyotrichum expansum	SALTMARSH ASTER	4"	3'o.c.	25	\$3.50	\$87.50
Solidago sempervirens	SEASIDE GOLDENROD	1 gallon	3'o.c.	300	\$2.50	\$750.00
Baccharis halimifolia	SEA MYRTLE	1 gallon	3'o.c.	300	\$2.50	\$750.00
Acrostichum danaeifolium	GIANT LEATHER FERN	B.R.	3'o.c.	300	\$2.50	\$750.00
Cladium jamaicense	SAWGRASS	1gallon	3'o.c.	300	\$2.50	\$750.00
			Total Qty	2825		
	Subtotal cost for Section A.					\$6,737.50

Planting Materials along west edge of swale, 0.308 acres						Product
Scientific Name	Common Name	Specification	Spacing	Quantity	Installed	Cost
Spartina alterniflora	SALTMARSH CORDGRASS	1 gallon	1.5' o.c.	6,892	\$2.00	\$13,784.00
Five (5) rows of plants at 1	5' o.c. along west edge of swale as	perimeter plantin	g			
			Sub	total cost fo	or Section B.	\$13,784.00

. Planting Materials for space	Planting Materials for spaces cleared of exotics within the area of increased hydrology					
Scientific Name	Common Name	Specification	Spacing	Quantity	Installed	Cost
Spartina alterniflora	SALTMARSH CORDGRASS	1 gallon	3'o.c.	94	\$2.00	\$188.00
Juncus roemerianus	BLACK RUSH	1 gallon	3'o.c.	94	\$2.50	\$235.00
Schoenoplectus robustus	SALTMARSH BULRUSH	B.R.	3'o.c.	94	\$1.50	\$141.00
Borrichia frutescens	BUSHY SEASIDE OXEYE	1 gallon	3'o.c.	94	\$2.50	\$235.00
Borrichia arborescens	SEASIDE OXEYE	1 gallon	3'o.c.	94	\$2.50	\$235.00

Solidago sempervirens	SEASIDE GOLDENROD	1 gallon	3'o.c.	94	\$2.50	\$235.00
Baccharis halimifolia	SEA MYRTLE	1 gallon	3'o.c.	94	\$2.50	\$235.00
Acrostichum danaeifolium	GIANT LEATHER FERN	B.R.	3'o.c.	94	\$2.50	\$235.00
Cladium jamaicense	SAWGRASS	1gallon	3'o.c.	93	\$2.50	\$232.50
Based on an estimated need to plant in 0.15 acres			Total Qty	845		
Subtotal cost for Section C.				\$1,971.50		

D.	Other Installations	Units	Unit Cost	Product Cost
	Installation of one (1) Staff Gauge	1	\$500.00	\$500.00
	Installation of PVC markers for 7 Photostations and five (5) transects	17	\$15.00	\$255.00
	Installation of Mitigation Signage seven (7) signs	7	\$75.00	\$525.00
	Installation of 4' chain link fencing along the west edge of swale	1,775	\$12.00	\$21,300.00
	Installation of Sod, approximately 0.27 acres (11,762 square feet)	11,762	\$0.30	\$3,528.60
	Sub	btotal cost for Section D.		\$1,280.00

Earthwork and Site Maintenance	Units	Unit Cost	Product Cost
Excavate and fine grade to create marsh (cubic yards)	400	\$8.00	\$3,200.00
Install sheet pile to enhance wetlands (1,816 linear feet)	1,816	\$12.50	\$22,700.00
Invasive exotic removal in 0.66 acres	0.66	\$2,500.00	\$1,650.00
Invasive exotic five (5) year maintenance program quarterly, 20 applications	0.801 ac.	\$75.00	\$1,201.50
Subtotal cost for Section E.		\$28,751.50	

F.	Compliance Monitoring	Units	Unit Costs	Product Cost
_	Time Zero Report, one report	1	\$3,500.00	\$3,500.00
	Quarterly Complaince Reports, 20 reports	20	\$2,500.00	\$50,000.00
	Sub	Subtotal cost for Section F.		\$53,500.00

G.	Construction, Plant Installation, Maintenance and Monitoring Costs						
		Total cost fo	\$106,024.50				
			10% of total cost	\$10,602.45			
	Grand total at 110% construction, planting, maintenance and monitoring costs						

## **Donnelly, Colin**

From: Jenna Chamberlain [JChamberlain@calvin-giordano.com]

Sent: Wednesday, February 08, 2012 5:12 PM

To: Orlando, Dominic; Donnelly, Colin; Baldwin, RobertCc: Williams, Leo; Dominguez, Yasbeth; Navarro, Ronnie

Subject: RE: Review: Agenda 02-14-12, Item 7.7

Attachments: Cost estimate.pdf

## Hi Dominic/Colin,

The county needs a financial commitment and evidence of financial resources to construct and to complete the mitigation as required by the permit for the work being done in the eco-swale, which is on the east side of SE 5<sup>th</sup> Ave in Broward county R/W. The construction of the eco-swale will be done as part of phase 2 however the maintenance is a 5-year program. Attached is the cost estimate to construct and maintain the eco-swale.

The resolution is in required for our permits for the phase 2 improvements. We tried to satisfy the comment with a commitment letter but that was not enough. Please see the County's most recent comment below,

Please provide evidence of financial resources necessary to complete a mitigation project. Some examples of this evidence include but are not limited to an approved letter of credit, a bond, or other securities. If a modified version of a DPEP financial assurance form is submitted which deviates from the standard language, the license will not be issued until the revised language is accepted by the Office of the County Attorney and DPEP. If changes are proposed, please provide a red lined draft version before submitting an executed original.

[7/12/11] Response noted. Repeat Comment

[10/27/11] The submitted commitment letter is not sufficient to meet Department standards for public mitigation projects. Please submit a resolution from the City, or other equivalent formal documentation that clearly indicates the City Commission has agreed to fund the mitigation for this project at an estimated amount of \$116,626.95

We do not have a permit from Broward County yet b/c of the outstanding comment. A formal written agreement and easement will also soon be required between the City and the County for constructing and maintaining the eco-swale in County R/W. The City and County attorneys will write up the document and then their respective commissions will approve it. First they need to see a commitment of funds and we can continue the process.

I hope this helps clarify. If you have any additional questions please do not hesitate to contact me.

Thank you,

## JENNA CHAMBERLAIN, P.E.

Project Manager

**Engineering Department (Broward)** 

From: Orlando, Dominic [mailto:dorlando@ci.dania-beach.fl.us]

Sent: Wednesday, February 08, 2012 9:24 AM

To: Donnelly, Colin; Baldwin, Robert