

**PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS**

AGENDA ITEM SUMMARY

Meeting Date: September 11, 2007 (X) Consent () Regular
 () Workshop () Public Hearing

Department

Submitted By: Environmental Resources Management
Submitted For: Environmental Resources Management

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve:

A) Change Order No. 5 decreasing the construction Contract (R2005-0263) with The Murphy Construction Co. (Murphy) in the amount of \$286,776 primarily for quantity underruns for the Ocean Ridge Natural Area Project No. 2005056 (Project); and,

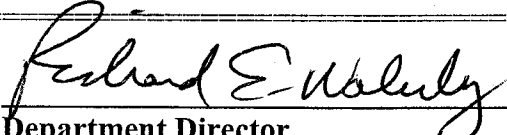
B) Amendment to the construction Contract (R2005-0263) with Murphy in the amount of \$241,230 resolving disagreements with Murphy on the Project and increasing the scope of work on two jetties and a breakwater.

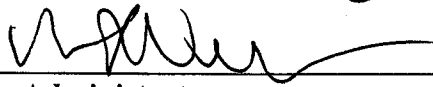
Summary: On February 1, 2005, the Board entered into a \$2,757,762 Contract with The Murphy Construction Co. to construct an environmental restoration project and public use facility along the Lake Worth Lagoon in Ocean Ridge. Four (4) change orders totaling \$66,396.65 were issued. Change Order No. 5 accounts for final quantities and revisions to the original Project. The Amendment is a negotiated resolution of a disagreement primarily over the rock quantity and Contract time. Staff recommends that the Board approve this Amendment, which waives \$103,160 in liquidated damages and requires Murphy to enhance two (2) jetties and a breakwater to complete the Project. The new Contract amount is \$2,778,612.65, a net decrease of \$45,546. The Contract requires 2.6% small business enterprise (SBE) participation.
District 4 (JM)

Background and Justification: The Department of Environmental Resources Management, County Attorney's Office and Murphy entered into discussions last year on quantification of materials used in the Project. This Amendment resolves the outstanding contractual issues and authorizes additional shoreline protection work. Staff is coordinating access with the owner of the adjacent mitigation site for some of this construction. The Amendment extends the date for completion of Phase 1 by 63 days to July 7, 2006, and of Phase 2 by 90 days to October 18, 2006.

Attachments:

- Change Order No. 5
- Amendment
- Contract (C-1, C-2)

Recommended by:  8/9/07
Department Director Date

Approved by:  9/11/07
County Administrator Date

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2007	2008	2009	2010	2011
Capital Expenditures	(\$45,546)	_____	_____	_____	_____
Operating Costs	_____	_____	_____	_____	_____
External Revenues	_____	_____	_____	_____	_____
Program Income (County)	_____	_____	_____	_____	_____
In-Kind Match (County)	_____	_____	_____	_____	_____
NET FISCAL IMPACT	(\$45,546)	_____	_____	_____	_____
# ADDITIONAL FTE POSITIONS (Cumulative)	_____	_____	_____	_____	_____

Is Item Included in Current Budget? Yes X No _____
 Budget Account No.: Fund 1225 Department 380 Org. E447 Object 6504
 Program _____

B. Recommended Sources of Funds/Summary of Fiscal Impact:

Change Order No. 5 (286,776)
 Amendment 241,230*
 (45,546)

*1,450 tons of stone X 102/ton = 147,900 plus 93,330 = 241,230

C. Department Fiscal Review: *[Signature]*

III. REVIEW COMMENTS

A. OFMB Fiscal and /or Contract Dev. and Control Comments:

[Signature] 8-29-07
 OFMB 8/27/07
[Signature] 8/30/07
 Contract Development and Control 8/30/07

B. Legal Sufficiency:
[Signature] 8/30/07
 Assistant County Attorney

This item complies with current County policies.
 At the time of CDC's review, the documents for this item were not executed.

C. Other Department Review:

 Department Director

C H A N G E O R D E R

- | | |
|--|---|
| <input type="checkbox"/> Owner Initiated | <input checked="" type="checkbox"/> Quantity Overruns/Underruns |
| <input type="checkbox"/> Differing Site Conditions | <input type="checkbox"/> Request By Another Agency/Outside Party |
| <input type="checkbox"/> Zoning/Code/Ordinance Changes | <input type="checkbox"/> A. Reimbursable <input type="checkbox"/> B. Non-Reimbursable |
| <input type="checkbox"/> Errors/Omissions/In Design | <input checked="" type="checkbox"/> Other |

**PROJECT: OCEAN RIDGE NATURAL AREA
PALM BEACH COUNTY, FLORIDA**

**CHANGE ORDER NO: 5
COUNTY PROJECT NO: 2005056
CONTRACT DATE: 02/01/05
RESOLUTION NO: R2005 - 0263
DISTRICT NO: 4**

TO: THE MURPHY CONSTRUCTION CO.

You are directed to make the following change(s) to this Contract:

- A unit quantity adjustment for:
 1. A decrease in Fill Material Excavation
 2. A decrease in Revetment & Jetty Armor Stone
 3. A decrease in Revetment & Jetty Bedding Stone
 4. A decrease in Revetment Chinking Stone
 5. A decrease in the Smooth Cordgrass
 6. A decrease in the Weed Control & Herbicide
 7. A decrease in the Concrete Dock Pilings
 8. A decrease in the Cabbage Palm
- Adjust the Contract to delete the following:
 1. Eliminate the Drip Irrigation Watering System
 2. Eliminate the Snowberry
 3. Eliminate the Two-Concrete Dock Test Pilings
- Adjust the Contract to add the following:
 1. Additional amount of Smooth Cordgrass without warranty
- Revise the Contract Bid Proposal's bid item description and Plan Sheet 2L-1 for Bid item 53 Seashore paspalum and Bid item 63 Saltmarsh cordgrass requiring one unit to consist of two (2) 2" plugs. There is no cost change associated with this revision.

This Change Order shall include:

- BID ITEM 6 Revised bid item to reduce the Fill Material Excavation by 2,636 CY
- BID ITEM 9 Revised bid item to reduce the Revetment & Jetty Armor Stone by 1,358 Tons
- BID ITEM 10 Revised bid item to reduce the Revetment & Jetty Bedding Stone by 466 Tons
- BID ITEM 11 Revised bid item to reduce the Revetment Chinking Stone by 240 Tons
- BID ITEM 23 Eliminate the Drip Irrigation Watering System in its entirety
- BID ITEM 33 Eliminate the Snowberry in its entirety
- BID ITEM 62 Revised bid item to reduce the Smooth Cordgrass by 1,932 Units
- BID ITEM 66 Revised bid item to reduce the Weed Control & Herbicide applications
- BID ITEM 71 Eliminate the Two-Concrete Dock Test Pilings in its entirety
- BID ITEM 72 Revised bid item to reduce the Concrete Dock Pilings by 8 LF
- BID ITEM 88 Revised bid item to reduce the Cabbage Palm by 1 Unit
- BID ITEM 90 New Bid Item Ocean Ridge Natural Area Phase 1 – A lump sum cost for additional Smooth Cordgrass without warranty.

You are directed to make the following change in this Contract:

- BID ITEM 6 Fill Material Excavation – decrease from 34,000 CY to 31,364 CY. The total bid cost change for bid item 6 is a decrease of \$57,992.00.

- BID ITEM 9 Revetment & Jetty Armor Stone – decrease from 4,617 Tons to 3,259 Tons. The total bid cost change for bid item 9 is a decrease of \$138,516.00.
- BID ITEM 10 Revetment & Jetty Bedding Stone – decrease from 1,583 Tons to 1,117 Tons. The total bid cost change for bid item 10 is a decrease of \$47,532.00.
- BID ITEM 11 Revetment Chinking Stone – decrease from 814 Tons to 574 Tons. The total bid cost change for bid item 11 is a decrease of \$24,480.00.
- BID ITEM 23 Drip Irrigation Watering System – eliminate in its entirety. The total bid cost change for bid item 23 is a decrease of \$2,500.00.
- BID ITEM 33 Snowberry – decrease from 24 units to 0 units. The total bid cost change for bid item 33 is a decrease of \$192.00.
- BID ITEM 62 Smooth Cordgrass – decrease from 4,020 units to 2,088 units. The total bid cost change for bid item 62 is a decrease of \$5,796.00.
- BID ITEM 66 Weed Control & Herbicide – decrease applications. The total bid cost change for bid item 66 is a decrease of \$12,000.00.
- BID ITEM 71 Two-Concrete Dock Test Pilings – decrease from 110 LF to 0 LF. The total bid cost change for bid item 71 is a decrease of \$3,080.00.
- BID ITEM 72 Concrete Dock Pilings – decrease from 360 LF to 352 LF. The total bid cost change for bid item 72 is a decrease of \$304.00.
- BID ITEM 88 Cabbage Palm – decrease from 37 units to 36 Units. The total bid cost change for bid item 88 is a decrease of \$180.00.
- BID ITEM 90 New Bid Item Ocean Ridge Natural Area Phase 1 – A lump sum cost for additional Smooth Cordgrass without warranty. The total bid cost change for bid item 90 is an increase of \$5,796.00.

Execution of this change order acknowledges final settlement of, and releases, all claims for costs and time associated, directly or indirectly with the above-stated modification(s), including all claims for cumulative delays or disruptions resulting from, caused by, or incident to such modification(s), and including any claim that the above-stated modification(s) constitutes, in whole or part, a cardinal change to the contract.

The original Contract sum was	\$2,757,762.00
Net change by previous Change Orders	\$ 66,396.65
The Contract Sum prior to this Change Order was	\$2,824,158.65
The Contract Sum will be ADJUSTED by this Change Order	\$ (286,776.00)
The new Contract Sum including this Change Order will be	\$2,537,382.65
The Contract Time for the contract will be increased by	(0) DAYS

ENGINEER (If Applicable) ADDRESS	CONTRACTOR The Murphy Construction Co. 1615 Clare Avenue West Palm Beach, FL 33401	OWNER Palm Beach County Board of County Commissioners
Print Name, Title: _____	BY _____	BY _____ Addie L. Greene, Chairperson

Approved as to Form and Legal Sufficiency:

Chief Assistant County Attorney

Approved as to Terms and Conditions:

Richard E. Walesky, Director, ERM

ATTEST:
Sharon R. Bock, Clerk & Comptroller

By: _____
Deputy Clerk

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SCHEDULE 1

LIST OF PROPOSED SBE-M/WBE PRIME AND/OR SUBCONTRACTORS

PROJECT NAME: OCEAN RIDGE NATURAL AREA PROJECT AND OCEAN COVE MITIGATION PROJECT NO.: 2005056 - Change Order No. 5
 NAME OF PRIME BIDDER: THE MURPHY CONSTRUCTION CO. ADDRESS: 1615 CLARE AVENUE WEST PALM BEACH, FL 33401
 CONTACT PERSON: JOHN E. MURPHY PHONE NO: 561/655-3634 FAX NO: 561/655-3674
 BID OPENING DATE: OCTOBER 5, 2004 DEPARTMENT: ENVIRONMENTAL RESOURCES MANAGEMENT

***** PLEASE IDENTIFY ALL APPLICABLE CATEGORIES OF PRIME AND/OR SUBCONTRACTORS *****

Name, Address and Phone Number	(Check one or both Categories)		Subcontract Amount				
	Minority Business	Small Business	Black	Hispanic	Women	Caucasian	Other(Please Specify)
1.	<input type="checkbox"/>	<input type="checkbox"/>	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
2.	<input type="checkbox"/>	<input type="checkbox"/>	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
3.	<input type="checkbox"/>	<input type="checkbox"/>	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
4.	<input type="checkbox"/>	<input type="checkbox"/>	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
5.	<input type="checkbox"/>	<input type="checkbox"/>	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
(Please use additional sheets if necessary)		Total	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____

Total Change Order Amount \$ _____

Total Value of SBE Participation on Change Order \$ _____

- NOTE:**
1. The amounts listed on this form must be supported by the Subcontractors (and, if applicable, Prime) prices included on Schedule 2 in order to be counted toward goal attainment.
 2. Firms may be certified by Palm Beach County as an SBE and/or an M/WBE. If firms are certified as both an SBE and M/WBE, please indicate the dollar amount under the appropriate category.
 3. M/WBE information is being collected for tracking purposes only.

**CONTRACT HISTORY FOR
The Murphy Construction Co.
Ocean Ridge Natural Area
Project # 2005056**

Contract R2005 0263

dated: February 01, 2005

Original

Contract SBE

Participation 2.60% (SBE & SBE/H)

\$71,883.00

Original Contract:

\$2,757,762.00

Change Order Summary:

CHANGE ORDER NUMBER	TOTAL/ SBE AMOUNT	CHANGE ORDER DESCRIPTION	APPROVED BY/DATE
1	34,697.00 0.00	Additional rock for a breakwater, revision and/or correction to the concrete sidewalk, observation tower slab, and wooden dock, a widened portion of the boardwalk for a bench, and other minor changes and clarifications. An increase contract time of 30 days.	BCC 9/27/05
2	21,990.26 0.00	Additional length of boardwalk, hurricane damaged vegetation clearing, additional hose bibs for waterline. An increase contract time of 24 days.	ERM, 3/2/06
3	3,623.55 -370.00	Additional waterline, shorter cabbage palms, increase contract time by 14 days, increase Phase 2 by an additional 76 days	CRC, 4/19/06
n/a	0.00 1,712.00	SBE substitution/change requested 5/26/06	OSBA, pending
4	6,085.84 0.00	Additional 4" concrete sidewalk, increased payment for fees charged the contractor for mobilization costs	ERM, 3/21/07
5	-286,776.00	Quantity underruns; delete irrigation system, snowberry, dock test pilings; add snowberry without warranty; revise plant specification	BCC, pending
Amendment	241,230.00	Negotiated resolution of material quantification, authorization for additional stone work in 2007, increase Phase 1 by 63 days, increase Phase 2 by 90 days	BCC, pending

Total \$: 2,778,612.65

SBE \$: 73,225.00

SBE-MBE Participation %: 2.64%

Report Filename & Date:

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8/13/2007

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Attachment 2

**CONTRACT AMENDMENT
FOR
OCEAN RIDGE NATURAL AREA
PROJECT NO: 2005056
District 4**

This Amendment amends the contract between Palm Beach County and The Murphy Construction Company for improvements in the Ocean Ridge Natural Area, Project Number 2005056, which contract is dated February 1, 2005, and which was approved by the Palm Beach County Board of County Commissioners pursuant to Resolution Number R2005-0263 ("the Contract").

Whereas, Palm Beach County and The Murphy Construction Company entered into a contract, dated February 1, 2005, for improvements to the Ocean Ridge Natural Area, and

Whereas, The Murphy Construction Company has completed the improvements to the Ocean Ridge Natural Area, and

Whereas, during the course of the project, disagreements arose between Palm Beach County and The Murphy Construction Company including, but not limited to, disagreements related to the quantification of the amount of materials utilized on the project, and

Whereas, the parties have negotiated a mutually acceptable resolution of all of their disagreements as set forth in change order number five and this amendment,

Now, therefore, in consideration of the mutual promises contained herein and subject to the approval of change order number five for the project, the Parties agree as follows:

1. The Murphy Construction Company will perform the work called for in the specifications and plans attached hereto as composite Exhibit 1 and will accept, as full payment therefore, the amounts provided for in Exhibit 1.
 2. Palm Beach County hereby extends the date for completion of Phase 1 of the Contract to July 7, 2006 and the date for completion of Phase 2 to October 18, 2006, thereby effectively waiving its claim to liquidated damages in the amount of One Hundred Three Thousand One Hundred Sixty Dollars (\$103,160).
 3. Upon execution of this Amendment by both parties, each party waives and releases any and all claims they have or may have against each other, as of the date of execution of this Amendment, whether such claims be in contract or tort, and which arise in any way out of, or are related to, the Contract. The sole exception to this release and waiver shall be for any currently unknown claims which the County may have arising out of latent defects in the work performed under the Contract, which defects could not have
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been identified by a reasonable inspection performed prior to the execution of this Amendment.

4. The Murphy Construction Company will commence the work called for by Exhibit 1 within 45 days of receipt of a notice to proceed from Palm Beach County and will complete such work within 45 days of the receipt of such notice to proceed.

5. Except as specifically modified herein, all of the terms and conditions of the Contract shall remain in full force and effect.

This Amendment and change order five contain all of the agreements between the parties related to this matter.

**PALM BEACH COUNTY, a
political Subdivision of the State of
Florida**

ATTEST:
SHARON R. BOCK, Clerk & Comptroller

By its BOARD OF COUNTY
COMMISSIONERS

Deputy Clerk

By: _____
Addie L. Greene, Chairperson

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY

APPROVED AS TO TERMS AND
CONDITIONS

By: _____
Assistant County Attorney

By: _____
Department Director

THE MURPHY CONSTRUCTION COMPANY

By: _____
Title:

Witness

(printed witness name)



Exhibit 1

**ADDITIONAL STONE AT OCEAN RIDGE NATURAL AREA AND OCEAN COVE
MITIGATION SITES**

1. SCOPE OF WORK

The following specifications are for the additional stone work at the above mentioned project sites and are to be substituted for the original contract document (Project No. 2005056) Technical Specifications, Section 02380 "STONE PROTECTION AND GEOTEXTILE MATERIAL".

The additional stone work includes the placement of geotextile fabric material and 1,450 tons of bedding stone and armor stone at the two adjacent project sites (see plan view and cross section drawing). An estimate of each material includes: 280 tons of bedding stone (2 to 6 inch diameter); 1,170 tons of armor stone (1 to 3 feet diameter for the jetty, 1.5 to 2.25 feet diameter for the new breakwater); and, 6 rolls (12' x 300') of geotextile fabric material cloth (Mirafi[®] Filterweave[®] 700 or equivalent). The order of work shall be to first build the new additional breakwater work along IWW shoreline south of the jetties. Once the new breakwater is completed and accepted the remainder of the bedding stone and armor stone will be used for the jetties under the direction of the County.

The work will include: incidental clearing of trash, logs and stumps along the shoreline; pre-construction elevation surveys to lay out the toe of the bedding stone; and the deployment of geotextile fabric material, bedding stone and armor stone for the designed thickness.

In addition to the above, the Contractor will be required to follow the requirements of the existing environmental permits. This includes: protection of existing mangrove trees and seagrasses; turbidity control (placement of turbidity curtains); turbidity monitoring; and, manatee protection. Advanced notice of mobilization, Daily reports and turbidity monitoring reports, survey work, must be coordinated with the County as specified. All areas to be placed with rock must be laid out with the County present prior to installation and while the armor stone is placed. The bedding stone must be contained between the geotextile fabric material prior to placing armor stone. Turbidity curtains must be in place to contain turbidity prior to the rock placement activity.

1.1 Additional breakwater work along IWW shoreline south of jetties

The additional stone work south of the existing jetties at the two project sites includes installation of an estimated 977 tons of stone to build an approximate 725 linear feet of additional breakwater structure. The breakwater shall be constructed along the mangrove shoreline south of the south jetty, extending south to connect to the existing stone work along the shore of the Ocean Cove Mitigation site. This rock will include: bedding stone (estimated at 230 tons); geotextile fabric material (estimated at covering 7,400 square feet of substrate); and, armor stone (estimated at 747 tons).

The new breakwater shall be built with a 9" layer of bedding stone sandwiched between geotextile fabric material (725' x 8'). The armor stone shall be placed on top of the filter

fabric above the bedding stone in two (2) layers with predominantly 1.75 feet diameter stones used. The bottom layer shall be in general, four (4) stones wide, and the top layer shall be three (3) stones wide. A 100 feet length of the breakwater along the gap in the mangrove fringe shall be built with armor stone placed in three (3) layers with predominantly 1.75 feet diameter stones used. The bottom layer shall be in general, four (4) stones wide, the middle layer three (3) stones wide, and the top layer shall be two (2) stone (see plan view sheet and cross section drawings).

1.2 Jetty work

The three areas along the existing jetties identified for additional rock placement include:

- The south jetty – 50' length on the outside (south side), 60' length along the center portion, and 70' length on the inside (north side)
- The north jetty – 55' length on the outside (north side), 55' length along the center portion, 65' length on the inside (south side)
- The existing breakwater – 30' length adjacent to the north jetty

The total tonnage of rock estimated to be added in these three jetty areas is 473 tons. This rock will include: bedding stone (estimated at 50 tons); geotextile fabric material (estimated at covering 909 square feet of substrate); and, armor (estimated at 423 tons). This tonnage estimate is based on density tests of 140lb/ ft³ as specified as a minimum density in the specifications.

The jetty work includes the installation of geotextile fabric material, bedding stone, and armor stone along the outside edges of the jetties in the areas within the design template, and additional armor stone on top of the existing stone along a portion of the two jetties to achieve the designed slope of the stone work within the design template. A 30' section of the breakwater structure adjacent to the north jetty needs additional armor stone to bring a low portion of the structure to the designed elevation of +4.0' NGVD.

2. DESIGN CRITERIA

2.1 Density and Gradation:

Minimum bulk specific gravity (SSD) of 2.24 (140lb/ ft³)
Stone gradation as outlined in paragraph 7.

2.2 Factors Used for Converting In-Place Volume to Weights

Bulk specific gravity (SSD) of 2.24.
Percent voids of 25%

The above factors were used in converting the in-place volume to the quantities shown in the quantity estimate. This tonnage estimate is based on density tests of 140lb/ ft³ as specified as a minimum density.

The estimated quantities of stone were computed on the basis of stone having a percentage of voids and a bulk specific gravity (saturated surface dry (SSD) basis) as shown above based on water having a unit weight of 62.4 pounds per cubic foot.

3. PAYMENT

Payment for 1,450 tons of stone satisfactorily placed shall be made at the agreed contract unit price (\$102/ton) for the additional stone work placed in the designed template as shown of the plan view and cross section drawings for each gradation of stone. Price and payment shall constitute full compensation for furnishing, hauling and handling, placing, and maintaining the stone until final acceptance by the County. No separate payment shall be made for the stockpiling of stone and all cost in connection with stockpiling shall be included in the applicable contract unit price for stone. No payment shall be made for excess thickness of bedding material, nor for material required to replace subgrade material lost by wave action. Payment for geotextile (filter fabric) associated with the stone work shall be included with the bedding stone unit price.

Payment for costs associated with: incidental clearing of trash and fallen tree debris; protection and avoidance of mangroves, seagrasses, and manatees; pre-built topographic survey to lay out the location of the toe of the stone work; and, turbidity control and monitoring shall be made at an agreed lump sum price of \$93,330.

4. MEASUREMENT

Stone will be measured for payment by the ton for a unit price payment as determined by weighing by the truckload on approved scales meeting the requirements of subparagraph 5.1 "Truckload" below.

- 4.1 Truckload - Each truckload shall be weighed to the nearest 0.1 ton and the final quantity rounded to the nearest whole ton. Stone will be measured for payment by weighing on approved scales before being placed in the work. Scales shall be of sufficient length to permit simultaneous weighing of all axle loads and shall have an accuracy within 0.2 percent throughout the range of the scales. The scale's accuracy shall conform to the applicable requirements of NIST HB 44 and shall be certified by an inspector of the State Inspection Bureau charged with scales inspection within the State in which the project is located prior to weighing any stone. The scales shall be capable of printing a weight ticket including time, date, truck number, and weight. If commercial scales are readily available in close proximity (within 10 miles) of site work, documentation shall be submitted certifying that the scales meet the requirements of the specification. The COUNTY may elect to accept certified weight certificates furnished by a public weigh master in lieu of scale weights at the jobsite. Scales will be checked and certified before hauling stone weighed under this contract.

5. TESTING AND STUDIES

5.1 Stone:

- 5.1.1 General: All stone shall be durable material as approved by the County. Stone shall be of a suitable quality to ensure permanence in the structure and in the climate in which it is to

be used. It shall be free from cracks, blast fractures, bedding, seams and other defects that would tend to increase its deterioration from natural causes. If, by visual examination, it is determined that 10 percent or more of the stone produced contains hairline cracks, then all stone produced by the means and measures which caused the fractures shall be rejected. A hairline crack that is defined as being detrimental shall have a minimum width of 4 mil. and shall be continuous for one-third the dimension of at least two sides of the stone. The stone shall be clean and reasonably free from soil, quarry fines, and shall contain no refuse.

5.1.2 Sources: Stone may be furnished from any source designated by the Contractor and accepted by the County, subject to the conditions herein stated. Satisfactory stone quality records on other work may be acceptable provided the tests were conducted within 2 years of the proposed start of stone placement and the stone is to be mined from the same portion of the quarry. Stone quality records shall show testing of the stone that meets the qualities in paragraph 8. EVALUATION TESTING OF STONE. If no such records are available, the Contractor shall conduct tests to assure the acceptability of the stone.

a. Selection of Source: It is the Contractor's responsibility to determine that the stone source or combination of sources selected is capable of providing the quality, quantities and gradation needed and at the rate needed to maintain the scheduled progress of the work. Samples for acceptance shall be tested in accordance with paragraph 8. EVALUATION TESTING OF STONE. If a source for stone so designated by the Contractor is not accepted for use by the County, testing of other sources shall be performed by the Contractor at no additional cost to the County.

b. Acceptance of Materials: Acceptance of a source of stone is not to be construed as acceptance of all material from that source. The County reserves the right to reject stones from certain localized areas, zones, strata, or channels, when such stones are unsuitable for stone as determined by the County. The County also reserves the right to reject individual stones at the quarry, all transfer points, and at the project construction site when such stones are determined to be unsuitable. During the course of the work, stones may be tested by the County.

6. CONSTRUCTION TOLERANCES

The intention is that the work shall be built generally to the required elevations, slope and grade, and that the outer surfaces shall be even and present a neat appearance. Placed material not meeting these limits shall be removed or reworked as directed by the County.

7. PRODUCTS

7.1 Acceptable geotextile: TC Mirafi Filterweave 700 or equivalent (woven or non-woven).

7.2 Stone: All bedding stone and armor stone shall consist of **natural limestone** that is hard, dense, durable and well graded within specified limits and shall have a specific gravity of at least 2.24 which is a density of not less than 140 pounds per cubic foot (saturated, surface dry). All stone shall be roughly angular, free of cracks, soft seams and other

structural defects and free from thin or elongated pieces. The least dimension of any stone shall not be less than one-third its greatest dimension. Flat stone will not be accepted. The inclusion of objectionable quantities of dirt, sand, clay and rock fines will not be permitted.

7.3 Bedding Stone Gradation: The bedding material shall be free of fines and be well graded with stone diameters ranging in size between 2 inches and 6 inches.

7.4 Armor Stone Gradation: Armor stone shall be graded as shown below.

Jetty Armor Stone Gradation

Stone Size (ft.)	Weight (lb.)	% of Stones Less than
3.40	3,000	100
3.00	2,056	85 - 95
2.65	1,500	40 - 65
2.50	1,200	0 - 10

Breakwater Armor Stone Gradation

Stone Size (ft.)	Weight (lb.)	% of Stones Less than
2.25	1,049	100
2.00	736	85 - 95
1.75	493	35 - 55
1.50	311	0

8. EVALUATION TESTING OF STONE

8.1 Evaluation Testing of Stone: The tests to which the stone shall be subjected will include unit weight in order to demonstrate that the stone is of a satisfactory quality. Tests shall be performed by a FDOT certified Laboratory. Stone shall meet the following requirements (STONE ACCEPTANCE CRITERIA):

Stone Type: Limestone Boulder Armor, Bedding, and Chinking Stone

Test	ASTM	
Unit Weight	C 127	140 pound per cubic foot

9. ENVIRONMENTAL PROTECTION

Prior to installation of work specified under this Section all environmental protections of water quality, mangroves, seagrasses, and manatees as described in the environmental permits, Technical Special Provision Section, and as shown on the Plans, shall be installed and approved by the County. This also includes protection of seagrass beds adjacent to the areas of stone protection along the Intracoastal Waterway, and at any

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staging site where seagrasses will be impacted by barges loading, unloading, and transporting materials.

- 9.1 Turbidity Concerns: The Contractor shall use whatever special equipment or methodology necessary to load the stone materials on the barge and place the materials at the site in a manner to avoid picking up quantities of sand or silts which may cause turbidity violations. The Contractor shall insure that all employees involved in loading and placing rock in the water understand the causes of turbidity and the maximum level of turbidity allowed at this job. A County and/or state representative may be on-site while rock is being placed in the water to measure turbidity and shall vigorously enforce this requirement. If the Contractor violates any condition of any Permit or work is stopped by any public entity, any additional costs incurred by the Contractor, including any fines, shall be paid by the Contractor at no additional cost to the County.
- 9.2 Turbidity Containment: The Contractor shall provide adequate turbidity containment and control to prevent any turbidity violations from occurring due to stormwater runoff during storage of rocks and other materials at the staging area, placement of rocks and other materials at the project construction site, and all other project operations. Washing may be required for the rock to be sufficiently clean to avoid creating turbidity problems, particularly any rock that has been covered with dirt and vegetation. The Contractor shall clean the rock at the material source sites in order to avoid turbidity impacts at the staging area and the project construction site. If it becomes necessary to wash any of the material at the staging area, the Contractor, upon receiving acceptance from the County, shall be responsible for retaining all wash-water on-site.
- 9.3 Turbidity Monitoring: Based on the permit special conditions for the **Ocean Ridge Natural Area site**, the Contractor shall monitor 500 feet downstream and upstream of the barge during the placement of stone material, at the project site, and as otherwise necessary, to determine compliance with State and Federal Permits. Based on the permit special conditions for the **Ocean Cove Mitigation site**, the Contractor shall monitor 200 feet downstream and upstream of the barge during the placement of stone material, at the project site, and as otherwise necessary, to determine compliance with State and Federal Permits. If turbidity levels approach 29 NTU's above background, the construction operations or staging site operations shall be modified, at the Contractor's expense, to maintain compliance.
- 9.4 Turbidity Non-Compliance: In the event of any and all non-compliance, the CONTRACTOR SHALL IMMEDIATELY CEASE activities causing turbidity (29 NTU above background), notify the County and repeat the sampling and analyses until the turbidity has returned to acceptance levels. All reporting to the South Florida Water Management District (SFWMD) shall be provided by the County. The Contractor shall be liable for any non-compliance with the conditions of the Permits and terms of this Contract attributable to their personnel and/or sub-contractors.
- 9.5 Avoidance of Protected Species: The Contractor shall avoid impacts to any threatened or endangered species including manatees, sea turtles, and other marine mammals. Stone protection construction shall be limited to daylight hours only. Vessels, barges, and equipment shall be operated in a manner to avoid manatees and other endangered species

when observed. The Contractor shall instruct all personnel associated with construction of the project about the presence of manatees in the vicinity of the project and staging areas and the need to avoid collisions with these animals. All personnel should be advised there are civil and criminal penalties for harming, harassing, or killing endangered species or damaging reefs.

- 9.6 Navigation Concerns: All vessels shall operate at minimum speeds necessary to maintain steerage while operating in shallow waters or channels where the draft of the vessel provides less than 3 feet clearance from the bottom. The Contractor shall immediately stop work and notify the County and Florida Fish and Wildlife Conservation Commission (FWC) of any collision with, or injury to, manatees or other endangered species or reef.

10. EXECUTION

- 10.1 Base Preparation: Areas on which geotextile are to be placed shall be inspected by the Contractor prior to geotextile placement. Live mangrove trees within the areas on which geotextile are to be placed shall be protected from damaged and avoided with placement of geotextile and stone. Downed dead trees that are within the limits of the geotextile shall be either cut up and removed or moved to the open portion of the shoreline without damaging existing mangrove trees prior to geotextile placement. Debris such as trash shall become the property of the Contractor and shall be removed and disposed of by the Contractor. All materials shall be properly disposed of in accordance with the requirements herein including any applicable local requirements. If displaced stones meet the armor stone specifications they may be re-used. There will be no measurement and payment for the debris or stone removal and all costs will be considered incidental to the contract.
- 10.2 Pre-construction survey: The limits of the stone work as shown on the plan view and cross section drawing shall be staked or flagged prior to the placement of the geotextile material.
- 10.3 Limitations of Placement Procedures: Stone construction in advance of completed permanent protection except as specified herein shall be at the Contractor's risk. The Contractor shall keep the County informed as to any and all situations that may result in a possible interruption of work.
- 10.4 Interruptions: If the County can anticipate that the stone construction will be interrupted for more than four (4) continuous days, including weekends and holidays, the Contractor may be required to complete the placement of armor stone and provide protection of the exposed ends prior to the start of the interruption. The above-required protection for the exposed ends of the jetty shall consist of the same type of armor stone. All material used for protecting the exposed ends shall be removed after the need therefore has ended and shall be appropriately incorporated into the required permanent construction. All materials which are removed and placed in the permanent construction, in accordance with the provisions of this section, will be measured and paid for only once. When temporary protection of exposed ends of construction in progress is ordered or directed by the County, an equitable adjustment will be made for the work of temporarily placing and removing the stone materials. The County has no obligation to order that exposed

ends be protected. If the County takes no action to have exposed ends protected, then the provisions of the paragraph 11.4 Material Placement in Advance shall apply.

10.5 Material Placement in Advance: The stone structures shall not be constructed more than 50 feet in advance of completed placement of the armor stone. In the event an unprotected section of any length un-surveyed is left during a non-work period or is left unprotected for a period longer than four continuous days and is damaged or causes damage to a completed section, the damaged portion(s) shall be replaced or reshaped as approved by the County at no additional cost to the County.

10.6 Placement of Geotextile Material

- a. The geotextile fabric shall be installed to the lines and grades as indicated on the Plans. Placement shall begin at the bottom of the area to be covered and continue up slope. Subsequent loads of material shall be placed against previously placed material in such a manner as to ensure a relatively homogenous mass.
- b. The geotextile fabric shall be placed with adjacent strips being overlapped a minimum of 24 inches and anchored with stone to prevent displacement of the geotextile fabric. The geotextile fabric shall be lapped over the first layer of stone as shown on the Plans.
- c. The geotextile fabric shall be laid flat and smooth so that it is in direct contact with the subgrade. The geotextile fabric shall be free of tensile stresses, folds, and wrinkles.
- d. The geotextile fabric shall be protected during installation from clogging, tears, and other damage. Damaged geotextile fabric shall be repaired or replaced as directed.
- e. Geotextile fabric damaged during attachment or installation shall be repaired by placing a patch of the same type of geotextile fabric which extends a minimum of 12 inches beyond the edge of the damage or defect. Patches shall be continuously fastened using a sewn seam or other approved method. The machine direction of the patch shall be aligned with the machine direction of the geotextile being repaired. Geotextile which cannot be repaired shall be replaced.

10.7 Placement of Bedding Stone: Bedding stone shall be spread uniformly on the geotextile to the lines and grades as indicated on the Plans and in such manner as to avoid damage to the geotextile fabric. The bedding stone shall not be dropped through a free fall greater than three feet onto the geotextile fabric. Placement shall begin at the bottom of the area to be covered and continue up slope. Subsequent loads of material shall be placed against previously placed material in such a manner as to ensure a relatively homogenous mass. Placing of bedding stone by methods which tend to segregate the particle sizes within the layer will not be permitted. Any damage to the surface of the geotextile fabric during placement of bedding stone shall be repaired before proceeding with the work. Compaction of bedding material will not be required, but shall be finished to present an adequately even surface, free from mounds or windrows. The geotextile fabric shall be lapped over the bedding layer and anchored with armor stone.

10.7 Placement of Armor Stone: Stone shall be placed in the locations and at the thickness shown without deviating from the lines and grade shown. The largest 10% of armor stones shall be placed at the toe of the revetment slopes, as indicated graphically in the plans. Remaining stones shall be randomly selected and set in contact with each other so that the interstices between adjacent stones shall be as small as the character of the stone will permit. The face of stone having the largest area shall be placed against the surface of the underlying material. Placement shall begin at the bottom of the slope. Stones shall be placed in a manner to avoid displacing underlying materials or placing undue impact force on underlying material that would cause the breaking of stones. Unless otherwise specified, stone shall not be dropped from a height greater than two feet. The equipment used in placing the stone shall be suitable for handling materials of the sizes required including the ability to place the stone over its final position before release and if necessary pick up and reposition the stone. Dragline buckets and skips shall not be used in placement. The finished work shall be a well distributed mass, free of pockets of either smaller or larger stone, having a minimum of voids and with the maximum of interlocking of stones. It should be anticipated that re-handling of individual stones after initial placement will be required to achieve the above requirements.

10.8 Slides: In the event of the sliding or failure of any part of the structure during its construction, or after its completion, but prior to its acceptance, the Contractor shall, upon written order of the County, cut out and remove the slide from the structure and then rebuild that portion of the structure with new materials or reuse the displaced materials for rebuilding.

11. SURVEYS

The Contractor shall establish and maintain quality control for all work performed at the job site under this section to assure compliance with contract requirements. The Contractor shall maintain records of his quality control tests, inspections and corrective actions. Quality control measures shall cover all construction operations including, but not limited to, the placement of all materials to the slope and grade lines shown and in accordance with this section.

11.1 Pre-Surveys: Survey work and measurements required for determination of the lay out of the additional stone placement shall be performed by the Contractor in the presence of the County. The Contractor shall notify the County not less than 3 days in advance of each survey.

**CONTRACT HISTORY FOR
The Murphy Construction Co.
Ocean Ridge Natural Area
Project # 2005056**

Contract R2005 0263

dated: February 01, 2005

Original

Contract SBE

Participation 2.60% (SBE & SBE/H)

\$71,883.00

Original Contract:

\$2,757,762.00

Change Order Summary:

CHANGE ORDER NUMBER	TOTAL/ SBE AMOUNT	CHANGE ORDER DESCRIPTION	APPROVED BY/DATE
1	34,697.00 0.00	Additional rock for a breakwater, revision and/or correction to the concrete sidewalk, observation tower slab, and wooden dock, a widened portion of the boardwalk for a bench, and other minor changes and clarifications. An increase contract time of 30 days.	BCC 9/27/05
2	21,990.26 0.00	Additional length of boardwalk, hurricane damaged vegetation clearing, additional hose bibs for waterline. An increase contract time of 24 days.	ERM, 3/2/06
3	3,623.55 -370.00	Additional waterline, shorter cabbage palms, increase contract time by 14 days, increase Phase 2 by an additional 76 days	CRC, 4/19/06
n/a	0.00 1,712.00	SBE substitution/change requested 5/26/06	OSBA, pending
4	6,085.84 0.00	Additional 4" concrete sidewalk, increased payment for fees charged the contractor for mobilization costs	ERM, 3/21/07
5	-286,776.00 0.00	Quantity underruns; delete irrigation system, snowberry, dock test pilings; add snowberry without warranty; revise plant specification	BCC, pending
Amendment	241,230.00 0.00	Negotiated resolution of material quantification, authorization for additional stone work in 2007, increase Phase 1 by 63 days, increase Phase 2 by 90 days	BCC, pending

Total \$: 2,778,612.65

8/23/2007

SBE \$: 73,225.00

SBE-MBE Participation %: 2.63%

Report Filename & Date: T:\eerm\er\PROJECTS\Estuarine\ORNA\ORNA\ERM construction firm_contract history8_23_07.xls]Sheet1

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Attachment 3

CONTRACT

STATE OF FLORIDA)
) SS
COUNTY OF PALM BEACH)

R2005 0263

This Contract, made this ____ day of FEB 01 2005 A.D. 20____, by and between PALM BEACH COUNTY, a Political Subdivision of the State of Florida, (hereinafter called the party of the first part), and The Murphy Construction Co., of West Palm Beach, FL and (his) (its) (their) heirs, executors, administrators and assigns, (hereinafter called the part of the second part):

WITNESSETH: The party of the second part agrees with the said party of the first part, for the consideration herein mentioned at his, its or their own proper cost and expense to do all the work and furnish all necessary labor, materials, equipment, machinery, tools, apparatus, services, state workmen's compensation and unemployment compensation taxes incurred in the performance of the contract, and means of transportation for the complete construction of:

Ocean Ridge Natural Area Project and Ocean Cove Mitigation, Palm Beach County Project No. 2005056

IN THE AMOUNT OF:

TWO MILLION SEVEN HUNDRED FIFTY SEVEN THOUSAND SEVEN HUNDRED SIXTY-TWO AND 00/100
(IN WORDS)

\$2,757,762.00
(IN FIGURES)

in Palm Beach County, Florida, in the manner and to the full extent as set forth in the Contract Documents therefore and the Contract Documents relative thereto, are made a part of this agreement as completely as if set forth herein, to the satisfaction of the party of the first part, or its duly authorized representative.

The said party of the second part further agrees for the consideration herein mentioned to commence the work adequate forces and equipment within fourteen (14) calendar days of the date set forth in the "Notice to Proceed". The time limit for the completion of all work under this contract shall be as set forth in the Proposal. The date fixing this period upon the calendar shall be established and stated in the "Notice to Proceed". After commencement of the work, it shall be properly dispatched toward completion, to the satisfaction of the Engineer, and shall be fully completed within the time limit. It is understood and agreed that the time limit for completion of said work is the essence of the contract and should the contractor fail to complete the work within the time limit, it is agreed that for such calendar day that any work provided for in these Contract Documents shall remain incomplete after the time limit has expired, including any official extension of the time limit; the sum per day given in the contained schedules shall be deducted from monies due the Contractor, not as a penalty, but as liquidated damages and added expense for supervision.

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The Contractor shall take into account all contingent work which has to be done by other parties arising from any cause whatsoever, and shall not plead his want of knowledge of such contingent work as an excuse for delay in his work, or for its non-performance.

IN WITNESS WHEREOF, the parties have caused this Contract to be executed and sealed the day and year first written above.

R2005 0263

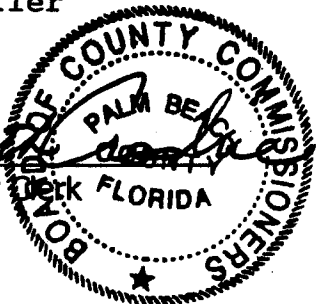
FEB 01 2005

ATTEST:

SHARON R. BOCK, Clerk
and Comptroller

PALM BEACH COUNTY, a Political
Subdivision of the State of Florida
BOARD OF COUNTY COMMISSIONERS

By:

Judith de la Cruz
Deputy Clerk


By:

Tony Masilotti
Tony Masilotti, Chairman

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY

James C. Murphy Jr.
COUNTY ATTORNEY

APPROVED AS TO TERMS
AND CONDITIONS

Charles Rich
ENGINEERING
Richard E. Walcott
APPROVED AS TO TERMS
AND CONDITIONS.

ATTEST:

Victor Martinelli
Victor Martinelli
Vice President, Sec./Treas.

THE MURPHY CONSTRUCTION CO.
(Corporate Name)

a Florida corporation
(Insert state of corporation)

By: *John E. Murphy*
(Signature)

John E. Murphy
(Print signatory's name)

President & C.E.O.
It's _____
(Print title)

TITLE STATE OF FLORIDA, COUNTY OF PALM BEACH
I, SHARON R. BOCK, Clerk and Comptroller
certify this to be a true and correct copy of the original
filed in my office on FEB 01 2005

dated at West Palm Beach, Florida
(CORPORATE SEAL) *Judith de la Cruz*
Deputy Clerk

