

**Lee County Board Of County Commissioners
Agenda Item Summary**

Blue Sheet No. 20051691

1. ACTION REQUESTED/PURPOSE:

Approve Supplemental Task Authorization (STA) No. 3 to Hole Montes, Inc., under CN-04-14 MISCELLANEOUS UTILITY ENGINEERING DESIGN AND/OR INSPECTION SERVICES: Waterway Estates WWTP Study of Expansion Alternatives, Contract No. 2924, in the amount of \$99,900.00. Also approve budget transfer in the amount of \$50,000 from Lee County Utilities Capital Improvement Reserves to the Waterway Estates WWTP project and amend FY 05/06 – 09/10 CIP accordingly. Also authorize Chairwoman on behalf of the Board to execute Supplemental Task Authorization No. 3

2. WHAT ACTION ACCOMPLISHES: Waterway Estates WWTP Study of Expansion Alternatives

3. MANAGEMENT RECOMMENDATION: Staff recommends approval.

4. Departmental Category: 10

CIOI

5. Meeting Date: 12-13-2005

6. Agenda:
 Consent
 Administrative
 Appeals
 Public
 Walk-On

7. Requirement/Purpose: (specify)
 Statute
 Ordinance
 Admin. Code **AC-4-4**
 Other

8. Request Initiated:
 Commissioner
 Department Public Works
 Division Utilities 11/27/05
 By: Rick Diaz, P.E., Director

9. Background:

On August 17, 2004, the Board of County Commissioners approved the award of CN-04-14 MISCELLANEOUS UTILITY ENGINEERING DESIGN AND/OR INSPECTION SERVICES with a total of nineteen (19) firms: for a contract period of two (2) years with the option of renewal for one (1) additional year.

This Supplemental Task Authorization (STA) No. 3 provides for professional utility engineering services -under CN-04-14 MISCELLANEOUS UTILITY ENGINEERING DESIGN AND/OR INSPECTION SERVICES – Waterway Estates WWTP Study of Expansion Alternatives, .in the amount of \$99,900.00.

Funds will be available in account string: 20729648730.506510

Attachment: Three (3) original Supplemental Task Authorizations for execution
 Budget Transfer

10. Review for Scheduling:

Department Director	Purchasing or Contracts	Human Resources	Other	County Attorney	Budget Services				County Manager/P.W. Director
<i>[Signature]</i> 11-27-05		N/A	AD 11/23	<i>[Signature]</i>	Analyst	Risk	Grants	Mgr.	<i>[Signature]</i> 11-27-05

11. Commission Action:

- Approved
- Deferred
- Denied
- Other

RECEIVED BY
 COUNTY ADMIN:
 12-1-05
 3:45
 COUNTY ADMIN
 FORWARDED TO:

Rec. by CoAtty
 Date: 12/30/05
 Time: 4:00pm
 Forwarded To:
[Signature]

(Prepared by Contracts)

REQUEST FOR TRANSFER OF FUNDS

FUND NAME: LCU Capital Improvements DATE: 10/20/05 BATCH NO. _____

FISCAL YEAR: 05/06 FUND #: 48730 DOC TYPE: YB LEDGER TYPE: BA

TO: Lee County Utilities CIP Budget
 (DIVISION NAME) (PROGRAM NAME)

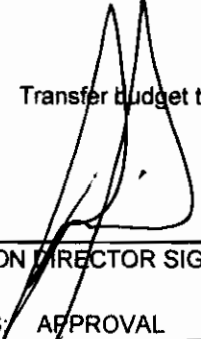
NOTE: PLEASE LIST THE ACCOUNT NUMBER BELOW IN THE FOLLOWING ORDER:
 FUND #-DEPT/DIV #-PROGRAM #-OBJECT CODE #-SUBFUND #-PROJECT#-COST CENTER #.
 (EXAMPLE: BB5120100100.503450)

ACCOUNT NUMBER	OBJECT NAME	DEBIT
20729648730.506510	Waterway Estates WWTP Expansion	\$ 50,000
TOTAL TO:		\$ 50,000

FROM: Lee County Utilities CIP Budget
 (DIVISION NAME) (PROGRAM NAME)


ACCOUNT NUMBER	OBJECT NAME	CREDIT
GC5890148730.509910	Reserve for Contingencies	50,000
TOTAL FROM:		\$ 50,000

EXPLANATION: Transfer budget to the indicated project to be able to cover the full contracted price.

 11/27/05
 DIVISION DIRECTOR SIGNATURE DATE

 11-30-05
 DEPARTMENT DIRECTOR SIGNATURE DATE

DBS/ APPROVAL DENIAL
 APPROVAL DENIAL

 12 1 05
 OPERATIONS ANALYST SIGNATURE DATE

CO. ADMIN.: APPROVAL DENIAL

 BUDGET OPERATIONS MANAGER SIGNATURE DATE

 CO. ADMIN. SIGNATURE DATE

BCC APPROVAL DATE _____

 BCC CHAIRMAN SIGNATURE

BA NO: _____ AUTH CODE: _____ TRANS DATE: _____

REV. 05/93

LEE COUNTY PROFESSIONAL SERVICE/SERVICE PROVIDER AGREEMENT
CHANGE ORDER/SUPPLEMENTAL TASK AUTHORIZATION

Change Order
 Supplemental Task Authorization

NO.: 3_

(A Change Order or Supplemental Task Authorization Requires Approval by the Department Director for Expenditures Under \$25,000 or Approval by the County Manager for Expenditures Between \$25,000 and \$50,000 or Approval by the Board of County Commissioners for Expenditures over \$50,000)

CONTRACT/PROJECT NAME: Miscellaneous Utility Engineering Design and/or Inspection -
Waterway Estates WWTP Study of Expansion Alternatives

CONSULTANT: Hole Montes, Inc.

PROJECT NO.: 7296

SOLICIT NO.: 2924

CONTRACT NO.: CN-04-14

ACCOUNT NO.: 20729648730.506510

REQUESTED BY: Ivan Velez

DATE OF REQUEST: September 26, 2005

Upon the completion and execution of this Change Order or Supplemental Task Authorization by both parties the Consultant/Provider is authorized to and shall proceed with the following:

- EXHIBIT "CO/STA-A: SCOPE OF PROFESSIONAL SERVICE: DATED: October 13, 2005
- EXHIBIT "CO/STA-B: COMPENSATION & METHOD OF PAYMENT: DATED: October 13, 2005
- EXHIBIT "CO/STA-C: TIME AND SCHEDULE OF PERFORMANCE: DATED: October 13, 2005
- EXHIBIT "CO/STA-D: CONSULTANT'S/PROVIDERS ASSOCIATED
SUB-CONSULTANT(S)/SUB-CONTRACTORS: DATED: October 13, 2005
- EXHIBIT "CO/STA-E: PROJECT GUIDELINES AND CRITERIA: DATED: October 13, 2005

It is understood and agreed that the acceptance of this modification by the CONSULTANT/PROVIDER constitutes an accord and satisfaction.

RECOMMENDED:

ACCEPTED:

COUNTY APPROVAL:

By: [Signature]
Department Director Date 10/19/05

By: [Signature]
Consultant/Provider (Print Name) Ronald E. Benson, Jr.

By: _____
Department Director (Print Name) _____
(Under \$25,000)

By: [Signature]
Contracts Mgmt Date 10/13/05

Date Accepted: 10/13/05 Date Approved: _____

Corporate Seal

APPROVED:

By: _____
County Manager (Between \$25,000 and under \$50,000)
Date Approved: _____

By: _____
*County Attorney's Office Date

By: _____
CHAIRWOMAN
Board of County Commissioners
Date Approved: _____

*County Attorney signature needed for over Board level expenditures only.

CHANGE ORDER AGREEMENT No. _____

or

SUPPLEMENTAL TASK AUTHORIZATION No. 3 _____

EXHIBIT "CO/STA-A"

Date: October 13, 2005

SCOPE OF PROFESSIONAL SERVICES

SECTION 1.00 CHANGE(S) TO PROFESSIONAL SERVICES

The "Scope of Professional Services" as set forth in Exhibit "A" of the Professional Services Agreement, or Service Provider Agreement, referred to hereinbefore is hereby supplemented, changed or authorized, so that the CONSULTANT or SERVICE PROVIDER, shall provide and perform the following professional services, tasks, or work as a supplement to, change to, or authorized to, the scope of services previously agreed to and authorized:

PROJECT UNDERSTANDING

The Waterway Estates Wastewater Treatment Plant (WEWWTP) is located on a very small parcel of land with essentially no potential for acquisition of adjacent property for expansion. The WEWWTP has a FDEP permitted capacity of 1.5 MGD (maximum month average daily flow) and 1.25 MGD (annual average daily flow) with discharge to the Caloosahatchee River limited to 1.5 MGD (maximum month average daily flow) and 1.00 MGD (annual average daily flow). The effluent must meet 20 mg/l BOD, 20 mg/l TSS, 3 mg/l TN, and 0.5 mg/l TP (20-20-3-0.5) prior to discharge to the river at 1.0 MGD. The concentration of nitrogen and phosphorus in the effluent are reduced to 2 mg/l and 0.34 mg/l respectively at 1.5 MGD. The permit calls for the County to dispose of as much effluent as possible via reuse of reclaimed water in order to minimize discharge to the Caloosahatchee River. Anticipated development and redevelopment of property in the Waterway Estates service area will likely result in future demands for wastewater treatment in excess of the permitted capacity for the treatment plant. It is expected that FDEP would not consider increasing the discharge capacity to the Caloosahatchee River for this facility, although expansion of the treatment capacity is likely provided 100 percent of the increased capacity is disposed via reuse of reclaimed water.

There are likely limited alternatives for expansion of this facility due to the space constraints on the existing site. One series of alternatives will be potential process modifications that would allow use of as many existing facilities as possible, in order to treat a larger capacity than is presently possible. This could be through use of a fairly new process called Membrane Bioreactors (MBR) that allow operation of the activated sludge process at a higher mixed liquor concentration without the need for conventional clarification and filtration. The WEWWTP obtains a portion of its total nitrogen removal capability through the use of denitrification filters and this denitrification capacity may need to be provided by modification to the activated sludge system prior to the membrane separation step if MBR treatment were to be utilized. The existing tank volume provided by the existing clarifiers could be utilized for additional biological treatment volume and/or for the membrane modules. There are two primary types of MBR systems with respect to this application – (1) immersed MBR modules and (2) external MBR modules. The immersed MBR modules require an aeration basin to be located whereas the external MBR modules have the mixed liquor pumped to them with return of active biomass to the aeration basins. There are also alternative applications of MBR technology to expand a

facility like WEWTP – (a) parallel application where MBR modules are added to an existing aeration basin with effluent withdrawn through the MBR modules while the rest of the treated flow continues through the clarifiers as currently configured, and (b) conversion of the existing aeration basin and clarifier entirely to the MBR process configuration.

Another alternative that would need to be evaluated would be construction of a new wastewater treatment plant on a new site that would treat the incremental amount of capacity between that desired and the capacity of the existing WEWTP. It is envisioned that the new treatment plant could be combined with the existing WEWTP into a single FDEP permit sharing a common discharge to the reuse system and the Caloosahatchee River. This would require construction of an effluent pipeline connecting the two facilities that would allow transmission of effluent in either direction depending on whether effluent is being reclaimed for reuse or being discharged to the Caloosahatchee River. One potential location for this new wastewater treatment plant would be the site of the existing Waterway Estates Water Treatment Plant. The existing water treatment plant is currently limited in production capacity by the existing raw water wellfield which is not able to provide sufficient raw water to be treated. With completion of the new North Water Treatment Plant, the Waterway Estates Water Treatment Plant will be able to be retired, except for the existing storage tank and pumping facility that will continue to serve the area in order to assure sufficient pressure and volume of water supply during peak demand periods. The available land at the Waterway Estates Water Treatment Plant site is such that a new wastewater treatment plant would likely need to be constructed to minimize the amount of land required for treatment units and to minimize potential impacts on neighbors. A proposed wastewater treatment plant on this site would need to be designed to minimize visual, odor, noise, and lighting impacts. One option would be to enclose as much of the facility as possible in a building which can be done when utilizing MBR technology. Another option would be a more conventional activated sludge approach using aeration basins, clarifiers, and filters.

This study will include a detailed investigation of MBR systems provided by various manufacturers in order to determine whether or not it is feasible to expand the capacity of the existing wastewater treatment facility using MBR while producing 20-20-3-0.5 quality effluent within the very limited site. This will include preparation of process design calculations, hydraulic calculations, and preliminary dimensional drawings to assess space limitations. In addition, if an MBR alternative is identified that will fit within the available site while producing 20-20-3-0.5 quality effluent, then a detailed cost estimate will be prepared for possible implementation of this option. A conceptual design will be prepared for the potential construction of a new wastewater treatment plant on the existing water treatment plant site (or alternative site) and a detailed cost estimate prepared for possible implementation of this option. The two options - (a) expansion on existing site, and (b) new facility on the water treatment plant site will be evaluated based on both cost and non-cost criteria and a recommendation made as to which alternative provides both life cycle cost savings as well as best meets other criteria such as reliability, ease of operation, and ability to construct and permit within necessary time constraints.

Task 1 – Obtain Available Information

This task will involve meeting with LCU to obtain available information for both the Waterway Estates Wastewater Treatment Plant and Water Treatment Plant sites. In addition, site surveying and field engineering will be performed as needed to verify dimensions in areas where there is potential for possibly placing new facilities (including potential of constructing structural platforms over existing equipment to house new systems). This will also include meetings with Lee County officials with regard to criteria to be applied in review of any potential Development Orders for either site.

Task 2a – Develop Alternatives

This task will involve the development of alternatives for both expansion on the wastewater treatment plant site as well as construction of a new facility on the water treatment plant site. This task will include coordination with MBR manufacturers to obtain both process and dimensional information necessary for the development of alternatives. Alternatives will be developed to a level sufficient to be used in a prescreening of alternatives that will allow identification of the most feasible on-site alternative and most feasible off-site alternative for further investigation and evaluation. Alternative development will include preliminary process design and hydraulic calculations necessary to assess feasibility of each alternative.

Task 2b – Prescreening of Alternatives

This task will involve the prescreening of alternatives developed during Task 2a. Prescreening will include assessment of feasibility with regard to construction, operation, permitting, reliability, and life cycle costs. The anticipated results of this prescreening will be to identify the most feasible on-site alternative and most feasible off-site alternative for more detailed investigation and evaluation.

Task 2c – Technical Memorandum

The results of Tasks 1 and 2 will be summarized for presentation to LCU in both a PowerPoint format (including discussion and acceptance of review comments) followed by a written memorandum.

Task 3a – Perform Conceptual Design and Prepare Cost Estimates

Following the prescreening process, conceptual design (in the form of primarily plan view and pertinent section detail drawings) will be performed to develop each alternative to the level to allow review with FDEP, County Development Order review staff, and to allow preparation of detailed cost estimates.

Task 3b – Evaluate Alternatives and Recommended Plan

This task will consist of a thorough evaluation of the detailed information developed during Task 3a. This evaluation will consider construction cost, operation and maintenance cost, anticipated useful life of completed overall systems, system reliability, ease of operation, permitting issues, as well as potential impacts on adjacent property owners, specifically addressing odor control. The two alternatives will be ranked based on these criteria with each criteria provided a weighting factor to allow development of an overall ranking for each alternative.

3c – Technical Memorandum

The results of Task 3a will be submitted to LCU for review in the form of 11" x 17" drawings and cost estimates. The preliminary results of Task 3b will be provided to LCU in the form of a PowerPoint presentation in a workshop setting. Based on the results of this workshop, a Technical Memoranda will be prepared including the 11" x 17" drawings, cost estimates, and identification of the Recommended Plan.

CHANGE ORDER AGREEMENT No.
or
 SUPPLEMENTAL TASK AUTHORIZATION No. 3

EXHIBIT "CO/STA-B"

Date: October 13, 2005

COMPENSATION AND METHOD OF PAYMENT

SECTION 1.00 CHANGE(S) IN COMPENSATION

The compensation the CONSULTANT, or SERVICE PROVIDER, shall be entitled to receive for providing and performing the supplemented, changed or authorized services, tasks, or work as set forth and enumerated in the Scope of Services set forth in this CHANGE ORDER OR SUPPLEMENTAL TASK AUTHORIZATION AGREEMENT, Exhibit "CO/STA-A", attached hereto shall be as follows:

NOTE: A Lump Sum (L.S.) or Not-to-Exceed (N.T.E.) amount of compensation to be paid the CONSULTANT should be established and set forth below for each task or sub-task described and authorized in Exhibit "S/COA-A". In accordance with Professional Services Agreement Article 5.03(2) "Method of Payment", tasks to be paid on a Work-in-Progress payment basis should be identified (WIPP).

Task Number	Task Title	Amount of Compensation	Indicate Basis of Compensation LS or NTE	If Applicable Indicate (W.I.P.P.)
1	Obtain Available Information	\$9,900		WIPP
2	Develop and screen Alternatives	\$30,000		WIPP
3	Evaluation of Alternatives and Develop Selected Plan	\$60,000		WIPP
TOTAL		\$99,900	NTE	

(Unless list is continued on next page)

- CHANGE ORDER AGREEMENT No. _____
or
 SUPPLEMENTAL TASK AUTHORIZATION No. 3_

SECTION 2.00 SUMMARY OF CHANGE(S) IN COMPENSATION

Pursuant to and in consideration of the change(s) in the Scope of Professional Services set forth in the CHANGE ORDER or AGREEMENT, Exhibit "CO/STA-A", the compensation the COUNTY has previously agreed to pay to the CONSULTANT, or SERVICE PROVIDER, as set forth in Exhibit "B" of the Professional Services Agreement, or Service Provider Agreement, shall be changed to be as follows:

Section/Task Number	Section/Task Name	Compensation In the Basic Agreement	Adjustment(s) by Previous CO or STA Nos. <u>0</u>	Adjustment(s) Due to this CO or STA	Summary of Changed Compensation
STA #1		\$0	\$0	\$0	\$49,830.00
STA #2		\$0	\$0	\$0	\$10,000.00
STA #3		\$0	\$0	\$99,900.00	\$99,900.00
TOTAL		\$0	\$0	\$99,900.00	\$159,730.00

CHANGE ORDER AGREEMENT No. _____
 SUPPLEMENTAL TASK AUTHORIZATION No. 3

EXHIBIT "CO/STA-D"

Date: October 13, 2005

CONSULTANT'S, OR SERVICE PROVIDER'S, ASSOCIATED SUB-CONSULTANT(S) AND SUBCONTRACTOR(S)

for _____

(Enter Project Name from Page 1 of the
Change Order or Supplemental Task Authorization Agreement)

CONSULTANT, or SERVICE PROVIDER, intends to engage the following sub-consultant(s) and/or sub-contractor(s) to assist the CONSULTANT, or SERVICE PROVIDER, in providing and performing the services, tasks, or work required under this CHANGE ORDER, or SUPPLEMENTAL TASK AUTHORIZATION AGREEMENT.

(If none, enter the word "none" in the space below.)

Service and/or Work to be Provided or Performed	Name and Address of Individual or Firm	Disadvantaged, Minority or Women Business Enterprise, (If Yes, Indicate Type)			Sub-Consultant Services are Exempted from Prime Consultant=s Insurance Coverage	
		Yes	No	Type	Yes	No
	None					

CHANGE ORDER AGREEMENT No. _____

or

SUPPLEMENTAL TASK AUTHORIZATION No. 3

EXHIBIT "CO/STA-E"

Date: October 13, 2005

PROJECT GUIDELINES AND CRITERIA

for _____

As a supplement, or change, to the Project Guidelines and Criteria set forth in the Professional Services Agreement, or Service Provider Agreement, Exhibit "E", the COUNTY has established the following Guidelines, Criteria, Goals, Objectives, Constraints, Schedule, Budget, and/or Requirements which shall serve as a guide to the CONSULTANT, or SERVICE PROVIDER, in performing the professional services, tasks, or work to be provided pursuant to the professional services set forth hereinbefore in CHANGE ORDER or SUPPLEMENTAL TASK AUTHORIZATION AGREEMENT, Exhibit "CO/STA-A", attached hereto:

(If none, enter the word "None" in the space below.)

ITEM No. 1

NONE