

LEE COUNTY BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM SUMMARY

BLUE SHEET NO: 20040389-UTL

1. REQUESTED MOTION:

ACTION REQUESTED:

Approve Change Order No. 3 to the Green Meadows Water Treatment Plant & Corkscrew Water Treatment Plant Transmission System Interconnection, Improvements and Water Storage Facility, Contract No. 1921 with TKW Consulting Engineers, Inc. for additional professional services, with a contract increase not-to-exceed amount of \$211,700.00. Also, approve Budget Transfer from Utilities Capital Improvement Fund in the amount of \$2,530,000.00 and amend FY 03/04 CIP.

WHY ACTION IS NECESSARY:

Pursuant to Lee County's Contracts Manual, the BOCC is required to approve all Professional Services for amounts over \$50,000.

WHAT ACTION ACCOMPLISHES:

Approval will provide Lee County Utilities with continuation of consultant services to enhance and expand the County-wide water distribution system computer modeling, prepare value engineering revisions to the water storage tank and interconnection facility construction plans, and provide professional engineering and construction administration services during construction of the water storage tank and interconnection facility. This will bring the total contract not-to-exceed amount to \$759,435.00.

2. DEPARTMENTAL CATEGORY: 10 - UTILITIES
COMMISSION DISTRICT #: CW

C10K

3. MEETING DATE:

04-13-2004

4. AGENDA:

- CONSENT
- ADMINISTRATIVE
- APPEALS
- PUBLIC
- WALK ON
- TIME REQUIRED: _____

5. REQUIREMENT/PURPOSE:

- (Specify)
- STATUTE _____
 - ORDINANCE _____
 - ADMIN. CODE AC-4.4
 - OTHER Change Order

6. REQUESTOR OF INFORMATION:

- A. COMMISSIONER: _____
 - B. DEPARTMENT: Lee County-Public Works
 - C. DIVISION/SECTION: Utilities Division
 - BY: Rick Diaz, P.E., Utilities Director
 - DATE: 4/1/04
- S. Diaz FOR Rick Diaz*

7. BACKGROUND:

On September 25, 2001, the Board of County Commissioners approved the ranking of Consultants and authorized negotiations to commence with the number one ranked firm, TKW Consulting Engineers, Inc. for design and construction administration services on the Green Meadows Water Treatment Plant & Corkscrew Water Treatment Plant Transmission System Interconnection, Improvements and Water Storage Facility project.

(CONT'D.)

MANAGEMENT RECOMMENDATIONS:

9. RECOMMENDED APPROVAL

(A) DEPARTMENT DIRECTOR	(B) PURCH. OR CONTRACTS	(C) HUMAN RESOURCES	(D) OTHER	(E) COUNTY ATTORNEY	(F) BUDGET SERVICES				(G) COUNTY MANAGER
					OA	OM	Risk	GC	
<i>Lavender</i> Date: 4/1/04	<i>C. Logan</i> Date: 4/1/04	N/A	<i>BAD</i> B. Dearborn Date: 4/1/04	<i>S. Diaz</i> Date: 4/1/04	<i>4-1-04</i>	<i>4/1/04</i>	<i>4/1/04</i>	<i>4/1/04</i>	<i>Lavender</i> Date: 4-1-04

10. COMMISSION ACTION:

- APPROVED
- DENIED
- DEFERRED
- OTHER

Rec. by CoAtty
Date: 4/1/04
Time: 12:00 pm
Forwarded to:
City Admin
4/1/04

RECEIVED BY
COUNTY ADMIN: *CU*
6/1/04
2:00pm 5/5
COUNTY ADMIN
FORWARDED TO:
4/1/04

On December 18, 2001, the Board of County Commissioners approved award of a negotiated contract with TKW Consulting Engineers, Inc. in the amount of \$515,735.00. This first phase of services included initial computer modeling of LCU's County-wide water distribution system and design, permitting and bidding services for an interconnection and storage tank facility. Subsequently, Change Orders No. 1 and 2 were also approved for a total contract increase of \$32,000.00 to provide additional design and evaluation services directly relating to the interconnection facilities, bringing the current total contract not-to-exceed amount to \$547,735.00.

The consultant, selected under the competitive negotiation process, was awarded the first phase of work, as summarized above. The second phase of work, to include construction administration services, was not previously negotiated and not yet authorized by the Board.

In summary, the requested Change Order No. 3 includes the following:

1. Additional services to enhance and expand the water distribution computer modeling work, adding details for the Waterway Estates/North Ft. Myers service area, adding details of the former GES service area (acquired by LCU July 2003), and other modeling additions.
2. Provide Post-bid/Pre-Construction services to participate in value engineering discussions and prepare revised construction drawings based on approved value engineering items, providing a construction cost savings of approximately \$1 million.
3. Provide construction administration services during construction of the water storage and interconnection facility.

The requested Change Order No. 3 is a total not-to-exceed amount of \$211,700.00 for these services. Approval of this Change Order will bring the total contract not-to-exceed amount to \$759,435.00.

Funds will be available in account string: 207105548730.506510

Five (5) original Change Order documents are attached for the Chairman's signature.



REQUEST FOR TRANSFER OF FUNDS

FUND NAME: LCU Capital Improvements DATE: 04/01/04 BATCH NO. _____

FISCAL YEAR: 03/04 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
20710548730.506540	Green Meadows/Corkscrew Interconnect	\$ 2,530,000
	TOTAL TO:	\$ 2,530,000

FROM: Non-Departmental Reserves
 (DIVISION NAME) (PROGRAM NAME)

ACCOUNT NUMBER	OBJECT NAME	CREDIT
GC5890148730.509918	Reserve for Fund Balances	2,329,298
GC5890148730.509910	Reserve for Contingencies	200,702
	TOTAL FROM:	\$ 2,530,000

EXPLANATION: *Per blueprint # 20040389-UTL #5*

[Signature]
 DIVISION DIRECTOR SIGNATURE DATE 4/1/04

DBS: APPROVAL DENIAL

APPROVAL DENIAL

CO. ADMIN.: APPROVAL _____ DENIAL _____

BCC APPROVAL DATE _____

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DEPARTMENT DIRECTOR SIGNATURE DATE
[Signature] 4-1-04

OPERATIONS ANALYST SIGNATURE DATE
[Signature] 4/1/04

BUDGET OPERATIONS MANAGER SIGNATURE DATE

CO. ADMIN. SIGNATURE DATE

BCC CHAIRMAN SIGNATURE

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

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: Green Meadows Water Treatment Plant & Corkscrew Water Treatment Plant Transmission System Interconnection, Improvements & Water Storage Facility: Phase 1 Additional Services, Phase 2 Post-Bid and Pre-Construction Services, and Phase 3 Construction Administration and Observation

CONSULTANT: TKW CONSULTING ENGINEERS, INC. PROJECT NO.: ~~7021~~ ~~7025~~ 7105

SOLICIT NO.: CN-01-13 CONTRACT NO.: GN-01-13 ¹⁹²¹ ACCOUNT NO.: _____

REQUESTED BY: Utilities DATE OF REQUEST: _____

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: January 19, 2004
EXHIBIT "CO/STA-B": COMPENSATION & METHOD OF PAYMENT: DATED: January 19, 2004
EXHIBIT "CO/STA-C": TIME AND SCHEDULE OF PERFORMANCE: DATED: January 19, 2004
EXHIBIT "CO/STA-D": CONSULTANT'S/PROVIDERS ASSOCIATED SUB-CONSULTANT(S)/SUB-CONTRACTORS: DATED: January 19, 2004
EXHIBIT "CO/STA-E": PROJECT GUIDELINES AND CRITERIA: DATED: January 19, 2004

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

RECOMMENDED:
By: [Signature] For P. Dine 4/1/04
Department Director Date
By: [Signature] 4/1/04
Contracts Mgmt Date

ACCEPTED:
By: [Signature]
Consultant/Provider
Date Accepted: 1/20/04

Corporate Seal

COUNTY APPROVAL:
By: _____
Department Director
(Under \$25,000)
Date Approved: _____

APPROVED:
By: _____
*County Attorney's Office Date

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

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

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

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

EXHIBIT "CO/STA-A"

Date: January 19, 2004

SCOPE OF PROFESSIONAL SERVICES

for Green Meadows Water Treatment Plant & Corkscrew Water Treatment Plant Transmission System Interconnection System Improvements & Water Storage Facility: Phase 1 Additional Services, Phase 2 Post-Bid and Pre-Construction Services, and Phase 3 Construction Administration and Observation

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

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:

Additional services provided under Change Order No. 3 include the following:

Phase 1 Design and Bidding, Additional Services

Part 1 Potable Water Transmission Systems Modeling

- 1.15 During the modeling, it became apparent, from the model conditions, modeling results, and discussions with utility personnel, that the system is being controlled as required to overcome significant deficiencies. Updating of the boundary conditions and initial conditions and removal of makeshift, but necessary, control measures is required to eliminate the observed anomalies. These changes to the model are required to accurately model scenarios for future years.
- 1.16 It also became apparent during modeling that system upgrades will be required to so that the system storage tanks can be filled between midnight and 6:00 A.M. Therefore, two sets of modeling conditions are required: 1. Conditions when filling the system storage tanks; and 2. Conditions when meeting customer peak demands. By having two sets of conditions, this doubled the number of scenarios and analyses to set-up, run the model, evaluate the results, and document.
- 1.17 The Waterway Estates System was not included in the initial scope for the model. Two factors make it imperative to include part of the Waterway Estates System in the model.
- The Waterway Estates Water Treatment Plant has a rated capacity of 0.75 million gallons per day and a limited water supply. It will likely be more cost effective to take this small water treatment plant out of service in the near future rather than upgrade the facility to meet the increasing stringent regulatory requirements. (Water for Waterway Estates would be provided by another water supply and treatment facility within the Lee County Utilities System, and a new storage and pumping facility would be provided for Waterway Estates.) Since the Waterway Estates Potable Water System is excluded from the model, the capability of the existing tank at the Waterway Estates Water Treatment Plant to meet peak

hour demand in the tank service area could not be evaluated. Therefore, it is necessary to assume, for purposes of the model, that the new storage and pumping facility will be in the same location as the existing Waterway Estates Water Treatment Plant, and the capacity of the storage tank will not change.

- All facilities within the integrated system are interrelated, so that the reliability of that part of the system served by the Airport Haul Reservoir is impacted by Waterway Estates, particularly during tank filling.

1.18 A new water treatment plant is being planned for the FPL power plant on Palm Beach Boulevard. This plant was not included in the original scope for the model. Alternative models were developed to determine improvements required with the FPL Water Treatment Plant and without the FPL water treatment plant.

1.19 The following additional services are required to develop a model for the GES system to properly incorporate that system into the overall Lee County Water Transmission System Model:

- There was no demand distribution information available for the GES service area. The existing demand distribution had to be developed using billing information and Lee County population data. The future demand distribution had to be developed using Traffic Analysis Zone (TAZ) population projections.
- Information provided by GES had to be updated once Lee County Utilities took over the GES system. There were more water mains and loops than indicated on GES maps.

Part 4 - Pumping Station Design and Bidding

4.29 Change pumping station site isolation valves from buried butterfly valves with manual actuators to gate valves in vaults with motor actuators. This revision was based on problems with existing butterfly valves in the Lee County Utilities Potable Water System. Seats in some of the butterfly valves seats failed due to contact with chloramines in the water. The chloramines are required to meet current FDEP and EPA regulations. Motor actuators were provided on critical isolation valves to facilitate exercising of the valves to insure the valves will function when required. This change required additional design for motor actuators and valve vaults. Additional plans, sections and details were required for the valve vaults.

4.30 Prepare drawing showing temporary construction access road and interim site work as requested by Construction Manager and approved by Lee County Utilities.

Phase 2 Post-Bid and Pre-Construction Services

Part 1 – Post Bid Value Engineering

1.01 Attend meetings and participate in discussions regarding Construction Manager's value engineering proposals. Evaluate Construction Manager's value engineering proposals. Revise drawings and specifications as required to reflect value engineering proposals accepted by Lee County Utilities.

Part 2 – Coordinate Temporary Access Road with Lee County Regional Airport Authority

2.01 TKW was required to review, evaluate, and respond to comments and questions from Lee County Regional Airport Authority regarding the Airport Haul Reservoir storm water management system that was previously approved by South Florida Water Management District and Lee County Community Development Services.

Phase 3 Construction Administration and Observation

Part 1 – Requests for Information (RFI)

1.01 Receive, evaluate, and respond to Construction Manager's requests for information. Attend

meetings and participate in discussions regarding requests for information.

Part 2 - Submittals

2.01 Review shop drawings and other submittals.

Part 3 - Meetings

3.01 Attend progress meetings and other meetings relative to project progress and issues.

Part 4 – Construction Observation

4.01 Conduct site visits to evaluate Work completion during construction.

4.02 Assist Construction Manager in preparation of Tentative Lists of Items to be Completed relative to Substantial Completion.

4.03 Assist Construction Manager in preparation of Tentative Lists of Items to be Completed relative to Final Completion.

Part 5 – Start-up Assistance, Functional Testing, and Operation and Maintenance Manuals

5.01 Provide start-up assistance and functional testing.

5.02 Review equipment manufacturers' and system suppliers' Operation and Maintenance Manuals and operations protocols for new, modified, or new and modified facilities.

Part 6 – Assist with Requirements for Start-up Approval and Documentation

6.01 Prepare and submit to Lee County Health Department (LCHD) request to place new pumping station in operation.

6.02 Prepare and submit record drawings and LCHD certificate of construction completion.

NOTE: The following services relative to Phase 3 of Green Meadows Water Treatment Plant & Corkscrew Water Treatment Plant Transmission System Interconnection System Improvements & Water Storage Facility will be provided as Additional Services as requested and authorized by Lee County:

Prepare Operation and Maintenance Manual for Airport Haul Reservoir and other improvements;

Evaluate Contractors' proposed contract modifications; and

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

EXHIBIT "CO/STA-E"

Date: January 19, 2004

PROJECT GUIDELINES AND CRITERIA

for Green Meadows Water Treatment Plant & Corkscrew Water Treatment Plant Transmission System
Interconnection System Improvements & Water Storage Facility: Phase 1 Additional Services, Phase 2
Post-Bid and Pre-Construction Services, and Phase 3 Construction Administration and Observation

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

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