



# City Advisory Utility Committee Meeting

## MEMORANDUM TO: COMMITTEE MEMBERS

The following Agenda of Business has been prepared for consideration and action at the Regular Meeting of the City Advisory Utility Committee on **Tuesday, February 6, 2012 at 5:30 p.m. in the Council Chambers, 2<sup>nd</sup> Floor, 205 North Marion Avenue, Lake City, Florida.**

1. **Call to Order**
2. **Roll Call**
3. **Approval of Agenda**
4. **Public Comments**
5. **Minutes**  
None
6. **OLD BUSINESS**
  - A. Meter Exchanges & AMI Upgrade
7. **CONSENT AGENDA**  
None
8. **PRESENTATIONS**  
None
9. **NEW BUSINESS**
  - A. Mittauer & Associates Contract Amendment No. 1/ Engineering Services – Dave Clanton
10. **Adjournment**

Meeting Date
02/06/2012

## Report to Utility Advisory Committee

AGENDA	
Section	6
Item No.	A

**SUBJECT:** Water Meter / AMI Upgrade Project Design Schedule

**DEPT. / OFFICE:** Utility Administration

<b>Originator:</b> Dave Clanton <i>[Signature]</i>		
<b>City Manager</b> Wendell Johnson	<b>Department Director</b> Dave Clanton	<b>Date</b> 01/23/12
<b>Recommended Action:</b>		
<ol style="list-style-type: none"> <li>Proceed with acquisition and installation of equipment, hardware and software needed for the migration of meter reading technology from touch read to radio read infrastructure.</li> </ol>		
<b>Summary Explanation &amp; Background:</b>		
<p>On 11/21/2011 Council approved the Lake City utilities to proceed with the development of a project design schedule for the implementation of the AMI/AMR.</p> <p>The implementation concept (project design schedule) has been previously discussed at the Utility Advisory Committee on 11/9/2011, and is being presented below as a recommended course of action.</p> <ul style="list-style-type: none"> <li>• Network deployment - place order with Sensus Metering Systems for the equipment, hardware &amp; software for the AMI upgrade.</li> <li>• Proceed with installation of equipment, hardware &amp; software by Sensus Metering Systems.</li> <li>• Enter into a piggyback (Panama City) contract with Utility Metering Solutions (UMS) for installation of new I-Pearl meters and radio transmitters.</li> <li>• Installation of meters and transmitters will be by meter reading routes as described in Committee meeting held on 11/9/2011.</li> <li>• Order new meters and transmitters and make available contractor for installation.</li> </ul>		
<b>Alternatives:</b>		
Remain with the existing system.		
<b>Source of Funds:</b>		
Enterprise Fund Cash reserves (Water, Sewer, Gas) and Impact Fee Trust Funds (Water/Sewer)		
<b>Financial Impact:</b>		
\$2,600,000.00		
<b>Exhibits Attached:</b>		
Cost summary sheet, 11/21/2011 Report to Council, City Meter Reading Route Map.		

# Summary

## Residential Water Meters

	<u>Count</u>	<u>Meter Cost</u>	<u>Meter/AMI</u>
1) Meters 10 + years	4873	\$ 1,356,302.09	\$ 1,444,052.09
2) 5-10 years	1147	\$ 319,244.51	\$ 408,994.51
3) Present to 4 years	2002	\$ 557,216.68	\$ 844,966.66
4) All Residential Meters	8022	\$ 2,232,763.26	\$ 2,320,513.26

**Water/Gas Combined**  
 \$ 1,736,870.81  
 \$ 699,813.23  
 \$ 937,785.38  
 \$ 2,613,331.98

## Large Water Meters

(recommend staff to repair and or replace as a phased annual budget item)

1) 1.00" meters	248	\$ 66,248.24
2) 1.50" meters	74	\$ 33,230.44
3) 2.00" meters	164	\$ 49,334.48
4) 3.00" meters	22	\$ 35,973.96
5) 4.00" meters	15	\$ 40,464.30
6) 6.00" meters	7	\$ 31,877.30
7) 8.00" meters	2	\$ 25,815.00
<b>Total =</b>		<b>\$ 282,843.72</b>

## Gas Meters

(recommend staff to install as annual budget item, indexes and SPT's only)

1) Residential	2852	\$ 260,018.72
2) Commercial	164	\$ 32,800.00
<b>Total =</b>		<b>\$ 292,818.72</b>

## Residential Water Meter Count per Route

Route no.    Count    Cost

1	759	\$ 211,252.47
2	964	\$ 268,310.12
3	988	\$ 277,773.34
4	488	\$ 135,825.04
5	831	\$ 231,292.23
6	992	\$ 276,103.36
7	820	\$ 228,230.60
8	857	\$ 238,528.81
9	1001	\$ 278,608.33
10	310	\$ 86,282.30
11		\$ -
12	2	\$ 556.66
Equip./Software		\$ 87,750.00
<b>Total =</b>	<b>8022</b>	<b>\$ 2,320,513.26</b>

## Residential Water Meter Count per Cycle

Cycle no.    Count    Cost

1	1905	\$ 530,216.65
2	832	\$ 231,570.56
3	2585	\$ 719,483.05
4	2700	\$ 751,481.00
Equip./Software		\$ 87,750.00
<b>Total =</b>	<b>8022</b>	<b>\$ 2,320,513.26</b>

Meeting Date
11/21/11

## City of Lake City Report to Council

AGENDA	
Section	10
Item No.	A

**SUBJECT:** Automated Meter Reading/Automated Metering Infrastructure System  
**DEPT. / OFFICE:** Utility Administration

<b>Originator:</b> Dave Clanton		
<b>City Manager</b> Wendell Johnson	<b>Department Director</b> Dave Clanton	<b>Date</b> 11/15/11
<b>Recommended Action:</b>		
<ol style="list-style-type: none"> <li>1. Proceed with replacement of existing residential water meters with new more efficient Automated Meter Reading (AMR) or Advanced Metering Infrastructure (AMI).</li> <li>2. Proceed with migration of meter reading technology from touch read to radio read infrastructure.</li> </ol>		
<b>Summary Explanation &amp; Background:</b>		
<p><i>Automated Meter Reading (AMR)</i> is a technology which automatically collects metering data and transfers that data to a central database for analysis and billing purposes, generally called "smart meters". Detailed water/gas usage data can be collected continuously at regular intervals (for example, every 30 minutes) and can be read remotely via an automated process, with the usage data sent to the City's Customer Service Billing System.</p> <p><i>Automated Metering Infrastructure (AMI)</i> starts with "smart meters" and adds two-way communication between the meter and the City, and between the meter and consumer. In addition to providing readings, the meter can also receive (and often act on) instructions sent from the utility or consumer.</p> <p>The Staff has assessed the option for upgrade of the City's water and gas metering equipment to an AMR/AMI System. A plan has been formulated to replace existing residential mechanical water and gas meters and install the radio read capability to both water and gas meters. The AMR/AMI utility improves services and saves money by minimizing the costs associated with reading individual residential meters while allowing more time to do other required maintenance activities. AMR/AMI Benefits include but are not limited to: 1) reduced meter reading costs, 2) reduced costs associated with field visits and customer call, 3) improved billing accuracy and improved cash flow and 4) improved outage information and response.</p> <p>The AMR/AMI concept was considered at the Utility Advisory Committee and system implementation is presented as a recommended action.</p>		
<b>Alternatives:</b>		
Remain with the existing mechanical system.		
<b>Source of Funds:</b>		
Enterprise Fund Cash Reserves (Water, Sewer, Gas) and Impact Fee Trust Funds (Water/Sewer)		
<b>Financial Impact:</b>		
\$2,600,000.00		
<b>Exhibits Attached:</b>		
Cost summary sheet		

# Meter Reading Cycles



Meeting Date
February 6, 2012

## Report to Utility Advisory Committee

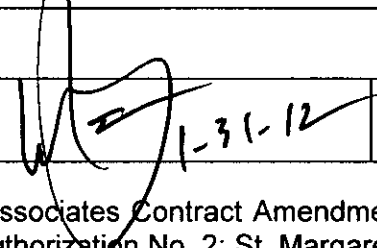
AGENDA	
Section	9
Item No.	A

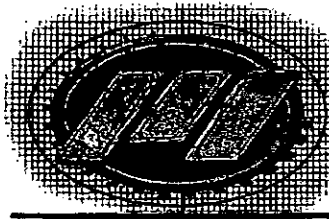
**SUBJECT:**

Mittauer & Associates Consulting Engineers Task assignment no. 2

**DEPT. / OFFICE:**

Wastewater Facilities

Originator: Dave Clanton		
City Manager Wendell Johnson	 1-31-12	Department Director Dave Clanton
Date 1/18/12		
Recommended Action: Approve Mittauer & Associates Contract Amendment No. 1 to Engineering Services Agreement for Design & Permitting Work Authorization No. 2; St. Margaret's WWTP		
Summary Explanation & Background:  <p>On June 6<sup>th</sup>, 2011 the City approved a services contract with Mittauer &amp; Associates Consulting Engineers to design several upgrades to the Saint Margaret WWTP. These upgrades included modifications to the aeration basins to support nutrient removal. These nutrient removal modifications are estimated to cost \$300,000.00 (Mittauer cost estimate).</p> <p>In a phone conversation (Jan 23, 2012) with FDEP/Jax, City Staff (D. Clanton &amp; H. Sheldon) discussed the need and justification of this nutrient removal upgrade. FDEP officials (J. Martin &amp; M. Long) were in agreement with staff that this expenditure was not justified in light of the planned discharge of the treated wastewater to agricultural users (Tice, etc.) who will be using the water for crop irrigation. They (FDEP) further agreed that this \$300,000.00 would be better used for construction of a new digester that would enhance the operation of the Saint Margaret Facility. The scope of services include design permitting and geotechnical services to install a new 350,000 gallon aerobic digester tank, work on the aeration tanks and air piping, conversion of existing clarifier flow splitter box, and associated yard piping, site work and electrical/instrumentation.</p>		
Alternatives: 1. Do not approve amendment No. 1.		
Source of Funds: 2010 Series Utility Bond Revenue		
Financial Impact:  \$57,440.00		
Exhibits Attached: Correspondence from Mittauer & Associates Consulting Engineers – January 12, 2012		



**MITTAUER**  
**& ASSOCIATES, INC.**  
**CONSULTING ENGINEERS**

580-1 WELLS ROAD  
ORANGE PARK, FL 32075  
PHONE: (904) 278-0882  
FAX: (904) 278-0848  
WWW.MITTAUER.COM

January 12, 2012

Mayor and City Council  
City of Lake City  
205 N. Marion Ave.  
Lake City, FL 32055-3918

RE: **Amendment No. 1** to Engineering Services Agreement for Design & Permitting -  
Work Authorization No. 2  
St. Margaret's Rd. WWTP  
City of Lake City, Florida  
Mittauer & Associates, Inc. Project No. 8904-11-2

Dear Mayor and City Council:

We are pleased to present the following **Amendment No. 1** to our Engineering Services Agreement dated April 27, 2011 for the design and permitting of additional improvements to the St. Margaret's Road WWTP located in Lake City, Florida. Mittauer & Associates, Inc., hereinafter referred to as the Engineer, proposes to provide services as described in the Scope of Services to the City of Lake City, the Client, for the fees stipulated hereafter.

#### **SCOPE OF SERVICES**

In addition to the items identified in Work Authorization No. 2, the Engineer shall provide design, permitting, and geotechnical services for the following additional improvements to the City's St. Margaret's Road WWTP: (1) a third 350,000 gallon poured-in-place aerobic digester tank (of similar configuration to the two existing aerobic digesters) with coarse bubble diffuser aeration system and associated blowers and air piping; (2) elimination of the anoxic zone and associated mixed liquor recycle and mixing facilities from the aeration tanks with substitution of additional aeration panels and associated air piping; (3) conversion of the existing clarifier flow splitter box to a pipe and valve type arrangement and; (4) associated yard piping, sitework, and electrical/instrumentation. More specifically, this work shall include the following:

#### **ITEM A - ENGINEERING DESIGN**

- (1) The Engineer shall prepare construction drawings and specifications for the proposed 350,000 gallon poured-in-place aerobic digester tank and shall incorporate details for the coarse bubble diffused aeration system, similar to the system being designed in the existing digesters.
- (2) The Engineer shall revise the drawings and specifications to eliminate the anoxic zones and associated mixed liquor recycle and mixing facilities in the aeration tanks and substitute additional aeration panels and air piping.
- (3) The Engineer shall prepare drawings and specifications to convert the existing clarifier flow splitter box to a pipe and valve type arrangement.

The construction drawings and specifications will be incorporated with the drawings and specifications for the Work Authorization No. 2.

#### **ITEM B - PERMITTING**

The Engineer shall incorporate the additional aerobic digester tank, aeration tank modifications, and pipe/valve type clarifier flow splitter (and appurtenant facilities) in the Florida Department of Environmental Protection (DEP) Permit Application to be prepared for Work Authorization No. 2 and shall prepare timely responses to DEP requests for additional information regarding said application.

#### **ITEM C - GEOTECHNICAL**

The Engineer shall employ the services fo geotechnical subconsultant to obtain limited geotechnical soil data in the area of the proposed digester tank. Geotechnical soil data shall be sufficient for the Engineer to perform proper foundation design.

#### **ITEMS FURNISHED BY CLIENT AT NO EXPENSE TO THE ENGINEER**

The Engineer's scope of services does not include the preparation of landscape plans, retaining wall design, off-site design, zoning related tasks, wetlands surveys, flood plain permitting and/or flood plain mitigation, tree surveys, boundary or easement related surveys.



**SCHEDULE OF FEES**

Client shall pay the Engineer for services rendered as follows:

For Item A. Engineering Design, the Engineer shall be paid based on the following breakdown:

	Original <u>Authorization</u>	Amendment <u>No. 1</u>	<u>Total</u>
Process/Mechanical Design	\$142,920	\$26,180	\$169,100
Structural Design	\$12,000	\$20,460	\$32,460
Electrical/Instrumentation Design	<u>\$26,000</u>	<u>\$2,000</u>	<u>\$28,000</u>
<b>TOTAL DESIGN FEE</b>	<b>\$180,920</b>	<b>\$48,640</b>	<b>\$229,560</b>

For Item B. Permitting, the Engineer shall be paid an additional lump sum fee of \$2,800 for a total of \$17,800 for permitting.

For Item C. Geotechnical, the Engineer shall be paid a lump sum fee of \$6,000.

**TOTAL ADDITIONAL ENGINEERING FEES FOR AMENDMENT NO. 1 (Items A thru C) = \$48,640 + \$2,800 + \$6,000 = \$57,440**


The Engineer shall make himself available to the Client at the Engineer's standard hourly rates for changes in the project scope of work.

Invoices for services in progress are prepared monthly and are due in accordance with Florida Statute 218, The Local Government Prompt Payment Act. Payments which are not received in accordance herewith are subject to late fees as outlined in the Act as well as collection fees and may cause the Engineer to stop work on the Client's projects. The fees listed above do not include state sales tax, should it be required by law.

**ACCEPTANCE**

Acceptance of this proposal may be indicated by the signature of a duly authorized official of the Client in the space provided below. One signed copy of the proposal returned to the Engineer shall serve as Notice to Proceed. Should this proposal not be accepted within a period of thirty (30) days, it shall become null and void.

Sincerely,  
Mittauer & Associates, Inc.



Joseph A. Mittauer, P.E.  
President

Accepted by  
City of Lake City, Florida

By: \_\_\_\_\_  
Stephen M. Witt, Mayor

Date: \_\_\_\_\_

JAM/TPN/mw/pj

**NOTICE OF MEETING  
UTILITY ADVISORY COMMITTEE  
CITY OF LAKE CITY**

**NOTICE IS HEREBY GIVEN** that the Utility Advisory Committee for the City of Lake City, Florida will hold a meeting on Monday, February 6, 2012. The meeting is scheduled for 5:30 p.m. at City Hall, 205 North Marion Street, Lake City, Florida.

All interested persons are invited to attend.

**AUDREY E SIKES**  
City Clerk

**NOTICE OF MEETING OF THE LAKE CITY COMMUNITY  
REDEVELOPMENT AGENCY TO BE HELD ON MONDAY,  
FEBRUARY 6, 2012 AT 6:45 PM, IN THE COUNCIL CHAMBERS  
LOCATED ON THE SECOND FLOOR OF CITY HALL AT 205 NORTH  
MARION AVENUE, LAKE CITY, FLORIDA.**

**THE PURPOSE OF THE MEETING IS TO CONSIDER THE FOLLOWING ITEMS:**

- Street Improvements located in the CRA

All interested persons are invited to attend.

**AUDREY E SIKES**  
City Clerk

**CITY COUNCIL MEETING**

**THE CITY COUNCIL OF THE CITY OF LAKE CITY, FLORIDA WILL  
MEET ON MONDAY, FEBRUARY 6, 2012 AT 7:00 P.M. IN THE  
COUNCIL CHAMBERS LOCATED ON THE SECOND FLOOR OF CITY  
HALL AT 205 NORTH MARION AVENUE, LAKE CITY, FLORIDA**

All interested persons are invited to attend.

**SPECIAL REQUIREMENTS:** If you require special aid or services for any of the meetings identified above, as addressed in the American Disabilities Act, please contact the City Manager's Office at (386) 719-5768.

**AUDREY E SIKES**  
City Clerk