



P. 479-968-2105
F. 479-968-3265

"Award Winning Water"

July 13, 2017

Mr. Alan Anderson
Enforcement Analyst
Water Division/Enforcement Branch
Arkansas Department of Environmental Quality
5301 Northshore Dr.
North Little Rock, Arkansas 72118

RE: Recent Violations - NPDES Permit No. AR0021768, AFIN 58-00105

Dear Mr. Anderson:

On June 8, 2017, I received an email from your office noting and listing reported violations of the referenced permit at the wastewater treatment plant during the period of January 1, 2017 through March 31, 2017. Your email also informs us of our requirement "to take all reasonable measures necessary to eliminate or prevent the occurrence of violations." This letter serves as a response to your email both acknowledging our receipt of the email and providing some information regarding steps that we have already taken and our plans moving forward to address these items.

To begin the conversation, City Corporation is fully aware and takes seriously the noted violations and are committed to correcting these issues with permit non-compliance. In 2016, we completed \$18 million+ of improvements at the wastewater plant to address primarily Nitrates, TSS and Total Residual Chlorine as mandated in a 2009 Consent Administrative Order (CAO). While these improvements addressed the items noted and are performing well to this point, the plant capacity with regards to design flow and loading was not addressed in this project. There were three primary reasons for this decision. First, timing was of the essence with regard to addressing the specific items in the CAO and there were no issues at that time related to loading at the time of design. Second, proposed funding was prioritized to be spent on the immediate concerns cited in the CAO, namely Nitrates, TSS, TRC and collection system overflows. Third, staff was not aware of and/or did not anticipate any notable increase in BOD loading at the time of project design. While staff was aware that a plant capacity expansion would be needed at some point in the not too distant future, the decision was made to focus on the issues at hand and work an expansion into our medium to long range plan.

We are currently two years into a \$40 million+, 6 year plan to reduce peak flows at the plant, with the expectations that the plant will treat the projected, decreased wet weather flows. As

205 W. 3rd Place
PO Box 3186
Russellville, AR 72811
citycorporation.com



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mentioned, what we did not expect nor plan for was a substantial increase in BOD loading to the plant, which has been documented as slowly and steadily increasing since 2014. We have determined that this increase in BOD loading well above our design loading is very likely the reason we are unable to effectively treat and meet our permit limits on a consistent basis. Understanding that an expansion of our plant and/or construction of site specific pretreatment facilities at our major BOD contributors is likely the solution to this issue, we have entered into a contract with Garver to evaluate the wastewater treatment plant and develop a computer model of the treatment process to be used as a diagnostic and predictive tool. We have met with our Board of Directors to discuss this item and all have agreed that this is our top priority and projected 2018 bond funds will be re-prioritized as necessary to fund such an expansion. We will keep ADEQ informed of each step along the way to receive necessary approvals and/or permit modifications.

We have attached a copy of our contract with Garver. It is our plan to have preliminary estimates in early 2018 so that we may begin earmarking projected bond funds which are anticipated around July of 2018. A long term rate plan was adopted in 2014 that is projected to support the \$47 million issuance in 2015, along with an additional \$25-30 million issuance in summer of 2018. It is our expectation that the 2018 bond issue will fund the needed improvements, but are prepared to seek additional funding if necessary.

We are looking forward to the opportunity to visit with you and ADEQ staff on August 3rd at 9:00 a.m. and appreciate your willingness to work with us to correct these issues.

Should you have any questions or need other info please contact me at 479-968-2080 ext. 113.

Sincerely,

Steve Mallett
Chief Executive Officer

cc: Larry Collins
Randy Bradley
Taryn Childers
Lance Bartlett
File



WORK ORDER NO. 1617S-02
City Corporation
Russellville, Arkansas
Project No. 17018341

This WORK ORDER is made by and between the **City Corporation of Russellville, Arkansas** hereinafter referred to as "Client," and **GARVER, LLC**, hereinafter referred to as "GARVER", in accordance with the provisions of the MASTER AGREEMENT FOR PROFESSIONAL SERVICES executed on July 20, 2016.

Under this Work Order, the Client intends to initiate the development of a Master Plan for the Pollution Control Works (PCW) facility. The Master Plan will be separated into phases. This work order is intended to complete Phase 1 of the Master Plan which will focus on current flows, pollutant loading, and permit limitations. Phase 2 will incorporate future population and capacity projections. Phase 2 will be completed under an amendment to this Agreement or a separate Agreement.

GARVER will provide professional services related to these improvements as described in SECTION 1 – SCOPE OF SERVICES.

SECTION 1 - SCOPE OF SERVICES

The Scope of Services is provided in Appendix A.

SECTION 2 – PAYMENT

For the work described under SECTION 1 - SCOPE OF SERVICES, the Client will pay GARVER on an hourly rate basis. The Client represents that funding sources are in place with the available funds necessary to pay GARVER.

The Client will pay GARVER, for time spent on the project, at the rates shown in Appendix B for each classification of GARVER's personnel (may include contract staff classified at GARVER's discretion) plus reimbursable expenses including but not limited to printing, courier service, reproduction, and travel. The total not to exceed amount paid to GARVER under this agreement is shown in the table below:

Task	Fee
Historical Data Analysis	
Load and Flow Projections	\$28,000
Existing PCW Facilities Assessment	\$30,000
Process Model	\$34,000
PCW Improvements Plan Development	\$71,750
5-Year Master Plan	\$20,000
Project Administration and Management	\$14,000
Total	\$197,750

For informational purposes, Appendix B includes the current hourly rates for each employee classification. The rates shown in Appendix B will be increased annually with the first increase effective on or about July 1, 2018. Underruns in any phase may be used to offset overruns in another phase as



long as the overall contract amount is not exceeded.

Expenses other than salary costs that are directly attributable to performance of our professional services will be billed as follows:

1. Direct cost for travel, long distance and wireless communications, outside reproduction and presentation material preparation, and mail/courier expenses.
2. Direct cost plus 5 percent for subcontract/subconsultant fees.
3. Charges similar to commercial rates for reports, plan sheets, presentation materials, etc.
4. \$100 per month for each month computer design/modeling software is utilized.
5. The amount allowed by the federal government for mileage with an additional \$0.05 for survey trucks/vans.

The Client will pay GARVER on a monthly basis, based upon statements submitted by GARVER to the Client for the scope of services described in this agreement. Payments not received within 60 days of invoice date will be subject to a one percent monthly simple interest charge.

Additional Services (Extra Work). For work not described or included in Section 1 – Scope of Services but requested by the Client in writing, the Client will pay GARVER, for time spent on the project, at the rates shown in Appendix A for each classification of GARVER's personnel (may include contract staff classified at GARVER's discretion) plus reimbursable expenses including but not limited to printing, courier service, reproduction, and travel. The rates shown in Appendix A will be increased annually with the first increase effective on or about July 1, 2018.

SECTION 3 – APPENDICES AND EXHIBITS

- 3.1 The following Appendices and/or Exhibits are attached to and made a part of this Agreement:
- 3.1.1 Appendix A – Scope of Services
 - 3.1.2 Appendix B – Garver Rate Schedule

This Agreement may be executed in two (2) or more counterparts each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.



Approval and acceptance of this Work Order, including attachments listed in SECTION 3 – APPENDICES AND EXHIBITS, shall incorporate this document as part of the Agreement. Garver is authorized to begin performance upon receipt of a copy of this Work Order signed by the Client. The effective date of this Work Order shall be the last date written below.

CITY CORPORATION

GARVER, LLC

By: 
Signature

By: 
Signature

Name: STEVE MALLETT
Printed Name

Name: Michael J. Graves
Printed Name

Title: CEO

Title: Vice President

Date: 6-29-17

Date: May 18, 2017

Attest: 

Attest: 

APPENDIX A – SCOPE OF SERVICES

General

This scope of services provides a phased approach to developing a Master Plan for the Russellville City Corporation (RCC) Pollution Control Works (PCW) and will provide the Client the necessary information to develop a capital improvement program for the PCW.

The first phase of the master planning effort will focus on improvements needed to address current capacity and rehabilitation issues. Phase 1 shall determine improvements needed for the existing discharge permit requirements. Phase 1 will include a 5-year capital plan to implement the recommended improvements. The scope of work associated with Phase 2 will be developed after the conclusion of Phase 1 and will be executed under an amendment to this agreement or a separate agreement. Phase 2 will generally include flow and population projections through the year 2040 and estimated costs to construct the recommended improvements necessary for the projected growth.

1.0 PCW Master Plan Phase 1

This scope of services develops the following general evaluations:

- Analyze historical data to establish the wastewater influent characteristics and historical process performance at the PCW.
- Develop the design loading for the PCW based on existing flow and influent characteristics.
- Evaluate the condition and capacity of existing liquid treatment and solids handling processes and recommend improvements. Condition will be assessed based on age, reliability, efficiency, and operability. Unit process capacity will be assessed utilizing process modeling and regulatory design criteria.
- Determine the required improvements to supplement existing facilities to achieve the discharge permit requirements. This effort will formulate the scope of any capacity additions and rehabilitation recommendations as well as associated opinions of probable construction costs.
- Conduct alternative disinfection conceptual evaluation.

This Phase 1 Master Plan Report will be developed for the purpose of coordinating the formulated capacity expansions and associated scope of improvements with the Client, the Arkansas Department of Environmental Quality (ADEQ) and the Arkansas Department of Health (ADH) and to develop a conceptual level estimate of project cost for the required improvements.

1.1 Kickoff Meeting

A kickoff meeting will be scheduled and attended by Garver and the Client to initiate the project, introduce key team members, establish communication protocol, discuss schedule, and request initial data. Additional purpose of the kickoff meeting will be to review the objectives of the project, review the scope of work, establish project lines of communication, present the schedule, and to highlight the deliverables.

1.2 Historical Data Analysis

Garver will collect and analyze relevant information including:

- As-built drawings,
- Previous applicable studies and reports,
- Past influent and effluent flow rates for a 4-year period (delivered by the client in Excel format),
- Process data and daily monitoring reports for a 4-year period (delivered by Client for all influent and effluent values in Excel format), and

- Pretreatment data and information.

1.3 Load and Flow Determination

The existing wastewater will be characterized based on the historical data analysis and agreed to by the Client. Additional sampling may be required at industrial facilities and for the influent to confirm assumptions. The Client will conduct all sampling, analysis, and pay for laboratory fees as needed.

The historical data and the additional sampling will be used with current flows to develop updated loadings for current operations. Garver will deliver a draft technical memorandum (TM 1) documenting the findings of the flow and load determination. Garver will deliver copies via digital .PDF and three printed hard copies for Client review. Following the submittal of the draft TM 1, Garver will lead a review workshop (Workshop 1) to discuss the information documented in TM 1. Workshop 1 will be conducted via web conference to minimize travel required. The Client has the option of travelling to a Garver office to participate, or Garver will coordinate with the Client's IT staff to facilitate the web conference. Garver will issue minutes to summarize Workshop 1, and incorporate comments from the Client into the final TM 1 as appropriate.

1.4 Existing PCW Facilities Assessment

Under this Task, Garver will evaluate the condition of the existing wastewater treatment facilities, including existing liquid process treatment units, solids handling, and hydraulic capacity. This evaluation will be conducted based on the existing permit limits.

The hydraulic profile of the facilities at the PCW will be provided by the Owner and assumed to be correct for use in developing the recommendations in Phase 1 of the Master Plan. This hydraulic profile will serve as the basis for the hydraulic evaluation of the PCW and for the hydraulic evaluation of potential improvements and expansions.

The assessment of the rated capacity of the existing PCW facilities will be based upon commonly adopted design criteria as recommended by ADEQ regulations and a biological process model described in Section 1.5 below. This effort will detail each facilities' rated capacity and the limiting design criteria for that facility.

Garver will assess the age, reliability, efficiency, and operability of each unit process and identify potential replacement, upgrade, or optimization needs. Each process will be evaluated from an equipment condition and operability standpoint. The assessment will include multi-discipline engineers (Mechanical, Structural, Electrical, and Process) completing a visual assessment for the condition based items and discussing with plant operations and maintenance staff. Garver has already performed preliminary assessments of the primary clarifiers and the headworks under separate task orders from the Client. The information gained from these efforts will be utilized in this task to minimize duplicated work.

Based upon the determined capacity and condition of the existing facilities Garver will determine the deficiency for each treatment unit necessary to meet the current flows and discharge permit limitations.

A draft technical memorandum (TM 2) will be developed to document the evaluation process for each facility at the PCW. Garver will deliver copies via digital .PDF and three printed hard copies for Client review. Following submittal of the draft TM 2 to the Client, Garver will lead a review workshop (Workshop 2) to discuss the evaluations and the findings documented in TM 2. Workshop 2 will be conducted via web conference to minimize travel required. The Client has the option of travelling to a Garver office to participate, or Garver will coordinate with the Client's IT staff to facilitate the web conference. Garver will document the proceedings from Workshop 2, issue minutes to summarize the meeting, and incorporate comments from the Client into the final TM 2 as appropriate.

1.5 Process Model

Garver will develop and analyze a process model for PCW utilizing the GPS-X process software package. The GPS-X process model will be calibrated to the existing facilities and process data and will be used to confirm existing treatment capacity as well as be extended to simulate the process alternatives necessary for any identified capacity expansion. The modeling steps will include:

- Garver may recommend optional limited additional project-specific sampling to help improve the process model calibration. Costs for this sampling and analysis will be the responsibility of the Client.
- Simulation of the existing facilities,
- Determination of the existing plant biological treatment capacity,
- Identification of process re-configurations and operational schemes and estimation of their advantages and disadvantages (not to exceed two alternatives) and
- Identification of additional biological volume and configuration to effectively meet plant treatment objectives for up to two alternatives.

Upon completion of the process model, Garver will develop a draft technical memorandum (TM 3) of the methodology used in developing the model and the results. Garver will deliver copies via digital .PDF and three printed hard copies for Client review. Following review, Garver will conduct a workshop (Workshop 3) and present the model and its results. Workshop 3 will be conducted via web conference to minimize travel required. The Client has the option of travelling to a Garver office to participate, or Garver will coordinate with the Client's IT staff to facilitate the web conference. Garver will issue minutes to summarize Workshop 3, and incorporate comments from the Client into the final TM 3 as appropriate.

1.6 PCW Improvements Plan Development

Plant-wide Plan Development

This task will identify the recommended improvements that may be necessary to meet current flows and loadings. Also, a general phasing schedule will be developed by prioritizing the improvements based on immediate needs and funding availability.

Throughout this task, Garver will team with the Client's staff to develop up to two (2) concepts to address the needs as identified by the Facility Assessment (TM 2). Each developed alternative will include recommended improvements, where required, for each facility throughout the PCW. Within each alternative, Garver will prioritize the list of needs and develop associated improvement scopes with associated opinions of probable project costs. The opinions of probable project costs will be based on the conceptual layouts developed in this task and are considered estimates. The expected range of accuracy for this type of estimate is -30 to +50% of the actual project estimate. Garver will perform a life cycle cost (in present worth) analysis for each concept. Uncertainty analysis will be used to develop a statistics-based assessment of the performance and impacts of the concepts (through the end of the planning period). Uncertainty in the future fluctuations of energy costs, chemical costs, and labor rates will be considered. Outcomes for each concept will include a range of expected life cycle costs for each concept, for planning purposes.

The preliminary plan for the alternatives will include one (1) configuration to address the issues identified in the Facility Assessment (TM 2) at the PCW facility. The second alternative will include recommended improvements at the PCW in conjunction with potential retrofitting of the concrete basins at to provide additional pretreatment.

Alternative Disinfection Conceptual Evaluation

Garver will conceptually evaluate alternative disinfectants to replace the existing chlorination/dechlorination system. The evaluated technologies will (each) include sampling and

monitoring for stringent effluent total residual chlorine (TRC) limits. This evaluation will be an overview of concepts and costs associated with the following technologies or modifications to the PCW:

- UV Disinfection for Peak Flow,
 - a. Open-Channel(-type),
 - b. Closed-Vessel(-type),
- UV Disinfection for Average Daily Flow, and Supplemental Chemical Disinfection for Peak Flow Events and
- Ozone (for disinfection in modified chlorine contact basins).

This evaluation will compare costs of the current system and evaluated technologies and include a recommended path forward. As part of the evaluation, Garver will complete the following task objectives:

- a. Develop a sample protocol and direct PCW staff to collect daily grab samples for analysis of UV Absorbance at 254 nm. PCW staff can use portable or field meters to collect small volumes of secondary effluent (prior to chlorination) for analysis of UV 254 Absorbance (cm^{-1}). Examples of field meters include:

*Real UV254 Portable Meter - <http://realtechwater.com/uv254-portable-meter/>

*Chemtrac Portable UV254 Monitor - <http://chemtrac.com/products/uvp1000/>

Alternatively, PCW staff can utilize laboratory spectrophotometers to measure UV254 absorbance (cm^{-1}). For example, the HACH DR6000 contains programs for UV254 absorbance measurement.

It is recommended that this data collection commence prior to the kick-off of the project, and continue through the Garver evaluation. It is recommended that a minimum of 8 weeks of once (or twice) daily grab sample data for UVT(%) or UV254 absorbance (cm^{-1}) be collected prior to completion of the TM summarizing these efforts.

- b. Review historical chemical (chlorine and sulfur dioxide) demands and usage to develop an O&M cost for the existing system.
- c. Estimate an appropriate UV dose and size a UV facility to handle documented peak 2-HR and annual average daily flows (7.3 MGD design) at the facility based on up to four (4) UV manufacturers/systems.
 - a. Garver will also estimate the cost of constructing a smaller UV disinfection facility for ADF (based on one (1), recommended UV technology/manufacturer), with supplemental chemical disinfection (i.e., 15% -20% peracetic acid) for application when influent flow is > ADF.
- d. Estimate an appropriate ozone dose and size an ozone facility to handle documented peak 2-HR and annual average daily flows (7.3 MGD design) based on up to two (2) ozone generator types ('quad-block' and corona discharge) and one (1) manufacturer per type.
- e. Document potential siting locations for each system.
- f. Develop planning level opinions of probable construction costs for each system. The opinions of probable project costs will be based on the conceptual layouts developed in this task and are considered estimates. The expected range of accuracy for this type of estimate is -30 to +50% of the actual project estimate.
- g. List O&M activities for each system and cost of replacement parts and material used during the preventative maintenance periods.

- h. Furnish costs for automating UV, and ozone alternative disinfection systems.
- i. Develop analysis of qualitative (non-economic) advantages and disadvantages for each system.
- j. Perform a life cycle cost (in present worth) analysis for each alternative. Sensitivity analysis will be used to develop a statistics-based assessment of the performance and impacts of the alternatives (through the end of the planning period). Sensitivity in the future fluctuations of energy costs, chemical costs, and labor rates will be considered. Outcomes for each alternative will include a range of expected life cycle costs for each alternative, for planning purposes.

Garver will develop a draft technical memorandum (TM 4) of the findings and recommendations and deliver copies via digital .PDF and three printed hard copies for Client review. Following review, Garver will conduct a workshop (Workshop 4) and present the methodology and findings of TM 4. Workshop 4 will be conducted via web conference to minimize travel required. The Client has the option of travelling to a Garver office to participate, or Garver will coordinate with the Client's IT staff to facilitate the web conference. Garver will issue minutes to summarize Workshop 4, and incorporate comments from the Client into the final TM 4 as appropriate.

1.7 5-Year Master Plan

Based on the selected alternative, a near-term (5-year) evaluation will be performed based on the tasks outlined in the above sections. The objective of Phase 1 is to provide the Client with a plan to improve the PCW to meet current flows, loadings, and discharge permit limitations. Garver will submit an electronic copy (pdf) and 3 hard copies of the draft Master Plan to the Client with assembled and prioritized factors that are limiting capacity.

Garver will lead a workshop (Workshop No.5) with the Client to present and discuss findings detailed within the draft Master Plan.

Garver will incorporate comments from the draft Master Plan workshop and prepare the final Master Plan. Garver will present the final Master Plan to the Client during a final meeting.

1.8 Project Administration and Management

Garver will prepare final schedule of work activities. Garver will also perform internal project control procedures on a monthly basis including schedule and budget control, quality control review, and monthly progress reports.

Garver will meet with the Client's staff on a periodic basis, to update project progress, update previous investigative work, to coordinate upcoming work, and to receive any input from staff. Written documentation of each meeting will be provided. A total of four (4) progress meetings, via conference telephone, are anticipated.

Garver will coordinate with the Client to obtain Client provided existing information including maps, , staffing levels, flow and rainfall records, facility as-built drawing, pump curves, overflow occurrence records, sewer ordinances, CIP status and other pertinent information.

1.9 Project Deliverables

The following will be submitted to the Client by Garver:

Appendix A - Scope of Services
Russellville City Corp PCW Master Plan – Phase 1

Garver Project No. 17018341

1. Electronic copy (.pdf) and three (3) hardcopies of the draft TM 1
2. Electronic copy (.pdf) of the final TM 1
3. Electronic copy (.pdf) and three (3) hardcopies of the draft TM 2
4. Electronic copy (.pdf) of the final TM 2
5. Electronic copy (.pdf) and three (3) hardcopies of the draft TM 3
6. Electronic copy (.pdf) of the final TM 3
7. Electronic copy (.pdf) and three (3) hardcopies of the draft TM 4
8. Electronic copy (.pdf) of the final TM 4
9. Electronic copy (.pdf) and three (3) hardcopies of the draft 5-Year Master Plan Report
10. Electronic copy (.pdf) and three (3) hardcopies of the final 5-Year Master Plan Report

1.10 Additional Work

The following items are not included under this agreement but will be considered as additional work:

1. Facility Plan development
2. Master Plans for the Client’s collection systems.
3. Evaluation of any off site pretreatment facility other than evaluation of the exiting concrete structures at ConAgra.
4. Design of any improvements
5. Development of standard operating procedures
6. Development of troubleshooting guidelines
7. Software programming and development in addition to the modeling work described above.
8. Sample collection and laboratory testing
9. Support after submission of final report for this task order.
10. Surveying
11. Sludge management planning
12. Meetings or Workshops in addition to the meetings listed in the sections above

Additional Work will be as directed by the Client in writing for an additional fee as agreed upon by the Client and Garver

1.11 Schedule

Garver shall begin work within ten (10) days after execution of the Agreement and shall complete the work in accordance with the schedule below:

<u>Description</u>	<u>Calendar Days</u>
Load and Flow Projections (TM 1)	60 days from receipt of written NTP
Existing PCW Facilities Assessment (TM 2)	90 days from final TM 1 submittal
Process Model (TM 3)	90 days from final TM 1 submittal
PCW Improvements Plan Development (TM 4)	90 days from final TM 3 submittal
Draft Master Plan	60 days from final TM 4 submittal
Final Master Plan	14 days from draft Master Plan comments receipt

Subsequent to the Kickoff Meeting, Garver and the Client will schedule the following meetings and workshops within the associated schedules for each project task:

<u>Task</u>	<u>Project Meeting and Workshop</u>
Load and Flow Projections	Workshop 1
Existing PCW Facilities Assessment	Workshop 2
Process Model	Workshop 3
PCW Improvements Plan Development	Workshop 4
Master Plan	Workshop 5

Project Administration and Management

Final submittal meeting
Four (4) Progress Conference Calls

1.12 Fee

For the work described in the above Scope of Work, the Client will pay Garver on an hourly rate basis. The Client represents that funding sources are in place with the available funds necessary to pay Garver. The estimated amount to be paid under this Agreement is **\$197,750**. This amount will not be exceeded without written approval from the Client. For informational purposes, the fee summary by task is presented in the table below and the current hourly rate schedule for each employee classification are included in Appendix B.

Task	Fee
Historical Data Analysis Load and Flow Projections	\$28,000
Existing PCW Facilities Assessment	\$30,000
Process Model	\$34,000
PCW Improvements Plan Development	\$71,750
5-Year Master Plan	\$20,000
Project Administration and Management	\$14,000
Total	\$197,750



APPENDIX B
RCC PCW Master Plan - Phase 1
Garver Hourly Rate Schedule

Classification	Rates
Engineers / Architects	
E-1.....	\$ 98.00
E-2.....	\$ 114.00
E-3.....	\$ 138.00
E-4.....	\$ 161.00
E-5.....	\$ 196.00
E-6.....	\$ 245.00
E-7.....	\$ 325.00
Planners / Environmental Specialist	
P-1.....	\$ 119.00
P-2.....	\$ 149.00
P-3.....	\$ 185.00
P-4.....	\$ 210.00
P-5.....	\$ 243.00
P-6.....	\$ 277.00
Designers	
D-1.....	\$ 92.00
D-2.....	\$ 108.00
D-3.....	\$ 128.00
D-4.....	\$ 148.00
Technicians	
T-1.....	\$ 72.00
T-2.....	\$ 92.00
T-3.....	\$ 111.00
Surveyors	
S-1.....	\$ 44.00
S-2.....	\$ 59.00
S-3.....	\$ 80.00
S-4.....	\$ 112.00
S-5.....	\$ 150.00
S-6.....	\$ 170.00
2-Man Crew (Survey).....	\$ 180.00
3-Man Crew (Survey).....	\$ 223.00
2-Man Crew (GPS Survey).....	\$ 200.00
3-Man Crew (GPS Survey).....	\$ 245.00
Construction Observation	
C-1.....	\$ 88.00
C-2.....	\$ 112.00
C-3.....	\$ 136.00
C-4.....	\$ 168.00
Management/Administration	
M-1.....	\$ 317.00
X-1.....	\$ 57.00
X-2.....	\$ 77.00
X-3.....	\$ 108.00
X-4.....	\$ 145.00
X-5.....	\$ 165.00
X-6.....	\$ 195.00