

FIM Identification and Evaluation:

Selected and agreed upon FIM's will become a part of the project scope and will be analyzed for feasibility by the following method:

1. Projected savings will be determined using standard engineering algorithms derived from ASHRAE, AEE and other accepted engineering references. Savings are derived from a combination of computer modeling and spreadsheet calculations depending on the FIM. Operational savings will be included in final proposal. If selected, McNeil Rhoads would carefully evaluate the actual expenditures that would be affected by this project.
2. Installation costs for each measure are determined by price quotes from equipment suppliers and subcontractors or McNeil Rhoads estimates.

Once McNeil Rhoads is selected and it is determined which FIM's will become a part of the project scope each one will be analyzed for feasibility utilizing the methods detailed above. Once our study is completed, McNeil Rhoads will prepare a proposal, detailing our survey findings and recommendations with the associated financial analysis and cash flows.

2.2 Equipment Maintenance Services

Please describe any major changes in operations or maintenance for the facility that your company foresees based on your knowledge and the types of maintenance services likely to be included in this project. Please address how you would approach the role of the City of Gautier's personnel in performing maintenance on existing and new equipment.

McNeil Rhoads seeks to support the City of Gautier in a positive way throughout the term of our agreement. Our financial guarantee requires that we monitor and track performance of the facilities' utilities and that we support the City of Gautier in any way that we can effectively support the performance of the program.

At McNeil Rhoads, we believe the better educated our customers are on the systems we install as a part of our projects, the better results the overall program will produce. As a part of the partnership we will provide training on all new technologies to the City of Gautier staff. With the current technical staff in place at City of Gautier, once training is done following the construction project, City of Gautier should be able to service all components of the new systems.

2.3 Project Commissioning

Please describe your firm's approach to equipment commissioning.

The McNeil Rhoads Project Commissioning Best Practice is designed to establish minimum guidelines for the process of commissioning all of our installed projects. It also includes guidelines for implementing customer training, and to gain customer acceptance of our installed solutions when the job is complete. At McNeil Rhoads our goal the day we are awarded the job is to gain customer acceptance of our work at its completion.

2.4 Construction Planning

Please describe your firm's proposed approach to scheduling and completion of work required to implement a energy services contract in the City of Gautier's facility(s).

Effective management of construction and project implementation is a critical component to the success of Performance Contracting in public institutions. To McNeil Rhoads, this is a straightforward process of assembling the correct team and resources to execute the project on-time and on-budget. As contractors, we understand the essentials of teamwork and coordination by all parties concerned. We are prepared to do as much of the work during off-hours as required in order to minimize the disruption to the City of Gautier. In all cases, there will be a McNeil Rhoads project manager overseeing all aspects of the



project for the duration through commissioning. McNeil Rhoads has a remarkable track record of proven performance throughout the Southeast. Our District is staffed with full-time Project Managers, capable of managing multi-million dollar projects.

Managing a project of this scale and complexity fits well within the scope of the Teams capabilities. Our experience has taught us that the long-term success of any project or relationship requires dedication to the quality process as a first priority. All McNeil Rhoads projects, large or small, receive the same level of commitment to quality and customer satisfaction. The benefits of this commitment enable us to provide quality systems and services at the lowest possible cost.

Outlined below are the steps the Team will follow during this project to maintain the level of productivity with a detailed description following:

A. Pre-Construction Phase Process

- Step 1. Conduct a partnering session with the City
- Step 2. Obtain the City's basic data and background info
- Step 3. Energy/Utilities System Audit and Analysis
- Step 4. Create Design alternatives and constructability
- Step 5. Develop preferred design and price
- Step 6. Complete preliminary project development guidelines
- Step 7. Review design / constructability"

B. Analytical Phase

- Step 8. Coordinate Project scheduling
- Step 9. Perform Hazardous substances review
- Step 10. Organize pre-construction streamlining
- Step 11. Conduct staff education and training

C. Construction Phase

- Step 12. Procure project materials
- Step 13. Manage project construction Phase
- Step 14. Commissioning and Startup of projects

A. Pre-Construction Phase Process

Step 1: Conduct a Partnering Session with the City

Objective:

To develop a set of common goals and objectives in agreement with the City's strategic master plan, review objectives for the outcome of the project, and establish improvement measurements and communication plans. This process will begin to fine-tune the partnership between the City and our Team. We recommend that this be accomplished by conducting one or more team-building meetings.

Activities:

In a workshop setting, we will define and establish the mutual goals and objectives for the project. Roles will be determined. Issues will be addressed and assignments made for resolution. A preliminary project development schedule including review meetings will be created.

Roles and Responsibilities:

To collect and publish information which identifies needs, concerns, and commitments made by the teams. This will be distributed to all attendees. The Account Manager will be responsible for using the results as a guide to meet the needs of the project.



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Step 2: Obtain the City's Basic Data and Background Information**Objective:**

To obtain the basic data and background information such as unique issues and special requirements, space and supporting requirements, existing site and facilities studies, design parameters, utility consumption, environmental systems, etc.

Activities:

- Determine system operation schedule to ensure that no system interruptions occur during construction and tie-in Phases
- Identify requirements
- Identify current electrical systems' design and operation
- Discuss master plan and other future issues
- Establish the energy consumption data
- Survey existing conditions
- Locate existing points of connection
- Review project-wide systems and operations
- Gather as-built information so that a clear understanding of process systems and energy retrofit requirements are obtained
- Obtain all code and permit requirements
- Obtain additional information related to the energy providers and potential rebates available for specific retrofits
- Meet with the City's staff to obtain additional data, as required
- Obtain and review site utility drawings, and electrical distribution information
- Review current energy management strategies

Roles and Responsibilities:

The designated Energy and Design Engineers will lead this task

Step 3: Energy/Utilities Systems Audit And Analysis**Objective:**

To build the energy analysis model for use with the design criteria, and to investigate and develop the energy efficiency plan.



Activities:

- Use historical energy usage data to develop a modeling tool
- Utilize a third-party engineering company to review the energy audits, if required
- Utilize actual utility bill schedules to determine cost implications
- Compare and calibrate analysis against actual utility billing information for both energy and cost
- Begin to implement the continuous improvement process that includes building an energy baseline using optimum performance recommendations, existing environmental systems conditions, and documented existing problems

Roles and Responsibilities:

The Energy Engineer will be responsible for the creation and calibration of the energy model. The M&V Manager will coordinate the development of the electrical systems model, as required.

Step 4: Design Review and Constructability Development**Objective:**

The objective of this step is to provide initial review of the detailed design and develop alternatives, if needed, in conjunction with all of the project's stakeholders.

Activities:

- In a workshop setting, discuss design and recommendations and identify all reasonable alternatives. Establish screening criteria which can be used to identify alternatives that should be developed in further detail
- Conduct energy modeling to establish the "best total solution" for systems integration and energy savings
- Evaluate alternatives and identify the preferred alternative

Roles and Responsibilities:

The Team will assist with energy modeling, development, direction, and oversight of alternatives.

Step 5: Develop Preferred Design and Price**Objective:**

To develop the preferred alternative to a level of detail that clearly establishes a fixed price based upon a mutually agreed-upon economic impact.

Activities:

Develop project design criteria including size of equipment and energy efficiency parameters

Prepare layout drawings identifying major equipment and structural elements

Using the above information, establish preliminary cost estimate. Prepare capital and annual cost estimates, each of which will be used to support the project's economic requirements.

Prepare a detailed project schedule

Review the product as a quality control step

Roles and Responsibilities:

All of the design team members will be required to participate, including discipline leaders such as structural, architectural, electrical, and instrumentation. The Energy Engineer and the City's team members will review the preferred alternative.



Step 6: Complete Preliminary Project Development Guidelines**Objective:**

To prepare the project management and execution plan per the City's requirements. Participate with the City in presenting the project to the reviewing committee or team members.

Activities:

Prepare the report in accordance with project development guidelines. Since the team has previously developed similar reports, this effort will be streamlined. Work with the City in preparing information required to present the project development guide.

Roles and Responsibilities:

The Energy Engineer will present the final guide. The Account Executive will conduct the Report review and project development presentation.

Step 7: Review Design / Constructability

Since many of the activities are similar, design is shown as one task. It is understood that the City will follow normal engineering design development and construction documents process with preliminary engineering, Technical Review Committee and Final Design.

Objective:

To prepare the required design information to meet the City's requirements for each step.

Activities:

Prepare and submit final facilities project development guide for the City review and approval. Prepare revised guaranteed net economic impact to reflect the improved level of detail. The Team will then develop a guaranteed price contract and a guaranteed level of savings for the project. In addition, the Team will provide the additional information required to develop a contract for performance solutions or design-build services.

Prepare design and construction documents. It is expected that detailed design criteria, equipment sizing, and layouts will be prepared. Structural, architectural, and electrical design will be developed. The results of the design development will be presented, including the net economic impact of benefits to the City. Review with client staff the recommended equipment for approval to ensure that equipment standards are met or exceeded.

Roles and Responsibilities:

All key team members will participate in these tasks. Local and national representatives of our team will participate in design reviews and quality control checks, which will follow established guidelines.

B. Analytical Phase

Critical paths, constraints, opportunities and problems are identified. New criteria are developed. This data illustrates the sequence of activities and activity interdependency. The project planning software has the ability to smooth constraints, but the Project Team provides the final solution.

Measurable Achievement Sets

The Project Manager now leads the team to complete the network diagram that begins and ends within the planned dates. The final step is to review the project schedule and plan for possible points of optimization. The completed diagram becomes a baseline schedule. This methodology provides an achievement-based schedule and plan, versus a strictly activity-based schedule. The schedule's viability and success have a high probability factor since all stakeholders are involved in the development, and there are clear and measurable achievement sets.



Financial Profiles

Task values are another dimension we add to the schedule that will be earned as work is completed. This integrates a quantitative basis for measured work achievements in terms of dollars. The scheduling tool then calculates the dollar value of milestones and deliverables through a roll-up function. Our simplified approach assigns a general ledger value to each task, and selects three or four increments of measurement for percent-complete assignments. The tasks not only produce time-schedule phasing of work activity, but also a time-Phase financial profile.

Step 8: Coordinate Project Scheduling**Objective:**

Project scheduling and staffing is a significant part of the design process and is a team-based activity. "The Project Team" consists of the City representatives, our Team's Operations Manager, Project Manager, architects, and major subcontractors.

Our approach is focused on defining achievements versus tasks; "the ends, not the means". The project schedule is a sequence of achievements defined as milestones and assigned project resources.

Activities:

The team reviews the project charter (the business need for which the project was established, addressing the scope of work, constraints, assumptions, and to what criteria the project success will be measured).

The team selects the key milestone achievements that provide clear progress steps to meet all the agreed upon objectives.

For each milestone, a set of deliverables is defined. When all deliverables are completed, the milestone is achieved. The responsibility for each deliverable is assigned to a project team member. The required work to achieve each deliverable is identified as a task and assigned the appropriate resources. A task consists of a budget, duration of time and resources to do the work.

The project is organized in a hierarchical tier of milestones, deliverables and tasks. This data is entered into Microsoft Project with a planned project start and completion date. The necessary order of the predecessors and interdependency of the task work activities is determined. The necessary order of predecessors and successors are mapped in the schedule. With the project start and end dates by Phase, and the task duration and interdependency, we approach the analytical Phase of the schedule.

Roles and Responsibilities:

Roles and responsibilities will be determined by the project scope and the impact to each discipline. In this step, the resources accept their roles and responsibilities by defining the deliverables and tasks required, which will achieve the City's goals.

Step 9: Perform Hazardous Substances Review

The Team will work with the City to identify any hazardous substances and to facilitate the abatement process. Before any work begins, professional scientists and engineers in hazardous substances management will consult with the team and the City, review previous reports, survey the areas where the work is to be performed, and present a formal report as to site conditions, as required.

Step 10: Organize Pre-Construction Streamlining

McNeil Rhoads recognizes the need to identify and utilize every opportunity to streamline this project and capitalize on opportunities in the project schedule. This is essential to seamless installation of equipment in occupied facilities and also aids in efforts to reduce cost. Parameters for construction streamlining are determined in consultation with the owner and subcontractors and incorporated into the project plan.



Step 11: Conduct Staff Education And Training

An education program must be site-specific and people-specific, and created at the same time the technical scope-of-work for each new project is developed. The team's training program is detailed in Tab 6 of this proposal.

The Staff Education Program objective is to:

- Raise awareness of how energy is used and how it can be controlled
- Inform participants of the technical aspects of the program that will directly affect them and explain the benefits of the program and new technologies
- Demonstrate how the measures implemented will result in reduced consumption
- Keep participants informed at all stages of implementation

C. Construction Phase Process

Central to our Team's approach to the management of this project is a comprehensive project construction plan implemented by experienced construction personnel. The reputation of our Team is based on the quality of the work performed by our suppliers (i.e., subcontractors and vendors). We have established rigorous supplier management guidelines to ensure that project requirements are satisfied and that project installation proceeds in an orderly manner.

Step 12: Procure Project Materials**Objective:**

To solicit, evaluate, negotiate and provide purchase order preparation for equipment, materials and construction contracts.

Activities:

- Review, with the City, the proposed equipment manufacturer selections
- Coordinate purchase milestones with the construction schedule so that long lead-time items are ordered in a timely manner
- Solicit and evaluate proposals from qualified manufacturers and select appropriate suppliers
- Solicit proposals from pre-qualified subcontractors for various disciplines, review and evaluate proposals with the City team, and select the most advantageous proposal
- Once complete, the evaluations are merged into an evaluation report to the City for final authorization

Step 13: Manage Project Construction Phase**Objective:**

To provide key management/supervisory positions at the work site to coordinate, schedule, monitor, and report the work of subcontractors throughout this Phase.

Activities:

- Conduct construction-partnering sessions, as required, for all personnel involved in the construction of the project
- Lead the Quality Control Team
- Implement safety program
- Manage subcontractors
- Review submittals from subcontractors and suppliers
- Prepare supplemental drawings to respond to actual/changed field conditions
- Provide qualified inspectors, to include structural, architectural, mechanical, and electrical instrumentation
- Prepare as-built drawings

