temperature and pressure set points and trends, flow measurements, and other dynamic information are usually available through these systems.

Indoor Air Quality Logging - CO2 monitoring devices are sometimes used as an indicator of existing indoor air quality levels.

Ultrasonic Meters - McNeil Rhoads has available ultrasound meters for use in determining flow rates of hydronic equipment. This equipment is often used to detect leaks in systems or diagnosing the operation of steam traps by measuring make-up water supplied to boiler system(s).

Flow Measurement - McNeil Rhoads has available air and water flow measuring equipment, which supports our balancing activities. Alnor manufactures the air and water measuring equipment. All tools are calibrated at regular intervals and are certified to meet NITS standards.

Remote Monitoring Station - McNeil Rhoads has staff dedicated to site information gathering, performance assurance, and commissioning of projects. Our remote monitoring capabilities allow us to dial directly into many Building Automation Systems to collect necessary data.

Vendors –McNeil Rhoads always involve our clients in decisions regarding products, vendors, sub-contractors and consultants, and recommend the most logical and cost effective manner to make selections. Many factors are taken into consideration when making recommendations, such as the existing system locations, client preferences for products or vendors, standardization and consistency of products, maintenance of equipment, ease of use, life of equipment, and prior experience with vendors. Where the lack of any existing benchmark is in place for selection, we will make recommendations based on our vast experience with products and vendors, the type of application it will be used for, equipment lifecycle cost analysis and the other factors listed above. However, the final decision of products and vendors will always be our clients.

Provision Of Warranties - McNeil Rhoads uses the following points as the minimum of the nature and terms of all warranties:

McNeil Rhoads guarantees its installation and workmanship for 1 year against latent defects. Equipment typically carries the manufacturer's warranties for 1 year all the way up to 20 years depending not the type of equipment. Arrangement for extended warranties can be accommodated upon request.

Sustainability–McNeil Rhoads is committed to sustainable design and construction. We believe in developing and executing a comprehensive waste management plan, and seek to minimize the waste stream from projects whenever feasible. Our waste management plan not only considers the existing materials that need to be removed from the jobsite, but also the construction methods and materials that will be used for any new work being installed. The following paragraphs describe the various components we take into consideration throughout the duration of the project.

Identification of Materials for Removal - The majority of all energy projects focus on the renovation or replacement of existing energy-consuming systems such as lights, boilers, chillers, ventilation systems, and other equipment as well as the replacement of water meters. Due to the nature of the projects, much of the existing materials need to be removed as part of the project. Prior to beginning any project, McNeil Rhoads identifies all of the material to be removed, the disposal method, and the handling procedure. For any materials the client chooses to retain and salvage, a list will be provided to McNeil Rhoads prior to construction to ensure we take particular care is taken with these items and a location is identified for us to drop off these items.

SECTION 3

Site Specific

2. Site Specific

2.1 Technical Site Analysis

Based on your preliminary assessment of the City of Gautier's facilities and information provided, please describe any equipment modifications, installations or replacements at the facilities that your company would consider installing as a part of this project. Please discuss site conditions, status of building systems, and needs of the City of Gautier.

The focus of this section is to identify possible savings opportunities that are available to the City of Gautier. The preliminary audit report consists of an examination of the various Facilities Improvement Measures (FIM's) that we believe are worth investigating further during the detailed audit stage.

Below is a brief description of each facility improvement measure. If the city decides to move forward in this process, McNeil Rhoads will evaluate the cost and savings associated with each opportunity to determine which improvements's will be included in the project. This decision is based on:

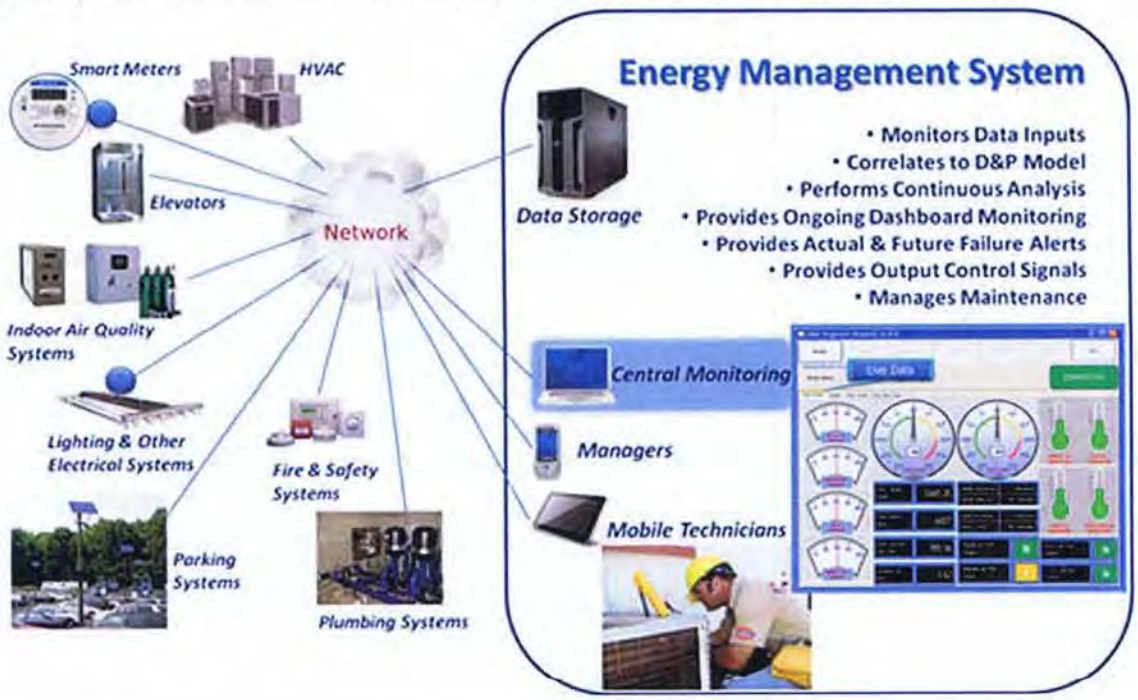
- Positive impact city operations
- Simple payback.
- Contribution toward avoided future capital costs.
- Achievement of identified facility operational goals.
- Ability to implement each FIM with least invasive impact on citizen

Site Specific Potential Facility Improvement Measures

During the site visits the following potential FIM's were identified:

FIM #1 - Lighting (City Wide)

This FIM will provide an enhanced working environment in the buildings. This will be accomplished by replacing all of the T12 incandescent fixtures with new 3rd generation T-8 fixtures. Lighting design will meet or exceed IES Standards of 50-foot candles. All of the work to be performed will comply with all current federal and local codes. Savings are based primarily on retrofitting high wattage lamps and ballasts with low wattage lamps and ballasts. Minimum savings are based on a decrease in run time hours.



FIM #2 - Energy Management Control System (City Wide)

This FIM provides energy cost savings by installing a direct-digital HVAC automation system that will operate HVAC equipment based on building operation schedules at eight all sites with full temperature control. The savings generated are found in two areas. The first being a reduction of runtime in the equipment which will reduce the utility load of the district by turning the equipment off and regulating the temperatures. The second savings is operational. Once the system is installed the equipment will not have the run hours as compared to the base study which will further the life the equipment. It will also assist the HVAC personnel in off site troubleshooting of the equipment.

FIM #3 - Mechanical Upgrades

Some mechanical upgrades were found to be needed as apart of the project. These upgrades are due to inefficiencies in the existing infrastructure, frequency of failures, and indoor air quality and comfort issues. These issues will be addressed based on the savings produced from other improvement measures

FIM #4 – Water Meter Replacements

The city currently has major issues on accuracy and readability of its current meter infrastructure. As a part of the project, McNeil Rhoads will retrofit the gas and water meters to be on an Automated Meter Infrastructure. This will allow from picking up the revenues that are currently being lost and reduce the operating cost by eliminating the need for monthly meter reading.

FIM #5 – Traffic Lights

One of the quickest payback items in any city is retrofitting the traffic lights from Incandescent technology to LED. During the development, McNeil Rhoads will survey all traffic lights within the city and recommend replacing all older technology to new LED lighting.

FIM #6 – Energy Policy

In order to maximize the energy savings within the City of Gautier, McNeil Rhoads will work with the City of Gautier Operations Team to develop an energy policy to be adopted by the board. This policy will outline operational strategies, temperature set points, summer program scheduling, and other policies to maximize the savings available to City of Gautier

FIM #7 – Staff Education

With any energy project, behavioral change has a major impact on the long term effectiveness of the program. During the installation phase of the program, McNeil Rhoads will coordinate with City of Gautier Operations Team to conduct training seminars with the staff on the FIM's implemented and ways they can get involved to benefit the program.

FIM #8 – Green Globes Certification

With the major energy retrofits being performed in this project, many of the buildings will be eligible to receive the Green Globes Certification. This is a 3rd party certification administered by the Green Building Initiative and recognizes the top performing buildings in the country on the basis of energy conservation and policy. McNeil Rhoads will perform an analysis once selected for this project and recommend a list of buildings to seek certification during the implementation stage.

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 apart 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.