RESOLUTION 2011 - 354

RESOLUTION BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA AUTHORIZING THE COUNTY ADMINISTRATOR OR HIS DESIGNEE TO APPROVE THE TERMS AND CONDITIONS AND EXECUTE THE GUARANTEED ENERGY PERFORMANCE SAVINGS CONTRACT WITH TRANE U.S. INC.

WHEREAS, on November 1, 2011, pursuant to Resolution No. 2011-319, the Board of County Commissioners (the "Board") of St. Johns County, Florida (the "County"), authorized the County Administrator or his designee to the negotiate and enter into a guaranteed energy performance savings contract with Trane U.S. Inc. (the "Trane Contract") and pursue third-party financing in order to fund the energy-savings improvements identified within the County's investment grade energy audit; and

WHEREAS, Florida Statute 489.145 entitled "Guaranteed Energy, Water, and Wastewater Performance Savings Contracting" provides language related to the pursuit of Guaranteed Energy Performance Savings Contracts to achieve energy conservation cost savings; and

WHEREAS, on October 19, 2010 the Board authorized Trane, a guaranteed performance savings contractor, to proceed with an investment grade energy audit on County/County-maintained properties; and

WHEREAS, Trane's investment grade energy audit has identified County/County-maintained properties for energy-savings improvements that meet the energy savings requirements of Florida Statute 489.145 to qualify for Guaranteed Energy Performance Savings Contracting; and

WHEREAS, the Board authorized Resolution 98-205 on November 10, 1998 supporting improvements related to a lease agreement on the Ketterlinus Gym building (the single facility identified by Trane's investment grade energy audit that is not a County asset but is County-maintained) dated January 11, 1994 between the Board and the St. Johns County School District (the School District) for a period of twenty years; and

WHEREAS, it is the intent of the County to renew the lease agreement with the School District on the Ketterlinus Gym building for a term of at least 15 years, the financing term proposed for the Energy Performance Savings Contracting; and

WHEREAS, the Board authorized Resolution 2010-272 on December 7, 2010 receiving a Florida Energy and Climate Commission Clean Energy Grant in the amount of $394,000 which will supplement the total cost of the energy savings improvements.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, AS FOLLOWS:

Section 1. Incorporation of Recitals.

The above Recitals are hereby incorporated into the body of this Resolution, and are adopted as Findings of Fact.

Section 2. Authority to Approve.

The Board of County Commissioners hereby authorizes the County Administrator or his designee to approve the terms and conditions and execute the Guaranteed Energy Performance Savings Contract with Trane U.S. Inc. for staff-identified energy efficiency improvements to County properties.

Section 3. Correction of Errors.
To the extent that there are typographical, administrative or scrivener's errors that to do not change the tone, tenor or concept of this Resolution, then this Resolution may be revised without further action by the Board of County Commissioners.

Section 4. Effective Date.
This Resolution shall be effective upon its execution.

PASSED AND ADOPTED by the Board of County Commissioners of St. Johns County, State of Florida, and this 6th day of December 2011.

BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA

By: _____
Mark P. Miner, Chairman

ATTEST: CHERYL STRICKLAND, CLERK

By: _____
Deputy Clerk

GUARANTEED ENERGY PERFORMANCE SAVINGS CONTRACT

By and Between

Trane U.S. Inc.

And

St. Johns County, Florida

11-21-11

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GUARANTEED ENERGY PERFORMANCE SAVINGS CONTRACT

This Guaranteed Energy Performance Savings Contract ("Contract") is made and entered into as of the day last executed below in the County of St. Johns, State of Florida, by and between guaranteed energy performance savings Company, Trane U.S. Inc. ("Company"), having offices located at 8929 Western Way, Jacksonville, Florida 32256 and St. Johns County, a political subdivision of the State of Florida, ("Agency") with its principal offices at 500 San Sebastian View, St. Augustine, Florida 32084 for the purpose of installing certain energy saving equipment, and providing other services designed to save energy for the Agency's property and buildings.

RECITALS

WHEREAS, Agency owns and/or operates certain properties and buildings ("Facilities"), and is in need of energy saving equipment and services designed to save energy and associated energy costs at its property and buildings the Facilities and requires that the operating cost savings of such energy saving equipment and services will meet or exceed the costs of energy conservation measures; and

WHEREAS, Company has developed or become knowledgeable about certain procedures for controlling energy consumption through the use of technical energy audits and engineering analyses and devices, installed and maintained at the Facilities, and has stated it will guarantee to Agency that it will install energy saving equipment for an annual calculated and stipulated savings that will meet or exceed total annual contract payments; and

WHEREAS, Company has made an assessment of the energy consumption characteristics of the Facilities and pre-existing Equipment described in Schedule B, attached hereto and incorporated herein by this reference; and

WHEREAS, Agency desires to retain Company to purchase, install and service certain energy efficiency equipment of the type or class described in Schedule A, attached hereto and incorporated herein by this reference, and to provide other services for the purpose of achieving energy cost reductions within the Facilities, as more fully set forth herein; and

WHEREAS, Agency is authorized under the laws of the State of Florida to enter into this Contract for the purposes set forth herein.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, and intending to be legally bound hereby, Agency and Company hereto covenant and agree as follows:

SECTION 1. DEFINITIONS.

Section 1.1. Definitions. The following terms have the meanings specified below unless the context clearly requires otherwise:

"Agency" means St. Johns County, a political subdivision of the State of Florida.

"Annual Reconciliation" means a determination pursuant to Section 4 of this Contract, as to whether a shortfall in annual energy cost savings or an excess in annual energy cost savings exists based on the provisions of Company's written energy savings guarantee reflected in Schedule C (Energy Savings Guarantee) with savings calculated according to Schedule F (Savings Calculation Formula).

"Annual Excess Savings" means, pursuant to section 489.145 (3)(d)(2), Florida Statutes, the amount of any actual annual savings that exceed total annual contract payments made by the Agency for the Contract for such calendar year.

"Baseline Energy Consumption" means the Agency's Baseline Energy Consumption reflected on Schedule E, which shall include energy consumption for each month of the calendar year proceeding the initial contract year.

"Company" means Trane U.S. Inc.

"Commencement Date" means date of receipt by Company of Agency's Certificate of Substantial Completion as set forth in Exhibit II (i) to Company under this Contract.

"Energy Conservation Measure" or "ECM" means the measures actually being undertaken by the Company under this Contract, more specifically delineated in Exhibits A, I and/or K, and can include, but is not limited to any other items listed in section 489.145 (3) (b), Florida Statutes.

"Energy Cost Savings" means a measured reduction in the cost of fuel, and energy consumption, and stipulated operation and maintenance costs, if applicable, created from the implementation of the Energy Conservation Measures when compared with an established baseline for the previous cost of fuel, and energy consumption, and stipulated operation and maintenance costs, pursuant to section 489.145 (3) (c), Florida Statutes.

"Equipment" means all items of property described in the Schedule of Equipment to be Installed (Schedule A) and any other items of property pursuant to section 489.145 (3) (b), Florida Statutes.

"Facilities" means the Facilities as described in the first paragraph of this Contract and reflected on Schedule B.

"Fiscal Year" means the financial accounting period beginning on October 1 of the current calendar year and ending on September 30 of the following calendar year.

"Guarantee" means the Company's Energy Use Savings Guarantee reflected on Schedule C, whereby the Company guarantees that the calculated value of Energy Cost Savings will meet or exceed the contract price (set forth in Section 4.3), amortized using an interest rate of no more than 2.97% per annum over a fifteen (15) year period beginning with the Commencement Date .

"Interim Period" means the period from contract execution until the Commencement Date. (See Section 3.1 of this Contract)

"Legally Available Funds" means funds duly appropriated or otherwise legally available for the purpose of making payments under this Contract.

"Non-Appropriation" means the failure of an appropriation or availability of the Governing body of Agency or the Legislature to appropriate money for any Fiscal Year sufficient for the continued performance by Agency of all of Agency's obligations under this Contract as evidenced by the passage of a final budget which does not include funding sufficient to pay all payments due.

"Parties" means both the Agency and the Company collectively.

"Savings Calculation Formula" means the Company's Savings Calculation Formula reflected on Schedule F.

"Technical Energy Audit" means, pursuant to section 489.145(4)(b), Florida Statutes, and a report attached as Appendix C hereto and incorporated herein, that summarizes the costs associated with of the Energy Conservation Measures and provides an estimate of the amount of the Energy Cost Savings.

"Term" means the duration of this Contract as set forth in Section 3.2 of this Contract.

SECTION 2. INCORPORATION

Section 2.1. Schedules, Exhibits and Appendices. Company has prepared and Agency has approved and accepted the Schedules as set forth below, copies of which are attached hereto and incorporated herein by this reference.

Schedules

Schedule A	Equipment to be Installed by Company
Schedule B	Description of Facilities; Pre-Existing Equipment Inventory
Schedule C	Energy Savings Guarantee
Schedule D	Compensation to Company (Payment Schedule)
Schedule E	Baseline Energy Consumption
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Schedule G	Construction and Installation Schedule
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Schedule I	Company's Maintenance Responsibilities
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Exhibits

Exhibit I Construction Bond - (Provided Upon Contract Execution)

Exhibit II (i) Certificate of Substantial Completion
Exhibit II (ii) Certificate of Final Completion
Exhibit III (i) Grant Work Plan - Attach A Work Plan with Amendment
Exhibit III (ii) Federal (Grant) Regulations - Federal Attachment E from the Agency's Clean Energy Grant Documents)
Exhibit III (iii) Federal Funding Grantee, Subgrantee, and Contractor Provisions (Attachment F from the Agency's Clean Energy Grant Documents)
Exhibit IV Notice to Proceed

SECTION 3. COMMENCEMENT DATE AND TERMS; INTERIM PERIOD

Section 3.1. Commencement Date. Commencement Date shall be the first day of the month after the month in which Company shall have delivered a notice to Agency that it has installed and commenced operating all of the Equipment; and Agency has inspected and accepted said installation and operation as evidenced by the Certificate of Final Completion as set forth in Exhibit II (ii). Agency's obligation begins to accrue for service and maintenance under this Contract as set forth in Schedule D (Compensation to Company) on the Commencement Date pursuant to Schedule D.

Section 3.2. Term of Contract; Interim Period. Subject to the following sentence, the term of this Contract shall be one year, automatically renewable yearly for 15 years measured beginning with the Commencement Date (Term). Nonetheless, the Contract shall be effective and binding upon the parties immediately upon its execution, and the period from Contract execution until the Commencement Date shall be known as the "Interim Period". Savings calculations begin upon Agency acceptance, as evidenced by delivery of Exhibit II(ii). Savings during the Interim Period will be included in the initial savings calculations under Schedule F.

SECTION 4. PAYMENTS TO COMPANY

Section 4.1. Energy Savings Guarantee. Company has formulated and provided a written Guarantee that the Energy Cost Savings will meet or exceed the costs of the Energy Conservation Measures pursuant to Section 489.145(4)(c), Florida Statutes, and that the amount of the Energy Use Savings meet or exceed total annual contract payments made by the Agency for the contract pursuant to Section 489.145(3)(d)(2), Florida Statutes. The Guarantee is attached as Schedule C, providing the annual level of Energy Use Savings to be achieved as a result of the Energy Conservation Measures provided for in this Contract and in accordance with the Savings Calculation Formula as set forth in Schedule F, which is calculated in compliance with Florida law.

Section 4.2. Review and Reimbursement/Reconciliation.

Section 4.2.1 Review and Reimbursement/Reconciliation.
Pursuant to section 489.145(5)(e), Florida Statutes, the Company is required to provide to the Agency an annual reconciliation of the guaranteed energy cost savings. Within ninety (90) days after the end of each Guarantee Year, Company will deliver to the Agency's Contract Manager, identified in Section 22.9 of this Contract, a reconciliation report for such year, reflecting the

amount guaranteed and the amount of actual Energy Cost Savings achieved. Upon delivery of the report and all supporting documentation, Agency will have thirty (30) days to accept or reject this yearly reconciliation. Agency shall provide written notice of such rejection, within the stated acceptance period, specifying the basis of the deficiency. Company shall have twenty (20) business days to cure such deficiency and deliver to the Agency a corrected yearly reconciliation. A Monitoring and Verification plan shall be jointly constructed using the Federal Energy Management Program's (FEMP) *M&V Guidelines: Measurement and Verification for Federal Energy Management Projects version 2.2.* This plan shall be to determine whether annual savings have been recognized. If the Agency fails to reject any yearly reconciliation (including corrected reconciliations) within 30 business days of receipt of all required documentation, Agency shall be deemed to have accepted the reconciliation as of the final day of the 30th business days unless a longer acceptance period is mutually agreed upon in writing.

Section 4.2.2 Annual Reconciliation. If the Annual Reconciliation reveals a shortfall in annual Energy Use Savings, the Company is liable for such shortfall, and shall pay to the Agency the amount by which the Agency's actual energy savings are less than the guaranteed Energy Use Savings set forth in Schedule C. The Company shall remit such payments to the Agency within sixty (60) days of written notice by the Agency of such monies due.

Section 4.3. Company Compensation and Fees. As payment for Equipment to be installed by Company under this Contract, the Agency shall pay or cause to be paid to Company the sum of Four Million Fifty-One Thousand Eight Hundred Dollars ($4,051,800) in the increments as set forth in Schedule D (Deliverables and Compensation to Company), if applicable ("Payments"). This sum does not include the cost to Agency of Maintenance (monitoring and verification) to be furnished by Company pursuant to Schedule D.

Section 4.4. Annual Excess Savings. Annual Excess Savings shall be applied 100% to the account of the Agency.

Section 4.5. Agency Payments. Agency agrees to payments as set forth in Schedule D (Compensation to Company). In the event Agency fails to make payment within forty (40) days of the applicable due date, Agency shall pay any interest at a rate of one percent (1%) per month.

Section 4.6 Financing and Notice To Proceed. The Agency will have a separate Financing Agreement with a third party, which constitutes the Agency's source of funding for its obligations under the Contract. Company shall not perform, nor be required to perform, any of the Equipment installation until and unless Agency has closed on its financing of this Contract (the "Financing Closing"), as evidenced by fully executed contract documents for financing of the Project and funding of any escrow account provided for by the financing documents. Agency will achieve Financing Closing on or before December 8, 2011 or such later date agreed to in writing by Company. Within five calendar days of the Financing Closing, Agency shall execute and issue a written Notice to Proceed (Exhibit IV) to Trane, upon which event Trane will commence performance of the Equipment installation hereunder. In the event Agency does not achieve Financing Closing on or before the date specified in the preceding sentence, or such later date agreed to in writing by Company, Company may terminate this Contract upon fourteen (14) calendar days prior written notice to Agency. Upon a termination of this Contract, neither party

shall have any further obligations to the other party hereunder; provided, however, that, Agency shall be obligated to immediately compensate Company for the amount set forth in any Letter of Commitment, Detailed Audit Agreement, project development agreement, or comparable agreement between Agency and Company. Company shall not be liable for Agency's failure to issue the Notice to Proceed by a date that will enable Company to achieve such level of progress or completion such that Agency can receive its grant funding.

Section 4.7 Acceptance of Installed Equipment. When the Company considers the Equipment to be installed complete including all contractual requirements, the Company shall notify the Agency in writing and submit to the Agency a Certificate of Substantial Completion as set forth in Exhibit II (i). Within ten (10) business days from receipt of the Company's written notification, the Agency will make an inspection to determine whether the Equipment to be installed is complete. If the Agency determines the Equipment Group to be installed is not complete, the Agency will provide the Company with a specific list of all items that must be corrected or completed before the Agency would consider the Equipment to be installed complete. An executed Certificate of Substantial Completion as set forth in Exhibit II (i) or deficiency list will be provided to the Company within fifteen (15) business days from receipt of the Company's written notification. If the Company receives a deficiency list and once the Company has completed all items on the deficiency list, the Company can request a second inspection by the Agency to verify the Equipment to be Installed by Company is complete. Again the re-inspection shall occur within ten (10) business days and a written response within fifteen (15) business days. When the Equipment to be installed is considered completed, the Agency will provide the Company a Certificate of Substantial Completion as set forth in Exhibit II (i), which shall establish the Commencement Date.

The Parties intend that a Certificate of Substantial Completion will be executed as soon as the Equipment installation is complete and beneficial use is provided. It is anticipated and agreed, that the Agency may require use of some installed and completed equipment, prior to the date of completion. In such situations, the parties will conduct acceptance inspections and Certificates of Substantial Completion as described above, for that portion of the Equipment to be installed which is being operated and the Agency is receiving beneficial use. When so used and accepted, the maintenance and repair due to ordinary wear and tear caused by such used will be made at the expense of the Agency.

Upon Agency's receipt of written notice from Company that the work is ready for final inspection and acceptance, Agency and Company shall inspect the work and determine whether the same have been performed in accordance with this Contract. If Agency considers the work complete and performed in accordance with this Contract, Agency shall issue a Certificate of Final Completion, substantially in the form attached hereto as Exhibit II (ii), to be executed by the authorized Representative of Agency. In the event Company presents a Certificate of Final Completion to Agency for execution and, within ten (10) calendar days from the date noted in the Certificate as the date of such presentation, Agency fails to deliver an executed original of the Certificate to Company and does not provide to Company written objections to issuance of the Certificate, identifying the specific parts of the work the Agency believes have not been completed and providing specific facts in support of Agency's belief that the work has not been finally completed, the Date of Final Completion shall be the date noted in the Certificate as the

date the Certificate was submitted to Agency.

Section 4.8 Current Expense. Agency's obligation to make Payments hereunder constitutes a current obligation payable exclusively from Legally Available Funds and shall not be construed to be an indebtedness within the meaning of any applicable constitutional or statutory limitation or requirement. Neither Agency nor the State nor any political subdivision or agency thereof has pledged any of its full faith and credit or its taxing power to make any Payments under this Contract.

Section 4.9 Baseline Costs. Actual savings are measured against baseline costs, the expenses that the Agency would have incurred had this Contract not been implemented. Baseline costs are established as part of the measurement and verification methodology, which shall be based on the International Performance Measurement & Verification Protocol, published by the U.S Department of Energy and as revised March 2002. Details of the Monitoring and Verification plan are as agreed upon by the Company and Agency and documented in the Technical Energy Audit and/or Schedule F.

SECTION 5. FISCAL FUNDING

Section 5.1. Termination.

(a) Termination.

(i) In the event of Non-Appropriation, this Contract shall terminate. Company may effect such termination by giving the Agency a written notice of termination at which time Agency shall pay to Company any payments ("Payments") and other amounts that are due and have not been paid at or before the end of its then current Fiscal Year with respect to this Contract. Agency shall endeavor to give reasonable notice of such termination prior to the end of the Fiscal Year for which appropriations were made, and shall notify Company of any anticipated termination upon its determination thereof. In the event of termination of this Contract as provided in this Section, Agency shall comply with Section 5.1(b) of this Contract.

(ii) This Contract is subject to termination upon the occurrence of an event of default, as provided in Section 17 hereof.

(b) Intent To Continue Term; Appropriations.

(i) Agency intends to continue this Contract hereunder for its entire Term and to pay all Payments relating thereto. The Agency agrees to direct the person within such Agency in charge of preparing the Agency's budget to include in the budget request for each Fiscal Year the Payments becoming due in such Fiscal Year. The parties acknowledge that appropriation for Payment is a governmental function that the Agency cannot contractually commit the governing body of Agency to perform and this Contract does not constitute such a commitment. However, the Agency reasonably believes that money in an amount sufficient to make all Payments can and will lawfully be appropriated and made available to permit continued utilization of the

Equipment in the performance of its essential functions during the applicable Terms.

(ii) Agency is agency political subdivision of the State and Agency's performance and obligation to pay under this Contract is contingent upon an annual appropriation. Agency, as a political subdivision of the State, is subject to the appropriation of funds by the governing body of the Agency in an amount sufficient to allow continuation of its performance in accordance with the terms and conditions of this Contract for each and every Fiscal Year following the Fiscal Year in which this Contract is in effect. Agency shall, upon receipt of notice that sufficient funds are not available to continue its full and faithful performance under this Contract, provide prompt written notice to Company of such event and upon the expiration of the period of time for which funds were appropriated be thereafter released of all further obligations in any way related to such Equipment. Agency agrees to include in its appropriation request each year of this Contract a request for an appropriation to fund this Contract and any applicable Equipment provided in Schedule D.

(iii) In the event that the appropriations has not been adopted by the governing body of the Agency prior to the expiration of a Fiscal Year, and no declaration of an intent not to appropriate has been made by the Agency, the Term of this Contract will be deemed renewed pending the enactment of such appropriations act. If any Payments are due under this Contract during such period, such Terms will be so extended only if: (a) an interim or emergency budget implemented by the governing body of the Agency pending enactment of a final budget makes available to the Agency money that may legally be used to make Payments during such period; or (b) sums are otherwise available to make such Payments.

(c) Effect of Termination for Non-Appropriation. Upon termination of this Contract for Non-Appropriation as provided in this Section, Agency shall not be responsible for the payment of any additional Payments coming due in succeeding Fiscal Years, but if Agency has not complied with the instructions received from Company in accordance with Section 5.1(e), the termination shall nevertheless be effective, and Agency shall pay, on demand to Company, from Legally Available Funds, the unpaid balance of this Contract which is stipulated to be the aggregate of the Principal Balances as shown on Schedule D as of the last day of the Fiscal Year for which funds were appropriated.

(d) No Waiver of Sovereign Immunity. Nothing herein shall be construed as waiving the sovereign immunity of the State of Florida or any agency or political subdivision or instrumentality thereof.

(e) In the event of termination of this Contract as provided in this Section, Agency shall comply with the following:

(i) Company may by written notice to Agency, and, if Agency is a State Agency, also to the Chief Financial Officer (CFO), request that Agency, within thirty (30) days of such written notice, cause all Equipment that is subject to this Contract, such Equipment (together with all documents necessary to transfer legal and beneficial title thereto to Company) to be delivered to Company or Company's designee at a place in the State designated by Company. If Agency fails or refuses to voluntarily transfer such Equipment to Company as herein provided,

to the extent permitted by law, Company shall have the right to obtain a judgment against Agency from Legally Available Funds for compensatory damages in the amount of the then applicable Principal Balances as shown on the applicable Schedule D. If the Equipment or any portion of it has been destroyed or damaged beyond repair, Agency shall pay the applicable Principal Balance of the damaged or destroyed Equipment as set forth in the Equipment Schedule relating thereto to Company only to the extent not covered by insurance to be obtained by Agency.

(ii) Upon failure of Agency to voluntarily comply with Section 5.1(e)(i) of this Contract, Company shall have whatever rights and remedies are available at law, if any, against Agency's Legally Available Funds. Company and Agency agree that there is no intention to create under this Contract a right in Company to dispossess Agency involuntarily of the legal title to or the use of the Equipment. Company hereby irrevocably waives any right to specific performance of Agency's covenant to transfer legal title to and return possession of the Equipment to Company.

SECTION 6. SCOPE OF WORK

Section 6.1 Construction and Equipment

(a) Company shall install certain Equipment in Agency's Facilities. Construction and equipment installation shall proceed in accordance with the Construction Schedule attached hereto as Schedule G.

(b) Title and risk of loss or damage to all items shall be the responsibility of the Company until accepted by the Agency, unless loss or damage results from negligence by the Agency.

(c) Upon substantial completion, the Agency shall promptly execute a Certificate of Substantial Completion as set forth in Exhibit II (i), along with a punch-list of items necessary for final acceptance.

Section 6.2 Maintenance. Company shall be responsible for maintaining certain energy saving Equipment pursuant to Schedule I, Company's Maintenance Responsibilities.

Section 6.3 Records and Data

(a) Agency has furnished or shall furnish (or cause its energy suppliers to furnish) to Company, upon its request, all of its records and complete data concerning energy usage and energy-related maintenance for the Facilities described in Schedule B. During the Term of the Contract, Agency will provide Company copies of all energy bills related to the Facilities each month. Company shall calculate the amount of actual Energy Cost Savings achieved for use in determining the Annual Reconciliation pursuant to Section 4.2.2 of this Contract.

(b) Reports to be issued by Company to the Agency are more particularly delineated in Schedule D, Deliverables. At a minimum, following reports shall be provided on an annual basis:

(i) by Company: the Energy Cost Savings calculated in accordance with Schedule F, the Savings Calculation Formula

(ii) by Agency: copies of all energy bills related to the Facilities showing Agency energy usage

(c) Work in Progress. In the event this Contract is terminated for any reason, all finished or unfinished documents, data, studies, correspondence, reports and any other products prepared for the purpose of performing this Contract, shall be made available to, or delivered to, Agency for its use upon payment to Company of all amounts due hereunder.

SECTION 7. WARRANTIES AND LIABILITIES

Section 7.1 Workmanship and Equipment Warranty: Company covenants and agrees that all Equipment installed shall be new and in good and proper working condition. Company warrants that, for a period of one year from the date of Final Completion (the "Warranty Period"), Trane-manufactured equipment installed hereunder and the installation work included within the Services (i) shall be free from defects in material, manufacture, and workmanship and (ii) shall have the capacities and ratings set forth in Trane's catalogs and bulletins. Notwithstanding the foregoing, with respect to selected equipment to be identified in Exhibit II (Certificate of Substantial Completion and Final Acceptance), Company shall have the option of commencing the warranty period upon the later of (a) the date of initial startup of such selected equipment and (b) the initially scheduled date of Substantial Completion set forth in Section 1.02 of this Contract. For Trane-manufactured equipment not installed by Company the Warranty Period is the lesser of 12 months from initial start-up or 18 months from the date of shipment. Equipment and/or parts that are not manufactured by Trane are not warranted by Company and have such warranties as may be extended by the respective manufacturer. If such defect in Trane-manufactured equipment or the installation work is discovered within the Warranty Period, Company will correct the defect or furnish replacement equipment (or, at its option, parts therefor) and, if said Trane-manufactured equipment was installed pursuant hereto, labor associated with the replacement of parts or equipment not conforming to this warranty. No liability whatever shall attach to Company until said equipment and Services have been paid for in full and then said liability shall be limited to Company's cost to correct the defective equipment or work and/or the purchase price of the equipment shown to be defective. Company's warranties expressly exclude any remedy for damage or defect caused by corrosion, erosion, or deterioration, abuse, modifications or repairs not performed by Company, improper operation, or normal wear and tear under normal usage. Company shall not be obligated to pay for the cost of lost refrigerant.

The foregoing does not apply to Maintenance and the warranties for Maintenance are separately stated on Schedule I of this Contract.

The warranty and liability set forth in this section are in lieu of all other warranties and liabilities, whether in contract or in negligence, express or implied, in law or in fact, including implied warranties of merchantability and fitness for a particular use or fitness for a particular purpose. In no event shall Company be liable for any incidental, consequential (including without

limitation lost profits), or punitive damages. No representation or warranty of merchantability or fitness of purpose is made regarding prevention by the scope of services, or any component thereof, of mold, fungus, bacteria, microbial growth, or any other contaminates. Company specifically disclaims any liability if the Scope of services or any Equipment installed component thereof is used to prevent or inhibit the growth of such materials.

Section 7.2 Liability: Company shall defend, indemnify, and hold the Agency, , its officers, agents, and employees (the "Agency Parties") harmless against any and all claims, demands, actions, causes of action of whatever nature or character and damages, including personal injury and property damage to the extent caused by Company's negligent or wrongful acts or omissions. Company further agrees to indemnify, defend, and hold the Agency Parties harmless should any goods or services provided by Company infringe upon the United States patent, copyright or trade secret of another.

Section 7.3 Liability: Both parties recognize that, except to the extent permitted by section 768.28, Florida Statutes, the Agency, as a political subdivision of the State of Florida, is prohibited from entering into indemnification agreements. Company shall not be responsible for damages resulting from Agency's negligence.

Section 7.4. Limitation of Liability: Neither party shall be liable to the other for special, indirect, consequential or punitive damages, even if the party has been advised that such damages are possible. No party shall be liable for lost profits, lost revenue, or lost institutional operating savings. In no event shall Company be liable for any damages (whether direct or indirect) resulting from mold, fungus, bacteria, microbial growth, or other contaminates or airborne biological agents. Notwithstanding the foregoing, nothing in this section will be construed to impose any limitation prohibited by rule 6A-1.006(3), Florida Administrative Code.

SECTION 8. TRAINING BY COMPANY

The Company shall conduct the training program described in Schedule K hereto. The training specified in Schedule K must be completed prior to acceptance of the Equipment installation. The Company shall provide ongoing training incorporated into the Monitoring and Verification services with respect to Equipment updated or altered after final completion of the project. Such training shall be provided by Company at no additional cost or expense to Agency.

SECTION 9. PERMITS AND APPROVALS

Agency shall cooperate with Company in obtaining all necessary permits and approvals for installation of the Equipment. In no event shall Agency, however, be responsible for payment of any permit fees. The equipment and the installation of the equipment by Company shall at all times conform to all federal, state and local code requirements. Specifically, Company shall be required to secure, obtain/acquire, and maintain for the duration of the Interim Period, any, and all, federal, state and local permits, licenses, and approvals that are required for Company's performance of the scope of work set forth on Schedule A hereto.

SECTION 10. PERFORMANCE BY COMPANY

Company warrants that all work performed complies with customary, reasonable and prudent standards of care in accordance with standards in the industry, and shall be performed in a professional manner consistent with Agency supplied specifications and standards. Company shall perform all tasks/phases under the Contract, including construction, and install the Equipment in such a manner so as not to harm the structural integrity of the buildings or their operating systems. Company shall repair and restore to its original condition any area of damage caused by Company's performance under this Contract. The Agency reserves the right to review the work performed by Company and to direct Company to take certain corrective action if the structural integrity of the Facilities or its operating system is or will be harmed. The opinion of the Agency with respect to the structural integrity shall be a good faith belief based upon the written analysis of a professional engineer. All costs associated with such corrective action to damage caused by Company's performance of the work shall be borne by Company.

SECTION 11. OWNERSHIP

Section 11.1. Ownership of Certain Proprietary Property Rights. Agency shall not, by virtue of this Contract, acquire any interest in any formulas, patterns, devices, secret inventions or processes, copyrights, patents, other intellectual or proprietary rights, or similar items of property which are or may be used in connection with the Equipment. The Company shall grant to the Agency all rights for the duration of this Contract for any and all software or other intellectual property rights necessary for the Agency to continue to operate, maintain, and repair the Equipment in a manner that will yield maximal energy consumption reductions.

Section 11.2. Ownership of Existing Equipment. Ownership of the equipment and materials presently existing at the Facilities at the time of execution of this Contract shall remain the property of the Agency even if it is replaced or its operation made unnecessary by work performed by Company pursuant to this Contract. The Company shall be responsible for the disposal of all equipment and materials designated by the Agency as disposable off-site in accordance with all applicable laws and regulations regarding such disposal.

Section 11.3 Ownership of Installed Equipment. After the Commencement Date and during the term of any Third Party Financing Agreement pursuant to Schedule L or financing of the Equipment pursuant to Schedule D (Deliverables and Compensation to Company), legal title to and ownership of all Equipment and any and all repairs, replacements, substitutions and modifications thereto shall be in Agency and the Company shall take all actions within its control necessary to vest such title and ownership in Agency.

Section 11.4 Patent and Copyright. Company, without exception, shall indemnify, defend and hold the Agency and its employees harmless from liability of any nature or kind, including cost and expenses for or on account of any United States copyrighted, patented, or unpatented invention, process or article supplied by the Company. Company has no liability when such claim is solely and exclusively due to the combination, operation or use of any article supplied hereunder with equipment or data not supplied by Company or is based solely and exclusively upon the Agency's alteration of the article. The Agency will provide prompt written notification of a claim of copyright or patent infringement and will afford Company full

opportunity to defend the action and control the defense. Further, if such a claim is made or is pending the Company may, at its options and expenses procure for the Agency the right to continue use of, replace or modify the article to render it noninfringing. (If none of the alternatives are reasonably available, the Agency agrees to return the article on request to the Company and receive reimbursement, if any, as may be determined by a court of competent jurisdiction.) If Company uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the negotiated prices shall include all royalties or costs arising from the use of such design, device, or materials in any way involved in the work.

SECTION 12. FACILITIES MAINTENANCE

Agency agrees that it shall adhere to, follow and implement the energy conservation procedures and methods of operation to be set forth on Schedule J (Agency's Maintenance Responsibilities), to be attached hereto and incorporated herein by this reference after Agency's approval.

SECTION 13. EQUIPMENT SERVICE

Section 13.1. Actions by Company. Company shall provide service, repairs, and adjustments to the Equipment installed under terms of this Contract, if any, pursuant to Schedule I, Company's Maintenance Responsibilities. Company will not provide maintenance outside those services set forth in Schedule I without prior written approval and authorization of the Agency.

Section 13.2. Actions by Agency. Agency shall not move, remove, modify, alter, or change in any way the Equipment or any part thereof without the prior written approval of Company except as set forth in Schedule J (Agency's Maintenance Responsibilities). Notwithstanding the foregoing, Agency may take reasonable steps to protect the Equipment if, due to an emergency, it is not possible or reasonable to notify Company before taking any such actions. In the event of such an emergency, Agency shall take reasonable steps to protect the Equipment from damage or injury and shall follow instructions for emergency action provided in advance by Company. Agency agrees to maintain the Facilities in good repair and to protect and preserve all portions thereof that may in any way affect the operation or maintenance of the Equipment. If Company becomes aware that Agency is not performing maintenance responsibilities in accordance with Schedule J, or that Agency has made any other material changes, including a change in manner of use, hours of operation for the equipment, permanent changes in the comfort and service parameters, occupancy or structure of the Facilities , types and quantities of equipment at the Facilities , then Company shall submit such baseline adjustment in its annual reconciliation report to the Agency and the parties shall determine and agree what, if any, adjustments to baseline will be made in accordance with measurement and verification methodology set forth in Schedule F. Agency's Maintenance Responsibilities may be provided by Agency or Agency's contractors, at Agency's sole discretion.

SECTION 14. UPGRADING OR ALTERING THE EQUIPMENT

Company shall at all times have the right, subject to Agency's prior written approval, which approval shall not be unreasonably withheld, to change the Equipment, revise any procedures for the operation of the equipment or implement other energy saving actions in the Facilities, provided that (i) such modifications or additions to, or replacement of the Equipment, and any operational changes, or new procedures are necessary to enable the Company to achieve the energy savings at the Facilities and; (ii) any cost incurred relative to such modifications, additions or replacement of the Equipment, or operational changes or new procedures shall be the responsibility of the Company. All modifications, additions or replacements of the Equipment or revisions to operating or other procedures shall be made by written amendment to the Contract.

SECTION 15. PROPERTY/CASUALTY/INSURANCE

Section 15.1. Insurance. At all times during the term of this Contract, Company shall maintain in full force and effect, at its expense: (1) Workmen's Compensation Insurance sufficient to cover all of the employees of Company working to fulfill this Contract, and (2) Casualty and Liability Insurance on the Equipment and Liability Insurance for its employees and the possession, operation, and service of the Equipment. The limits of such insurance shall be not less than $2,000,000 for injury to or death of one person in a single occurrence and $2,000,000 for injury to or death of more than one person in a single occurrence and $2,000,000 for a single occurrence of property damage. Such policies shall name the Agency as an additional insured to the extent of Company's negligence hereunder.

Prior to commencement of work under this Contract, Company shall be required to provide Agency with current certificates of insurance specified above. These certificates shall contain a provision that coverages afforded under the policies shall not be canceled or changed until at least thirty (30) days' prior written notice has been given to Agency.

The policies for Bodily Injury and Property Damage Liability Insurance shall be written to include Contractual Liability Insurance to protect Company against claims from the operations of subcontractors. Certificates of Company's insurance shall be provided to Agency prior to beginning construction.

Section 15.2. Damage. Company shall be responsible for (i) any damage to the Equipment or other property on the Facilities and (ii) any personal injury where such damage or injury occurs as a result of Company's performance under this Contract, but only to the extent caused by the acts or omissions of the Company.

SECTION 16. BOND

Section 16.1. Bonds.

Within 30 days of the Effective Date, Company shall furnish the Agency with a Payment Bond and a Performance Bond each in an amount not to exceed $4,051,800 . The Payment and Performance bond shall remain in effect until the Equipment is accepted by the Agency as

provided in Exhibit II. In no event shall such bond cover any energy savings guarantees. Additionally, the bond shall not cover any warranties beyond one year from completion of the installation.

Section 16.2 Bond Provisions. The following provisions shall apply to the bonds in this Section:

(a) The Agency shall be named as the beneficiary of the bonds.

(b) The Company shall ensure they follow Section 255.05 "Bond of contractor constructing public buildings; form; action by materialmen" of the Florida Statutes.

(c) No payments shall be made to Company until the bond is in place as per Section 255.05 Florida Statutes.

(d) To be acceptable to the Agency as surety for performance bonds, the Surety Company shall:

(i) Have a currently valid Certificate of Authority, issued by the State of Florida, Department of Insurance, authorizing it to write surety bonds in the State of Florida

(ii) Have a currently valid Certificate of Authority issued by the United States Department of Treasury under Sections 9304 to 9308 of Title 31 of the United States Code.

(iii) Be in full compliance with the provisions of the Florida Insurance Code

(iv) Have a minimum Best's Policyholder Rating of A- or Performance Index Rating of VI from Best's Key Rating Guide.

SECTION 17. EVENTS OF DEFAULT

Section 17.1 The following are Events of Default under this Contract:

(a) Any failure by either party to pay any payment required to be paid when due and the continuation of said failure for a period of forty (40) days after such due date (other than by reason of non-appropriation), provided that Company is not in default in its performance under the terms of this Contract. Agency's failure to pay for reason of non-appropriation shall not constitute an event of default, and shall be governed by Section 5.1 of this Contract.

(b) Failure by either party to observe and perform any covenant, condition or agreement on its part to be observed or performed hereunder or under this Contract, other than as referred to in Clause (a) of this Section, for a period of forty (40) days after written notice specifying such failure and requesting that it be remedied has been given to the party.

(c) Company initiates a proceeding in any court, seeking liquidation, reorganization, debt arrangement, dissolution, winding up, appointment of trustee, receiver, custodian, or the like for substantially all of its assets, and such case or proceeding shall continue undismissed,

unstayed and in effect for a period of sixty (60) consecutive days; or an order for relief shall be entered in an involuntary case under the federal bankruptcy laws or other similar laws now or hereafter in effect.

SECTION 18. REMEDIES UPON DEFAULT

Section 18.1. Remedies upon Default by Agency. If an Event of Default by Agency occurs, Company may, without a waiver or election of other remedies which exist in law or equity, exercise all remedies available at law or in equity or other appropriate proceedings including bringing an action or actions from time to time for recovery of amounts due and unpaid by Agency, and/or for damages which shall include all costs and expenses reasonably incurred in exercise of its remedy.

Section 18.2. Remedies Upon Default by Company. If an Event of Default by Company occurs, Agency may, without a waiver of other remedies which exist in law or equity, elect to exercise any and all remedies at law or equity, or institute other proceedings, including, without limitation, bringing an action or actions from time to time for specific performance, and/or for the recovery of amounts due and unpaid and/or for damages, which shall include all costs and expenses reasonably incurred.

SECTION 19. ASSIGNMENT

Section 19.1. Assignment by Company. The Company acknowledges that the Agency is induced to enter into this Contract by, among other things, the professional qualifications of the Company. The Company agrees that neither this Contract nor any right or obligations hereunder may be assigned in whole or in part to another firm, without the prior written approval of the Agency; provided the Company can without prior approval from the Agency assign this Contract to its parent or affiliate companies.

The Company may, with prior written approval of the Agency, which consent shall not be unreasonably withheld, delegate its duties and performance under this Contract, and/or utilize subcontractors, provided that any assignee(s), delegee(s), or subcontractor(s) shall fully comply with the terms of this Contract. Notwithstanding the provisions of this paragraph, the Company shall remain jointly and severally liable with its assignees(s), or transferee(s) to the Agency for all of its obligations under this Contract.

Section 19.2. Assignment by Agency. Agency may transfer or assign this Contract and its rights and obligations herein to a successor or purchaser of the Facilities or an interest therein subject to the prior written approval of Company, which consent shall not be unreasonably withheld. If Company rejects new assignee the Agency will continue to make the payments associated with the Facility or the Agency can pay the remaining principal on the loan for the equipment installed in a particular part or portion of the Facilities. Notwithstanding the foregoing, the Agency's rights and responsibilities may be transferred in the event that the Agency that originally executed this Contract is transferred, moved or absorbed by another State of Florida entity to such succeeding entity.

SECTION 20. HAZARDOUS MATERIALS

Section 20.1 Asbestos and Hazardous Materials. Except as expressly stated in Exhibit B, Company's Scope of Work expressly excludes any work connected or associated with Hazardous Materials. Hazardous Material means any pollutant, contaminant, toxic or hazardous substance, material or waste, any dangerous, potentially dangerous, noxious, flammable, explosive, reactive or radioactive substance, material or waste, urea formaldehyde, asbestos, asbestos-containing materials ("ACM's"), polychlorinated biphenyl ("PCB"), and any other substance, the manufacture, preparation, production, generation, use, maintenance, treatment, storage, transport, disposal, handling, or ownership of which is regulated, restricted, or prohibited, by any federal, state, or local statute, law, ordinance, code, rule or regulation now or at any time hereafter in effect, and as may be amended from time to time, including but not limited to, the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §§ 9601 et seq.), the Hazardous Materials Transportation Act (49 U.S.C. §§ 1801 et seq.), the Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 et seq.), the Federal Water Pollution Control Act (33 U.S.C. §§ 1251 et seq.), the Clean Air Act (42 U.S.C. §§ 7401 et seq.), the Toxic Substances Control Act, as amended (15 U.S.C. §§ 2601 et seq.), and the Occupational Safety and Health Act (29 U.S.C. §§ 651 et seq.).

Company shall not use, store, dispose of or otherwise handle any Hazardous Material in or on the Facilities except in a lawful manner and so as not to cause Agency any cost, loss, obligation or liability or expose Agency to any claim or suit with respect to same. Company shall not perform any identification, abatement, cleanup, removal, transport, treatment, storage or disposal of Hazardous Materials on Agency's premises. Company's responsibility, if any, for any Hazardous Materials, shall be limited to and as expressly set forth in Schedule A and Agency shall, at all times, be and remain the owner and generator of any and all Hazardous Materials on the Agency's premises and responsible for compliance with all laws and regulations applicable to such Hazardous Materials.

Should Company become aware of or suspect the presence of Hazardous Materials in the course of performing the Services that are not disclosed in Schedule B, or which present or may present a hazard to or endanger health welfare or safety, Company shall have the right to immediately stop work in the affected area and shall notify Agency. Agency will be responsible for taking any and all action necessary to remove or render harmless the Hazardous Materials in accordance with all applicable laws and regulations. Company shall be required to resume performance of the Scope of Work in the affected area only in the absence of Hazardous Materials or when the affected area has been rendered harmless; if the Company has not or cannot resume performance of the Scope of Work in the affected area within 120 days of discovery of the Hazardous Material, Company may terminate this Contract with respect to the affected area and Agency shall be liable to Company for the Scope of Work completed to date of termination, together with the price of any specially manufactured items, whether in production or delivered. In such event, the Energy Savings Guarantee shall be adjusted as appropriate. Agency shall further compensate Company for any additional reasonable costs incurred by Company as a result of work stoppage, including demobilization and remobilization, but in no event more than $50,000. In addition to any other indemnity obligation of Agency to Company, and to the extent provided under Section 768.28 of the Florida Statutes, Agency assumes all risks attributable to or arising out of or in any way connected with or related to: (1) any leak, deposit,

spill, discharge, or release or disposal of Hazardous Materials in connection with the performance of this Contract, except to the extent such Hazardous Materials were brought onto the Agency's Facilities by Company or released due to the negligence or willful misconduct of Company; and/or (2) Agency's failure to identify and disclose Hazardous Materials and to fully comply with all federal, state, and local statutes, laws ordinances, codes, rules and regulations now or at any time hereafter in effect governing Hazardous Materials.

SECTION 21. REPRESENTATIONS AND WARRANTIES

Section 21.1 Each party warrants and represents to the other that:

(a) it has all requisite power, authority, licenses, permits, and franchises, corporate or otherwise, to execute and deliver this Contract and perform its obligations hereunder;

(b) its execution, delivery, and performance of this Contract have been duly authorized by, or are in accordance with, its organic instruments, and this Contract has been duly executed and delivered for it by the signatories so authorized, and it constitutes its legal, valid, and binding obligation;

(c) its execution, delivery, and performance of this Contract will not breach or violate, or constitute a default under any Contract, lease or instrument to which it is a party or by which it or its properties may be bound or affected; or

(d) it has not received any notice, nor to the best of its knowledge is there pending or threatened any notice, of any violation of any applicable laws, ordinances, regulations, rules, decrees, awards, permits or orders which would materially and adversely affect its ability to perform hereunder.

Section 21.2 Agency Representations. Agency hereby warrants, represents and promises that:

(a) it has provided or shall provide timely to Company, all records relating to energy usage and energy-related maintenance of Facilities requested by Company and the information set forth therein is, and all information in other records to be subsequently provided pursuant to this Contract will not be knowingly untrue or inaccurate in any material respect; and

(b) it has not entered into any contracts with other persons or entities for the provision of energy management services for the Facilities except as disclosed to Company.

Section 21.3 Company Representations. Company hereby warrants, represents and promises that:

(a) before commencing performance of this Contract:

(i) it shall have become licensed or otherwise permitted to do business in the State of Florida;

(ii) it shall have provided proof and documentation of required insurance

pursuant to Section 15 it shall make available, upon reasonable request, all documents relating to its performance under this Contract, including all contracts and subcontracts entered into;

(b) it shall use qualified subcontractors and delegees, licensed and bonded in this state to perform the work so subcontracted or delegated pursuant to the terms hereof;

(c) that it is financially solvent, able to pay its debts as they mature and possessed of sufficient working capital to perform its obligations under this Contract.

SECTION 22. MISCELLANEOUS

Section 22.1 Waiver of Liens. Company will obtain and furnish to Agency a Waiver of Liens from each subcontractor and each permanent material supplier that supply materials or services hereunder. Should liens or claims be filed against the Facilities by reason of Company's acts or omissions, Company shall cause same to be discharged by bond or otherwise within ten (10) days after filing.

Section 22.2. Compliance with Law and Standard Practices. Company shall perform its obligations hereunder in compliance with any and all applicable federal, state, and local laws, rules, and regulations, in accordance with sound engineering and safety practices, and in compliance with any and all reasonable rules of Agency relative to the Facilities. Company shall be responsible for obtaining all governmental permits, consents, and authorizations as may be required to perform its obligations hereunder.

Section 22.3. Independent Capacity of the Company. The parties hereto agree that Company, and any agents and employees of Company, in the performance of this Contract, shall act in an independent capacity and not as officers, employees, or agents of the Agency.

Section 22.4. No Waiver. The failure of Company or Agency to insist upon the strict performance of the terms and conditions hereof shall not constitute or be construed as a waiver or relinquishment of either party's right to thereafter enforce the same in accordance with this Contract in the event of a continuing or subsequent default on the part of Company or Agency.

Section 22.5. Severability. In the event that any clause or provision of this Contract or any part thereof shall be declared invalid, void, or unenforceable by any court having jurisdiction, such invalidity shall not affect the validity or enforceability of the remaining portions of this Contract unless the result would be manifestly inequitable or unconscionable.

Section 22.6. Complete Contract. This Contract, including all Schedules, Exhibits and Appendices attached hereto, when executed, shall constitute the entire Contract between both parties and this Contract may not be amended, modified, or terminated except by a written Contract signed by the parties hereto.

Section 22.7. Further Documents. The parties shall execute and deliver all documents and perform all further acts that may be reasonably necessary to effectuate the provisions of this Contract.

Section 22.8. Applicable Law and Venue. This Contract and the construction and enforceability thereof shall be interpreted under the laws of the State of Florida. In the event any provision of this Contract is in conflict with Section 489.145, Florida Statutes, the provisions of Section 489.145, Florida Statutes, shall control. Venue for any administrative and/or legal action arising under this Contract shall be St. Johns County, Florida.

Section 22.9. Notice. Any notice required or permitted hereunder shall be deemed sufficient if given in writing and delivered personally or sent by registered or certified mail, return receipt requested, or delivered to a nationally recognized express mail service, postage prepaid to the address shown below or to such other persons or addresses as are specified by similar notice. The Agency's Contract Manager for this project will serve as liaison for the ongoing administration of the Contract and the resolution of any problems related thereto.

TO COMPANY: *Trane U.S. Inc.*
Attention: Mr. Lou Zaccone
District Manager - Florida
Trane Commercial Systems
2884 Corporate Way
Miramar, FL 33025

With Copy to:
Legal Department
Trane U.S Inc.
4833 White Bear Parkway
St. Paul, Minnesota 55110

TO AGENCY: Michael Wanchick
St. Johns County Administrator
500 San Sebastian View
St. Augustine, Florida 32084

With Copies to:
Office of the County Attorney
500 San Sebastian View
St. Augustine, Florida 32084

Gene Burns
St. Johns County Facilities Manager
2416 Dobbs Rd.
St. Augustine, Florida 32086

Section 22.10. Statutory Notices and Requirements. The Agency shall consider the

employment by any Company of unauthorized aliens a violation of Section 274A(e) of the Immigration and Nationality Act. Such violation shall be cause for unilateral cancellation of this Contract. An entity or affiliate who has been placed on the public entity crimes list or the discriminatory vendor list may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a Company, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity pursuant to limitations under Chapter 287, Florida Statutes.

Wage rates and other factual unit costs supporting the compensation are accurate, complete, and current at the time of contracting. The original contract price and any additions thereto will be adjusted to exclude any significant sums by which the Agency determines the contract price was increased due to inaccurate, incomplete, or noncurrent wage rates and other factual unit costs. All such contract adjustments must be made within 1 year following the end of the contract.

The Company warrants that he or she has not employed or retained any company or person, other than a bona fide employee working solely for the Company to solicit or secure this Contract and that he or she has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the Company any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Contract. For the breach or violation of this provision, the Agency shall have the right to terminate the Contract without liability and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift, or consideration.

Section 22.11. Access to Public Records. The access to, disclosure, non-disclosure, or exemption of records, data, documents, and/or materials, associated with this Contract shall be subject to the applicable provisions of the Florida Public Records Act (Chapter 119, Florida Statutes), and other applicable federal and state law. The Agency shall have the right of unilateral cancellation for refusal by the Company to allow public access to all records, data, documents, papers, letters, and/or other materials in accordance with the provisions of Chapter 119, Florida Statutes, and other applicable federal or state law, made or received by the Company in conjunction with this Contract. Access to such public records, may not be blocked, thwarted, and/or hindered by placing the public records in the possession of a third party, or an unaffiliated party.

Section 22.12. Force Majeure. Neither party will be liable for any default or delay in the performance of its obligations under this Contract to the extent such default or delay is caused by fire, flood, earthquake, elements of nature or acts of God; riots, civil disorders, rebellions or revolutions in the United States; injunctions (provided the injunction was not issued as a result of any fault or negligence of the party seeking to have its default or delay excused); or any other cause beyond the reasonable control of such party ("Force Majeure Events"); provided the non-performing party and its subcontractors are without fault in causing such default or delay, and such default or delay could not have been prevented by reasonable precautions and cannot

reasonably be circumvented by the non-performing party through the use of alternate sources, workaround plans or other means, including disaster recovery plans. Performance times shall be considered extended for a period of time equivalent to the time lost because of any such delay, provided that in the event Company is delayed in its performance by reason of such cause, no such extension shall be made unless notice thereof is presented by Company to Agency in writing within ten (10) business days after the start of the occurrence of such delay, no payment shall be made by Agency for any fees or expenses incurred by Company by reason of such delay, and Company shall use best efforts to perform its obligations during such period of delay, and notify the Agency of its abatement or cessation.

Section 22.13. Clean Energy Grant. Agency has received a Clean Energy Grant from the State of Florida pursuant to the American Recovery and Reinvestment Act of the United States Department of Energy. Attached as Exhibit II (i) is the Revised Grant Work Plan and attached as Exhibit II (ii) and (iii) are Federal Grant Regulations relative to the Clean Energy Grant. The Scope of Work included in the Exhibit II (i) is included in this Energy Savings Performance Contract. Exhibit III (i), Attachment A-1, Section G Project Budget, #6 Contractual Services, denotes Grant Funds in the amount of $394,000 and Matching Funds of $888,871. Company agrees to complete the grant portion of the work in the amounts listed above and follow the provisions in Exhibit III (ii) and (iii) for the dollar amounts indicated.

IN WITNESS WHEREOF, and intending to be legally bound, the parties hereto subscribe their names to this Contract by their duly authorized officers on the date last executed below.

TRANE U.S. INC.

By: _____
[Signature]

Title: Manager- Bus Dev
(Corporate Seal)

Date: 12-08-11

ST JOHNS COUNTY, FLORIDA

By: _____
[Signature] Mark P. Miner

Title: Chairman

Date: 12-06-11

Schedule A
Scope Of Work/Installation of Equipment

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Old Jail/Sheriff's Administration Buildings

~~ECW 6 - Install Occupancy Sensors.~~

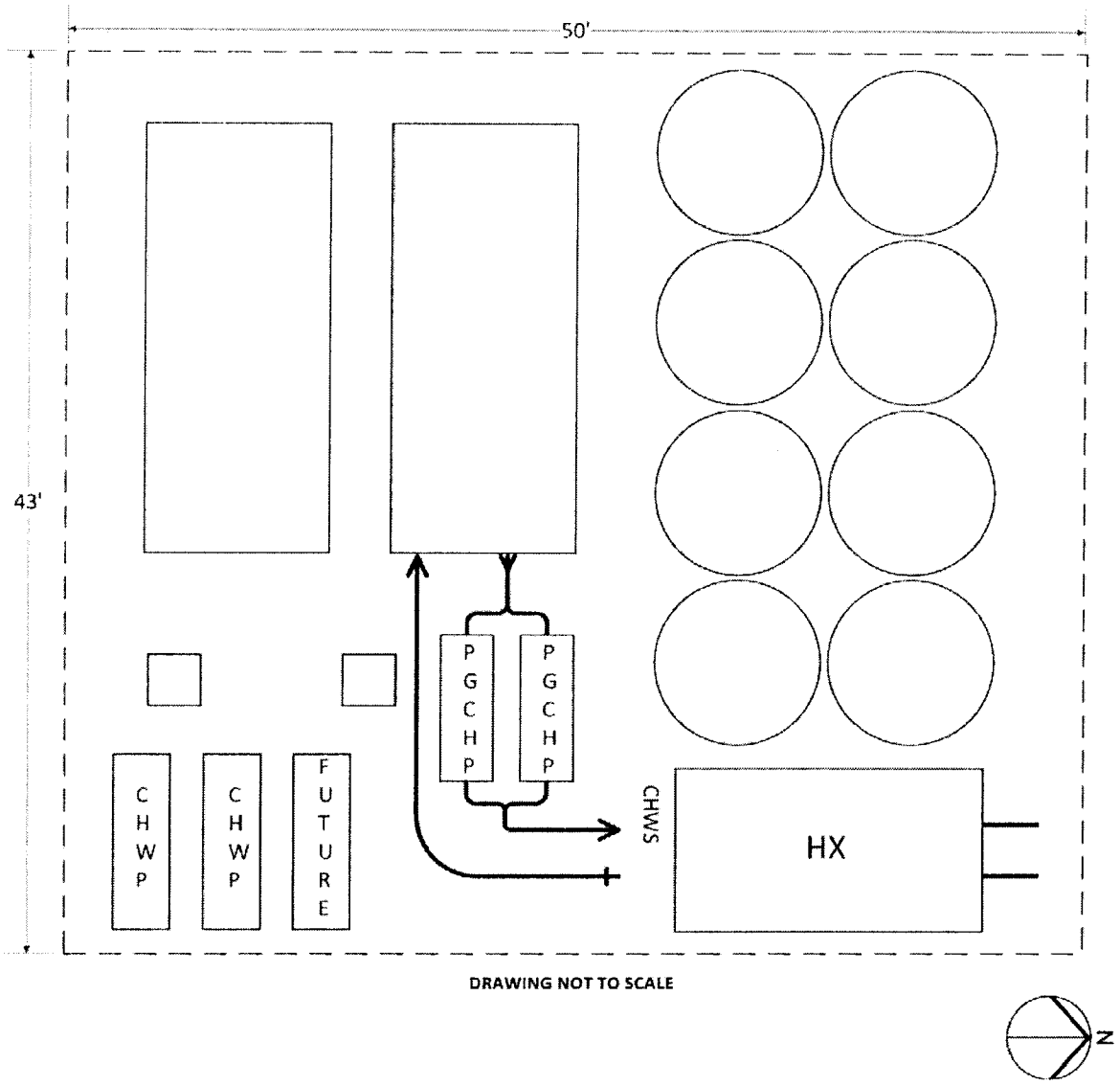
Scope
Provide Occupancy Control of lighting in the following areas: Offices, Storage Rooms, Mechanical/Electrical Rooms, restrooms.

~~ECW 21.5 Ice Storage - Jail Complex - Old, New, and Sheriff's Administration~~

Project Description:

0. Install a new thermal energy storage plant on site as shown in the attached sketch. The system shall consist of the following equipment:
   - Two Trane RTAC air-cooled high efficiency Heli-rotor chillers with ice making or comfort cooling capability. Each chiller produces a minimum of 180 tons at 44F leaving CW and 95F outdoor temperature with one chiller being dedicated to ice making.
   - Two primary glycol pumps (this includes one standby).
   - Two secondary distribution pumps with VFDs (this includes one standby).
   - Eight (8) CALMAC cooling thermal storage tanks, equal to #1190C.
   - Heat exchanger sized for the current ice storage needs.
   - Modification to the existing chilled water lines and installation of the new glycol piping, valves and accessories.
   - DDC Control System

1. Install piping (two each 2 ½") from the modified chiller plant up the wall of the old jail building, across the roof mounted on sleepers due east to east wall of the building. Turn down the building exterior, to underground. Proceed across parking lot/drive to the Sheriff's Administration building and tie into existing chilled water lines located outside the building. The piping installed on the exterior wall shall be covered with grip tite metal painted to match the exterior wall.
2. Install piping underground from the modified chiller plant due west along and outside the fence surrounding the new jail area. The pipe shall proceed to a point midway between the existing new jail chiller plant and the new jail and connected underground.
3. Install electrical service, conduit and electrical wiring to provide power to the new chiller and the new thermal storage system pumps.
4. Install wiring and conduit from New Jail Power panel to new chiller at old jail. Consists of 550 linear feet of 4" PVC with 3 each 500mcm copper and 1 each grounding conductor installed in ditch with chiller water piping.
5. Expand Chain Link Fence to encompass larger footprint of plant as indicated in diagrammatic layout below.



ECM 15 - Install Variable Frequency Drives on Chilled Water Pumps

Project Scope

1. Provide chiller plant optimization control to include pipe bypass adjustments.
2. Remove the motor starter disconnects at each CHW pump, two (2) each.
3. Add VFD's to each CHW pump, two (2) each
4. Install one differential pressure sensor in each primary loop. Program the VFD control system to vary the CHW pump speeds to maintain differential pressure

setpoints. The sensors shall be installed at the locations and with optimum setpoints to ensure adequate supply of CHW to all of the AHU's on the CHW loop while minimizing pumping energy.

5. Replace the 3-way CHW coil control valves of the AHU's listed in the sketches with 2-way control valves.

ECM 17 - Remove Existing Rooftop Unit and Install New Rooftop Unit

Project Scope

1. Remove the existing DX, packaged roof top unit and properly dispose of it or, at the owner's discretion, store the system at an on-site location specified by the owner. If the removal of the system involves temporary relocation of other mechanical equipment, it will be stored, environmentally protected and restored to proper operation after the new system is installed. Extract and store the refrigerant from the displaced systems in secure vessels on site and properly dispose.

   Provide and install a new Trane 17 ½ ton electric high efficiency packaged DX rooftop unit with electric strip heat at the location of the removed system. The new system shall have a minimum efficiency of 12.0 IEER at the same design criteria as the existing systems. The new unit is also to have the Demand Control Ventilation option with a fully modulating damper at the OA intake.

2. Install a CO_2 sensor in the RTU's return air path to monitor the return air CO_2 level. Install at least two additional sensors for any AHU's that serve spaces with multiple functions which may require different OA ventilation needs.

3. Install control wiring, relays, and control accessories. Control points include:
   - CO_2 analog input
   - Damper position analog output

4. Program the building control system so that the OA damper modulates to maintain CO_2 levels of return air. The outside air dampers would also modulate to maintain CO_2 sensors that are pre-set at a user-programmable setpoint, initially 700 ppm.

5. Refer to Schedule A.3 for details

ECM 31 - Retrofit Existing Roof With Cool Roof

6. Sherriff's Annex - Retrofit Existing Roof with Cool Roof - 7,140 Square Feet

   Project Scope

Retrofit of existing Modified Bitumen Roof using the Gaco- Western S-20 Silicone Coating System.

a) Pressure Clean Roof to remove all dirt and debris that could interfere with the proper application of the retrofit.
b) Flash and seams or breaks in membrane using flashing tape.
c) Flash around all roof penetrations where needed as determined by the roofing company doing the retrofit.
d) Flash the existing wall flashing using flashing grade elastomeric.
e) Spray apply Gacosil S-20 Silicone Coating (Ultra White) at the average rate of 1.75 gallons per square to the entire roof area included in this project per manufacturer's specifications.
f) Ten (10) year coating manufacturers Leak Proof Warranty.

7. Sheriff's Administration - Retrofit Rock Roof with Foam & Cool Roof - 15,250 Square Feet

Project Scope

Retrofit of existing of Built Up Roof using Gaco Western Spray Applied Urethane Foam and Silicone Coating System

a) Hydro Vac roof free of all loose gravel, dirt, and debris that could interfere with the proper application of the retrofit.
b) Make minor repairs to existing membrane that could interfere with the proper application of the retrofit.
c) Spray apply (2.7 lb density) Urethane Foam to the entire roof area included in this project and parapet walls at the rate of one inch thickness.
d) Spray apply Gacosil S-20 Silicone Coating (Ultra White) at the average rate of 1.75 gallons per square to the entire roof area included in this project per manufacturer's specifications.
e) 10 year coating manufacturers Leak Proof Warranty.

ECM 27 - Retrofit Domestic Hot Water System with AirTap

Project Scope

1. Retrofit the existing domestic water heater within the building per the Water Auditor's report.
2. Refer to Schedule A.2

ECM 28- Install Maximicer on Ice Machines

Project Scope

1. Retrofit one (1) existing ice machines with the Maximicer unit.

ECW 29 – Install VendMiser on Vending Machines

Project Scope

1. Install VendMiser product on two (2) existing cold drink vending machines within the building.

2. Install VendMiser product on two (2) existing snack vending machines within the building.

ECW 28.1 – Install O-zone Laundry System on Existing Washers

Project Scope

Retrofit existing washing machines with the O-zone Laundry System per the Water Auditor's report. Refer to Appendix. The system includes the following:

- Complete Ozone laundry system
- Clear Backflow Preventor/Check Valve
- Pacific Ozone Technologies - E Cycle Ozone Generator
- AirSep Onyx - Oxygen Concentrator
- Mazzei - Venturi Injector
- Stainless Steel Liquid Filled Pressure Gauges
- Stainless Steel Check Valves
- Schedule 80 PVC Piping and Fittings
- Ozone Degassing Chamber
- Clear Air Relief Valve
- Clear Liquid Drainer
- Viton Seals
- Union Ball Valves
- ORP Monitor and Probe
- Stainless Steel Ozone Destruct System

Refer to Schedule A.2

Main Library

ECM 1 - Remove Existing Lamp and Ballast and Install New T8 Lamps and Electronic Ballast

Project Scope

1. Retrofit existing 2'x4', troffer, 4-lamp, T12, magnetic ballast fixture with 2-T8 lamps, electronic ballast, and reflector.
2. Retrofit existing 4' industrial, 2-lamp, T12, magnetic ballast fixture with 2-T8 lamps, and electronic ballast.
3. Retrofit existing 4' strip, 2-lamp, T12, magnetic ballast fixture with 1-T8 lamp, and electronic ballast.
4. Retrofit existing circline fixture with 1-FC12 with 1-FC8 lamp.
5. Refer to Schedule A.1 for detailed list of lighting work

ECM 2 - Remove Existing Incandescent Lamps and Install New Compact Fluorescent / High Incandescent Lamps

Project Scope

1. Retrofit existing incandescent, 65w fixtures with PL13 floodlight screw-in adapter.
2. Retrofit existing incandescent, 65w fixtures with PL13 floodlight screw-in adapter, dimmable.
3. Refer to Schedule A.1 for detailed list of lighting work

ECM 4 - Replace Existing Lighting Fixture with New High Efficiency Fixture

Project Scope

1. Replace existing metal halide 175w fixtures with 4' 2-lamp, T8, electronic ballast, fixtures.
2. Replace existing metal halide 250w fixtures with 4' 4-lamp, T8, electronic ballast, fixtures.
3. Refer to Schedule A.1 for detailed list of lighting work

ECM 6 - Install Occupancy Sensors.

Project Scope

Provide Occupancy Control of lighting in the following areas: Offices, Storage Rooms, Mechanical/Electrical Rooms, restrooms.

ECM 16.1 - Remove Existing 10 Ton HVAC DX system and Install New DX System

Project Scope

1. Remove the existing 10 Ton DX split system, including air handler(s) and roof mounted condensing units and properly dispose of them or, at the owner's discretion, store the systems at an on-site location specified by the owner. If the removal of the systems involves temporary relocation of other equipment, it will be stored, environmentally protected and restored to proper operation after the new system is installed. Extract and store the refrigerant from the displaced systems in secure vessels on site and properly dispose.

   Provide and install a new electric, high efficiency heat pump with electric strip heat model (2) 4TWB4060 with TWE120 basis of design at the location of the removed systems.

2. Inspect existing refrigerant lines and repair or replace. Provide electrical services and modification to facilitate the installation. Provide any structural tie-downs, as required by local codes and regulations.

3. Refer to Schedule A.3 for details

ECM 8 - Install New Direct Digital Control System

Project Scope

Implementation of this ECM involves the installation of a centralized DDC system with control programs, control devices, space temperature sensors, thermostats and dampers such that the air systems can be operated in occupied mode during the day time and unoccupied mode at night and when the building is closed. Also, re-commission and air balance entire HVAC system components to verify proper operation.

1. Install new DDC system - Convert control systems of the AHU's and their associated exhaust fans to a new DDC system.

2. Interlock exhaust fans and AHU's - Interlock exhaust fans with individual AHU's serving the same area. When the AHU is scheduled off, the associated exhaust fans are scheduled off to prevent the infiltration of untreated outdoor air into the building during unoccupied mode.

3. Inspect existing OA dampers and install damper actuators - Inspect the OA dampers of the AHU's. Provide repair or replacement of existing OA dampers. Install new damper actuators for the OA dampers so that they function properly and can be commanded to close and reopen accordingly from the building's new DDC system.

4. Install occupied mode and unoccupied mode operations for the air systems listed in Appendix.

a. Unoccupied Mode: Turn off AHU supply air (SA) fans, exhaust air (EA) fans, and close the OA dampers of the air systems listed in the Existing Equipment Inventory.
b. Setback Control Mode: Same as Unoccupied Mode operation except the air systems cycle on to maintain unoccupied mode space setpoints, initially set at 60°F for space heating and 80°F for space cooling. The EA fans turned off during Unoccupied Mode operation shall remain off. The outside air (OA) dampers closed during Unoccupied Mode operation shall remain closed.
c. Morning Warm-up/Cool-down Mode: Same as Setback Control Mode except the air systems operate continuously. This mode of operation starts approximately two hours prior to building Occupied Mode starts so that the HVAC systems have sufficient time to gradually reach the Occupied Mode space temperature setpoints.
d. Occupied Mode: All of the air systems shown shall revert back to their current normal operation with SA fan and EA fans operating continuously to maintain Occupied Mode space setpoints. All of the OA dampers shall remain open.
e. Override Time Switch: Each AHU listed shall have an override switch installed to temporarily override space unoccupied mode as programmed in the new building DDC system. The override switch shall have a multiple override time period selector. Once the override time period is expired, the HVAC system shall revert back to being controlled by the building control system. Override switches should be located near the main entrance to the area served by each AHU.

5. Document and test system performance.
6. Analyze collected data and generate final performance report.

ECM 22 - Retrofit Existing Flush Valves With Low Flow Flush Valves

Project Scope

1. Retrofit existing 3.5 GPF and 1.6 GPF water closet flush valves with low-flow 1.28 GPF flush valves.
2. Retrofit existing 1.0 GPF urinal flush valves with low-flow 0.13 GPF flush valves.
3. Refer to Schedule A.2

ECM 24 - Retrofit Existing Aerators With Low Flow Aerators

Project Scope

1. Retrofit existing 1-2 GPM faucet aerators for lavatories and sinks with low-flow 0.5 GPM faucet aerators.
2. Refer to Schedule A.2

ECM 26 - Schedule Domestic Hot Water Heaters

Project Scope

1. Provide a relay to each domestic water heater within the building and connect the DDC control system.
2. Schedule for water heater use shall be as follows: Workdays: ON from 7 am - 8 pm. OFF from 8 pm - 7 am. Non-workdays: OFF from 12:01 am to 7 am of next workday.

Ponte Vedra Library

ECM 1 – Remove Existing Lamp and Ballast and Install New T8 Lamps and Electronic Ballast

Project Scope

1. Retrofit existing 2'x4', troffer, 3-lamp, T12, magnetic ballast fixture with 2-T8 lamps, electronic ballast, and reflector.
2. Retrofit existing 2'x4', troffer, 2-lamp, T12, magnetic ballast fixture with 2-T8 lamps, electronic ballast, and reflector.
3. Retrofit existing 2'x4', troffer, 2-T12 U-Lamps, magnetic ballast fixture with 2-2'T8 lamps, electronic ballast, and reflector.
4. Retrofit existing 1'x4', troffer, 2-lamp, T12, magnetic ballast fixture with 2-2'T8 lamps, electronic ballast, and reflector.
5. Retrofit existing 4' strip, 2-lamp, T12, magnetic ballast fixture with 2-T8 lamp, and electronic ballast.
6. Retrofit existing 8' strip, 2-lamp, T12, magnetic ballast fixture with 8' industrial T8 retrofit kit, using 2-4' lamps.
7. Retrofit existing 8' strip, 2-lamp, T12, magnetic ballast fixture with 8' strip T8 retrofit kit, using 2-4' lamps.
8. Retrofit existing wall mounted, 2-2' lamp, T12 magnetic ballast fixture with 1-2' F17T8 lamp, and electronic ballast.
9. Refer to Schedule A.1 for detailed list of lighting work

ECM 2 – Remove Existing Incandescent Lamps and Install New Compact Fluorescent / High Incandescent Lamps

Project Scope

1. Replace existing 60 watt, incandescent fixture with new PL13 fixture.
2. Retrofit existing 65 watt, incandescent fixture with PL13 floodlight screw-in adapter, dimmable.
3. Refer to Schedule A.1 for detailed list of lighting work

ECM 3 – Retrofit Existing Metal Halides to High Efficiency Metal Halides

Project Scope

1. Replace existing metal halide 175w fixtures with 150w metal halide pulse start kit.
2. Replace existing metal halide 175w fixtures with PL42 screw-in adapter.

3. Replace existing metal halide 250w fixtures with150w metal halide pulse start kit.
4. Replace existing metal halide 250w fixtures with 320w metal halide pulse start kit.
5. Refer to Schedule A.1 for detailed list of lighting work

ECM 19 - Replace 2 Energy Recovery Units (ERU) in Mechanical Room and Roof With New ERUs

Project Scope

1. Remove the existing ERUs located in South Mechanical Room and on the roof.

2. Install new ERUs in existing locations.

3. Repair or modify ductwork from:

    a. Outside Air louver to Energy Recovery Ventilator (ERV) entering air.
    b. ERU Supply Air to Return Air plenum of AHU's.
    c. Return Air ductwork (upstream of AHU RA plenum) to ERU exhaust inlet.
    d. Exhaust discharge to Exhaust Air half of wall louver.

4. Refer to Schedule A.3

ECM 16.1 - Replace Two (2) Each Existing Fifteen (15) Ton Split System Heat Pumps

Project Scope

1. Remove the existing Condensing units # 4 & 5 and AHU's # 4 & 5 and turn over to St John's County Maintenance for their use.
2. Remove the existing 15 Ton DX split systems Air Handling Units 4 & 5, Condensing Units 4 & 5, and properly dispose of them or, at the owner's discretion, store the systems at an on-site location specified by the owner. If the removal of the systems involves temporary relocation of other equipment, it will be stored, environmentally protected and restored to proper operation after the new system is installed. Extract and store the refrigerant from the displaced systems in secure vessels on site and properly dispose.

    Install new Air Handling Units 4 & 5, Condensing Units 4 & 5 TWA180/ TWE180 (basis of design) in existing locations.

3. Refer to Schedule A.3

ECM 31 - Retrofit Existing Roof With Cool Roof - 14,600 Square Feet

Project Scope

Retrofit of existing Modified Bitumen Roof using the Gaco- Western S-20 Silicone Coating System.

a) Pressure Clean Roof to remove all dirt and debris that could interfere with the proper application of the retrofit.
b) Flash and seams or breaks in membrane using flashing tape.
c) Flash around all roof penetrations where needed as determined by the roofing company doing the retrofit.
d) Flash the existing wall flashing using flashing grade elastomeric.
e) Spray apply Gacosil S-20 Silicone Coating (Ultra White) at the average rate of 1.75 gallons per square to the entire roof area included in this project per manufacturer's specifications.
f) Ten (10) year coating manufacturers Leak Proof Warranty.

ECM 8 - Install New Direct Digital Control System

Project Scope

Implementation of this ECM involves the installation of a centralized DDC system with control programs, control devices, space temperature sensors, thermostats and dampers such that the air systems can be operated in occupied mode during the day time and unoccupied mode at night and when the building is closed. Also, re-commission and air balance entire HVAC system components to verify proper operation.

5. Install new DDC system - Convert control systems of the AHU's and their associated exhaust fans to a new DDC system.

6. Interlock exhaust fans and AHU's - Interlock exhaust fans with individual AHU's serving the same area. When the AHU is scheduled off, the associated exhaust fans are scheduled off to prevent the infiltration of untreated outdoor air into the building during unoccupied mode.

7. Inspect existing OA dampers and install damper actuators - Inspect the OA dampers of the AHU's. Provide repair or replacement of existing OA dampers. Install new damper actuators for the OA dampers so that they function properly and can be commanded to close and reopen accordingly from the building's new DDC system.

8. Install occupied mode and unoccupied mode operations for the air systems listed in Appendix.

f. Unoccupied Mode: Turn off AHU supply air (SA) fans, exhaust air (EA) fans, and close the OA dampers of the air systems listed in the Existing Equipment Inventory.
g. Setback Control Mode: Same as Unoccupied Mode operation except the air systems cycle on to maintain unoccupied mode space setpoints, initially set at 60°F for space heating and 80°F for space cooling. The EA fans turned off during Unoccupied Mode operation shall remain off. The outside air (OA) dampers closed during Unoccupied Mode operation shall remain closed.
h. Morning Warm-up/Cool-down Mode: Same as Setback Control Mode except the air systems operate continuously. This mode of operation starts approximately two hours prior to building Occupied Mode starts so that the HVAC systems have sufficient time to gradually reach the Occupied Mode space temperature setpoints.
i. Occupied Mode: All of the air systems shown shall revert back to their current normal operation with SA fan and EA fans operating continuously to maintain Occupied Mode space setpoints. All of the OA dampers shall remain open.
j. Override Time Switch: Each AHU listed shall have an override switch installed to temporarily override space unoccupied mode as programmed in the new building DDC system. The override switch shall have a multiple override time period selector. Once the override time period is expired, the HVAC system shall revert back to being controlled by the building control system. Override switches should be located near the main entrance to the area served by each AHU.

7. Document and test system performance.
8. Analyze collected data and generate final performance report.

ECM 26 - Schedule Domestic Hot Water Heaters

Project Scope

1. Provide a relay to each domestic water heater within the building and connect the DDC control system.
2. Schedule for water heater use shall be as follows: Workdays: ON from 7 am - 8 pm. OFF from 8 pm - 7 am. Non-workdays: OFF from 12:01 am to 7 am of next workday.

Bartram Library

ECM 6 - Install Occupancy Sensors.

Project Scope

Provide Occupancy Control of lighting in the following areas: Offices, Storage Rooms, Mechanical/Electrical Rooms, restrooms.

ECM 8 - Install New Direct Digital Control System

Project Scope

Implementation of this ECM involves the installation of a centralized DDC system with control programs, control devices, space temperature sensors, thermostats and dampers such that the air systems can be operated in occupied mode during the day time and unoccupied mode at night and when the building is closed. Also, re-commission and air balance entire HVAC system components to verify proper operation.

1. Install new DDC system - Convert control systems of the AHU's and their associated exhaust fans to a new DDC system.

2. Interlock exhaust fans and AHU's - Interlock exhaust fans with individual AHU's serving the same area. When the AHU is scheduled off, the associated exhaust fans are scheduled off to prevent the infiltration of untreated outdoor air into the building during unoccupied mode.

3. Inspect existing OA dampers and install damper actuators - Inspect the OA dampers of the AHU's. Provide repair or replacement of existing OA dampers. Install new damper actuators for the OA dampers so that they function properly and can be commanded to close and reopen accordingly from the building's new DDC system.

4. Install occupied mode and unoccupied mode operations for the air systems listed in Appendix.

    a. Unoccupied Mode: Turn off AHU supply air (SA) fans, exhaust air (EA) fans, and close the OA dampers of the air systems listed in the Existing Equipment Inventory.
    b. Setback Control Mode: Same as Unoccupied Mode operation except the air systems cycle on to maintain unoccupied mode space setpoints, initially set at 60°F for space heating and 80°F for space cooling. The EA fans turned off during Unoccupied Mode operation shall remain off. The

outside air (OA) dampers closed during Unoccupied Mode operation shall remain closed.

c. Morning Warm-up/Cool-down Mode: Same as Setback Control Mode except the air systems operate continuously. This mode of operation starts approximately two hours prior to building Occupied Mode starts so that the HVAC systems have sufficient time to gradually reach the Occupied Mode space temperature setpoints.
d. Occupied Mode: All of the air systems shown shall revert back to their current normal operation with SA fan and EA fans operating continuously to maintain Occupied Mode space setpoints. All of the OA dampers shall remain open.
e. Override Time Switch: Each AHU listed shall have an override switch installed to temporarily override space unoccupied mode as programmed in the new building DDC system. The override switch shall have a multiple override time period selector. Once the override time period is expired, the HVAC system shall revert back to being controlled by the building control system. Override switches should be located near the main entrance to the area served by each AHU.

5. Document and test system performance.
6. Analyze collected data and generate final performance report.

ECM 26 - Schedule Domestic Hot Water Heaters

Project Scope

1. Provide a relay to each domestic water heater within the building and connect the DDC control system.
2. Schedule for water heater use shall be as follows (either through the DDC system or time clock): Workdays: ON from 7 am - 8 pm. OFF from 8 pm - 7 am. Non-workdays: OFF from 8 pm to 7 am of next workday.

ECM 16.1 - Remove Existing HVAC DX systems and Install New DX Systems

Project Scope

1. Remove the existing DX units and properly dispose of them or, at the owner's discretion, store the systems at an on-site location specified by the owner. If the removal of the systems involves temporary relocation of other mechanical equipment, it will be stored, environmentally protected and restored to proper operation after the new system is installed. Extract and store the refrigerant from the displaced systems in secure vessels on site and properly dispose.

2. Provide and install a new electric, high efficiency 7 ½ ton DX heat pump Model Number TWA090 / TWE090 here with electric strip heat at the location of the

removed systems. The new system shall have a minimum efficiency of 11.7 IEER at the same design criteria as the existing systems.

3. Provide and install a new electric, high efficiency 20 ton DX heat pump Model Number TWA240/ TWE240 with electric strip heat, at the location of the removed systems. The new system shall have a minimum efficiency of 10.5 IEER at the same design criteria as the existing systems.

4. Inspect existing refrigerant lines and repair or replace. Provide electrical services and modification to facilitate the installation. Provide any structural tie-downs, as required by local codes and regulations.

5. Refer to Schedule A.3 for all equipment to be replaced as part of this ECM.

ECM 22 - Retrofit Existing Flush Valves With Low Flow Flush Valves

Project Scope

1. Retrofit existing 3.5 GPF and 1.6 GPF water closet flush valves with low-flow 1.28 GPF flush valves.
2. Retrofit existing 1.0 GPF urinal flush valves with low-flow 0.13 GPF flush valves.
3. Refer to Schedule A.2

ECM 24 - Retrofit Existing Aerators With Low Flow Aerators

Project Scope

1. Retrofit existing 1-2 GPM faucet aerators for lavatories and sinks with low-flow 0.5 GPM faucet aerators.
2. Refer to Schedule A.2

Anastasia Library

ECM 6 - Install Occupancy Sensors.

Project Scope

Provide Occupancy Control of lighting in the following areas: Offices, Storage Rooms, Mechanical/Electrical Rooms, restrooms.

ECM 27 - Retrofit Domestic Hot Water System with AirTap

Project Scope

Retrofit the existing domestic water heater within the building per the Water Auditor's report. Refer to Schedule A.2

ECM 8 - Install New Direct Digital Control System

Project Description

Implementation of this ECM involves the installation of a centralized DDC system with control programs, control devices, space temperature sensors, thermostats and dampers such that the air systems can be operated in occupied mode during the day time and unoccupied mode at night and when the building is closed. Also, re-commission and air balance entire HVAC system components to verify proper operation.

1. Install new DDC system - Convert control systems of the AHU's and their associated exhaust fans to a new DDC system.

2. Interlock exhaust fans and AHU's - Interlock exhaust fans with individual AHU's serving the same area. When the AHU is scheduled off, the associated exhaust fans are scheduled off to prevent the infiltration of untreated outdoor air into the building during unoccupied mode.

3. Inspect existing OA dampers and install damper actuators - Inspect the OA dampers of the AHU's. Provide repair or replacement of existing OA dampers. Install new damper actuators for the OA dampers so that they function properly and can be commanded to close and reopen accordingly from the building's new DDC system.

4. Install occupied mode and unoccupied mode operations for the air systems listed in Appendix.

a. Unoccupied Mode: Turn off AHU supply air (SA) fans, exhaust air (EA) fans, and close the OA dampers of the air systems listed in the Existing Equipment Inventory.
b. Setback Control Mode: Same as Unoccupied Mode operation except the air systems cycle on to maintain unoccupied mode space setpoints, initially set at 60°F for space heating and 80°F for space cooling. The EA fans turned off during Unoccupied Mode operation shall remain off. The outside air (OA) dampers closed during Unoccupied Mode operation shall remain closed.
c. Morning Warm-up/Cool-down Mode: Same as Setback Control Mode except the air systems operate continuously. This mode of operation starts approximately two hours prior to building Occupied Mode starts so that the HVAC systems have sufficient time to gradually reach the Occupied Mode space temperature setpoints.
d. Occupied Mode: All of the air systems shown shall revert back to their current normal operation with SA fan and EA fans operating continuously to maintain Occupied Mode space setpoints. All of the OA dampers shall remain open.
e. Override Time Switch: Each AHU listed shall have an override switch installed to temporarily override space unoccupied mode as programmed in the new building DDC system. The override switch shall have a multiple override time period selector. Once the override time period is expired, the HVAC system shall revert back to being controlled by the building control system. Override switches should be located near the main entrance to the area served by each AHU.

5. Document and test system performance.
6. Analyze collected data and generate final performance report.

ECM 26 - Schedule Domestic Hot Water Heaters

Project Scope

1. Provide a relay to each domestic water heater within the building and connect the DDC control system.
2. Schedule for water heater use shall be as follows (either through the DDC system or time clock): Workdays: ON from 7 am - 8 pm. OFF from 8 pm - 7 am. Non-workdays: OFF from 8 pm to 7 am of next workday.

Animal Control

ECM 22 - Retrofit Existing Flush Valves With Low Flow Flush Valves

Project Scope

4. Retrofit existing 3.5 GPF and 1.6 GPF water closet flush valves with low-flow 1.28 GPF flush valves.
5. Retrofit existing 1.0 GPF urinal flush valves with low-flow 0.13 GPF flush valves.
6. Refer to Schedule A.2

ECM 24 - Retrofit Existing Aerators With Low Flow Aerators

Project Scope

3. Retrofit existing 1-2 GPM faucet aerators for lavatories and sinks with low-flow 0.5 GPM faucet aerators.
4. Refer to Schedule A.2

ECM 8 - Install New Direct Digital Control System

Project Scope

Implementation of this ECM involves the installation of a centralized DDC system with control programs, control devices, space temperature sensors, thermostats and dampers such that the air systems can be operated in occupied mode during the day time and unoccupied mode at night and when the building is closed. Also, re-commission and air balance entire HVAC system components to verify proper operation.

1. Install new DDC system - Convert control systems of the AHU's and their associated exhaust fans to a new DDC system.

2. Interlock exhaust fans and AHU's - Interlock exhaust fans with individual AHU's serving the same area. When the AHU is scheduled off, the associated exhaust fans are scheduled off to prevent the infiltration of untreated outdoor air into the building during unoccupied mode.

3. Inspect existing OA dampers and install damper actuators - Inspect the OA dampers of the AHU's. Provide repair or replacement of existing OA dampers. Install new damper actuators for the OA dampers so that they function properly and can be commanded to close and reopen accordingly from the building's new DDC system.

4. Install occupied mode and unoccupied mode operations for the air systems listed in Appendix.

    a. Unoccupied Mode: Turn off AHU supply air (SA) fans, exhaust air (EA) fans, and close the OA dampers of the air systems listed in the Existing Equipment Inventory.
    b. Setback Control Mode: Same as Unoccupied Mode operation except the air systems cycle on to maintain unoccupied mode space setpoints, initially set at 60°F for space heating and 80°F for space cooling. The EA fans turned off during Unoccupied Mode operation shall remain off. The outside air (OA) dampers closed during Unoccupied Mode operation shall remain closed.
    c. Morning Warm-up/Cool-down Mode: Same as Setback Control Mode except the air systems operate continuously. This mode of operation starts approximately two hours prior to building Occupied Mode starts so that the HVAC systems have sufficient time to gradually reach the Occupied Mode space temperature setpoints.
    d. Occupied Mode: All of the air systems shown shall revert back to their current normal operation with SA fan and EA fans operating continuously to maintain Occupied Mode space setpoints. All of the OA dampers shall remain open.
    e. Override Time Switch: Each AHU listed shall have an override switch installed to temporarily override space unoccupied mode as programmed in the new building DDC system. The override switch shall have a multiple override time period selector. Once the override time period is expired, the HVAC system shall revert back to being controlled by the building control system. Override switches should be located near the main entrance to the area served by each AHU.
5. Document and test system performance.
6. Analyze collected data and generate final performance report.

Ketterlinus Gymnasium

ECM 31 Retrofit Existing Roof with Cool Roof

Project Scope

Flat Roof Section: 9,918 Square Feet
Round Roof Section: 14,500 Square Feet

a) Pressure Clean Roof to remove all dirt and debris that could interfere with the proper application of the retrofit.
b) Flash and seams or breaks in membrane using flashing tape.
c) Flash around all roof penetrations where needed as determined by the roofing company doing the retrofit.
d) Flash the existing wall flashing using flashing grade elastomeric.
e) Spray apply Gacosil S-20 Silicone Coating (Ultra White) at the average rate of 1.75 gallons per square to the entire roof area included in this project per manufacturer's specifications.
f) 10 year coating manufacturers Leak Proof Warranty.

ECM 2 - Remove Existing Incandescent Lamps and Install New Compact Fluorescent / High Incandescent Lamps

Project Scope

1. Retrofit existing incandescent, 60w fixtures with PL13 floodlight screw-in adapter.
2. Refer to Schedule A.1 for detailed list of lighting work

ECM 4 - Replace Existing Lighting Fixture with New High Efficiency Fixture

Project Scope

1. Replace 1'x 4' wraparound, 2-T12, and 4' lamp fixture with new 4' 1- T8 lamp, and electronic ballast, wrap fixture.
2. Replace 1'x 4' wraparound, 2-T12, and 4' lamp fixture with new 4' 2- T8 lamp and electronic ballast, wrap fixture.

3. Replace 2'x4' wraparound, 4-4' T12 lamp fixture with new 4' 2- T8 lamp, and electronic ballast, wrap fixture.

4. Replace incandescent 100w fixture with new 4' 2- lamp, T8 lamp, and electronic ballast, wrap fixture.
5. Replace 1'x 8' wraparound fixture with 4-4' T12 lamps with new wrap 8' fixture with 2-T8 lamps.
6. Replace metal halide 1000w fixture, with new, 4' 6 lamp T8 hi bay-HO ballast fixture.
7. Refer to Schedule A.1 for detailed list of lighting work

ECM 5 – Remove Existing Exit Signs and Install New LED Exit Signs

Project Scope

1. Replace existing 2-15w incandescent, single face exit signs with new LED single face exit signs.
2. Refer to Schedule A.1 for detailed list of lighting work

ECM 6 – Install Occupancy Sensors.

Project Scope

Provide Occupancy Control of lighting in the following areas: Offices, Storage Rooms, Mechanical/Electrical Rooms, restrooms.

ECM 11 – Install a Control System in the Weight Room that closes/turns off the unit when the door is open

Project Scope

1. Add micro switches to all exterior doors of the Weight Room.

2. Interlock the switches so that the HVAC system de-energizes while any one door is open.

ECM 16 – Remove Existing HVAC DX systems and Install New DX Systems

Project Scope

1. Remove the existing (4) Gymnasium DX split systems, including air handler(s), grade mounted condensing units and properly dispose of them or, at the owner's discretion, store the systems at an on-site location specified by the owner. If the removal of the systems involves temporary relocation of other mechanical equipment, store and environmentally protect this equipment and restore to proper operation after the new systems are installed. Extract and store the

refrigerant from the displaced systems in secure vessels on site and properly dispose.

2. Provide and install (4) new 10 Ton electric, high efficiency, DX, packaged rooftop unit heat pumps with electric strip heat on the adjacent single story roof. The new systems shall have a minimum efficiency of 13.1 IEER at the same design criteria as the existing systems. Units shall be sized accordingly for the added ventilation load per the requirements of ASHRAE 62.1.

3. Provide all necessary structural modifications, roof curbs, electrical services and modifications to facilitate the installation. Provide any structural tie-downs, as required by local codes and regulations.

4. Provide new supply duct routing to accommodate new RTU locations. Duct shall be sized properly based on updated system capacities.

5. Provide zone sensors on the East and West walls of the Gymnasium at locations per the owner's direction. Provide associated programmable thermostats in the director's office. Provide all control hardware and wiring needed to accomplish this installation.

6. Install CO2 sensor-controlled outside air (OA) ventilation systems for the AHU's listed above. For each AHU, install a CO2 sensor in the AHU return air path to monitor the return air CO2 level. Provide and install motorized modulating OA damper actuators to open and close the OA dampers. Install control wiring, relays, and other necessary control accessories needed to achieve the intent of this ECM. Control points include CO2 analog input and Damper position analog output. Program the building control system so that the OA damper modulates to maintain CO2 levels of return air. The outside air dampers would also modulate to maintain CO2 sensors that are pre-set at a user-programmable setpoint, initially 700 ppm.

7. Remove the existing DX split systems, including air handler(s) and grade-mounted condensing units and properly dispose of them or, at the owner's discretion, store the systems at an on-site location specified by the owner. If the removal of the systems involves temporary relocation of other equipment, it will be stored, environmentally protected and restored to proper operation after the new system is installed. Extract and store the refrigerant from the displaced systems in secure vessels on site and properly dispose.

8. Provide and install (3) new 5 Ton electric, high efficiency DX split systems or heat pumps with electric strip heat at the location of the removed systems. The new systems shall have a minimum efficiency of 14 SEER at the same design criteria as the existing systems.

9. Inspect existing refrigerant lines and repair or replace. Provide electrical services and modification to facilitate the installation. Provide any structural tie-downs, as required by local codes and regulations.

10. Refer to Schedule A.3 for details

ECM 22 - Retrofit Existing Flush Valves With Low Flow Flush Valves

Project Scope

1. Retrofit existing 3.5 GPF and 1.6 GPF water closet flush valves with low-flow 1.28 GPF flush valves.
2. Retrofit existing 1.0 GPF urinal flush valves with low-flow 0.13 GPF flush valves.
3. Refer to Schedule A.2

ECM 24 - Retrofit Existing Aerators With Low Flow Aerators

Project Scope

1. Retrofit existing 1-2 GPM faucet aerators for lavatories and sinks with low-flow 0.5 GPM faucet aerators.
2. Refer to Schedule A.2

ECM 28- Install Maximicer on Ice Machines

Project Scope

2. Retrofit one (1) existing ice machines with the Maximicer unit.

ECM 29 - Install VendMiser on Vending Machines

Project Scope

1. Install VendMiser product on one (1) existing cold drink vending machine within the building.

ECM 8 - Install New Direct Digital Control System

Implementation of this ECM involves the installation of a centralized DDC system with control programs, control devices, space temperature sensors, thermostats and dampers such that the air systems can be operated in occupied mode during the day time and unoccupied mode at night and when the building is closed. Also, re-commission and air balance entire HVAC system components to verify proper operation.

1. Install new DDC system - Convert control systems of the AHU's and their associated exhaust fans to a new DDC system.

2. Interlock exhaust fans and AHU's - Interlock exhaust fans with individual AHU's serving the same area. When the AHU is scheduled off, the associated exhaust fans are scheduled off to prevent the infiltration of untreated outdoor air into the building during unoccupied mode.

3. Inspect existing OA dampers and install damper actuators - Inspect the OA dampers of the AHU's. Provide repair or replacement of existing OA dampers. Install new damper actuators for the OA dampers so that they function properly and can be commanded to close and reopen accordingly from the building's new DDC system.

4. Install occupied mode and unoccupied mode operations for the air systems listed in Appendix.

    a. Unoccupied Mode: Turn off AHU supply air (SA) fans, exhaust air (EA) fans, and close the OA dampers of the air systems listed in the Existing Equipment Inventory.
    b. Setback Control Mode: Same as Unoccupied Mode operation except the air systems cycle on to maintain unoccupied mode space setpoints, initially set at 60°F for space heating and 80°F for space cooling. The EA fans turned off during Unoccupied Mode operation shall remain off. The outside air (OA) dampers closed during Unoccupied Mode operation shall remain closed.
    c. Morning Warm-up/Cool-down Mode: Same as Setback Control Mode except the air systems operate continuously. This mode of operation starts approximately two hours prior to building Occupied Mode starts so that the HVAC systems have sufficient time to gradually reach the Occupied Mode space temperature setpoints.
    d. Occupied Mode: All of the air systems shown shall revert back to their current normal operation with SA fan and EA fans operating continuously to maintain Occupied Mode space setpoints. All of the OA dampers shall remain open.
    e. Override Time Switch: Each AHU listed shall have an override switch installed to temporarily override space unoccupied mode as programmed in the new building DDC system. The override switch shall have a multiple override time period selector. Once the override time period is expired, the HVAC system shall revert back to being controlled by the building control system. Override switches should be located near the main entrance to the area served by each AHU.
5. Document and test system performance.
6. Analyze collected data and generate final performance report.

Administration Building

ECM 1 – Retrofit Existing 250 watt incandescent fixtures (90) to 42 watt Compact Fluorescent Fixtures

Project Scope

1. Retrofit ninety (90) each 250 watt fixtures in the auditorium with 42 watt compact fluorescent lamps
2. Replace Fifty one (51) each existing metal halide 175 watt fixtures in the parking garage with new 8' fluorescent fixtures containing 4 each 4' T8 lamps and electronic ballasts
3. Refer to Schedule A.1 for detailed list of lighting work

Cypress Links Golf Course - Club House

ECM 1 - Remove Existing Lamp and Ballast and Install New T8 Lamps and Electronic Ballast

Project Scope

1. Retrofit existing 2'x4', troffer, 4-lamp, T12, magnetic ballast fixture with 2-T8 lamps, electronic ballast, and reflector.
2. Retrofit existing 2'x4', troffer, 4-lamp, T12, magnetic ballast fixture with 4-T8 lamps, electronic ballast, and reflector.
3. Refer to Schedule A.1 for detailed list of lighting work

ECM 2 - Remove Existing Incandescent Lamps and Install New Compact Fluorescent / High Incandescent Lamps

Project Scope

1. Retrofit existing incandescent, 60w fixtures with PL13 floodlight screw-in adapter.
2. Retrofit existing incandescent, 65w fixtures with PL13 floodlight screw-in adapter.
3. Retrofit existing incandescent, 100w fixtures with PL13 floodlight screw-in adapter.
4. Refer to Schedule A.1 for detailed list of lighting work

ECM 4 - Replace Existing Lighting Fixture with New High Efficiency Fixture

Project Scope

1. Replace 2-4' lamp, strip fixture with new 4', 1-lamp, T8, electronic ballast, wrap fixture.
2. Replace 1'x 4' wraparound, 2-T12, and 4' lamp fixture with new 4' 2- T8 lamp and electronic ballast, wrap fixture.
3. Replace 2'x4' wraparound, 4-4' T12 lamp fixture with new 4' 2- T8 lamp, and electronic ballast, wrap fixture.
4. Replace 2-8' lamp, industrial fixture with new 8' 2-lamp, T8, electronic ballast industrial fixture.
5. Replace incandescent 100w fixture with new 4' 2- lamp, T8 lamp, and electronic ballast, wrap fixture.
6. Refer to Schedule A.1 for detailed list of lighting work

ECM 5 - Remove Existing Exit Signs and Install New LED Exit Signs

Project Description

Replace existing incandescent exit signs with LED exit signs. The ECM will reduce building energy usage while maintaining current Florida Building Code lighting levels.

Project Scope

1. Replace existing 2-15w incandescent, single face exit signs with new LED single face exit signs.
2. Refer to Schedule A.1 for detailed list of lighting work

ECM 16.1 - Remove Existing HVAC DX system and Install New DX System

Project Scope

1. Remove the existing five (5) ton DX split system serving the Proshop, including air handler and grade-mounted condensing unit and properly dispose of them or, at the owner's discretion, store the systems at an on-site location specified by the owner. If the removal of the systems involves temporary relocation of other equipment, it will be stored, environmentally protected and restored to proper operation after the new system is installed. Extract and store the refrigerant from the displaced systems in secure vessels on site and properly dispose.

   Provide and install a new five (5) ton electric, high efficiency heat pump with electric strip heat Model Number 4TWB4061E1/GAM5A0B60M51SA at the location of the removed system. The new system shall have a minimum efficiency of 14 SEER at the same design criteria as the existing systems.

2. Inspect existing refrigerant lines and repair or replace. Provide electrical services and modification to facilitate the installation. Provide any structural tie-downs, as required by local codes and regulations.

3. Refer to Schedule A.3 for details

ECM 28- Install Maximicer on Ice Machines

Project Scope

1. Retrofit one (1) existing ice machines with the Maximicer unit.

ECM 26 - Schedule Domestic Hot Water Heaters

Project Scope

1. Provide a time clock for each water heater and locate on the wall next to each water heater.
2. Schedule for water heater use shall be as follows: Workdays: ON from 7 am - 8 pm. OFF from 8 pm - 7 am. Non-workdays: OFF from 8 pm to 7 am of next workday.

Cypress Links Golf Course - Maintenance Bldg.

ECM 10 - Install Programmable Thermostat

Project Description

1. Install one (1) new programmable thermostat new Heat Pump.
2. Manually set all thermostats for all air systems to the following parameters:
   6. Occupied Mode - cooling: 74° F with a +/- 2-deg throttling range.
   7. Occupied Mode - heating: 68° F with a +/- 2-deg throttling range.
   8. Unoccupied Mode - cooling: 80° F with a +/- 3-deg throttling range.
   9. Unoccupied Mode - heating: 60° F with a +/- 3-deg throttling range.

ECM 16 - Remove Existing HVAC DX system and Install New DX System

Project Scope

1. Remove the existing four (4) ton DX split system, including air handler and grade-mounted condensing unit and properly dispose of them or, at the owner's discretion, store the systems at an on-site location specified by the owner. If the removal of the systems involves temporary relocation of other equipment, it will be stored, environmentally protected and restored to proper operation after the new system is installed. Extract and store the refrigerant from the displaced systems in secure vessels on site and properly dispose.

   Provide and install a new four (4) ton electric, high efficiency heat pump Model Number 4TWB4049E1/GAM5A0C48M41SA with electric strip heat at the location of the removed system. The new systems shall have a minimum efficiency of 15 SEER at the same design criteria as the existing systems.

2. Inspect existing refrigerant lines and repair or replace. Provide electrical services and modification to facilitate the installation. Provide any structural tie-downs, as required by local codes and regulations.
3. Refer to Schedule A.3 for details.

Refer to Appendix for all equipment to be replaced as part of this ECM.

ECM 28 - Install Maximicer on Ice Machines

Project Scope

1. Retrofit one (1) existing ice machines with the Maximicer unit.

ECM 26 - Schedule Domestic Hot Water Heaters

Project Scope

1. Provide a time clock for each water heater and locate on the wall next to each water heater.
2. Schedule for water heater use shall be as follows: Workdays: ON from 7 am - 8 pm. OFF from 8 pm - 7 am. Non-workdays: OFF from 8 pm to 7 am of next workday.

Cypress Links Golf Course - Cart Barn

ECM 1 - Remove Existing Lamp and Ballast and Install New T8 Lamps and Electronic Ballast

Project Scope

1. Retrofit existing 2'x4', troffer, 4-lamp, T12, magnetic ballast fixture with 2-T8 lamps, electronic ballast, and reflector.
2. Retrofit existing 2'x4', troffer, 4-lamp, T12, magnetic ballast fixture with 4-T8 lamps, electronic ballast, and reflector.
3. Refer to Schedule A.1 for detailed list of lighting work

ECM 26 - Schedule Domestic Hot Water Heaters

Project Scope

1. Provide a time clock for each water heater and locate on the wall next to each water heater.
2. Schedule for water heater use shall be as follows: Workdays: ON from 7 am - 8 pm. OFF from 8 pm - 7 am. Non-workdays: OFF from 8 pm to 7 am of next workday.

Anastasia Wastewater Treatment Plant

ECM 1 - Remove Existing Lamp and Ballast and Install New T8 Lamps and Electronic Ballast

Project Scope

1. Retrofit existing 2'x4', troffer, 3-lamp, T12, magnetic ballast fixture with 2-T8 lamps, electronic ballast, and reflector.
2. Retrofit existing 2'x4', troffer, 2-lamp, T12, magnetic ballast fixture with 2-T8 lamps, electronic ballast, and reflector.
3. Retrofit existing 2'x4', troffer, 2-T12 U-Lamps, magnetic ballast fixture with 2-2'T8 lamps, electronic ballast, and reflector.
4. Retrofit existing 1'x4', troffer, 2-lamp, T12, magnetic ballast fixture with 2-2'T8 lamps, electronic ballast, and reflector.
5. Retrofit existing 4' strip, 2-lamp, T12, magnetic ballast fixture with 2-T8 lamp, and electronic ballast.
6. Retrofit existing 8' strip, 2-lamp, T12, magnetic ballast fixture with 8' industrial T8 retrofit kit, using 2-4' lamps.
7. Retrofit existing 8' strip, 2-lamp, T12, magnetic ballast fixture with 8' strip T8 retrofit kit, using 2-4' lamps.
8. Retrofit existing wall mounted, 2-2' lamp, T12 magnetic ballast fixture with 1-2' F17T8 lamp, and electronic ballast.
9. Refer to Schedule A.1 for detailed list of lighting work

ECM 3 - Retrofit Existing Metal Halides to High Efficiency Metal Halides

Project Scope

1. Replace existing metal halide 175w fixtures with 150w metal halide pulse start kit.
2. Replace existing metal halide 175w fixtures with PL42 screw-in adapter.
3. Replace existing metal halide 250w fixtures with150w metal halide pulse start kit.
4. Replace existing metal halide 250w fixtures with 320w metal halide pulse start kit.
5. Refer to Schedule A.1 for detailed list of lighting work

ECM 4 - Replace Existing Lighting Fixture with New High Efficiency Fixture

Project Scope

1. Replace 2-4' lamp, strip fixture with new 4', 1-lamp, T8, electronic ballast, wrap fixture.
2. Replace 1'x 4' wraparound, 2-T12, and 4' lamp fixture with new 4' 2- T8 lamp and electronic ballast, wrap fixture.

3. Replace 2'x4' wraparound, 4-4' T12 lamp fixture with new 4' 2- T8 lamp, and electronic ballast, wrap fixture.
4. Replace 2-8' lamp, industrial fixture with new 8' 2-lamp, T8, electronic ballast industrial fixture.
5. Replace incandescent 100w fixture with new 4' 2- lamp, T8 lamp, and electronic ballast, wrap fixture
6. Refer to Schedule A.1 for detailed list of lighting work

ECM - Install new air supply efficiency blowers on biosolids management

1. Remove "Old Plant" Blower Motors 1 & 2 which are currently 75 horsepower units and replace with high efficiency turbo 75 horsepower motors.
2. Provide start up and testing of new installed motors.
3. Work to be staged as to not interfere with normal operation of plant.

Sawgrass Wastewater Treatment Plant

ECM 1 - Remove Existing Lamp and Ballast and Install New T8 Lamps and Electronic Ballast

Project Scope

1. Retrofit existing 2'x4', troffer, 3-lamp, T12, magnetic ballast fixture with 2-T8 lamps, electronic ballast, and reflector.
2. Retrofit existing 2'x4', troffer, 2-lamp, T12, magnetic ballast fixture with 2-T8 lamps, electronic ballast, and reflector.
3. Retrofit existing 2'x4', troffer, 2-T12 U-Lamps, magnetic ballast fixture with 2-2'T8 lamps, electronic ballast, and reflector.
4. Retrofit existing 1'x4', troffer, 2-lamp, T12, magnetic ballast fixture with 2-2'T8 lamps, electronic ballast, and reflector.
5. Retrofit existing 4' strip, 2-lamp, T12, magnetic ballast fixture with 2-T8 lamp, and electronic ballast.
6. Retrofit existing 8' strip, 2-lamp, T12, magnetic ballast fixture with 8' industrial T8 retrofit kit, using 2-4' lamps.
7. Retrofit existing 8' strip, 2-lamp, T12, magnetic ballast fixture with 8' strip T8 retrofit kit, using 2-4' lamps.
8. Retrofit existing wall mounted, 2-2' lamp, T12 magnetic ballast fixture with 1-2' F17T8 lamp, and electronic ballast.
9. Refer to Schedule A.1 for detailed list of lighting work

ECM 2 - Remove Existing Incandescent Lamps and Install New Compact Fluorescent / High Incandescent Lamps

Project Scope

1. Replace existing 60 watt, incandescent fixture with new PL13 fixture.
2. Retrofit existing 65 watt, incandescent fixture with PL13 floodlight screw-in adapter, dimmable.
3. Refer to Schedule A.1 for detailed list of lighting work

ECM 3 - Retrofit Existing Metal Halides to High Efficiency Metal Halides

Project Scope

1. Replace existing metal halide 175w fixtures with 150w metal halide pulse start kit.
2. Replace existing metal halide 175w fixtures with PL42 screw-in adapter.
3. Replace existing metal halide 250w fixtures with150w metal halide pulse start kit.
4. Replace existing metal halide 250w fixtures with 320w metal halide pulse start kit.
5. Refer to Schedule A.1 for detailed list of lighting work

ECM 4 - Replace Existing Lighting Fixture with New High Efficiency Fixture

Project Scope

1. Replace 2-4' lamp, strip fixture with new 4', 1-lamp, T8, electronic ballast, wrap fixture.
2. Replace 1'x 4' wraparound, 2-T12, and 4' lamp fixture with new 4' 2- T8 lamp and electronic ballast, wrap fixture.
3. Replace 2'x4' wraparound, 4-4' T12 lamp fixture with new 4' 2- T8 lamp, and electronic ballast, wrap fixture.
4. Replace 2-8' lamp, industrial fixture with new 8' 2-lamp, T8, electronic ballast industrial fixture.
5. Replace incandescent 100w fixture with new 4' 2- lamp, T8 lamp, and electronic ballast, wrap fixture
6. Refer to Schedule A.1 for detailed list of lighting work

ECM - Install new air supply efficiency blowers on biosolids management

4. Remove Digester Blower Motor 1 & 2 which are currently 75 horsepower units and replace with high efficiency turbo 50 horsepower motors.
5. Provide start up and testing of new installed motors.
6. Work to be staged as to not interfere with normal operation of plant.

Supervisor of Elections/Old EOC

ECM 8 - Install New Direct Digital Control System

Project Scope

1. Implementation of this ECM involves the installation of a centralized DDC system with control programs, control devices, space temperature sensors, thermostats and dampers such that the air systems can be operated in occupied mode during the day time and unoccupied mode at night and when the building is closed. Also, re-commission and air balance entire HVAC system components to verify proper operation.

2. Install new DDC system - Convert control systems of the AHU's and their associated exhaust fans to a new DDC system.

3. Interlock exhaust fans and AHU's - Interlock exhaust fans with individual AHU's serving the same area. When the AHU is scheduled off, the associated exhaust fans are scheduled off to prevent the infiltration of untreated outdoor air into the building during unoccupied mode.

4. Inspect existing OA dampers and install damper actuators - Inspect the OA dampers of the AHU's. Provide repair or replacement of existing OA dampers. Install new damper actuators for the OA dampers so that they function properly and can be commanded to close and reopen accordingly from the building's new DDC system.

5. Install occupied mode and unoccupied mode operations for the air systems listed in Appendix.

   a. Unoccupied Mode: Turn off AHU supply air (SA) fans, exhaust air (EA) fans, and close the OA dampers of the air systems listed in the Existing Equipment Inventory.
   b. Setback Control Mode: Same as Unoccupied Mode operation except the air systems cycle on to maintain unoccupied mode space setpoints, initially set at 60°F for space heating and 80°F for space cooling. The EA fans turned off during Unoccupied Mode operation shall remain off. The outside air (OA) dampers closed during Unoccupied Mode operation shall remain closed.
   c. Morning Warm-up/Cool-down Mode: Same as Setback Control Mode except the air systems operate continuously. This mode of operation starts approximately two hours prior to building Occupied Mode starts so that the HVAC systems have sufficient time to gradually reach the Occupied Mode space temperature setpoints.
   d. Occupied Mode: All of the air systems shown shall revert back to their current normal operation with SA fan and EA fans operating continuously to maintain Occupied Mode space setpoints. All of the OA dampers shall remain open.

e. Override Time Switch: Each AHU listed shall have an override switch installed to temporarily override space unoccupied mode as programmed in the new building DDC system. The override switch shall have a multiple override time period selector. Once the override time period is expired, the HVAC system shall revert back to being controlled by the building control system. Override switches should be located near the main entrance to the area served by each AHU.

6. Document and test system performance.
7. Analyze collected data and generate final performance report.

ECM 31 - Retrofit Existing Roof With Cool Roof 45,002 Square Feet

Project Scope

a) Pressure Clean Roof to remove all dirt and debris that could interfere with the proper application of the retrofit.
b) Flash and seams or breaks in membrane using flashing tape.
c) Flash around all roof penetrations where needed as determined by the roofing company doing the retrofit.
d) Flash the existing wall flashing using flashing grade elastomeric.
e) Spray apply Gacosil S-20 Silicone Coating (Ultra White) at the average rate of 1.75 gallons per square to the entire roof area included in this project per manufacturer's specifications.
f) 10 year coating manufacturers Leak Proof Warranty.

ECM 22 - Retrofit Existing Flush Valves With Low Flow Flush Valves

Project Scope

1. Retrofit existing 3.5 GPF and 1.6 GPF water closet flush valves with low-flow 1.28 GPF flush valves.
2. Retrofit existing 1.0 GPF urinal flush valves with low-flow 0.13 GPF flush valves.
3. Refer to Schedule A.2

ECM 24 - Retrofit Existing Aerators With Low Flow Aerators

Project Scope

1. Retrofit existing 1-2 GPM faucet aerators for lavatories and sinks with low-flow 0.5 GPM faucet aerators.
2. Refer to Schedule A.2

ECM 26 - Schedule Domestic Hot Water Heaters

Project Scope

1. Provide a relay to each domestic water heater within the building and connect the DDC control system.
2. Schedule for water heater use shall be as follows: Workdays: ON from 7 am - 8 pm. OFF from 8 pm - 7 am. Non-workdays: OFF from 8 pm to 7 am of next workday.

New Jail

ECM 21.1 - Remove Existing Retrofitted DX Unit Serving Jail Isolation Corridor and Replace with Chilled Water RTU

Project Scope

1. Route new 1-1/2" chilled water piping from the existing second floor mechanical room on the roof to the proposed location for the new chilled water rooftop unit.
2. Remove the existing retrofitted air-handling unit and condensing unit from the roof and properly dispose of them. If the removal of the systems involves temporary relocation of other mechanical equipment, store and environmentally protect this equipment and restore to proper operation after the new system is installed. Extract and store the refrigerant from the displaced systems in secure vessels on site and properly dispose.
3. Provide new 10-ton chilled water rooftop air-handling unit with a constant speed fan, electric heating coil and 3-way chilled water motorized control valve. Connect to existing supply and return ductwork.
4. Refer to Schedule A.3 for details

ECM 21.2 - Add VAV Boxes to New Jail Existing AHU Systems

Project Scope

1. Provide and install new VAV boxes as shown in the attached sketches. VAV boxes shall not have dedicated heating coils.
2. Provide a new temperature sensor for each VAV box located in the return duct of the dayroom it serves. The dayroom temperature sensor shall modulate the VAV box based on cooling requirements of the space.
3. Provide a new duct static pressure sensor located 2/3rd of the way down the main supply duct. The existing VFD's shall modulate the supply fan to maintain 0.75" external static pressure as read by the new static pressure sensor.
4. The air-handling hot water heating coil valve shall continue to operate per the existing sequence of operations.
5. Test and balance all new VAV boxes per the airflows listed in the as-built documents.
6. Refer to Schedule A.3 for details

Courthouse Annex / Public Defender's Office

ECM 21.3 - Remove Existing Courthouse Annex Packaged DX Rooftop Unit and Install New Chilled Water VAV Rooftop Unit with Demand Control Ventilation

Project Scope

1. Remove the existing DX packaged rooftop unit and properly dispose of it. If the removal of the system involves temporary relocation of other mechanical equipment, store and environmentally protect this equipment and restore to proper operation after the new system is installed.
2. Connect new 2" chilled water supply and return piping to existing supply and return piping mains on the roof via "wet tap". Downtime to the existing chilled water mains shall be minimized.
3. Provide new 25-ton chilled water VAV air-handling unit on the roof. Provide roof curb adapter as required. Connect air-handler to existing supply and return ducts. Provide internally-mounted VFD and modulating-type motorized outdoor air damper.
4. Provide a new duct static pressure sensor located 2/3rd of the way down the main supply duct. The existing VFD's shall modulate the supply fan to maintain 0.75" external static pressure as read by the new static pressure sensor.
5. To implement DCV, install a CO_2 sensor in the AHU return air path to monitor the return air CO_2 level. Install control wiring, relays, and other necessary control accessories needed to achieve demand control ventilation. Control points include CO_2 analog input and Damper position analog output. Program the building control system or system controller so that the OA damper modulates to maintain CO_2 levels of return air at a user-programmable setpoint initially set at 700 ppm.
6. Refer to Schedule A.3 for details

ECM 31 - Retrofit Existing Rock Roof With Foam & Cool Roof 5,700 Square Feet

Project Scope

Retrofit of existing of Built Up Roof using Gaco Western Spray Applied Urethane Foam and Silicone Coating System

f) Hydro Vac roof free of all loose gravel, dirt, and debris that could interfere with the proper application of the retrofit.
g) Make minor repairs to existing membrane that could interfere with the proper application of the retrofit.
h) Spray apply (2.7 lb density) Urethane Foam to the entire roof area included in this project and parapet walls at the rate of one inch thickness.
i) Spray apply Gacosil S-20 Silicone Coating (Ultra White) at the average rate of 1.75 gallons per square to the entire roof area included in this project per manufacturer's specifications.
j) 10 year coating manufacturers Leak Proof Warranty.

Council on Aging

ECM 1 - Remove Existing Lamp and Ballast and Install New T8 Lamps and Electronic Ballast

Project Scope

1. Retrofit existing 2'x4', troffer, 4-lamp, T12, magnetic ballast fixture with 2-T8 lamps, electronic ballast, and reflector.
2. Retrofit existing 2'x4', troffer, 4-lamp, T12, magnetic ballast fixture with 4-T8 lamps, electronic ballast, and reflector.
3. Refer to Schedule A.1 for detailed list of lighting work

ECM 2 - Remove Existing Incandescent Lamps and Install New Compact Fluorescent / High Incandescent Lamps

Project Scope

1. Retrofit existing incandescent, 60w fixtures with PL13 floodlight screw-in adapter.
2. Retrofit existing incandescent, 65w fixtures with PL13 floodlight screw-in adapter.
3. Retrofit existing incandescent, 100w fixtures with PL13 floodlight screw-in adapter.
4. Refer to Schedule A.1 for detailed list of lighting work

ECM 5 - Remove Existing Exit Signs and Install New LED Exit Signs

Project Scope

1. Replace existing 2-15w incandescent, single face exit signs with new LED single face exit signs.
2. Refer to Schedule A.1 for detailed list of lighting work

ECM 10 - Install Programmable Thermostats

Project Description

1. Install new programmable thermostats on all systems.

2. Manually set all thermostats for all air systems to the following parameters:

    2. Occupied Mode - cooling: 74° F with a +/- 2-deg throttling range.
    3. Occupied Mode - heating: 68° F with a +/- 2-deg throttling range.
    4. Unoccupied Mode - cooling: 80° F with a +/- 3-deg throttling range.
    5. Unoccupied Mode - heating: 60° F with a +/- 3-deg throttling range.

ECM 16.1 Remove Four (4) existing HVAC and replace with Heat Pumps

1. Remove the existing four (4) ton DX split systems, including air handler and grade-mounted condensing units and properly dispose of them or, at the owner's discretion, store the systems at an on-site location specified by the owner. If the removal of the systems involves temporary relocation of other equipment, it will be stored, environmentally protected and restored to proper operation after the new system is installed. Extract and store the refrigerant from the displaced systems in secure vessels on site and properly dispose.
   Provide and install Two (1) each three (3) ton electric, high efficiency heat pump Model Number 4TWB4036E1/GAM5A0B36M31SA with electric strip heat at the location of the removed system. The new systems shall have a minimum efficiency of 15.0 SEER at the same design criteria as the existing systems.
   Provide and install three (3) each five (5) ton electric, high efficiency heat pump Model Number 4TWB4061E1/GAM5A0B60M51SA with electric strip heat at the location of the removed system. The new systems shall have a minimum efficiency of 14 SEER at the same design criteria as the existing systems. Inspect existing refrigerant lines and repair or replace. Provide electrical services and modification to facilitate the installation. Provide any structural tie-downs, as required by local codes and regulations.
2. Refer to Schedule A.3 for details

ECM 22 - Retrofit Existing Flush Valves With Low Flow Flush Valves

Project Scope

1. Retrofit existing 3.5 GPF and 1.6 GPF water closet flush valves with low-flow 1.28 GPF flush valves.
2. Retrofit existing 1.0 GPF urinal flush valves with low-flow 0.13 GPF flush valves.
3. Refer to Schedule A.2

ECM 24 - Retrofit Existing Aerators With Low Flow Aerators

Project Scope

1. Retrofit existing 1-2 GPM faucet aerators for lavatories and sinks with low-flow 0.5 GPM faucet aerators.
2. Refer to Schedule A.2

ECM 27 - Retrofit Domestic Hot Water System with AirTap

Project Scope

1. Retrofit the existing domestic water heater within the building per the Water Auditor's report.
2. Refer to Schedule A.2

ECM 28- Install Maximicer on Ice Machines

Project Scope

1. Retrofit one (1) existing ice machines with the Maximicer unit.

Project Information

Exclusions

- Broken toilet flanges. Price accounts for a replacement of 5% of broken flanges in our price. Quantities over 5% will be charged on a case-by-case basis at a pre-agreed upon price;
- Broken carriers and carrier bolts (for wall mount toilets) are not included in this price;
- Painting and tile work, and wall repair;
- Water isolation valves throughout each building will be in good working order to provide positive shut off to individual bathrooms and are responsibility of the customer to properly identify valves;
- Premium time or over time labor. All work to be performed during normal working hours;
- Asbestos removal or abatement

Water Savings Scope General Clarifications

- St Johns County, prior to construction will identify isolation valves. Isolation valves should also be in working order.

GENERAL ASSUMPTIONS AND EXCLUSIONS

- The following additional assumptions and exclusions apply to the entire Scope of Services included in this Exhibit.
- The Scope of Services herein is based on Knox County School's existing structures being sound, with no material faults that would adversely affect Trane's installation services hereunder.
- Temporary air conditioning, utilities, or facilities to keep the facilities functional are the sole responsibility of St Johns County and are not included within this Scope of Services.

Design Information within the Scope of Services

Any design information presented herein is for reference only. Final actual installed tonnage, horsepower, CFM, etc. may change (either larger or smaller) to meet specified and agreed upon performance criteria once final design and approved construction documents have been prepared.

Pre-Existing Conditions

All Pre-existing components not to be changed or modified by this project are assumed to be in good working order. This includes, but is not limited to the following:

- All Architectural items, such as: doors & hardware, window systems, roofing, waterproofing and flashings, building insulation, pavements, wall and floor finishes, ceilings, irrigation systems, & landscaping.
- All electric or hot water duct heaters
- All air & water flow measuring devices
- All motors, fans, fan coil units, and their associated starters

- All piping, insulation, valves, strainers, valve actuators, and linkages
- All dampers, actuators, and linkages (including fire dampers), unless specifically listed.
- All smoke & heat detectors
- All automation, fire alarm, and security control panel components and devices.
- All existing automation systems components and devices.
- All computers, monitors, printers, and modems.

If any existing component is found to be non-functional or non-operational, the costs to repair or replace this component are the responsibility of the St Johns County.

There are no known or identified code compliance issues. Correction of any pre-existing code issues are the responsibility of the St Johns County

Any building electrical utility upgrades required that are not expressly included in this Scope of Services are the responsibility of St Johns County. All Primary electrical service is excluded from the Scope of Services and is the responsibility of St Johns County.

Hours of Work and Access

- Lighting retrofit work will be performed after normal working hours and/or on weekends.
- All other work, Demolition, General Construction, Concrete, Structural, Mechanical, Electrical, and Controls will generally be performed during normal working hours. M-F, 7:00AM-5:00PM, unless the area of work causes unreasonable disruption to employees or the general public.
- Significant systems shut downs and switchovers will be performed as mutually agreed to between Trane and St Johns County.
- St Johns County to provide master keys/access to all areas of the building as needed to maintain the agreed upon Project Schedule.
- Should security or janitorial staff be required to ensure the safety of the facilities being worked in, it is the responsibility of St Johns County to bear the cost of this service.

- ***Fire Alarm Systems***

Upgrades to the fire alarm system for additional point capacity required for these components are not included. All costs associated with adding upgrading or repairing existing systems are the responsibility of St Johns County.

Lightning Protection

No Lightning Protection/Surge suppression systems are included in this Scope of Services.

General Exclusions

Hazardous Materials/Asbestos abatement
Ultrasonic testing of welds.

Schedule A.1 – Lighting Retrofits

Main Library				
Room #	**Room Description**	**Qty**	**Existing Fixture Description**	**Description of Proposed**
Reading	High area	17	metal halide 250w	replace with new 4'-4lamp/t8/EB/wrap fixture
Reading	Kids area	9	metal halide 175w	replace with new 4' 2-lamp/t8/EB/wrap fixture
Reading	Girls	1	strip, 2-4' lamps, T8/EB	no change to existing fixture
Reading	Boys	1	strip, 2-4' lamps	no change to existing fixture
Reading	Circulation	6	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Reading	Adult fiction	10	metal halide 250w	replace with new 4'-4lamp/t8/EB/wrap fixture
Reading	Desks	8	metal halide 175w	replace with new 4' 2-lamp/t8/EB/wrap fixture
Reading	Stacks	133	1'x4' troffer, 2-4' lamps, T8/EB	no change to existing fixture
Reading	Stacks	18	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture
Reading	Legal	8	metal halide 250w	replace with new 4'-4lamp/t8/EB/wrap fixture
Offices	Hall	2	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture
Offices	A/v room	9	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture
Offices	A/v room	1	1'x4' troffer, 2-4' lamps, T8/EB	no change to existing fixture
Manager	Office	2	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture
Manager	Office	2	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Conference	room	4	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	no change to existing fixture
Work	room	13	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Work	Halls	2	circline fixture with 1-fc12 & 1-fc8 lamp ea.	replace with new 4' 1-lamp/t8/eb/wrap fixture
Work	baths	2	strip, 2-4' lamps	retrofit w/2-T8/EB-reduced output

Work	Lounge	3	1'x4' troffer, 2-4' lamps, T8/EB	no change to existing fixture
Work	Lounge	1	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture
Work	Lan	1	industrial, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Book store	Store	3	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture
Book store	Closet	1	circline fixture with 1-fc12 & 1-fc8 lamp ea.	replace with new 4' 1-lamp/t8/eb/wrap fixture
Meeting room	Main Lights	18	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	no change to existing fixture
Meeting room	Cans	4	incandescent, 65w	retrofit with PL13 floodlight screw-in adapter, dimmable
Meeting room	Track	2	incandescent, 65w	retrofit with PL13 floodlight screw-in adapter
Meeting room	Kitchen	2	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture
Meeting room	Fire pump	1	1' x 2' wraparound, 2-2' lamps T8/EB	no change to existing fixture
Men & Women	baths	4	strip, 2-4' lamps	retrofit w/1-T8/EB
Men & Women	Vestibule	2	compact fluorescent fixture, 1-13w PL lamp	no change to existing fixture
Storage	Closet	1	strip, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Storage	Janitor	1	1' x 2' wraparound, 2-2' lamps T8/EB	no change to existing fixture
Ponte Vedra Library				
Room #	**Room Description**	**Qty**	**Existing Fixture Description**	**Description of Proposed**
Quiet room	Reading	8	compact fluorescent fixture, 2-26w PL lamps	no change to existing fixture
Quiet room	Reading	4	metal halide 400w	retrofit w/320w mh pulse start kit
New stacks	Low area	16	metal halide 175w	retrofit w/150w mh pulse start kit
New stacks	High area	15	metal halide 400w	retrofit w/320w mh pulse start kit
New stacks	High area	20	metal halide 400w	retrofit w/150w mh pulse start kit

New stacks	Sconces	4	compact fluorescent fixture, 1-13w PL lamp	no change to existing fixture
Workroom	Office	4	2'X4' troffer, 3-4' lamps	retrofit w/2-T8/EB/reflector
Workroom	Office	1	2'X2' troffer, 2-U lamps, T8/EB	no change to existing fixture
Workroom	Office	4	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture
Old section	Circulation	11	2'X4' troffer, 3-4' lamps	retrofit w/2-T8/EB/reflector
Old section	Circulation	4	2'X2' troffer, 2-U lamps	retrofit w/2-2' T8/EB/reflector
Old section	Popular materials	20	strip, 2-8' lamps	retrofit with 8' strip T8 retrofit kit, using 2-4' lamps
Old section	Popular materials	10	metal halide 175w	retrofit with PL42 screw-in adapter
Old section	Music hall	3	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture
Old section	Men	3	1'x4' troffer, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Old section	hall	1	compact fluorescent fixture, 2-26w PL lamps	no change to existing fixture
Old section	Women	3	1'x4' troffer, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Childrens library	Main	20	2'X4' troffer, 3-4' lamps	retrofit w/2-T8/EB/reflector
Childrens library	Office	2	2'X4' troffer, 3-4' lamps	retrofit w/2-T8/EB/reflector
Childrens library	Boys	1	wall bracket, 2-2' lamps	retrofit with 1-2' F17t8 lamp/EB
Childrens library	Girls	1	wall bracket, 2-2' lamps	retrofit with 1-2' F17t8 lamp/EB
Storage	closet	1	2'X4' troffer, 3-4' lamps	retrofit w/3-T8/EB-reduced output
Juvenile	Reading	30	2'X4' troffer, 3-4' lamps	retrofit w/2-T8/EB/reflector
PGA multimedia area	Hall	4	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	no change to existing fixture

PGA multimedia area	Bath	1	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	no change to existing fixture
PGA multimedia area	Men	1	2'X2' troffer, 2-U lamps, T8/EB	no change to existing fixture
PGA multimedia area	Women	1	2'X2' troffer, 2-U lamps, T8/EB	no change to existing fixture
FOTL room	Meeting	20	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	no change to existing fixture
FOTL room	Meeting	8	2'X2' troffer, 2-U lamps, T8/EB	no change to existing fixture
FOTL room	Meeting	8	incandescent, 65w	retrofit with PL13 floodlight screw-in adapter, dimmable
FOTL room	Storage	2	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	no change to existing fixture
PGA room	Meeting	6	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	no change to existing fixture
PGA room	Closet	1	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Kitchen	kitchen	1	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	no change to existing fixture
Office	Sink	2	2'X4' troffer, 3-4' lamps	retrofit w/2-T8/EB/reflector
Office	Storage	1	2'X4' troffer, 3-4' lamps	retrofit w/2-T8/EB/reflector
stairs to mezzanine	Stairs	1	incandescent 60w	replace with new PL13 fixture
Mezzanine	Ahu	5	strip, 2-4' lamps	retrofit w/2-T8/EB-reduced output
closet	Lan	2	strip, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Staff	Lounge	2	2'X4' troffer, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Staff	Locker	1	2'X4' troffer, 2-4' lamps	retrofit w/2-T8/EB-reduced output

Staff	Bath	1	wall bracket, 2-2' lamps	retrofit with 1-2' F17t8 lamp/EB
Staff	Bath	1	wall bracket, 2-2' lamps	retrofit with 1-2' F17t8 lamp/EB
Conferenc e	room	3	2'X4' troffer, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Conferenc e	room	4	compact fluorescent fixture, 2-26w PL lamps	no change to existing fixture
Janitor	closet	1	compact fluorescent fixture, 1-13w PL lamp	replace with new PL13 fixture
Manager	Office	3	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	no change to existing fixture
Bookstore	store	2	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	no change to existing fixture
Bookstore	office	3	2'X4' troffer, 3-4' lamps	retrofit w/2-T8/EB/reflector
Entrance	lobby	2	2'X4' troffer, 3-4' lamps	retrofit w/2-T8/EB/reflector
Office	Office	2	2'X4' troffer, 3-4' lamps	retrofit w/2-T8/EB/reflector
Outdoors	Walk	12	metal halide 175w	no change to existing fixture
Outdoors	Fountain	1	metal halide 175w	no change to existing fixture
Outdoors	New setion electrical room	2	strip, 2-8' lamps	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps
Outdoors	New setion electrical room	3	strip, 2-4' lamps, T8/EB	no change to existing fixture
Ketterlinus Gym				
Room #	**Room Description**	**Qty**	**Existing Fixture Description**	**Description of Proposed**
Gym	Main	16	metal halide 1000w	replace with new, 4' 6 lamp T8 hi bay-HO ballast
Gym	exits	4	exit 2-15w incand. Single face	replace with new, single face LED exit

Gym	Rear vestibule	1	incandescent 60w	retrofit with PL13 screw-in adapter
Gym	Office 3	1	1'x 4' wraparound, 2-4' lamps	replace with new 4' 2-lamp/t8/EB/wrap fixture
Multipurpose Room	Main	11	1'x 4' wraparound, 2-4' lamps	replace with new 4' 1-lamp/t8/eb/wrap fixture
Multipurpose Room	Office 4	2	1'x 4' wraparound, 2-4' lamps	replace with new 4' 2-lamp/t8/EB/wrap fixture
Multipurpose Room	Hall	1	incandescent 60w	retrofit with PL13 screw-in adapter
Multipurpose Room	Office 5	1	incandescent 100w	replace with new 4' 2-lamp/t8/EB/wrap fixture
Men	Bath	2	2'X4' troffer, 2-4' lamps, T8/EB	no change to existing fixture
Women	Bath	2	2'X4' troffer, 2-4' lamps, T8/EB	no change to existing fixture
Back hall	Janitor	1	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Back hall	Closet	1	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Outside	Storage	2	incandescent 60w	retrofit with PL13 screw-in adapter
Weight	Room	6	1'x 8' wraparound, 4-4' lamps	replace with new,wrap 8' fixture w/2-T8
Main Office	hall	1	1'x 4' wraparound, 2-4' lamps	replace with new 4' 1-lamp/t8/eb/wrap fixture
Main Office	Office	1	2'x4' wraparound, 4-4' lamps	replace with new 4' 2-lamp/t8/EB/wrap fixture
Main Office	Lounge	1	strip, 2-8' lamps	replace with new,wrap 8' fixture w/2-T8
Main Office	Elec	1	2'x4' wraparound, 4-4' lamps	replace with new 4' 2-lamp/t8/EB/wrap fixture
Activity1	Foyer	1	incandescent 60w	retrofit with PL13 screw-in adapter
Activity1	Main	5	1'x 4' wraparound, 2-4' lamps	replace with new 4' 1-lamp/t8/eb/wrap fixture
Back hall	Hall	5	2'X4' troffer, 2-4' lamps, T8/EB	no change to existing fixture
Back hall	Men	2	2'X4' troffer, 2-4' lamps, T8/EB	no change to existing fixture

Back hall	Women	2	2'X4' troffer, 2-4' lamps, T8/EB	no change to existing fixture
Back hall	Office	2	2'X4' troffer, 2-4' lamps, T8/EB	no change to existing fixture
Back hall	Bath	2	2'X4' troffer, 2-4' lamps, T8/EB	no change to existing fixture
Outside	Front	2	high pressure sodium 100w	no change to existing fixture
Outside	Weight side	1	high pressure sodium 100w	no change to existing fixture
Outside	side entrance	1	compact fluorescent fixture, 1-13w PL lamp	no change to existing fixture
Outside	Back side	1	high pressure sodium 100w	no change to existing fixture
Outside	Rear	2	high pressure sodium 100w	no change to existing fixture
Outside	rear	2	metal halide 1000w	no change to existing fixture
Outside	rear entrance	2	incandescent 60w	retrofit with PL13 screw-in adapter
Outside	Parking side	3	high pressure sodium 100w	no change to existing fixture
County Administration Building				
Room #	**Room Description**	**Qty**	**Existing Fixture Description**	**Description of Proposed**
Auditorium	Main Lighting	80	incandescent 250w quartz	retrofit with PL42 retrofit kit or screw-in, bypass ballast
Auditorium	Night Lights	10	incandescent 250w quartz	retrofit with PL42 retrofit kit or screw-in, bypass ballast
Garage	Main Lighting	30	metal halide 175w	replace with new vapor tight 8' fixture w/4-T8
Garage	Night Lights	21	metal halide 175w	replace with new vapor tight 8' fixture w/4-T8
Cypress Links Golf Course Club House				

Room #	Room Description	Qty	Existing Fixture Description	Description of Proposed
Back hall	hallway	1	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Elec	mechanical	1	strip, 1-4' lamp	retrofit w/1-T8/EB-reduced output
HC	Bath	1	strip, 2-4' lamps	replace with new 4' 1-lamp/t8/eb/wrap fixture
Lobby	entrance	5	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Lobby	Eyeballs	4	incandescent, 65w	retrofit with PL13 floodlight screw-in adapter
Men	Dressing	1	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Men	Bath	1	2'x4' wraparound, 4-4' lamps T8/EB	replace with new 4' 2-lamp/t8/EB/wrap fixture
Men	Sink	2	strip, 1-4' lamp	retrofit w/1-T8/EB-reduced output
Outside	Patio	4	metal halide 175w	no change to existing fixture
Outside	Cart pickup	6	metal halide 175w	no change to existing fixture
Outside	Back of storage bldg	3	metal halide 175w	no change to existing fixture
Outside	Cart office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Outside	Front of shed	2	high pressure sodium 100w	no change to existing fixture
Outside	Club carriage lts	2	high pressure sodium 100w	no change to existing fixture
Outside	Kitchen side	1	high pressure sodium 150w	no change to existing fixture
Outside	Parking	2	metal halide 250w	no change to existing fixture
Pro shop	shop	4	2'X4' troffer, 4-4' lamps	retrofit with w/4-T8/EB-reduced output
Pro shop	shop	7	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Pro shop	Track	7	compact fluorescent fixture, 1-13w PL lamp	no change to existing fixture

Pro shop	Office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Pro shop	Office	2	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Pro shop	Storage	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Pro shop	Dressing	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Pro shop	Bath	1	incandescent 100w	retrofit with PL26 floodlight screw-in adapter
Pro shop	Storage	1	2'X4' troffer, 4-4' lamps	retrofit with w/4-T8/EB-reduced output
Restaurant	Restaurant	12	strip, 2-4' lamps	retrofit w/1-T8/EB
Restaurant	Restaurant	24	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Restaurant	Kitchen	8	1'x 4' wraparound, 2-4' lamps	replace with new 4' 2-lamp/t8/EB/wrap fixture
Women	Dressing	2	2'x4' wraparound, 4-4' lamps T8/EB	replace with new 4' 2-lamp/t8/EB/wrap fixture
Women	Sink	3	compact fluorescent fixture, 1-13w PL lamp	no change to existing fixture
Women	ahu	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Women	entrance	1	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Anastasia Island Waste Water Treatment Plant				
Room #	**Room Description**	**Qty**	**Existing Fixture Description**	**Description of Proposed**
Conference	room	6	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Conference	exit	1	exit 2-15w incand. Single face	replace with new, single face LED exit
Electrical	mechanical	1	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Hall	Hall	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Kitchen	Lounge	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector

Men	bath	1	2'X4' troffer, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Office	Office	4	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Office	Office	4	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Office	Office	3	2'X4' troffer, 2-4' lamps, paracube lens	retrofit w/2-T8/EB-reduced output
Office	Office	4	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Outside	Wallpacks	1	high pressure sodium 100w	no change to existing fixture
Reception	lobby	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Reception	exit	1	exit 2-15w incand. Single face	replace with new, single face LED exit
Women	bath	1	2'X4' troffer, 2-4' lamps	retrofit w/2-T8/EB-reduced output
air handler	mechanical	1	incandescent 60w	retrofit with PL13 screw-in adapter
closet	storage	1	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
closet	storage	1	1'x 4' wraparound, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Copy	room	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Fume hood room	lab	1	2'X4' troffer, 4-4' lamps	retrofit with w/4-T8/EB-reduced output
Garage	storage	4	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Main hall	Hall	6	1'x 4' wraparound, 2-4' lamps	replace with new 4' 1-lamp/t8/eb/wrap fixture
men	bath	1	2'X4' troffer, 2-4' lamps	retrofit w/2-T8/EB-reduced output
metals lab	lab	9	2'X4' troffer, 4-4' lamps	retrofit with w/4-T8/EB-reduced output
metals lab	Closet	1	incandescent 60w	retrofit with PL13 screw-in adapter
micro lab	lab	5	2'X4' troffer, 4-4' lamps	retrofit with w/4-T8/EB-reduced output

micro lab	Office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Office	Office	3	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Office	Office	4	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Office	Office	4	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Office	Office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Office	Office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Outside	Entry	1	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Outside	Entry	1	incandescent 60w	retrofit with PL13 screw-in adapter
Outside	Wallpacks	1	high pressure sodium 100w	no change to existing fixture
reefer room	Lab	8	2'X4' troffer, 4-4' lamps	retrofit with w/4-T8/EB-reduced output
staff	Lounge	4	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Tank room	Hall	3	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
transforme r	mechanical	1	strip, 2-4' lamps	retrofit w/2-T8/EB-reduced output
wet chemical lab	Lab	4	2'X4' troffer, 4-4' lamps	retrofit with w/4-T8/EB-reduced output
Women	bath	1	2'X4' troffer, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Bath	Bath	1	wall bracket, 2-4' lamps	replace with 4' 1-lamp/t8/eb/wall bracket with convenience outlet
Conferenc e	room	3	2'X4' troffer, 4-4' lamps	replace with new 2x4 grid troffer w/2-T8/EB
Control	Office	8	2'X4' troffer, 4-4' lamps	replace with new 2x4 grid troffer w/2-T8/EB
Hall	Hall	1	2'X4' troffer, 2-4' lamps	replace with new 2x4 grid troffer w/2-T8/EB
Kitchen	Lounge	3	2'X4' troffer, 4-4' lamps	replace with new 2x4 grid troffer w/2-T8/EB

Lobby	Entry	2	2'X4' troffer, 4-4' lamps	replace with new 2x4 grid troffer w/2-T8/EB
Men	locker	1	wall bracket, 2-4' lamps	replace with 4' 1-lamp/t8/eb/wall bracket with convenience outlet
Men	locker	1	2'X4' troffer, 4-4' lamps	replace with new 2x4 grid troffer w/2-T8/EB
Office	Office	2	2'X4' troffer, 4-4' lamps	replace with new 2x4 grid troffer w/2-T8/EB
Outside	Wallpacks	2	high pressure sodium 100w	no change to existing fixture
Outside	Walkway to c	2	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Main	Main	6	industrial, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Outside	Wallpack	1	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Outside	Shoeboxes	2 1	metal halide 175w	no change to existing fixture
Pump room	control	2	industrial, 2-4' lamps, T8/EB	no change to existing fixture
Small tank	out back	1	1'x 4' wraparound, 2-4' lamps, T8/EB, vaportight	no change to existing fixture
Tanks	high area	3	metal halide 250w	replace with new, 4 lamp 4' industrial
Outside	Wallpack	2	high pressure sodium 100w	no change to existing fixture
	Files	2	industrial, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Tanks	Shoeboxes	4	metal halide 175w	no change to existing fixture
Outside	Wallpacks	2	high pressure sodium 100w	no change to existing fixture
inside	main	9	industrial, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Blower	mechanical	1 1	industrial, 2-4' lamps, T8/EB	no change to existing fixture
Generator	mechanical	1 1	industrial, 2-4' lamps, T8/EB	no change to existing fixture
Mcc2 room	mechanical	1 2	industrial, 2-4' lamps, T8/EB	no change to existing fixture

Outside	Wallpacks	3	metal halide 175w	no change to existing fixture
Outside	Pump	1	industrial, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Outside	Chemical stor	1	industrial, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Outside	Back side	2	1'x4' wraparound, 2-4' lamps, vaportight	retrofit w/2-T8/EB-reduced output
Outside	Wallpack	1	high pressure sodium 100w	no change to existing fixture
Outside	wall mount	2	incandescent 60w	retrofit with PL13 screw-in adapter
lab	Main	4	1'x 4' wraparound, 2-4' lamps, T8/EB	no change to existing fixture
lab	Wallpacks	1	high pressure sodium 100w	no change to existing fixture
Separator	Main	3	metal halide 250w	replace with new, 4 lamp 4' industrial
Dumpsters	lower level	9	1'x 4' wraparound, 2-4' lamps, T8/EB, vaportight	no change to existing fixture
Shoeboxes	tanks	15	metal halide 175w	no change to existing fixture
Outside	Wallpacks	2	high pressure sodium 150w	no change to existing fixture
main	Main	5	metal halide 400w	no change to existing fixture
Sawgrass Waste Water Treatment Plant				
Room #	**Room Description**	**Qty**	**Existing Fixture Description**	**Description of Proposed**
Lunch	Lounge	4	2'X4' troffer, 3-4' lamps	retrofit w/2-T8/EB
admin bldg	Office	2	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture
admin bldg	Lab	4	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture
admin bldg	Office	2	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture
admin bldg	Mcc	4	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture

admin bldg	Office	2	2'X4' troffer, 3-4' lamps, T8/EB	no change to existing fixture
admin bldg	Bath	1	incandescent 60w	retrofit with PL13 screw-in adapter
admin bldg	Sink	1	incandescent 2-60w	replace with new, wrap fixture w/1-T8 2'/EB
admin bldg	Shower	1	incandescent 60w	retrofit with PL13 screw-in adapter
10047 bldg	main room	6	strip, 2-8' lamps	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps
Storage	room	1	incandescent 100w	retrofit with PL26 screw-in adapter
Storage	parts	1	strip, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Storage	parts	3	strip, 2-8' lamps	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps
Vgc bldg	control	2	1'x 4' wraparound, 2-4' lamps, T8/EB, vaportight	no change to existing fixture
Pump bunker	pumps	1	strip, 2-8' lamps	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps
Generator	generator	2	strip, 2-8' lamps	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps
Generator	generator	1	strip, 2-4' lamps, T8/EB	no change to existing fixture
Pump house	pumps	4	industrial, 2-8' lamps	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps
control	Mcc	3	strip, 2-8' lamps	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps
Tanks	floods	4	high pressure sodium 400w	no change to existing fixture
Tanks	floods	4	high pressure sodium 100w	no change to existing fixture
area	area lts	3	mercury vapor 175w	replace with new, 100w hps floodlight, photocell
area	floods	1	incandescent 500w	replace with new, 100w hps floodlight, photocell
area	Wallpacks	2	high pressure sodium 250w	no change to existing fixture

area	Wallpacks	4	high pressure sodium 150w	no change to existing fixture
admin bldg	back door	1	compact fluorescent fixture (avg watts)	no change to existing fixture
Council on Aging				
Room #	**Room Description**	**Qty**	**Existing Fixture Description**	**Description of Proposed**
Admin	Office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Admin	Bath	1	incandescent 2-60w	retrofit with PL13 screw-in adapter
Admin	Office	3	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Admin	Utility	2	compact fluorescent fixture, 1-13w PL lamp	no change to existing fixture
Admin	Office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Admin	Office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Admin	Office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Back entrance	lobby	3	2'X4' troffer, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Bath	Bath	1	incandescent 2-60w	retrofit with PL13 screw-in adapter
Baths	baths	2	2'X4' troffer, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Care connection	hall	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Care connection	Office	6	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Center hall	Exits	1	exit 2-20w incand. Single face	replace with new, single face LED exit
Classroom A	Hall	1	1'x 4' wraparound, 2-4' lamps	replace with new 4' 1-lamp/t8/eb/wrap fixture
Classroom A	class	3	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Closet	Storage	1	incandescent 2-60w	retrofit with PL13 screw-in adapter

Coa break	Lounge	8	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Coa office	office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Coa office	Printer room	6	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Coa office	Open office	32	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Coa office	Board room	6	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Coastal home care	Office	8	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Cooler room	food prep	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Fiscal	Office	1	2'X4' troffer, 4-4' lamps	retrofit with w/4-T8/EB-reduced output
Fiscal	Hall	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Fiscal	Office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Fiscal	Office	4	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Fiscal	Office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Fiscal	Lan	1	strip, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Fiscal	Storage	2	incandescent 100w	retrofit with PL26 screw-in adapter
Front Area	Main	6	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Kitchen	dishwashing	4	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Kitchen	Main	16	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Kitchen	Hood	8	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
Kitchen	Laundry	1	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Kitchen	Storage	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector

Kitchen	Office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Kitchen	Freezer	4	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture
meals on wheels	food prep	8	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Men	Bath	2	2'X2' troffer, 2-U lamps, T8/EB	retrofit w/2-2' T8/EB/reflector
Outside	Coa utility	1	incandescent 2-60w	retrofit with PL13 screw-in adapter
Outside	Kitchen	1	incandescent 2-60w	retrofit with PL13 screw-in adapter
Outside	Kitchen	1	1'x 4' wraparound, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Outside	Sunshine	2	incandescent 60w	retrofit with PL13 screw-in adapter
Outside	Rear ent	2	incandescent 100w	retrofit with PL26 screw-in adapter
Outside	Main ent	2	compact fluorescent fixture, 1-13w PL lamp	no change to existing fixture
Outside	Sunshine foyer	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Senior Center	Tv room	4	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Senior Center	Exits	2	exit 2-20w incand. Single face	replace with new, single face LED exit
Senior Center	Library	3	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Senior Center	Hall	1	1'x4' troffer, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Senior Center	Bath	2	2'X2' troffer, 2-U lamps, T8/EB	retrofit w/2-2' T8/EB/reflector
Senior Center	Bath	2	2'X2' troffer, 2-U lamps, T8/EB	retrofit w/2-2' T8/EB/reflector
Senior Center	Front office	1	1'x 4' wraparound, 2-4' lamps	replace with new 4' 1-lamp/t8/eb/wrap fixture
Senior Center	Reception	7	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Senior Center	library	12	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector

Senior Center	Library	1	1'x 4' wraparound, 2-4' lamps	replace with new 4' 1-lamp/t8/eb/wrap fixture
Senior Center	Dining	9	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Senior Center	Hall	5	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Senior Center	Bath	2	2'X2' troffer, 2-U lamps, T8/EB	retrofit w/2-2' T8/EB/reflector
Senior Center	Computer	5	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Senior Center	Center hall	7	2'x2' troffer, 4-2' lamps	retrofit w/2-2' T8/EB/reflector
Senior Center	Exits	2	exit 2-7w PL fluorecent lamps	replace with new, single face LED exit
staff	Lounge	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Sunshine center	Tv room	5	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Sunshine center	Hall	1	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Sunshine center	Office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Sunshine center	Lounge	1	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Sunshine center	Lounge	2	1'x 4' wraparound, 2-4' lamps	replace with new 4' 1-lamp/t8/eb/wrap fixture
Sunshine center	Kitchen	1	2'X4' troffer, 4-4' lamps	retrofit with w/4-T8/EB-reduced output
Sunshine center	Closet	1	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Sunshine center	Ahu	1	1'x 4' wraparound, 2-4' lamps	retrofit w/2-T8/EB-reduced output
Therapy room	exercise room	14	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Therapy room	Office	2	2'X4' troffer, 4-4' lamps	retrofit w/2-T8/EB/reflector
Therapy room	Storage	2	2'x4' wraparound, 4-4' lamps	retrofit w/2-T8/EB
Therapy room	Storage	2	incandescent 100w	retrofit with PL26 screw-in adapter

travel	office	1	2'X4' troffer, 4-4' lamps	retrofit with w/4-T8/EB-reduced output
Women	Bath	2	2'X2' troffer, 2-U lamps, T8/EB	retrofit w/2-2' T8/EB/reflector
Women	Closet	1	2'X2' troffer, 2-U lamps	retrofit w/2-2' T8/EB/reflector
Cypress Links Golf Course Cart Barn				
Room #	**Room Description**	**Qty**	**Existing Fixture Description**	**Description of Proposed**
Cart Shed	Cart shed	10	industrial, 2-8' lamps	replace with new 8' 2lamp4't8/eb industrial fixt.
Cart Shed	Wash	4	compact fluorescent fixture, 1-26w PL lamp	no change to existing fixture

Schedule A.2 – Water Retrofits

ECM - 22, 24 Water Conservation

Scope
A typical toilet replacement with flush valve retrofit and maintenance upgrade includes the following major components:

- 1.6 gpf in kind china replacement (American Standard or equal)
- New outlet seals and Johnnie bolts if applicable
- New toilet seats with stainless steel hardware
- New (Zurn or equal) 1.6 gpf retrofit kit or flush valves

High flow sink faucets will be retrofit with new 0.5 gpm laminar faucet flow restrictors

Quantities are as listed below

Item Description	Council On Aging	Ketterlinus Gym	Main Library	Animal Control	Bartram Library
Water Closets					
Low Consumption (1.6gpf) diaphram flushvalve floor mounted water Closet	1	8			
Standard (3.5gpf) diaphram flushvalve floor mounted water Closet	4		5		
12" baby bowl Standard (3.5gpf) diaphram flushvalve floor mounted water Closet			2		
Standard (3.5gpf) Tank type floor mounted water Closet				3	3
Low Consumption (1.6gpf) Tank type floor mounted water Closet					2
TOILET SEAT	5	8	7	3	5

Urinals	Council On Aging	Ketterlinus Gym	Main Library	Animal Control	Bartram Library
Low Consumption (1.0gpf) Top Spud Wall hung Urinal		3			1
Wall mounted Urinal, manual 3/4" spud valve			1		
Faucets					
Low Consumption Faucet		9			
Standard vessel filler and kitchen hand sink faucet Takes aerator	1			3	
Standard Flow Lav Faucet Takes aerator	5		6	3	3
Showers					
Standard Shower head				1	
Totals	6	10	10	4	6

ECW 27 Retrofit Domestic Hot Water System with AirTap

At each building identified in Schedule A, one unit will be installed on the domestic water heater. The unit is 7,000 British Thermal Unit (BTU). The domestic water heater power source will be disconnected and connected to the AirTap unit and the existing water heater will be used as a storage tank. Picture below is indicative of AirTap unit installed on existing water heater.

ECW 28.1 Install O-zone Laundry System on Existing Washers

M: System Drain

A: Ozone Destruct. The ozone destruct unit is designed to destroy any un-desolved ozone that is not directly dissolved into the water. It also will destroy any ozone that is purged from the system after a washer fill cycle.
The Ozone Destruct should always be kept dry. Located around the top of the Ozone Destruct is a heating band designed the keep the media inside of the Destruct dry from moisture. It is not necessary for this heating band to be powered up to destruct ozone, but

recommended. There is an outlet port on the destruct to pipe the ozone destruct outdoors, but it Is not necessary.

B: Liquid Drainer. The Liquid Drainer assembly is designed to remove any moisture from the air before it enters the Ozone Destruct. Unused ozone and some moisture from the Air Relief Valve will enter the Liquid Drainer Assembly. Ozone and oxygen will rise to the top of the assembly and be processed through the Ozone Destruct. Any moisture that accumulates in the lines which are piped from the Ozone Generator and Air Relief Valve will go to the bottom of the Liquid Drainer Assembly. Once enough moisture has accumulated, the Liquid Drainer, will open and send the water to the drain. The Liquid Drainer and tubing are clear for daily inspection.

C: Clear Check Valve. A clear Check Valve is used at the entry point of the city water. Visual inspection should be done on a weekly basis to ensure that there is no foreign debris slowing done the flow of water to the ozone laundry system.

D: Inlet Pressure Gauge. Designed to check water pressure to the ozone laundry system. Inlet pressure should not exceed 75 PSI. and is checked when no water is flowing to the washers and/or the system is not running.

E: Venturi Injector. The Venturi Injector is the device that dissolves ozone into the water as it is flowing to the washers.
Water enters the venture and is slowed down by the restriction or tapering of the venturi. Then the venturi expands back to its normal size. At the point where the venturi is the smallest, suction is created, and the ozone gas is injected.

Delta-P Pressure Reading. Delta P pressure readings are the different in water flow pressures at the inlet and outlet of the venturi. Water flow is restricted at the inlet of the venturi therefore the Inlet pressure should always be higher than the outlet pressure. An average would see 40 psi of inlet pressure and 15 psi of outlet pressure. We commonly call this "40 over 15". The Delta-P is the difference between these two numbers or 25. This number tells us how much water in gallons we are flowing and also determines how much suction is created by the venturi.
Normal systems settings are about a 40 inlet pressure and 15 outlet pressure.
The inlet pressure can be adjusted by adjusting the Pressure Reducing Valve (PRV) if installed, or by opening or closing the main water valve to the system.

The outlet pressure can be adjusted by opening or slightly closing the flow control valve (Fig L).

F: Outlet Pressure Gauge. Same as *Inlet Pressure Gauge* but measures the outlet pressure of the venturi.

G: Degas Chamber. As the water enters the Degas Chamber, the speed or flow of the water will slow down as it goes from a small pipe into a much larger diameter pipe. This allows for more ozone to be dissolved into the water. Any undissolved ozone "bubbles" will gather at the top of the Degas Chamber and will go to the Air Relief Valve. Fully dissolved Ozonated Water then will leave the Degas Chamber and go to the washers.

H: Air Relief Valve. The air relief removes any undisolved ozone from the water where it is piped to the Ozone Destruct/Liquid Drainer. The Air Relief Valve is clear and should be inspected for debris on a daily basis.

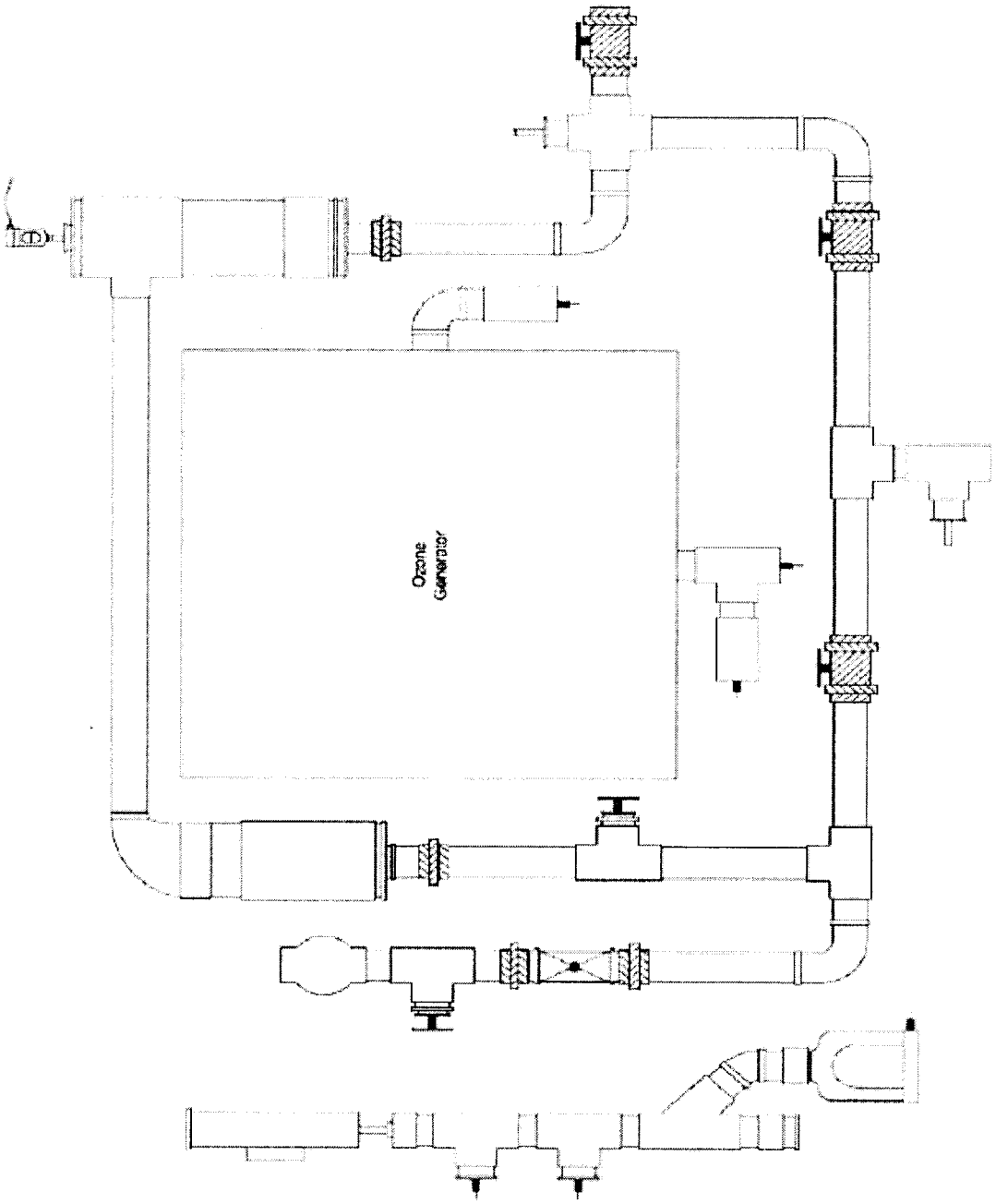
I/J: ORP Probe and Controller. A constant readout of the milivolts of electricity in the water as it flows to the washers. A source to check if the system is working properly.
The ORP or *"Oxidation Reduction Potential"* should always remain constant. Should there be a large drop in the readout number overnight, Drain the system, remove and clean the sensor tip of the probe and reinstall. If the number is still reading low, call for service advise. Note: the ORP readout will gradually get smaller. Inside of the probe is a "liquid battery". As the battery life gets weaker, the ORP displayed number will get lower. It is recommended that the ORP probe be replaced every 12-18 months.

K: Power Control Panel. The distribution panel for all electrical devices on the Ozone Laundry System. Power is supplied directly from the System Timer. All outlets are labeled for the individual components.

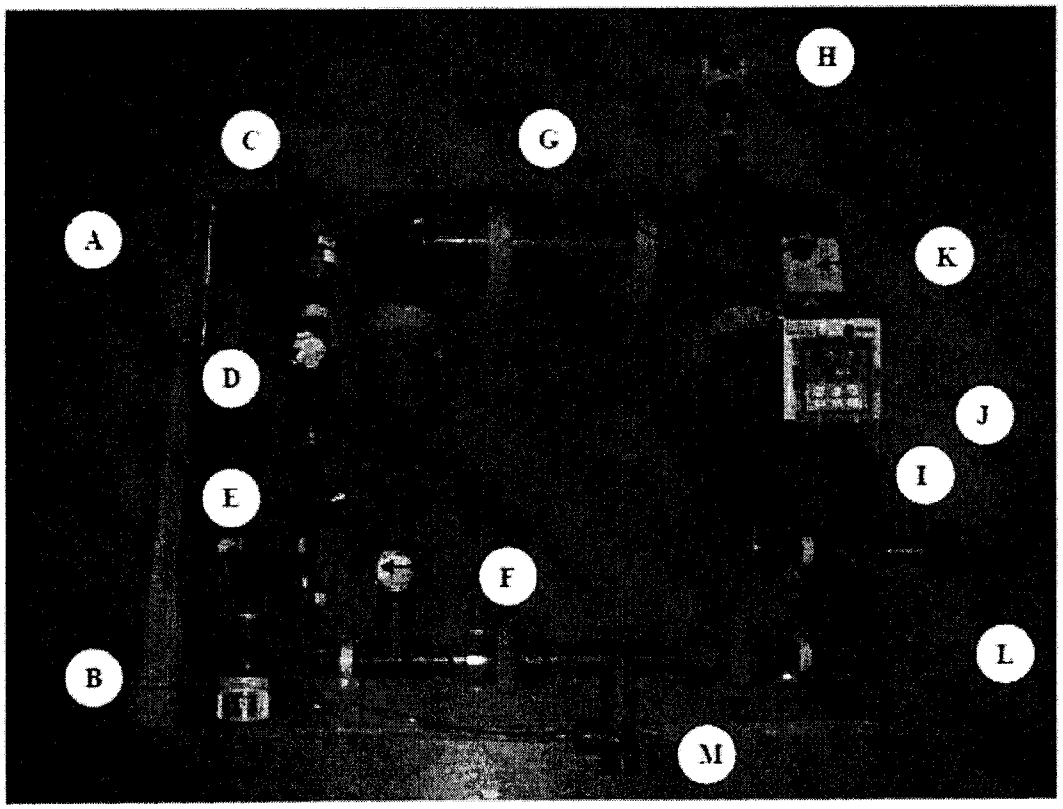
L: Flow Control Valve. Used to control the flow of water to the washers. See Delta-P pressure readings. Also used a system shut-off

M: System Drain. Piped to a drain, this is where the Liquid Drainer and system drains are piped together. A sample port may also be installed here to obtain dissolved ozone readings.

Schematic Design of O-zone system



Visual Illustration of typical O-zone installation



System Piping, Familiarization and Setup

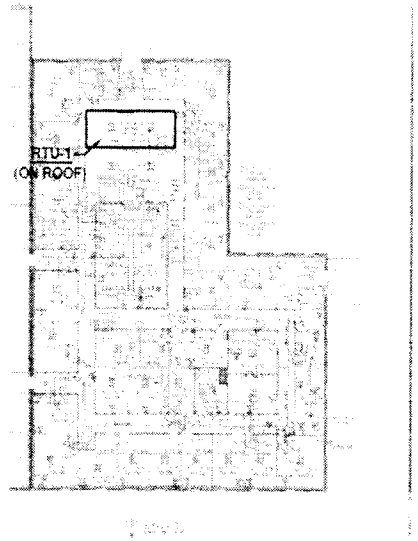
A: Ozone Destruct
B: Liquid Drainer
C: Brass Check Valve
D: Inlet Pressure Gauge
E: Venturi Injector
F: Outlet Pressure Gauge
G: DeGas Chamber
H: Air Relief Valve
I: ORP Probe
J: ORP Controller
K: Power Control Panel
L: Flow Control Valve
M: System Drain

Schedule A.3 – Mechanical Equipment Retrofits (Drawings)

(Drawings are not to Scale)

ECM-17: NEW HIGH EFFICIENCY ROOF TOP UNIT

1. RTU-1



TRANE

ST. JOHNS COUNTY, FLORIDA

DETAILED ENERGY ANALYSIS

MATERN PROFESSIONAL ENGINEERING, INC.

Revisions

No.	Date	Description

Designed By: VR

Drawn By: VR

Checked By: MP

Issue Date: 11/10/11

Drawing Scale: NTS

Drawing Title:
ST. JOHNS COUNTY SHERIFF'S ADMIN. EXISTING MECHANICAL PLAN

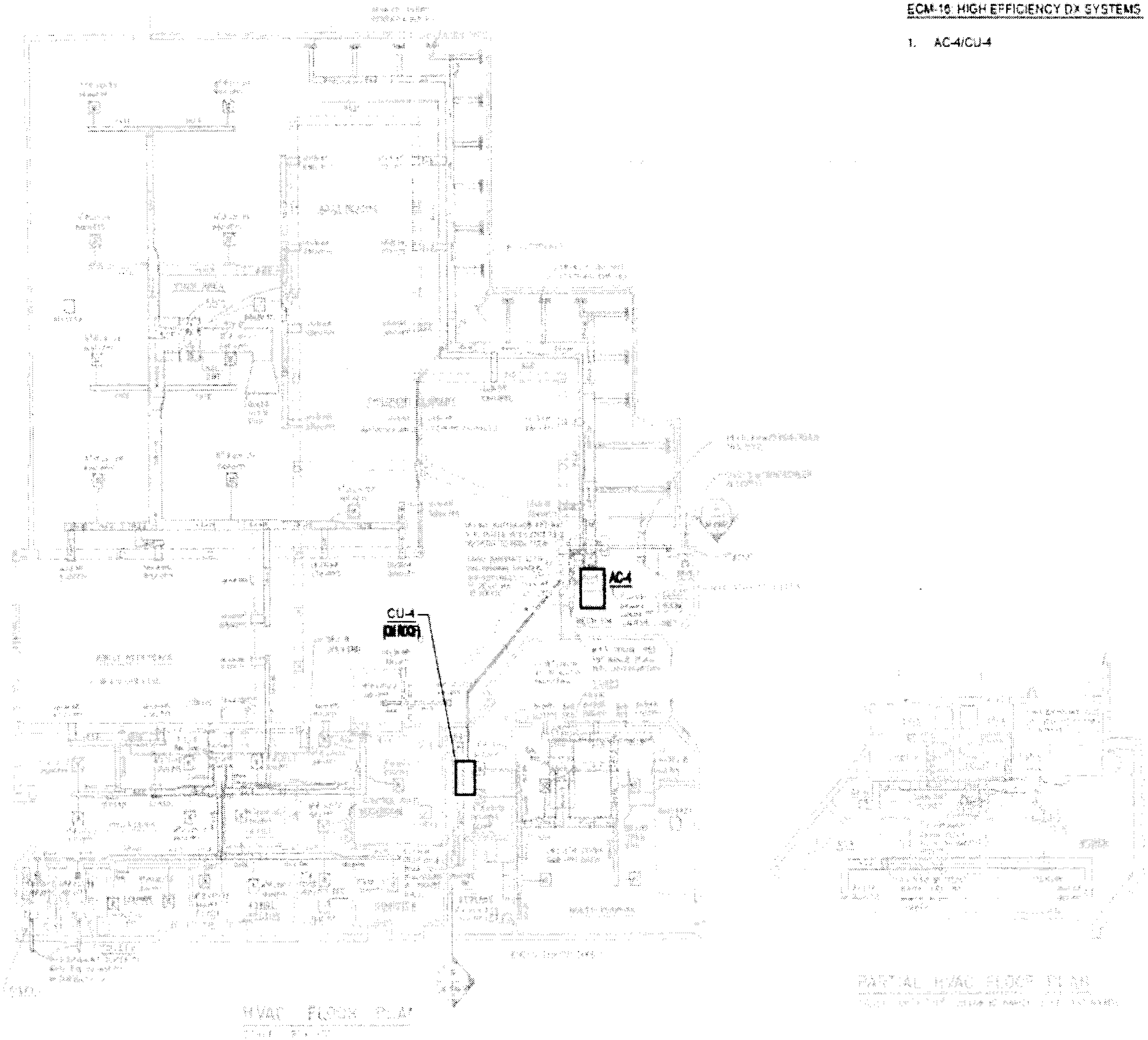
ECM SKETCHES

Drawing No.

J-M3

ECM-16: HIGH EFFICIENCY DX SYSTEMS

1. AC-4/CU-4



TRANE

ST. JOHNS COUNTY, FLORIDA

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DETAILED ENERGY ANALYSIS

MATERN PROFESSIONAL ENGINEERING, INC.

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Designed By: TB

Drawn By: TB

Checked By: BP

Issue Date: 11/10/11

Drawing Scale: NTS

Drawing Title:

MAIN LIBRARY

ECM-16

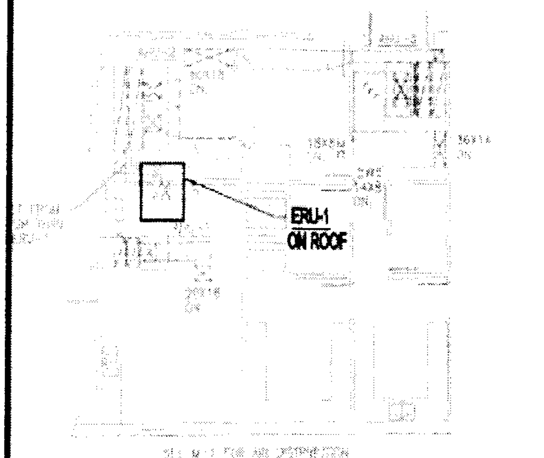
ECM SKETCHES

Drawing No.

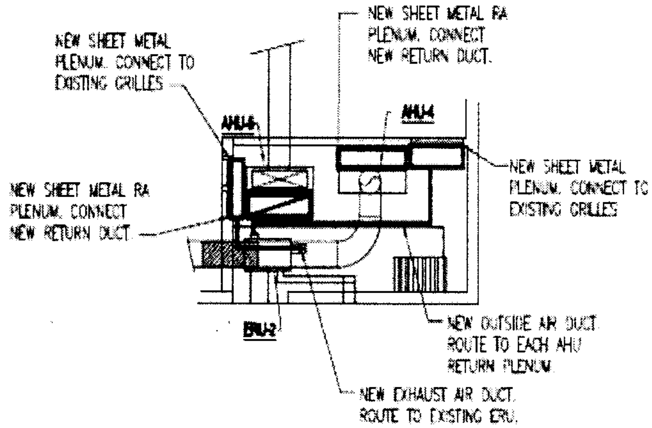
ML-M1

ECM-16: HIGH-EFFICIENCY DX SYSTEMS

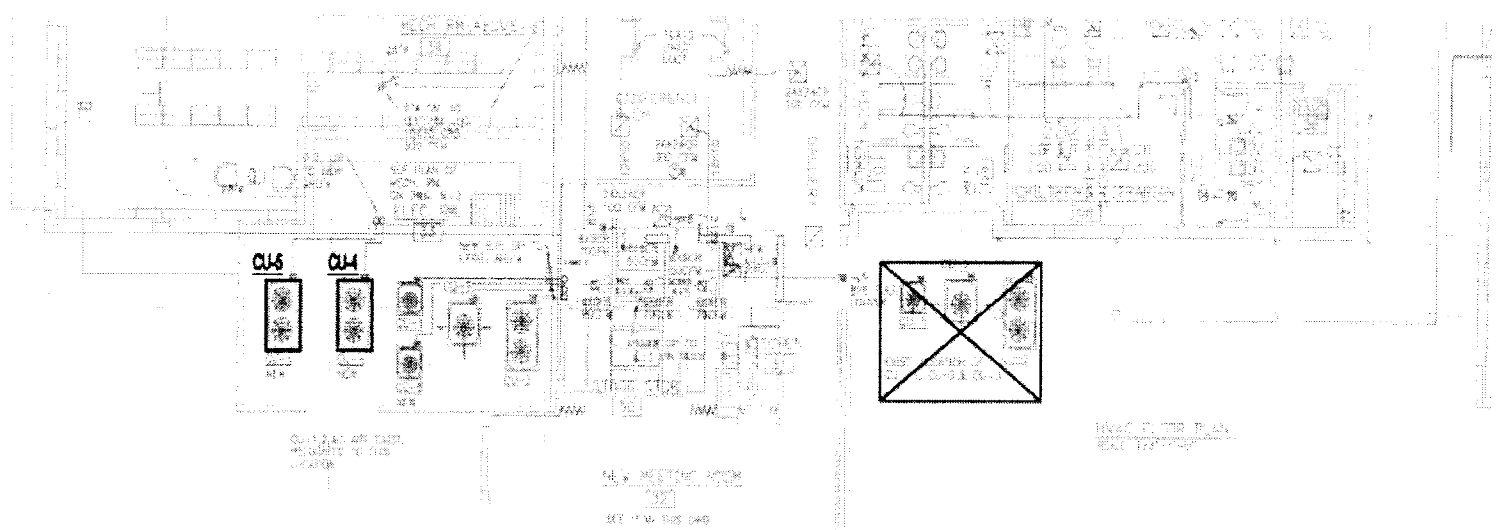
1. AHU-4/CU-4
2. AHU-5/CU-5



EXIST 2ND. FLR. MECH. RM. PLAN - HVAC



MECHANICAL ROOM PLAN - HVAC



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ST. JOHNS COUNTY, FLORIDA

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DETAILED ENERGY ANALYSIS

MATERN PROFESSIONAL ENGINEERING, INC.
130 Candace Drive
Maitland, FL

Revisions

No.	Date	Description

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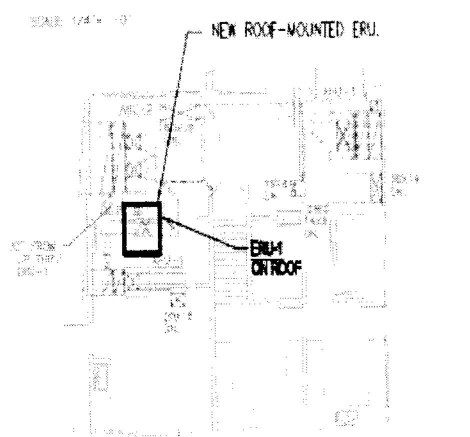
Drawn By: TB
Checked By: MP
Issue Date: 11/10/11
Drawing Scale: NTS

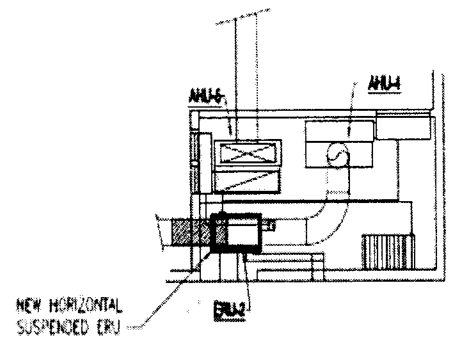
Drawing Title:
PONTE VEDRA LIBRARY ECM-16

ECM SKETCHES

Drawing No.
PV-M1



EXIST. 2ND. FLR. MECH. RM. PLAN - HVAC



MECHANICAL ROOM PLAN - HVAC

ECM-19: REPLACE ERU's WITH NEW ERU's
1. ERU-1
2. ERU-2

TRANE

ST. JOHNS COUNTY, FLORIDA

DETAILED ENERGY ANALYSIS

MATERN PROFESSIONAL ENGINEERING, INC.
130 Candace Drive
Maitland, FL 32751

Revisions

No.	Date	Description

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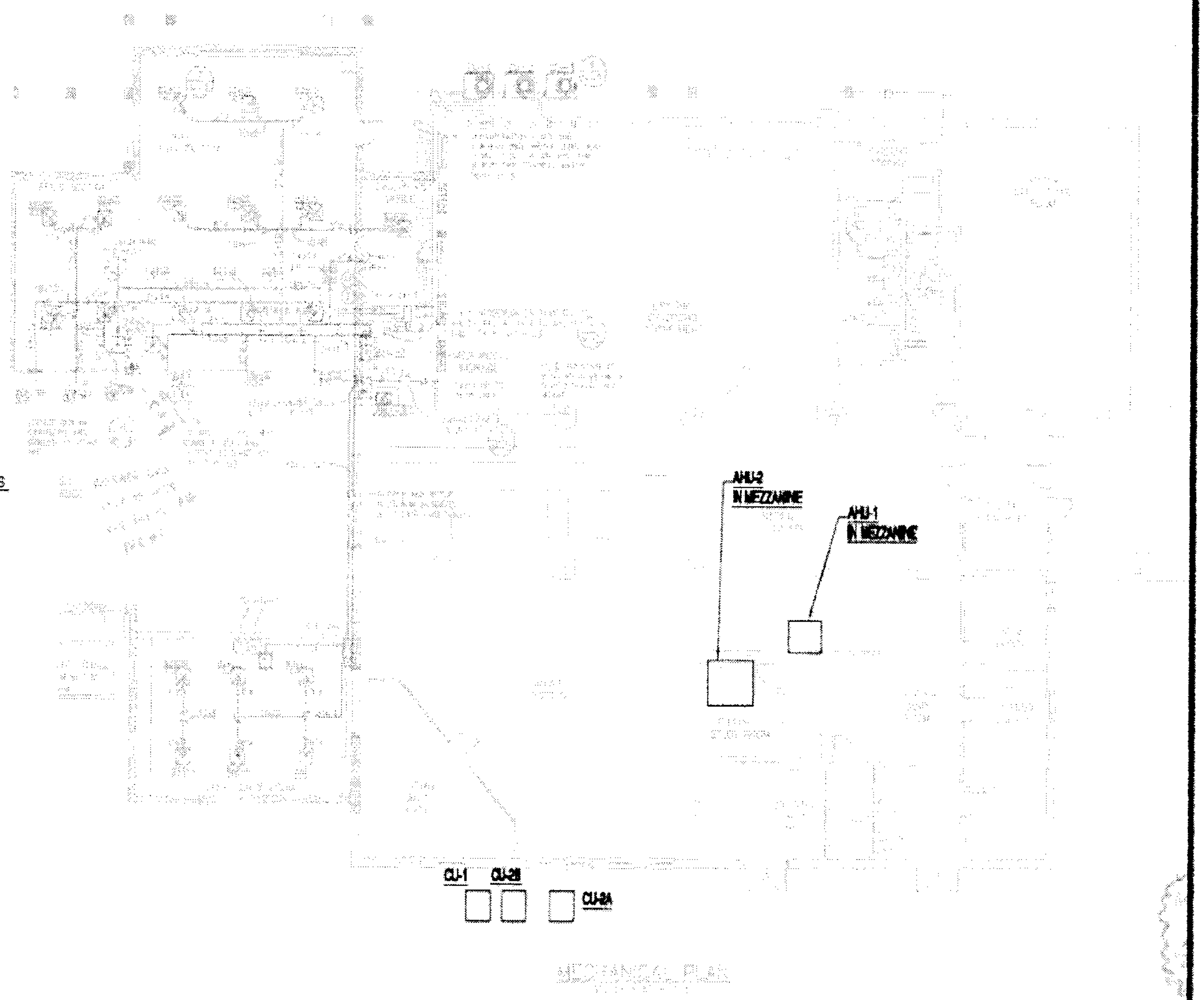
Issue Date: 11/10/11
Drawing Scale: NTS

Drawing Title:
PONTE VEDRA LIBRARY
ECM-19
ECM SKETCHES

Drawing No.
PV-M2

ECM-16: HIGH EFFICIENCY DX SYSTEMS

1. AHU-1/CU-1
2. AHU-2/CU-2A & CU-2B



TRANE

ST. JOHNS COUNTY, FLORIDA

DETAILED ENERGY ANALYSIS

MATERN PROFESSIONAL ENGINEERING, INC.

Revisions

No.	Date	Description

Designed By: TB

Drawn By: TB

Checked By: BP

Issue Date: 11/10/11

Drawing Scale: NTS

Drawing Title: BARTRAM LIBRARY ECM-16

ECM SKETCHES

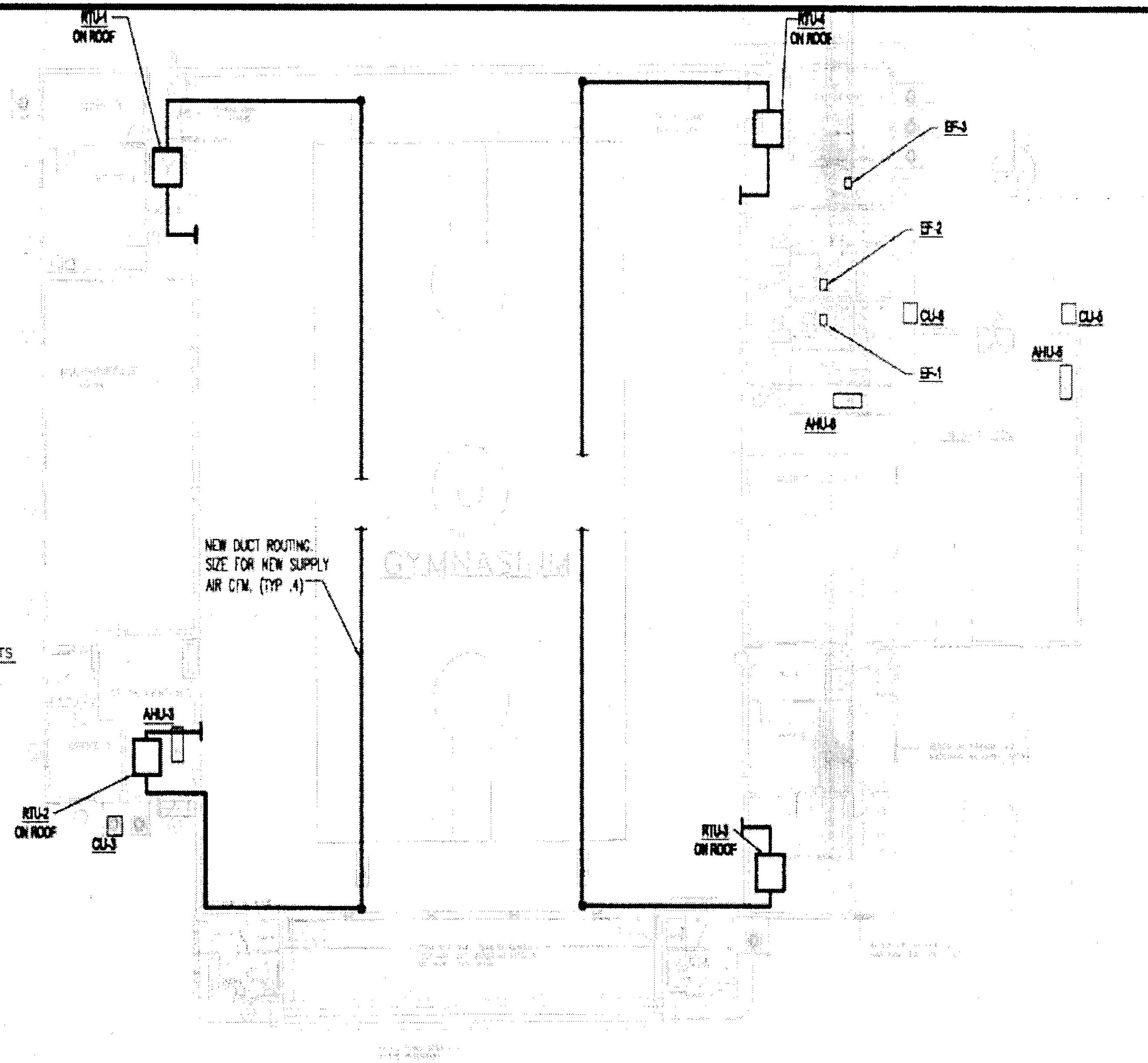
Drawing No. BL-M1

ECM-8 & ECM 10: FULL NEW DDC SYSTEM/PROGRAMMABLE T-STATS

1. RTU-1
2. RTU-2
3. RTU-3
4. RTU-4
5. AHU-3/CU-3
6. AHU-5/CU-5
7. AHU-6/CU-6
8. EF-1
9. EF-2
10. EF-3

ECM-12: DEMAND CONTROL VENTILATION

1. RTU-1
2. RTU-2
3. RTU-3
4. RTU-4



EXISTING FLOOR PLAN - MECHANICAL

TRANE

ST. JOHNS COUNTY, FLORIDA
-
DETAILED ENERGY ANALYSIS

mp MATERN PROFESSIONAL ENGINEERING, INC.

Revisions

No.	Date	Description

Designed By: TS
Drawn By: TS
Checked By: MP
Issue Date: 05/27/11
Drawing Scale: NTS

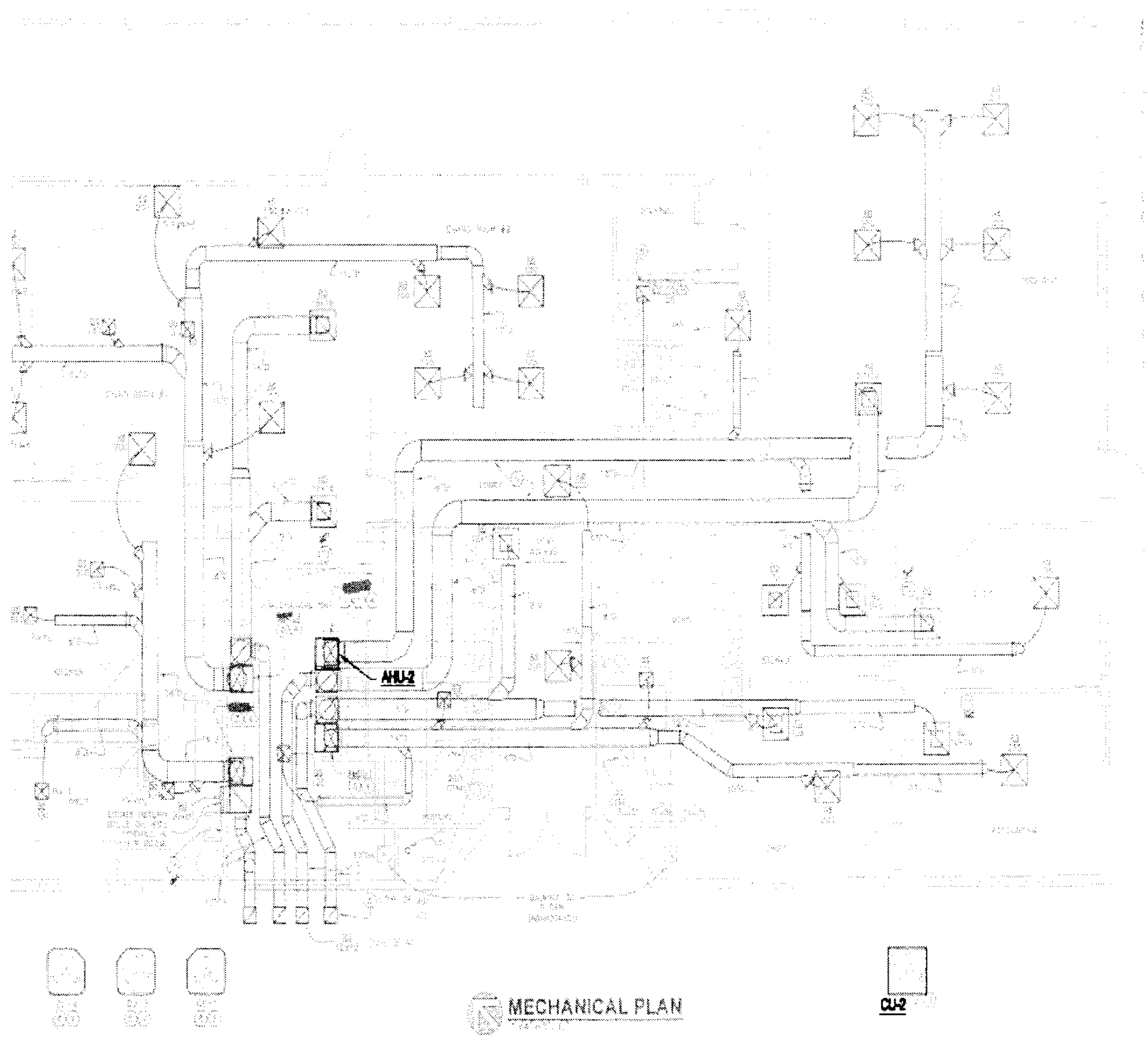
Drawing Title:
KETTERLINUS GYM CAP. IMPROV. ECM-8, ECM-10 ECM-12

ECM SKETCHES

Drawing No.
KG-M2

ECM-16: HIGH EFFICIENCY DX SYSTEMS

1. AHU-2/CU-2



MECHANICAL PLAN

TRANE

ST. JOHNS COUNTY, FLORIDA

-

DETAILED ENERGY ANALYSIS

MATERN PROFESSIONAL ENGINEERING, INC.

130 Candace Drive
Maitland, FL 32751

Revisions

No.	Date	Description

Designed By: TS

Drawn By: TB

Checked By: MP

Issue Date: 11/10/11

Drawing Scale: NTS

Drawing Title:
CYPRESS LINKS GOLF CLUB CLUBHOUSE ECM-16

ECM SKETCHES

Drawing No.
CLGC-M1

ECM 10: PROGRAMMABLE T-STATS

1. AHU-1/CU-1

ECM-16: HIGH EFFICIENCY DX SYSTEMS

1. AHU-1/CU-1

CU-1

AHU-1

SPLIT SYSTEM AIR HANDLING UNIT SCHEDULE:

UNIT NO.	SERVING	FAN DATA			MOTOR DATA				COOLING COIL DATA			ELEC. HEATING DATA						UNIT ELECTRICAL DATA			SELECTION BASED ON		REMARKS
		TOTAL CFM	OUTSIDE AIR CFM	EXT. STATIC P. IN WG	HP	SPEED	VOLT	PH	DB	WB	[illegible]	EAT F	LAT F	KW	VOLT	PH	NO. STEPS	VOLT	PH	FAN FLA	MANUFACTURER	MODEL	
AHU-1	CYPRESS LINKS MAINTENANCE BUILDING	[illegible]		[illegible]	[illegible]	1	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7	[illegible]	1	1	[illegible]	1	[illegible]	TRANE	[illegible]	

NOTES:

SPLIT SYSTEM AIR COOLED HEAT PUMP SCHEDULE:

UNIT NO.	SERVING	UNIT DATA				FAN MOTOR				COMPRESSOR DATA						UNIT ELECTRIC DATA					SELECTION BASED ON		REMARKS
		CAP	SEER	COND. EAT F	REFRIG PIPE	NO.	HP	VOLT	PH	QTY	STEPS	VOLT	PH	RLA	LRA	VOLT	PH	FAN FLA	MCA	MOCP	MANUFACTURER	MODEL	
CU-1	AHU-1	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	1	1	1	[illegible]	1	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	TRANE	[illegible]	

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ST. JOHNS COUNTY, FLORIDA

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DETAILED ENERGY ANALYSIS

MATERN PROFESSIONAL ENGINEERING, INC.
130 Candace Drive
Maitland, FL 32751-[illegible]

Revisions

No.	Date	Description

Designed By: TS

Drawn By: TS

Checked By: BP

Issue Date: 08/27/11

Drawing Scale: NTS

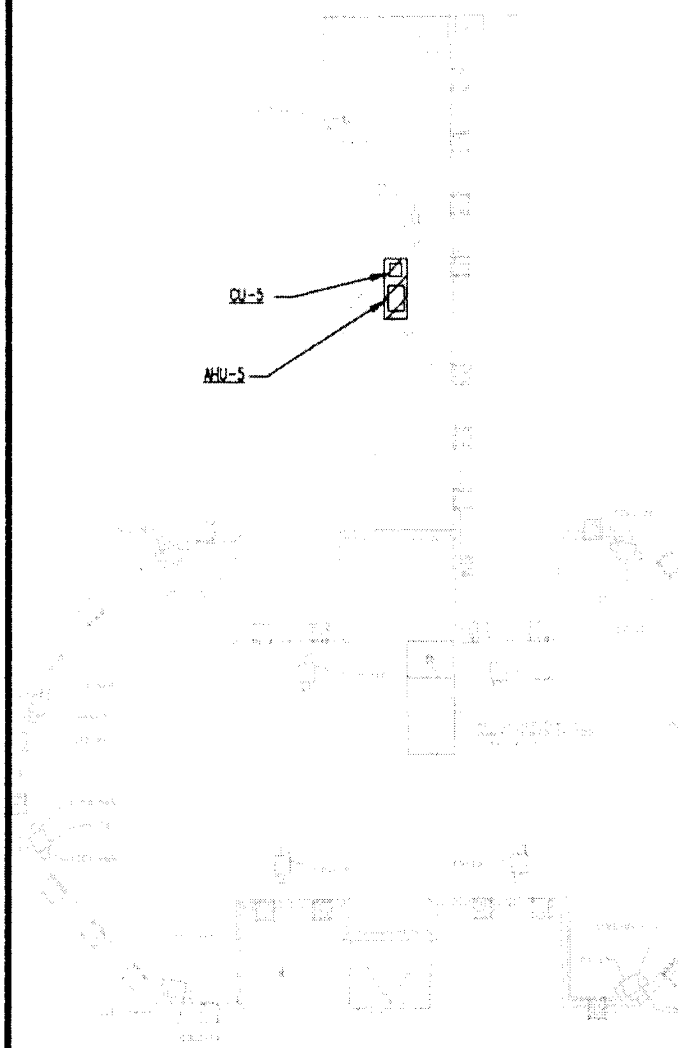
Drawing Title:

CYPRESS LINKS GOLF CLUB - MAINT. BUILDING ECM-10, ECM-16

ECM SKETCHES

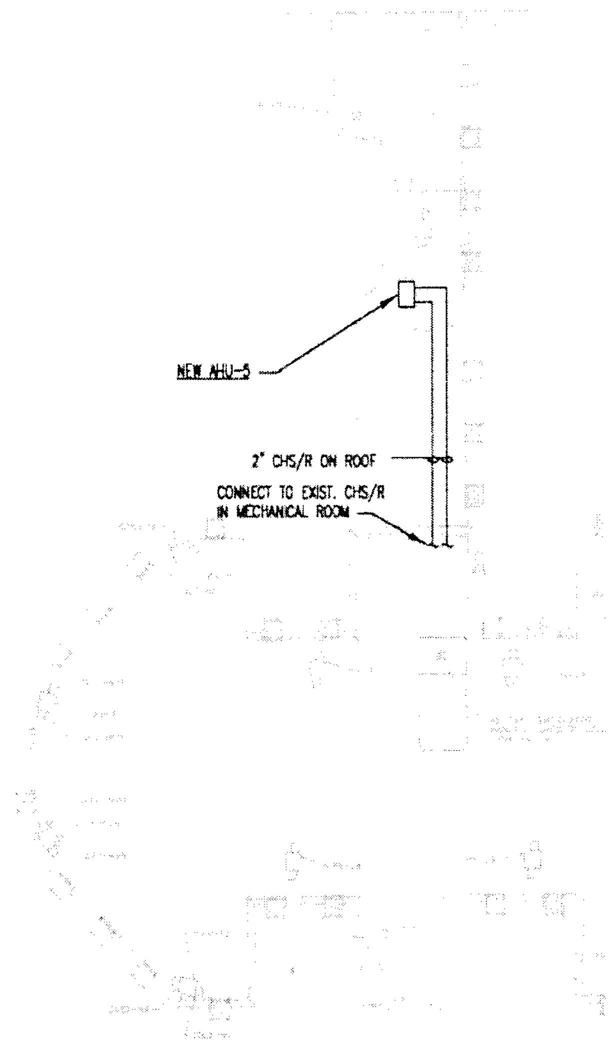
Drawing No.

CLGCM-M1



ROOF PLAN (PARTIAL) - DEMOLITION

N.T.S.



ROOF PLAN (PARTIAL) - RENOVATION

ECM-21.1: REMOVE EXISTING RETROFITTED DX UNIT SERVING ISOLATION CORRIDOR AND REPLACE WITH CHILLED WATER RTU

EQUIPMENT TO BE REMOVED:

1. AHU-5 / CU-5

EQUIPMENT TO BE PROVIDED:

1. NEW AHU-5

TRANE

ST. JOHNS COUNTY, FLORIDA

-

DETAILED ENERGY ANALYSIS

mp MATERN PROFESSIONAL ENGINEERING, INC

Revisions

No.	Date	Description

Designed By: BP

Drawn By: BP

Checked By: BP

Issue Date: 05/27/11

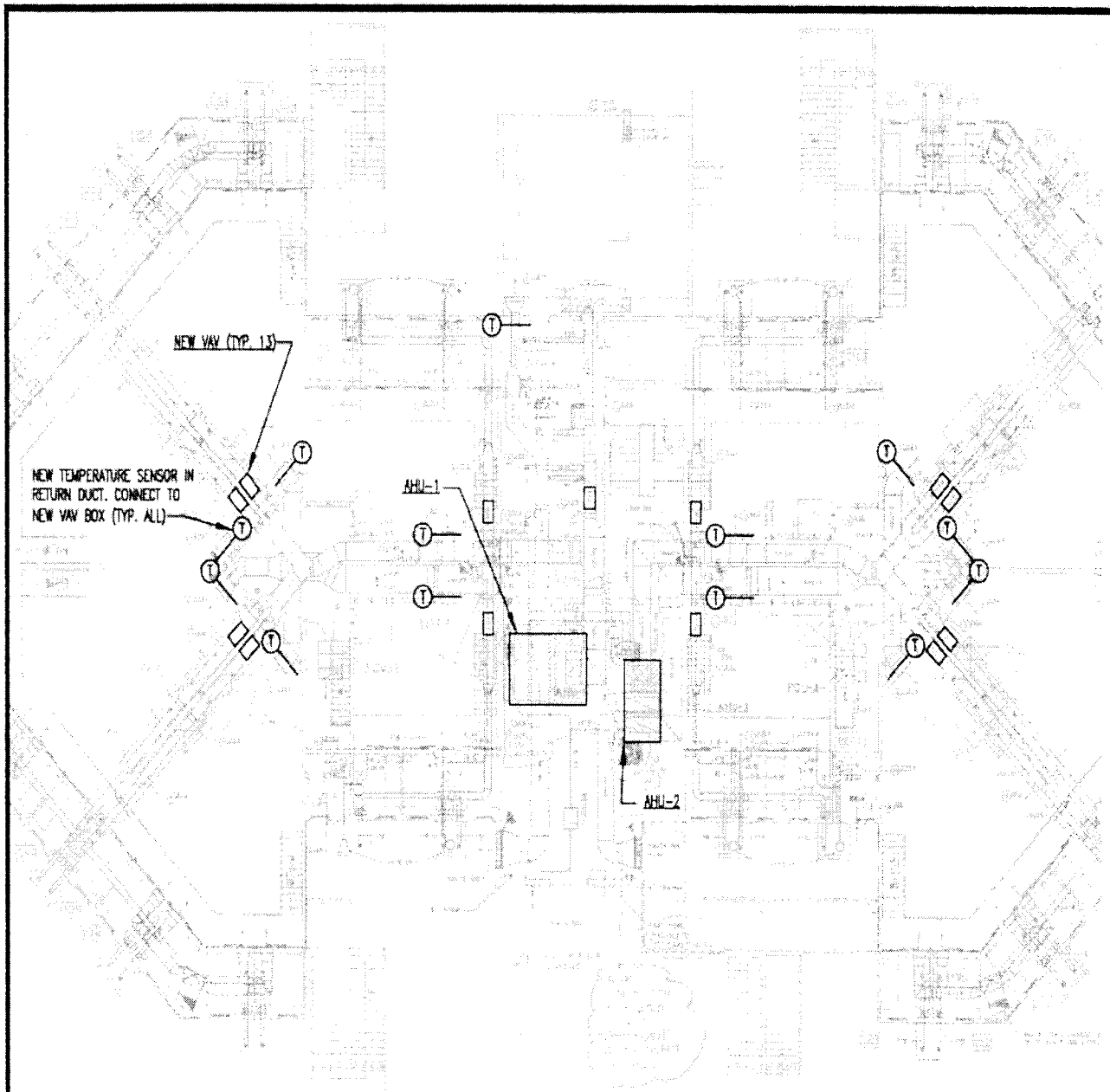
Drawing Scale: N.T.S.

Drawing Title: NEW JAIL

ECM-21.1

ECM SKETCHES

Drawing No. NJ-M2.1



SECOND FLOOR (PARTIAL)

N.T.S.

ECM-21.2: ADD VAV BOXES TO EXISTING JAIL AHU SYSTEMS

EQUIPMENT:

1. NEW VAV BOXES EQUAL TO VARITRANE SINGLE-DUCT TERMINAL UNIT #VCCF12

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ST. JOHNS COUNTY, FLORIDA

DETAILED ENERGY ANALYSIS

MATERN PROFESSIONAL ENGINEERING, INC.
930 Carribean Drive
Maitland, FL 32751

Revisions

No.	Date	Description

Designed By: BP

Drawn By: BP

Checked By: BP

Issue Date: 05/27/11

Drawing Scale: N.T.S.

Drawing Title:

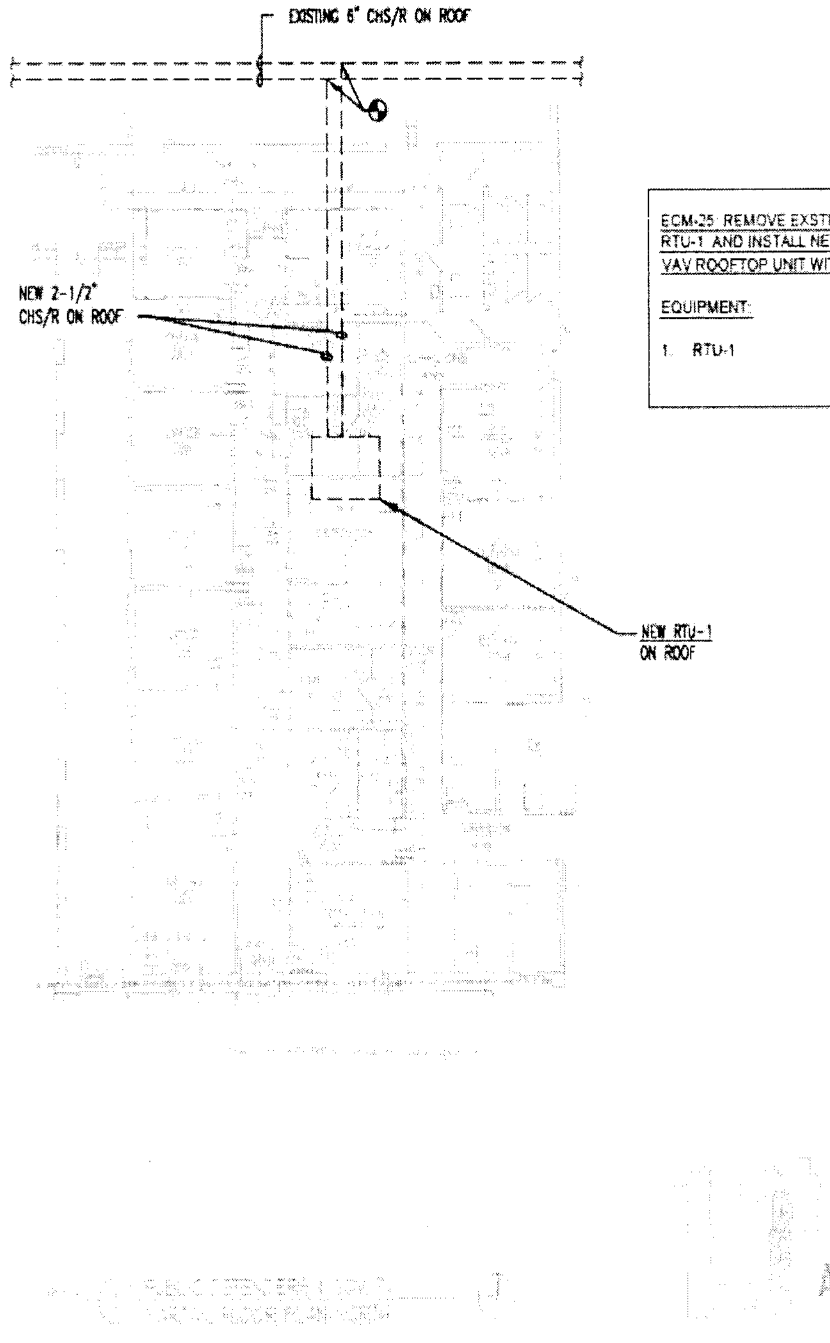
NEW JAIL

ECM-21.2

ECM SKETCHES

Drawing No.

NJ-M3.1



ECM-25: REMOVE EXSTING RTU-1 AND INSTALL NEW CHW VAV ROOFTOP UNIT WITH DCV

EQUIPMENT:

1. RTU-1

TRANE

ST. JOHNS COUNTY, FLORIDA

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DETAILED ENERGY ANALYSIS

Revisions

No.	Date	Description

Designed By: BMP

Drawn By: BMP

Checked By: BMP

Issue Date: 05/27/11

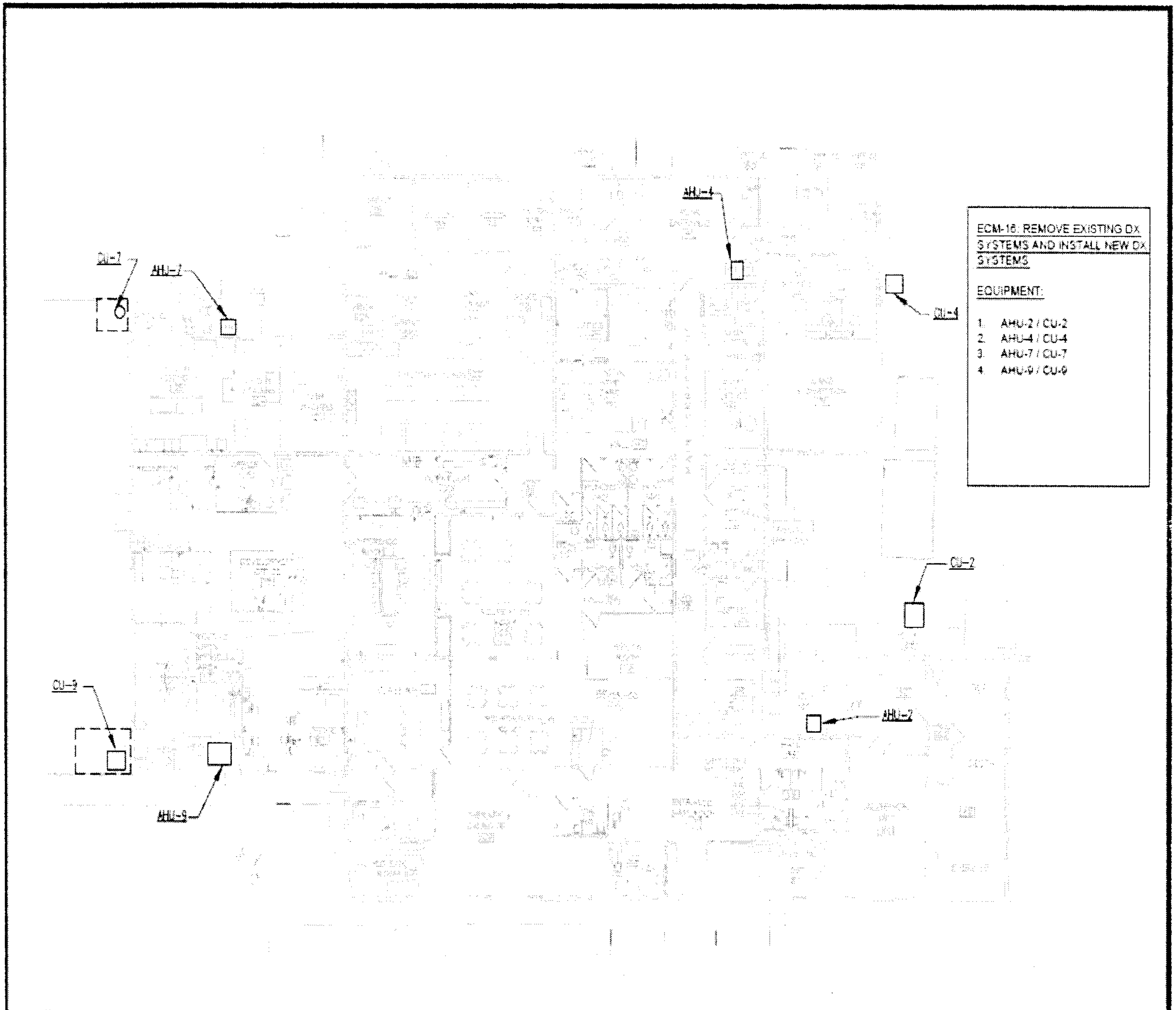
Drawing Scale: 1/16" = 1'-0"

Drawing Title:
COURTHOUSE ANNEX PUBLIC DEFENDERS OFFICE ECM-25

ECM SKETCHES

Drawing No.

C-1



TRANE

ST. JOHNS COUNTY, FLORIDA

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DETAILED ENERGY ANALYSIS

MATERN PROFESSIONAL ENGINEERING, INC.

Revisions

No.	Date	Description

Designed By: BWP

Drawn By: BWP

Checked By: BWP

Issue Date: 11/10/11

Drawing Scale: 1/16" = 1'-0"

Drawing Title:

COUNCIL ON AGING

ECM-16

ECM SKETCHES

Drawing No.

COA-M3

Schedule B

Description of Facilities; Pre-existing Equipment Inventory

St. John's County, located in northeast Florida. The facilities included in the project include the following:

BUILDING NAME	STREET ADDRESS	City	Zip
Jail & Sherriff's Complex	4015 Lewis Speed Way	St. Augustine	32084
EOC Building	4455 Avenue A	St. Augustine	32095
Main Library	1960 Ponce DeLeon Blvd.	St. Augustine	32084
Anastasia Library	124 Seagrove Main Street	St. Augustine Beach	32080
Bartram Library	60 Davis Pond Blvd	Fruit Cove	32259
Ponte Vedra Library	101 Library Blvd.	Ponte Vedra Beach	32082
County Administration Building	400 San Sebastian View	St. Augustine	32084
Council on Aging	180 Marine Street	St. Augustine	32084
Ketterlinus Gym	60 Orange Street, 32084	St. Augustine	32084
Animal Control Center	130 N Stratton Rd, 32095	St Augustine	32095
County Courthouse (single Story section)	4010 Lewis Speedway # B	St. Augustine	32095
Cypress Links Golf Club	4900 Cypress Links Blvd.	Elkton	32033
Anastasia Waste Water Treatment Plant	860 W. 16th St.	St. Augustine Beach	32080
Sawgrass Waste Water Treatment Plant	10047 Sawgrass Dr. West	Ponte Vedra Beach	32082

For Pre-Existing Equipment Inventory and Pre-Existing Facility Conditions for each of the facilities included in this project, please refer to the Trane Detailed Energy Audit provided to Gene Burns, Manager – Facilities Maintenance, on July 27, 2011, as a result of a contract between Trane and St. Johns County Board of County Commissioners approved by the BOCC on October 19,2010.

Schedule C
Energy Saving Guarantee

Company has formulated and, hereby guarantees the following annual levels of energy and operational savings to be achieved as a result of the performance and acceptance of the Services in the amounts stated and for the Guarantee Years stated below.

The Energy Savings Guarantee is set forth in annual increments for the term of the Contract, pursuant to Section 4.1, as follows and are calculated using Base Utility Rates in accordance with and detailed at Schedule F hereto:

Guarantee Year	Calculated Value of Guaranteed Energy Savings	Plus Stipulated Operational Cost Savings per Year	Equals Total Value of Guaranteed Energy Savings and Stipulated Operational Savings	Total Agency Cost per Year* (Lease Payments + Maintenance Cost)
Const. & Yr 1	$ 261,482	$ 47,670	$ 309,152	$ 309,152
2	$ 261,482	$ 48,443	$ 309,925	$ 309,925
3	$ 261,482	$ 49,247	$ 310,729	$ 310,729
4	$ 261,482	$ 50,084	$ 311,566	$ 311,566
5	$ 261,482	$ 50,954	$ 312,436	$ 312,436
6	$ 261,482	$ 51,858	$ 313,340	$ 313,340
7	$ 261,482	$ 52,799	$ 314,281	$ 314,281
8	$ 261,482	$ 53,778	$ 315,260	$ 315,260
9	$ 261,482	$ 54,796	$ 316,278	$ 316,278
10	$ 261,482	$ 55,854	$ 317,336	$ 317,336
11	$ 261,482	$ 56,955	$ 318,437	$ 318,437
12	$ 261,482	$ 58,099	$ 319,581	$ 319,581
13	$ 261,482	$ 59,290	$ 320,772	$ 320,772
14	$ 261,482	$ 60,528	$ 322,010	$ 322,010
15	$ 261,482	$ 61,816	$ 323,298	$ 323,298
Total	$ 3,922,230	$ 812,171	$ 4,734,401	$ 4,734,401

Schedule D

Compensation to Company (Deliverables and Payment Schedule)

Project Cost and Draw Payment Schedule to Company

Draw Number	Draw Date	Draw Percentage	Draw Amount	Cumulative Amount
1	Upon Execution	10%	$ 405,180	$ 4,051,800
2	Month 2	7%	$ 283,626	$ 3,646,620
3	Month 3	12%	$ 486,216	$ 3,362,994
4	Month 4	13%	$ 526,734	$ 2,876,778
5	Month 5	25%	$ 1,012,950	$ 2,350,044
6	Month 6	18%	$ 729,324	$ 1,337,094
7	Month 7	8%	$ 324,144	$ 607,770
8	Substantial Completion	5%	$ 202,590	$ 283,626
9	Final Completion	2%	$ 81,036	$ 81,036
	Total:		$ 4,051,800	$ 00

[*Draw amounts are preliminary for planning purposes. Company shall provide an application for payment to Agency monthly on a completed work and stored material basis]

$ 4,051,800	**Total Project Cost**
$ 3,532,361	Amount Financed

Maintenance Service Cost and Payment Schedule to Company

Year	Services	Annual Total
1	Monitoring and Verification	$19,333
2	Monitoring and Verification	$20,107
3	Monitoring and Verification	$20,911
4	Monitoring and Verification	$21,747
5	Monitoring and Verification	$22,617
6	Monitoring and Verification	$23,522
7	Monitoring and Verification	$24,463
8	Monitoring and Verification	$25,441
9	Monitoring and Verification	$26,459
10	Monitoring and Verification	$27,517
11	Monitoring and Verification	$28,618
12	Monitoring and Verification	$29,763
13	Monitoring and Verification	$30,953
14	Monitoring and Verification	$32,191
15	Monitoring and Verification	$33,479

*Note: Retainage, if any, is as follows: Zero Dollars. The above deliverables and payment schedule are in compliance with Contract Sections 3 and 4, and any other applicable Contract provisions. Operating costs will not be financed and must be stated separately, if applicable.

Schedule E
Baseline Energy Consumption

Savings projections for all conservation measures (ECM) were calculated using industry accepted calculation methodologies to evaluate the specific energy performance of each ECM included in the St. John's County project located in northeast Florida.

Trane - TRACE® 700 building simulation software was used to model the energy consumption at the following buildings: Jail & Sheriff's Complex, EOC building, Main Library, Ponte Vedra Library, Council on Aging, and Ketterlinus Gymnasium. located in St. John's County, Florida. Known runtime parameters such as local weather data, internal building loads (people and equipment), occupancy data, etc., were all utilized in the modeling of the base case. The accuracy of the pre-retrofit energy model was validated by its correlation to the actual utility data for St. John's County. The model baseline is stipulated and agreed to by the Agency and the Company. This data will be used as the baseline for Energy Use Savings calculations as specified in **Schedule F**.

Baseline – Old Jail / Sheriffs Admin.

	Base Case		
	kWh	kW	Therms
January	146,687	301	3,864
February	132,068	316	3,492
March	160,731	423	3,469
April	179,747	450	1,931
May	207,443	468	1,874
June	223,497	501	1,702
July	223,907	489	1,816
August	228,735	490	1,762
September	212,730	481	1,744
October	178,891	442	2,037
November	156,599	432	3,268
December	152,015	414	3,531
Total	2,203,051	5,206	30,490

Baseline – New Jail

	Base Case		
	kWh	kW	Therms
January	81,547	171	2,927
February	73,979	191	2,579
March	99,597	234	2,561
April	114,392	269	1,238
May	133,378	293	1,260
June	154,008	348	1,209
July	151,493	342	1,289
August	157,543	347	1,245
September	137,917	323	1,238
October	110,561	263	1,260
November	98,718	247	2,420
December	89,994	223	2,482
Total	1,403,127	3,249	21,707

Baseline – Ponte Vedra

	Base Case		
	kWh	kW	Therms
January	28,799	92	
February	25,546	94	
March	28,651	110	
April	30,878	130	
May	36,887	142	
June	44,548	167	
July	42,333	164	
August	45,165	164	
September	38,122	153	
October	29,261	122	
November	26,445	113	
December	26,501	100	
Total	403,136	1,551	0

Baseline - Main Library

	Base Case		
	kWh	kW	Therms
January	20,131	71	
February	17,966	72	
March	20,867	82	
April	23,007	89	
May	26,768	94	
June	30,824	102	
July	29,568	98	
August	30,558	99	

September	26,877	95	
October	21,591	87	
November	19,161	82	
December	18,813	75	
Total	286,130	1,048	0

Baseline – Ketterlinus Gym

	Base Case		
	kWh	**kW**	**Therms**
January	18,816	46	
February	17,672	51	
March	10,889	50	
April	13,518	50	
May	18,654	57	
June	24,245	69	
July	22,680	66	
August	24,097	67	
September	20,253	62	
October	11,441	48	
November	9,786	44	
December	14,394	49	
Total	206,446	660	0

Baseline – EOC Building

	Base Case		
	kWh	**kW**	**Therms**
January	72,005	230	
February	59,975	165	
March	65,242	155	
April	74,564	175	
May	85,552	193	
June	93,859	209	
July	95,518	206	
August	95,173	207	
September	88,363	201	
October	109,579	233	
November	100,670	226	
December	101,232	206	
Total	1,041,734	2,404	0

Baseline – Council on Aging

	Base Case		
	kWh	**kW**	**Therms**
January	23,326	84	
February	20,201	84	
March	21,907	91	
April	22,538	95	
May	25,803	98	
June	28,524	108	

July	27,815	102	
August	28,806	103	
September	26,159	102	
October	22,269	95	
November	20,707	92	
December	21,972	87	
Total	290,027	1,141	0

Schedule F

Savings Calculation Approach; Methodology to Measure, Verify and Adjust Baseline

Savings projections for all energy conservation measures (ECM) were calculated using industry accepted calculation methodologies to evaluate the specific energy performance of each ECM evaluated at St. Johns County.

The dollar savings reflected in **Schedule C** – Guarantee Savings Guarantee resulting from the Services Company shall furnish hereunder are calculated based on total guaranteed Energy Use Savings of 2,137,701 kWh, -691 kW, 21,428 therms, and 780 kgal (the "**Guarantee**"), in each of the consecutive twelve-month periods following the Commencement Date (each such twelve-month period being hereafter referred to as a "**Guarantee Year**") for the Term following the Commencement Date. The aggregate dollar amount of the Guaranteed Energy Use Savings are calculated using the Base Utility Rates specified in this Schedule F.

Table 1 – Annual Total Energy Savings Per Building or ECM

ECM (Section)	**Option A: Partially Measured Retrofit Isolation**			
	KWH Saved	**KW Saved**	**Therms Saved**	**KGallons Saved (water)**
Energy Efficient Lighting (D)	**142,301**	**39**	-	-
	Stipulated Savings			
Install Occupancy Sensors(E)	**23,368**	**105**		
Install Programmable Thermostats(F)	**167844**	**-207**		
Replace Packaged Air Conditioning Units (G)	**43,738**	**279**	**-652**	
Water Retrofits (H)	**2,416**		**53**	**780**
Install timers on domestic hot water heaters (I)	**8,030**			
Retrofit DHW Heater System with Air Tap Instant Hot Water System(J)	**10,988**		**301**	
Install Maximicers on Ice Machines (K)	**18,688**			
Retrofit Existing Roof with Cool Roof (L)	**11,243**			
Install new air supply efficiency blowers on biosolids management (M)	**288,355**			
	Option C: Whole Facility			
	KWH Saved	**KW Saved**	**Therms Saved**	**kGallons Saved (water)**
Jail/Sheriffs Admin	**741880**	**-1594**	**21575**	
Main Library	**127702**	**148**		
Ponte Vedra Library	**186989**	**389**		
Ketterlinus Gymnasium	**88063**	**46**		
EOC	**161625**	**-62**		
Council on Aging	**100231**	**140**		
Grand Total Energy Savings (annual)	**2,137,701**	**(691)**	**21,428**	**780**

Due to rounding of numbers, some numbers in the table above may vary slightly from similar energy references within this Agreement.

B. *Base Utility Rates*

For the purposes of this agreement Base Utility Rates are as follows:

B.1 Base Utility Rates

Building Name	Electrical ($/kWh)	Electrical Demand ($/kW)	Natural Gas ($/therm)	Water ($/kGal)
Jail/Sherriff's Complex	0.0573	8.99	0.60	
EOC Building	0.07	8.42		12.26
Main Library	0.0766	8.42		10.29
Anastasia Library	0.076	8.98		
Bartram Library	0.0372	6.82		9.23
Ponte Vedra Library	0.0593	8.5		
County Administration Building	0.067	8.94		
Council on Aging	0.08	8.72		10.52
Ketterlinus Gym	0.0913	1.49		10.92
Animal Control Center	0.071	8.15		7.08
County Courthouse	0.07	8.39		
Cypress Links Golf Club	0.085	9.12		
Anastasia Waste Water Treatment Plant	0.069			
Sawgrass Waste Water Treatment Plant	0.13			

Note: Base Utility Rates include both gross receipt tax of 3% and franchise fee.

The Base Utility Rates used to calculate Energy Use Savings will be used as the floor cost for the Guarantee term and shall be the lowest rate used. In calculating any energy savings, Company will use the greater of the then current applicable utility rate unit cost or the Base Utility Rates as described herein. The Base Utility Rates used to calculate energy increases will be used as the ceiling price for the Guarantee and shall be the highest rate used.

C. *Measurement and Verification Plan*

Company will utilize the methods as described in the International Performance Measurement and Verification Protocol (IPMVP) in effect at the time of execution of this Agreement. There are two components to our M & V plan:

- Verify the ECMs potential to perform and generate savings by confirming that (a) the baseline conditions are accurately defined and (b) the appropriate equipment components or systems were properly installed, are performing per specification, and have the potential to generate the predicted savings.
- Verify the ECMs performance (i.e., savings) by determining the actual energy savings achieved by the installed ECM.

C.1 Verifying ECM Potential to Perform

Baseline Verification: Baseline physical conditions such as equipment counts, nameplate data, and control strategies typically will be determined through surveys, inspections, and/or spot or short-term metering activities as described in the following sections. Baseline energy consumption will be defined by engineering calculations.

Post-Installation Verification: In a post-installation M&V verification, Company and the Agency will determine that the proper equipment components or systems were installed, are operating correctly and have the potential to generate the predicted savings. Verification methods may include surveys and inspections.

C.2 Verifying ECM Performance

At defined intervals during the term of the contract, Company and the Agency will verify that the installed equipment components or systems have been properly maintained, continue to operate correctly, and continue to generate savings. After the ECM is installed, Company and the Agency will determine energy savings (either continuously or at regular intervals) in accordance with an agreed upon M&V method utilizing verification techniques that are defined in the site-specific M&V plan.

Various verification techniques will be employed. Baseline energy use, post-installation energy use, and energy (and cost) savings will be determined using one or more of the following M&V techniques: Engineering calculations, metering and monitoring, utility meter billing analysis (possibly not feasible due to lack of sub metering data), and stipulations between the Agency and Company.

C.3 Adjustments for Variables Affecting Savings

The Agency is advised that Energy Cost Savings realized will be affected by, among other things, the following variables and that Company shall have the right to make adjustments, subject to contract Sec. 13.2 to account for the following:

C.3.a Building Utilization: The total number of building occupants is a variable which may be adjusted for if the number of occupants differs from the Baseline quantity;

C.3.b Building Occupancy Hours: The hours the building(s) is/are occupied and/or equipment and/or lighting is utilized is a variable which may be adjusted for if the hours (quantity or time-of-day) differs from the hours identified in Schedule C, Detailed Energy Analysis. Trane energy management equipment will monitor by verify hours of equipment operation.

C.3.c Weather: Utility bills will be adjusted for weather;

C.3.d Building Changes: The Baseline may be adjusted to account for any building square footage changes, remodeling, and addition of equipment or change in usage. The Agency agrees to contact Company within seven (7) calendar days of

commencement of any changes or additions of equipment or environments;

C.3.e Any adjustment in the baseline model of the building created as part of the engineering study appropriate to represent operation of the building if it had been designed, constructed, and/or operated in accordance with local and national codes in place as of the date of the Agreement. Such adjustments can include, but are not limited to, increased ventilation rates for code compliance and the addition of heating and/or air-conditioning to areas that previously had no environment conditioning.

C.4.f Latent conditions at the time the Baseline was prepared, may have a material effect on energy consumption.

C.4 Method for Estimating Savings

The energy consumption calculated from using industry accepted calculation methodologies uses the appropriate electric rate structure (most current) and calculates the operating cost of the central plant building.

Specific to this Agreement the following methodologies will be used to determine the Energy Cost Savings for each retrofit proposed at St. Johns County, FL.

D. Energy Efficient Lighting

D.1 Agreed Upon Parameters

The following are mutually agreed upon parameters that form the basis of the Guarantee. The following agreed upon parameters are hereby stipulated for the purposes of this Agreement as fact and will not be measured, monitored or adjusted. However for the purpose of this Guarantee pre-retrofit wattage measurements have been taken to validate the actual fixture wattage as represented in Table D.1. In addition post-retrofit fixture wattage measurements will be taken to validate proposed fixture wattage as represented in Table D.2.

D.2 Applicability

This Guarantee applies to the high efficiency lighting retrofit energy conservation measures installed by Company at the Agency facilities listed below in St. Johns County, Florida as follows:

Building Code	Building Name
A	Main Library
B	Ponte Vedra Library
C	Council on Aging
D	Ketterlinus Gym
E	Cypress Links Golf Club
F	Anastasia Waste Water Treatment Plant
G	Sawgrass Waste Water Treatment Plant

D.3 Pre-Retrofit Consumption Data

The following describes the methodology for proving actual per-fixture wattage and per-fixture type and quantity of each existing lighting fixture prior to the installation of energy efficient lighting equipment.

Measurement Methodology:
Company will either install new fixtures, or retrofit existing fixtures with energy efficient products. The purpose of this section is to validate the wattage assumed in these estimates through actual measurement.

Several different types of existing fixtures were encountered during the detailed survey. Below Table D.4 lists the fixture types by building, a brief description of each, the measured wattage of existing fixtures, the quantity of each fixture and estimated hours of operation of each fixture type per building.

In order to validate the wattage estimates of the existing fixtures, Company has measured the actual wattage consumed. The measurements were taken utilizing an accurate, properly calibrated wattmeter. A qualified electrician has taken the measurements and incorporated them into the results in the appropriate columns in the table below. A sufficient number of fixtures, not to exceed three (3) of each fixture type (per building), were measured for wattage so that an accurate representation (average of the (3) measurements) has been established. The cost of this measurement and the responsibility for the provision of a qualified electrician was borne entirely by Company.

Pre-Retrofit Fixture Table:
For the purposes of this Agreement, the lighting fixture pre-retrofit quantities were surveyed by Company and its consultant, and these quantities are collaboratively agreed upon by the Agency and Company and are stipulated in Table D.4 of this Schedule F.

For the purposes of this Agreement, the annual hours of operation of the lighting fixtures are as represented in Table D.3 below. The assumptions and results were collaboratively agreed upon by Customer and Company throughout the analysis and are hereby stipulated.

For the purposes of this Agreement, the combined list of pre-retrofit (existing) fixture types are as represented in Table D.4 below. The assumptions and results were collaboratively agreed upon by Customer and Company throughout the analysis and are hereby stipulated.

Company reserves the right to adjust the Baseline for the pre- and post-retrofit quantities to reflect actual quantities and types of fixtures encountered during the retrofit; however, the Energy Use Savings expected to be achieved will not be less than the Energy Use Savings represented by the difference in consumption between the fixtures and quantities represented in the pre-retrofit and post-retrofit table in Table D.4 of this Schedule F.

Table D.1

Location	Total Existing kW
Main Library	30
Ponte Vedra Library	51
Council on Aging	31
Ketterlinus Gym	22
Cypress Links Golf Club	18
Anastasia Waste Water Treatment Plant	35
Sawgrass Waste Water Treatment Plant	9.7

D.4 Post-Retrofit Measurements

The following describes the methodology for proving post-fixture wattage reductions as a result of the installation of energy efficient lighting equipment.

Measurement Methodology:

Company will either install new fixtures, or retrofit existing fixtures with energy efficient products. The detailed survey/scope of work incorporated herein, illustrates the types of retrofits installed, and *estimates* the wattage of the retrofits as represented in Table D.4 The purpose of this section is to validate these estimates through actual wattage measurement as represented in the lighting audits and analyses performed to date.

Several different types of retrofit strategies are employed in the applicable areas. Table 2 Table D.4 in this Section of this Schedule F lists the retrofit types by building/fixture code name, provides a brief description of the fixture retrofit, the estimated fixture wattage, a space for measured fixture wattage and the quantity of fixtures.

In order to validate the wattage estimates of the lighting retrofits, Company will measure the actual wattage consumed by each of the different retrofits. This measurement will occur annually during the term of this agreement. The initial post- retrofit measurement shall follow installation of the lighting retrofit and a reasonable "burn-in" time of not less than ~100 hours. Appropriate representatives of the Agency should be present to witness the measurement. The measurements will be taken utilizing an accurate, properly calibrated wattmeter. A qualified electrician will take the measurements, witnessed by the Agency (at its option) and Company, and will record the results in the appropriate columns on the table below. A sufficient number of fixtures, not to exceed three (3) of each retrofit fixture type (per building), will be measured for wattage so that an accurate representation (average of the (3) measurements) has been established. The cost of this measurement and the responsibility for the provision of a qualified electrician will be borne entirely by Company. It is anticipated that a sufficient representative sample of each retrofit type will be measured and documented within 60 days of completion of the lighting retrofit.

Post-Retrofit Fixture Table:

The following Table D.2 illustrates the combined list of post-retrofit fixtures for St. Johns County, included in this Agreement:

Table D.2

Location	Total Post Retrofit kW
Main Library	19
Ponte Vedra Library	27
Council on Aging	12
Ketterlinus Gym	12
Cypress Links Golf Club	13
Anastasia Waste Water Treatment Plant	24
Sawgrass Waste Water Treatment Plant	6.8

D.5 Computation of Savings

The following describes the methodology for computing Energy Use Savings based on validated wattage and presents the calculated and guaranteed Energy Use Savings.

Computation and Presentation of Energy Use Savings:

Once the true post-retrofit, per fixture wattage have been established and documented in Table D.2, the values will be inserted into the appropriate columns of the detailed audit/scope of work spreadsheets. These actual post-retrofit values will supersede the estimated values currently represented in the spreadsheet. Hence, the resulting spreadsheets will represent the "as-built" conditions.

Density Reduction (watts) = (Pre-Retrofit wattage) – (Post-Retrofit wattage)

Energy Reduction (watts/hr) = (Density Reduction) x (Annual Hours of Operation)

Presentation of Savings:

The energy conservation measure described herein will result in the following effect on energy usage:

Location	Kwh savings	Kw savings
Main Library	36059	132
Ponte Vedra Library	8881	323
Council on Aging	47004	155
Ketterlinus Gym	38366	134
Cypress Links Golf Club	14240	26
Administration	82149	25
Anastasia Waste Water Treatment Plant	48801	11
Sawgrass Waste Water Treatment Plant	11352	3

Table D.3

AREA TYPE	WKS/YR	CURRENT USE HRS/WK
LIBRARIES		
Private Office	52	51.4
Meeting Rooms	52	12.1
Open Space	52	60.1
Restroom	52	103.5
Storage	52	114.8
Hallway	52	89.5
Library	52	66.5
GYM		
Private Office	52	72.9
Open Space	52	31.8
Restroom	52	100.3
Storage	52	2.4
Hallway	52	74.8
Gym	52	82.6
CYPRESS GOLF CLUB		
Private Office	52	58.9
Open Space	52	55.5
Restroom	52	47.2
Storage	52	78.5
Hallway	52	61.4
COUNCIL AGING		
Private Office	52	32.1
Open Space	52	55.4
Restroom	52	14.5
Storage	52	37.7
Hallway	52	51.3
ANIMAL CONTROL		
Open Space	52	41.0
Restroom	52	8.1
Storage	52	43.2
Hallway	52	66.1
WWTP'S		
Private Office	52	32.5
Open Space	52	59.4
Restroom	52	22.9
Storage	52	26.2
Hallway	52	48.7
Lab	52	36.9

Table D.4

Building Name	Existing Fixture	Ext Qty	Ext Load	Post Fixture	Post Qty	Post Load
Anastasia WWTP	2'X4' troffer, 4-4' lamps	6	0.87	retrofit w/2-T8/EB/reflector	6	0.288
Anastasia WWTP	exit 2-15w incand. Single face	1	0.03	replace with new, single face LED exit	1	0.003
Anastasia WWTP	2'X4' troffer, 4-4' lamps	1	0.14	retrofit w/2-T8/EB/reflector	1	0.048
Anastasia WWTP	2'X4' troffer, 4-4' lamps	2	0.29	retrofit w/2-T8/EB/reflector	2	0.096
Anastasia WWTP	2'X4' troffer, 4-4' lamps	2	0.29	retrofit w/2-T8/EB/reflector	2	0.096
Anastasia WWTP	2'X4' troffer, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Anastasia WWTP	2'X4' troffer, 4-4' lamps	4	0.58	retrofit w/2-T8/EB/reflector	4	0.192
Anastasia WWTP	2'X4' troffer, 4-4' lamps	4	0.58	retrofit w/2-T8/EB/reflector	4	0.192
Anastasia WWTP	2'X4' troffer, 2-4' lamps, paracube lens	3	0.22	retrofit w/2-T8/EB-reduced output	3	0.126
Anastasia WWTP	2'X4' troffer, 4-4' lamps	4	0.58	retrofit w/2-T8/EB/reflector	4	0.192
Anastasia WWTP	high pressure sodium 100w	1	0.13	no change to existing fixture	1	0.128
Anastasia WWTP	2'X4' troffer, 4-4' lamps	2	0.29	retrofit w/2-T8/EB/reflector	2	0.096
Anastasia WWTP	exit 2-15w incand. Single face	1	0.03	replace with new, single face LED exit	1	0.003
Anastasia WWTP	2'X4' troffer, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Anastasia WWTP	incandescent 60w	1	0.06	retrofit with PL13 screw-in adapter	1	0.015
Anastasia WWTP	2'X4' troffer, 4-4' lamps	1	0.14	retrofit w/2-T8/EB/reflector	1	0.048
Anastasia WWTP	1'x 4' wraparound, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Anastasia WWTP	2'X4' troffer, 4-4' lamps	2	0.29	retrofit w/2-T8/EB/reflector	2	0.096
Anastasia WWTP	2'X4' troffer, 4-4' lamps	1	0.14	retrofit with w/4-T8/EB-reduced output	1	0.084
Anastasia WWTP	compact fluorescent fixture, 1-26w PL lamp	4	0.11	no change to existing fixture	4	0.112
Anastasia WWTP	1'x 4' wraparound, 2-4' lamps	6	0.43	replace with new 4' 1-lamp/t8/eb/wrap fixture	6	0.15
Anastasia WWTP	2'X4' troffer, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Anastasia WWTP	2'X4' troffer, 4-4' lamps	9	1.30	retrofit with w/4-T8/EB-reduced output	9	0.756
Anastasia WWTP	incandescent 60w	1	0.06	retrofit with PL13 screw-in adapter	1	0.015
Anastasia WWTP	2'X4' troffer, 4-4' lamps	5	0.72	retrofit with w/4-T8/EB-reduced output	5	0.42
Anastasia WWTP	2'X4' troffer, 4-4' lamps	2	0.29	retrofit w/2-T8/EB/reflector	2	0.096
Anastasia WWTP	2'X4' troffer, 4-4' lamps	3	0.43	retrofit w/2-T8/EB/reflector	3	0.144
Anastasia WWTP	2'X4' troffer, 4-4' lamps	4	0.58	retrofit w/2-T8/EB/reflector	4	0.192
Anastasia WWTP	2'X4' troffer, 4-4' lamps	4	0.58	retrofit w/2-T8/EB/reflector	4	0.192
Anastasia WWTP	2'X4' troffer, 4-4' lamps	2	0.29	retrofit w/2-T8/EB/reflector	2	0.096
Anastasia WWTP	2'X4' troffer, 4-4' lamps	2	0.29	retrofit w/2-T8/EB/reflector	2	0.096
Anastasia WWTP	compact fluorescent fixture, 1-26w PL lamp	1	0.03	no change to existing fixture	1	0.028
Anastasia WWTP	incandescent 60w	1	0.06	retrofit with PL13 screw-in adapter	1	0.015
Anastasia WWTP	high pressure sodium 100w	1	0.13	no change to existing fixture	1	0.128
Anastasia WWTP	2'X4' troffer, 4-4' lamps	8	1.16	retrofit with w/4-T8/EB-reduced output	8	0.672
Anastasia WWTP	2'X4' troffer, 4-4' lamps	4	0.58	retrofit w/2-T8/EB/reflector	4	0.192
Anastasia WWTP	2'X4' troffer, 4-4' lamps	3	0.43	retrofit w/2-T8/EB/reflector	3	0.144
Anastasia WWTP	strip, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Anastasia WWTP	2'X4' troffer, 4-4' lamps	4	0.58	retrofit with w/4-T8/EB-reduced output	4	0.336
Anastasia WWTP	2'X4' troffer, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Anastasia WWTP	wall bracket, 2-4' lamps	1	0.07	replace with 4' 1-lamp/t8/eb/wall bracket with convenience outlet	1	0.025

Building Name	Existing Fixture	Ext Qty	Ext Load	Post Fixture	Post Qty	Post Load
Anastasia WWTP	2'X4' troffer, 4-4' lamps	3	0.43	replace with new 2x4 grid troffer w/2-T8/EB	3	0.144
Anastasia WWTP	2'X4' troffer, 4-4' lamps	8	1.16	replace with new 2x4 grid troffer w/2-T8/EB	8	0.384
Anastasia WWTP	2'X4' troffer, 2-4' lamps	1	0.07	replace with new 2x4 grid troffer w/2-T8/EB	1	0.048
Anastasia WWTP	2'X4' troffer, 4-4' lamps	3	0.43	replace with new 2x4 grid troffer w/2-T8/EB	3	0.144
Anastasia WWTP	2'X4' troffer, 4-4' lamps	2	0.29	replace with new 2x4 grid troffer w/2-T8/EB	2	0.096
Anastasia WWTP	wall bracket, 2-4' lamps	1	0.07	replace with 4' 1-lamp/t8/eb/wall bracket with convenience outlet	1	0.025
Anastasia WWTP	2'X4' troffer, 4-4' lamps	1	0.14	replace with new 2x4 grid troffer w/2-T8/EB	1	0.048
Anastasia WWTP	2'X4' troffer, 4-4' lamps	2	0.29	replace with new 2x4 grid troffer w/2-T8/EB	2	0.096
Anastasia WWTP	high pressure sodium 100w	2	0.26	no change to existing fixture	2	0.256
Anastasia WWTP	compact fluorescent fixture, 1-26w PL lamp	2	0.06	no change to existing fixture	2	0.056
Anastasia WWTP	industrial, 2-4' lamps	6	0.43	retrofit w/2-T8/EB-reduced output	6	0.252
Anastasia WWTP	compact fluorescent fixture, 1-26w PL lamp	1	0.03	no change to existing fixture	1	0.028
Anastasia WWTP	metal halide 175w	21	4.31	no change to existing fixture	21	4.305
Anastasia WWTP	industrial, 2-4' lamps, T8/EB	2	0.12	no change to existing fixture	2	0.118
Anastasia WWTP	1'x 4' wraparound, 2-4' lamps, T8/EB, vaportight	1	0.06	no change to existing fixture	1	0.059
Anastasia WWTP	metal halide 250w	3	0.89	replace with new, 4 lamp 4' industrial	3	0.324
Anastasia WWTP	high pressure sodium 100w	2	0.26	no change to existing fixture	2	0.256
Anastasia WWTP	industrial, 2-4' lamps	2	0.14	retrofit w/2-T8/EB-reduced output	2	0.084
Anastasia WWTP	metal halide 175w	4	0.82	no change to existing fixture	4	0.82
Anastasia WWTP	high pressure sodium 100w	2	0.26	no change to existing fixture	2	0.256
Anastasia WWTP	industrial, 2-4' lamps	9	0.65	retrofit w/2-T8/EB-reduced output	9	0.378
Anastasia WWTP	industrial, 2-4' lamps, T8/EB	11	0.65	no change to existing fixture	11	0.649
Anastasia WWTP	industrial, 2-4' lamps, T8/EB	11	0.65	no change to existing fixture	11	0.649
Anastasia WWTP	industrial, 2-4' lamps, T8/EB	12	0.71	no change to existing fixture	12	0.708
Anastasia WWTP	metal halide 175w	3	0.62	no change to existing fixture	3	0.615
Anastasia WWTP	industrial, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Anastasia WWTP	industrial, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Anastasia WWTP	1'x4' wraparound, 2-4' lamps, vaportight	2	0.14	retrofit w/2-T8/EB-reduced output	2	0.084
Anastasia WWTP	high pressure sodium 100w	1	0.13	no change to existing fixture	1	0.128
Anastasia WWTP	incandescent 60w	2	0.12	retrofit with PL13 screw-in adapter	2	0.03
Anastasia WWTP	1'x 4' wraparound, 2-4' lamps, T8/EB	4	0.24	no change to existing fixture	4	0.236
Anastasia WWTP	high pressure sodium 100w	1	0.13	no change to existing fixture	1	0.128
Anastasia WWTP	metal halide 250w	3	0.89	replace with new, 4 lamp 4' industrial	3	0.324
Anastasia WWTP	1'x 4' wraparound, 2-4' lamps, T8/EB, vaportight	9	0.53	no change to existing fixture	9	0.531
Anastasia WWTP	metal halide 175w	15	3.08	no change to existing fixture	15	3.075
Anastasia WWTP	high pressure sodium 150w	2	0.37	no change to existing fixture	2	0.37
Anastasia WWTP	metal halide 400w	5	2.29	no change to existing fixture	5	2.29
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	incandescent 2-60w	1	0.12	retrofit with PL13 screw-in adapter	2	0.03

Building Name	Existing Fixture	Ext Qty	Ext Load	Post Fixture	Post Qty	Post Load
Council on Aging	2'X4' troffer, 4-4' lamps	3	0.38	retrofit w/2-T8/EB/reflector	3	0.144
Council on Aging	compact fluorescent fixture, 1-13w PL lamp	2	0.03	no change to existing fixture	2	0.03
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	2'X4' troffer, 2-4' lamps	3	0.22	retrofit w/2-T8/EB-reduced output	3	0.126
Council on Aging	incandescent 2-60w	1	0.12	retrofit with PL13 screw-in adapter	2	0.03
Council on Aging	2'X4' troffer, 2-4' lamps	2	0.14	retrofit w/2-T8/EB-reduced output	2	0.084
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	2'X4' troffer, 4-4' lamps	6	0.75	retrofit w/2-T8/EB/reflector	6	0.288
Council on Aging	exit 2-20w incand. Single face	1	0.04	replace with new, single face LED exit	1	0.003
Council on Aging	1'x 4' wraparound, 2-4' lamps	1	0.07	replace with new 4' 1-lamp/t8/eb/wrap fixture	1	0.025
Council on Aging	2'X4' troffer, 4-4' lamps	3	0.38	retrofit w/2-T8/EB/reflector	3	0.144
Council on Aging	incandescent 2-60w	1	0.12	retrofit with PL13 screw-in adapter	2	0.03
Council on Aging	2'X4' troffer, 4-4' lamps	8	1.00	retrofit w/2-T8/EB/reflector	8	0.384
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	2'X4' troffer, 4-4' lamps	6	0.75	retrofit w/2-T8/EB/reflector	6	0.288
Council on Aging	2'X4' troffer, 4-4' lamps	32	4.00	retrofit w/2-T8/EB/reflector	32	1.536
Council on Aging	2'X4' troffer, 4-4' lamps	6	0.75	retrofit w/2-T8/EB/reflector	6	0.288
Council on Aging	2'X4' troffer, 4-4' lamps	8	1.00	retrofit w/2-T8/EB/reflector	8	0.384
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	2'X4' troffer, 4-4' lamps	1	0.13	retrofit with w/4-T8/EB-reduced output	1	0.084
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	2'X4' troffer, 4-4' lamps	4	0.50	retrofit w/2-T8/EB/reflector	4	0.192
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	strip, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Council on Aging	incandescent 100w	2	0.20	retrofit with PL26 screw-in adapter	2	0.056
Council on Aging	2'X4' troffer, 4-4' lamps	6	0.75	retrofit w/2-T8/EB/reflector	6	0.288
Council on Aging	2'X4' troffer, 4-4' lamps	4	0.50	retrofit w/2-T8/EB/reflector	4	0.192
Council on Aging	2'X4' troffer, 4-4' lamps	16	2.00	retrofit w/2-T8/EB/reflector	16	0.768
Council on Aging	compact fluorescent fixture, 1-26w PL lamp	8	0.22	no change to existing fixture	8	0.224
Council on Aging	2'X4' troffer, 4-4' lamps	1	0.13	retrofit w/2-T8/EB/reflector	1	0.048
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	compact fluorescent fixture, 1-26w PL lamp	4	0.11	no change to existing fixture	4	0.112
Council on Aging	2'X4' troffer, 4-4' lamps	8	1.00	retrofit w/2-T8/EB/reflector	8	0.384
Council on Aging	2'X2' troffer, 2-U lamps, T8/EB	2	0.12	retrofit w/2-2' T8/EB/reflector	2	0.058
Council on Aging	incandescent 2-60w	1	0.12	retrofit with PL13 screw-in adapter	2	0.03
Council on Aging	incandescent 2-60w	1	0.12	retrofit with PL13 screw-in adapter	2	0.03
Council on Aging	1'x 4' wraparound, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042

Building Name	Existing Fixture	Ext Qty	Ext Load	Post Fixture	Post Qty	Post Load
Council on Aging	incandescent 60w	2	0.12	retrofit with PL13 screw-in adapter	2	0.03
Council on Aging	incandescent 100w	2	0.20	retrofit with PL26 screw-in adapter	2	0.056
Council on Aging	compact fluorescent fixture, 1-13w PL lamp	2	0.03	no change to existing fixture	2	0.03
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	2'X4' troffer, 4-4' lamps	4	0.50	retrofit w/2-T8/EB/reflector	4	0.192
Council on Aging	exit 2-20w incand. Single face	2	0.08	replace with new, single face LED exit	2	0.006
Council on Aging	2'X4' troffer, 4-4' lamps	3	0.38	retrofit w/2-T8/EB/reflector	3	0.144
Council on Aging	1'x4' troffer, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Council on Aging	2'X2' troffer, 2-U lamps, T8/EB	2	0.12	retrofit w/2-2' T8/EB/reflector	2	0.058
Council on Aging	2'X2' troffer, 2-U lamps, T8/EB	2	0.12	retrofit w/2-2' T8/EB/reflector	2	0.058
Council on Aging	1'x 4' wraparound, 2-4' lamps	1	0.07	replace with new 4' 1-lamp/t8/eb/wrap fixture	1	0.025
Council on Aging	2'X4' troffer, 4-4' lamps	7	0.88	retrofit w/2-T8/EB/reflector	7	0.336
Council on Aging	2'X4' troffer, 4-4' lamps	12	1.50	retrofit w/2-T8/EB/reflector	12	0.576
Council on Aging	1'x 4' wraparound, 2-4' lamps	1	0.07	replace with new 4' 1-lamp/t8/eb/wrap fixture	1	0.025
Council on Aging	2'X4' troffer, 4-4' lamps	9	1.13	retrofit w/2-T8/EB/reflector	9	0.432
Council on Aging	2'X4' troffer, 4-4' lamps	5	0.63	retrofit w/2-T8/EB/reflector	5	0.24
Council on Aging	2'X2' troffer, 2-U lamps, T8/EB	2	0.12	retrofit w/2-2' T8/EB/reflector	2	0.058
Council on Aging	2'X4' troffer, 4-4' lamps	5	0.63	retrofit w/2-T8/EB/reflector	5	0.24
Council on Aging	2'x2' troffer, 4-2' lamps	7	0.70	retrofit w/2-2' T8/EB/reflector	7	0.203
Council on Aging	exit 2-7w PL fluorescent lamps	2	0.04	replace with new, single face LED exit	2	0.006
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	2'X4' troffer, 4-4' lamps	5	0.63	retrofit w/2-T8/EB/reflector	5	0.24
Council on Aging	2'X4' troffer, 4-4' lamps	1	0.13	retrofit w/2-T8/EB/reflector	1	0.048
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	2'X4' troffer, 4-4' lamps	1	0.13	retrofit w/2-T8/EB/reflector	1	0.048
Council on Aging	1'x 4' wraparound, 2-4' lamps	2	0.14	replace with new 4' 1-lamp/t8/eb/wrap fixture	2	0.05
Council on Aging	2'X4' troffer, 4-4' lamps	1	0.13	retrofit with w/4-T8/EB-reduced output	1	0.084
Council on Aging	2'X4' troffer, 4-4' lamps	1	0.13	retrofit w/2-T8/EB/reflector	1	0.048
Council on Aging	1'x 4' wraparound, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Council on Aging	2'X4' troffer, 4-4' lamps	14	1.75	retrofit w/2-T8/EB/reflector	14	0.672
Council on Aging	2'X4' troffer, 4-4' lamps	2	0.25	retrofit w/2-T8/EB/reflector	2	0.096
Council on Aging	2'x4' wraparound, 4-4' lamps	2	0.29	retrofit w/2-T8/EB	2	0.098
Council on Aging	incandescent 100w	2	0.20	retrofit with PL26 screw-in adapter	2	0.056
Council on Aging	2'X4' troffer, 4-4' lamps	1	0.13	retrofit with w/4-T8/EB-reduced output	1	0.084
Council on Aging	2'X2' troffer, 2-U lamps, T8/EB	2	0.12	retrofit w/2-2' T8/EB/reflector	2	0.058
Council on Aging	2'X2' troffer, 2-U lamps	1	0.07	retrofit w/2-2' T8/EB/reflector	1	0.029
Cypress Links Golf Course	2'X4' troffer, 4-4' lamps	1	0.14	retrofit w/2-T8/EB/reflector	1	0.048
Cypress Links Golf Course	industrial, 2-8' lamps	10	1.35	replace with new 8' 2lamp4't8/eb industrial fixt.	10	0.48
Cypress Links Golf Course	compact fluorescent fixture, 1-26w PL lamp	4	0.11	no change to existing fixture	4	0.112

Building Name	Existing Fixture	Ext Qty	Ext Load	Post Fixture	Post Qty	Post Load
Cypress Links Golf Course	strip, 1-4' lamp	1	0.04	retrofit w/1-T8/EB-reduced output	1	0.022
Cypress Links Golf Course	strip, 2-4' lamps	1	0.07	replace with new 4' 1-lamp/t8/eb/wrap fixture	1	0.025
Cypress Links Golf Course	2'X4' troffer, 4-4' lamps	5	0.72	retrofit w/2-T8/EB/reflector	5	0.24
Cypress Links Golf Course	incandescent, 65w	4	0.26	retrofit with PL13 floodlight screw-in adapter	4	0.06
Cypress Links Golf Course	compact fluorescent fixture, 1-26w PL lamp	1	0.03	no change to existing fixture	1	0.028
Cypress Links Golf Course	2'x4' wraparound, 4-4' lamps T8/EB	1	0.11	replace with new 4' 2-lamp/t8/EB/wrap fixture	1	0.048
Cypress Links Golf Course	strip, 1-4' lamp	2	0.08	retrofit w/1-T8/EB-reduced output	2	0.044
Cypress Links Golf Course	metal halide 175w	4	0.82	no change to existing fixture	4	0.82
Cypress Links Golf Course	metal halide 175w	6	1.23	no change to existing fixture	6	1.23
Cypress Links Golf Course	metal halide 175w	3	0.62	no change to existing fixture	3	0.615
Cypress Links Golf Course	2'X4' troffer, 4-4' lamps	2	0.29	retrofit w/2-T8/EB/reflector	2	0.096
Cypress Links Golf Course	high pressure sodium 100w	2	0.26	no change to existing fixture	2	0.256
Cypress Links Golf Course	high pressure sodium 100w	2	0.26	no change to existing fixture	2	0.256
Cypress Links Golf Course	high pressure sodium 150w	1	0.19	no change to existing fixture	1	0.185
Cypress Links Golf Course	metal halide 250w	2	0.59	no change to existing fixture	2	0.59
Cypress Links Golf Course	2'X4' troffer, 4-4' lamps	4	0.58	retrofit with w/4-T8/EB-reduced output	4	0.336
Cypress Links Golf Course	compact fluorescent fixture, 1-26w PL lamp	7	0.20	no change to existing fixture	7	0.196
Cypress Links Golf Course	compact fluorescent fixture, 1-13w PL lamp	7	0.11	no change to existing fixture	7	0.105
Cypress Links Golf Course	2'X4' troffer, 4-4' lamps	2	0.29	retrofit w/2-T8/EB/reflector	2	0.096
Cypress Links Golf Course	compact fluorescent fixture, 1-26w PL lamp	2	0.06	no change to existing fixture	2	0.056
Cypress Links Golf Course	2'X4' troffer, 4-4' lamps	2	0.29	retrofit w/2-T8/EB/reflector	2	0.096
Cypress Links Golf Course	2'X4' troffer, 4-4' lamps	2	0.29	retrofit w/2-T8/EB/reflector	2	0.096
Cypress Links Golf Course	incandescent 100w	1	0.10	retrofit with PL26 floodlight screw-in adapter	1	0.028

Building Name	Existing Fixture	Ext Qty	Ext Load	Post Fixture	Post Qty	Post Load
Cypress Links Golf Course	2'X4' troffer, 4-4' lamps	1	0.14	retrofit with w/4-T8/EB-reduced output	1	0.084
Cypress Links Golf Course	strip, 2-4' lamps	12	0.87	retrofit w/1-T8/EB	12	0.3
Cypress Links Golf Course	compact fluorescent fixture, 1-26w PL lamp	24	0.67	no change to existing fixture	24	0.672
Cypress Links Golf Course	1'x 4' wraparound, 2-4' lamps	8	0.58	replace with new 4' 2-lamp/t8/EB/wrap fixture	8	0.384
Cypress Links Golf Course	2'x4' wraparound, 4-4' lamps T8/EB	2	0.23	replace with new 4' 2-lamp/t8/EB/wrap fixture	2	0.096
Cypress Links Golf Course	compact fluorescent fixture, 1-13w PL lamp	3	0.05	no change to existing fixture	3	0.045
Cypress Links Golf Course	2'X4' troffer, 4-4' lamps	2	0.29	retrofit w/2-T8/EB/reflector	2	0.096
Cypress Links Golf Course	compact fluorescent fixture, 1-26w PL lamp	1	0.03	no change to existing fixture	1	0.028
Cypress Links Golf Course	strip, 4-4' lamps, 8' fixture, T8/EB	14	1.60	no change to existing fixture	14	1.596
Cypress Links Golf Course	industrial, 4-4' lamps,8',T8/EB	1	0.11	no change to existing fixture	1	0.114
Cypress Links Golf Course	industrial, 4-4' lamps,8',T8/EB	13	1.48	no change to existing fixture	13	1.482
Cypress Links Golf Course	exit 2-15w incand. Single face	2	0.06	replace with new, single face LED exit	2	0.006
Cypress Links Golf Course	2'X4' troffer, 4-4' lamps, T8/EB	8	0.91	no change to existing fixture	8	0.912
Cypress Links Golf Course	2'X4' troffer, 2-4' lamps, T8/EB	2	0.12	no change to existing fixture	2	0.12
Cypress Links Golf Course	exit 2-15w incand. Single face	2	0.06	replace with new, single face LED exit	2	0.006
Cypress Links Golf Course	incandescent 60w	2	0.12	retrofit with PL13 floodlight screw-in adapter	2	0.03
Cypress Links Golf Course	2'X4' troffer, 4-4' lamps, T8/EB	2	0.23	no change to existing fixture	2	0.228
Cypress Links Golf Course	2'X4' troffer, 4-4' lamps, T8/EB	2	0.23	no change to existing fixture	2	0.228
Cypress Links Golf Course	1'x 4' wraparound, 2-4' lamps, T8/EB	1	0.06	no change to existing fixture	1	0.059
Cypress Links Golf Course	incandescent, 65w	2	0.13	retrofit with PL13 floodlight screw-in adapter	2	0.03
Cypress Links Golf Course	high pressure sodium 100w	3	0.38	no change to existing fixture	3	0.384
Cypress Links Golf Course	high pressure sodium 150w	2	0.37	no change to existing fixture	2	0.37
Cypress Links Golf Course	1'x 4' wraparound, 2-4' lamps, T8/EB	1	0.06	no change to existing fixture	1	0.059

Building Name	Existing Fixture	Ext Qty	Ext Load	Post Fixture	Post Qty	Post Load
Cypress Links Golf Course	incandescent, 65w	2	0.13	retrofit with PL13 floodlight screw-in adapter	2	0.03
Ketterlinus Gym	metal halide 1000w	16	14.13	replace with new, 4' 6 lamp T8 hi bay-HO ballast	30	6.72
Ketterlinus Gym	exit 2-15w incand. Single face	4	0.12	replace with new, single face LED exit	4	0.012
Ketterlinus Gym	incandescent 60w	1	0.06	retrofit with PL13 screw-in adapter	1	0.015
Ketterlinus Gym	1'x 4' wraparound, 2-4' lamps	1	0.07	replace with new 4' 2-lamp/t8/EB/wrap fixture	1	0.048
Ketterlinus Gym	1'x 4' wraparound, 2-4' lamps	11	0.80	replace with new 4' 1-lamp/t8/eb/wrap fixture	11	0.275
Ketterlinus Gym	1'x 4' wraparound, 2-4' lamps	2	0.14	replace with new 4' 2-lamp/t8/EB/wrap fixture	2	0.096
Ketterlinus Gym	incandescent 60w	1	0.06	retrofit with PL13 screw-in adapter	1	0.015
Ketterlinus Gym	incandescent 100w	1	0.10	replace with new 4' 2-lamp/t8/EB/wrap fixture	1	0.048
Ketterlinus Gym	2'X4' troffer, 2-4' lamps, T8/EB	2	0.12	no change to existing fixture	2	0.12
Ketterlinus Gym	2'X4' troffer, 2-4' lamps, T8/EB	2	0.12	no change to existing fixture	2	0.12
Ketterlinus Gym	compact fluorescent fixture, 1-26w PL lamp	1	0.03	no change to existing fixture	1	0.028
Ketterlinus Gym	compact fluorescent fixture, 1-26w PL lamp	1	0.03	no change to existing fixture	1	0.028
Ketterlinus Gym	incandescent 60w	2	0.12	retrofit with PL13 screw-in adapter	2	0.03
Ketterlinus Gym	1'x 8' wraparound, 4-4' lamps	6	0.87	replace with new,wrap 8' fixture w/2-T8	6	0.288
Ketterlinus Gym	1'x 4' wraparound, 2-4' lamps	1	0.07	replace with new 4' 1-lamp/t8/eb/wrap fixture	1	0.025
Ketterlinus Gym	2'x4' wraparound, 4-4' lamps	1	0.14	replace with new 4' 2-lamp/t8/EB/wrap fixture	1	0.048
Ketterlinus Gym	strip, 2-8' lamps	1	0.14	replace with new,wrap 8' fixture w/2-T8	1	0.048
Ketterlinus Gym	2'x4' wraparound, 4-4' lamps	1	0.14	replace with new 4' 2-lamp/t8/EB/wrap fixture	1	0.048
Ketterlinus Gym	incandescent 60w	1	0.06	retrofit with PL13 screw-in adapter	1	0.015
Ketterlinus Gym	1'x 4' wraparound, 2-4' lamps	5	0.36	replace with new 4' 1-lamp/t8/eb/wrap fixture	5	0.125
Ketterlinus Gym	2'X4' troffer, 2-4' lamps, T8/EB	5	0.30	no change to existing fixture	5	0.3
Ketterlinus Gym	2'X4' troffer, 2-4' lamps, T8/EB	2	0.12	no change to existing fixture	2	0.12
Ketterlinus Gym	2'X4' troffer, 2-4' lamps, T8/EB	2	0.12	no change to existing fixture	2	0.12
Ketterlinus Gym	2'X4' troffer, 2-4' lamps, T8/EB	2	0.12	no change to existing fixture	2	0.12
Ketterlinus Gym	2'X4' troffer, 2-4' lamps, T8/EB	2	0.12	no change to existing fixture	2	0.12
Ketterlinus Gym	high pressure sodium 100w	2	0.26	no change to existing fixture	2	0.256
Ketterlinus Gym	high pressure sodium 100w	1	0.13	no change to existing fixture	1	0.128
Ketterlinus Gym	compact fluorescent fixture, 1-13w PL lamp	1	0.02	no change to existing fixture	1	0.015
Ketterlinus Gym	high pressure sodium 100w	1	0.13	no change to existing fixture	1	0.128
Ketterlinus Gym	high pressure sodium 100w	2	0.26	no change to existing fixture	2	0.256
Ketterlinus Gym	metal halide 1000w	2	2.16	no change to existing fixture	2	2.16
Ketterlinus Gym	incandescent 60w	2	0.12	retrofit with PL13 screw-in adapter	2	0.03
Ketterlinus Gym	high pressure sodium 100w	3	0.38	no change to existing fixture	3	0.384
Main Library	metal halide 250w	17	5.02	replace with new 4'-4lamp/t8/EB/wrap fixture	17	1.836
Main Library	metal halide 175w	9	1.85	replace with new 4' 2-lamp/t8/EB/wrap fixture	9	0.432
Main Library	strip, 2-4' lamps, T8/EB	1	0.06	no change to existing fixture	1	0.059
Main Library	strip, 2-4' lamps	1	0.07	no change to existing fixture	1	0.0723945 7
Main Library	compact fluorescent fixture, 1-26w PL lamp	6	0.17	no change to existing fixture	6	0.168
Main Library	metal halide 250w	10	2.95	replace with new 4'-4lamp/t8/EB/wrap fixture	10	1.08

Building Name	Existing Fixture	Ext Qty	Ext Load	Post Fixture	Post Qty	Post Load
Main Library	metal halide 175w	8	1.64	replace with new 4' 2-lamp/t8/EB/wrap fixture	8	0.384
Main Library	1'x4' troffer, 2-4' lamps, T8/EB	133	7.85	no change to existing fixture	133	7.847
Main Library	2'X4' troffer, 3-4' lamps, T8/EB	18	1.57	no change to existing fixture	18	1.566
Main Library	metal halide 250w	8	2.36	replace with new 4'-4lamp/t8/EB/wrap fixture	8	0.864
Main Library	2'X4' troffer, 3-4' lamps, T8/EB	2	0.17	no change to existing fixture	2	0.174
Main Library	2'X4' troffer, 3-4' lamps, T8/EB	9	0.78	no change to existing fixture	9	0.783
Main Library	1'x4' troffer, 2-4' lamps, T8/EB	1	0.06	no change to existing fixture	1	0.059
Main Library	2'X4' troffer, 3-4' lamps, T8/EB	2	0.17	no change to existing fixture	2	0.174
Main Library	compact fluorescent fixture, 1-26w PL lamp	2	0.06	no change to existing fixture	2	0.056
Main Library	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	4	0.35	no change to existing fixture	4	0.348
Main Library	2'X4' troffer, 4-4' lamps	13	1.88	retrofit w/2-T8/EB/reflector	13	0.624
Main Library	circline fixture with 1-fc12 & 1-fc8 lamp ea.	2	0.14	replace with new 4' 1-lamp/t8/eb/wrap fixture	2	0.05
Main Library	strip, 2-4' lamps	2	0.14	retrofit w/2-T8/EB-reduced output	2	0.084
Main Library	1'x4' troffer, 2-4' lamps, T8/EB	3	0.18	no change to existing fixture	3	0.177
Main Library	2'X4' troffer, 3-4' lamps, T8/EB	1	0.09	no change to existing fixture	1	0.087
Main Library	industrial, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Main Library	2'X4' troffer, 3-4' lamps, T8/EB	3	0.26	no change to existing fixture	3	0.261
Main Library	circline fixture with 1-fc12 & 1-fc8 lamp ea.	1	0.07	replace with new 4' 1-lamp/t8/eb/wrap fixture	1	0.025
Main Library	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	18	1.57	no change to existing fixture	18	1.566
Main Library	incandescent, 65w	4	0.26	retrofit with PL13 floodlight screw-in adapter, dimmable	4	0.06
Main Library	incandescent, 65w	2	0.13	retrofit with PL13 floodlight screw-in adapter	2	0.03
Main Library	2'X4' troffer, 3-4' lamps, T8/EB	2	0.17	no change to existing fixture	2	0.174
Main Library	1' x 2' wraparound, 2-2' lamps T8/EB	1	0.03	no change to existing fixture	1	0.034
Main Library	strip, 2-4' lamps	4	0.29	retrofit w/1-T8/EB	4	0.1
Main Library	compact fluorescent fixture, 1-13w PL lamp	2	0.03	no change to existing fixture	2	0.03
Main Library	strip, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Main Library	1' x 2' wraparound, 2-2' lamps T8/EB	1	0.03	no change to existing fixture	1	0.034
Ponte Vedra Library	compact fluorescent fixture, 2-26w PL lamps	8	0.48	no change to existing fixture	8	0.48
Ponte Vedra Library	metal halide 400w	4	2.34	retrofit w/320w mh pulse start kit	4	1.4
Ponte Vedra Library	metal halide 175w	16	3.44	retrofit w/150w mh pulse start kit	16	2.8
Ponte Vedra Library	metal halide 400w	15	8.78	retrofit w/320w mh pulse start kit	15	5.25
Ponte Vedra Library	metal halide 400w	20	11.70	retrofit w/150w mh pulse start kit	20	3.5
Ponte Vedra Library	compact fluorescent fixture, 1-13w PL lamp	4	0.06	no change to existing fixture	4	0.06
Ponte Vedra Library	2'X4' troffer, 3-4' lamps	4	0.47	retrofit w/2-T8/EB/reflector	4	0.192
Ponte Vedra Library	2'X2' troffer, 2-U lamps, T8/EB	1	0.06	no change to existing fixture	1	0.059
Ponte Vedra Library	2'X4' troffer, 3-4' lamps, T8/EB	4	0.35	no change to existing fixture	4	0.348
Ponte Vedra Library	2'X4' troffer, 3-4' lamps	11	1.28	retrofit w/2-T8/EB/reflector	11	0.528
Ponte Vedra Library	2'X2' troffer, 2-U lamps	4	0.29	retrofit w/2-2' T8/EB/reflector	4	0.116
Ponte Vedra Library	strip, 2-8' lamps	20	2.70	retrofit with 8' strip T8 retrofit kit, using 2-4' lamps	20	0.96
Ponte Vedra Library	metal halide 175w	10	2.15	retrofit with PL42 screw-in adapter	10	0.42

Ponte Vedra Library	2'X4' troffer, 3-4' lamps, T8/EB	3	0.26	no change to existing fixture	3	0.261
Building Name	**Existing Fixture**	**Ext Qty**	**Ext Load**	**Post Fixture**	**Post Qty**	**Post Load**
Ponte Vedra Library	1'x4' troffer, 2-4' lamps	3	0.22	retrofit w/2-T8/EB-reduced output	3	0.126
Ponte Vedra Library	compact fluorescent fixture, 2-26w PL lamps	1	0.06	no change to existing fixture	1	0.06
Ponte Vedra Library	1'x4' troffer, 2-4' lamps	3	0.22	retrofit w/2-T8/EB-reduced output	3	0.126
Ponte Vedra Library	2'X4' troffer, 3-4' lamps	20	2.33	retrofit w/2-T8/EB/reflector	20	0.96
Ponte Vedra Library	2'X4' troffer, 3-4' lamps	2	0.23	retrofit w/2-T8/EB/reflector	2	0.096
Ponte Vedra Library	wall bracket, 2-2' lamps	1	0.05	retrofit with 1-2' F17t8 lamp/EB	1	0.015
Ponte Vedra Library	wall bracket, 2-2' lamps	1	0.05	retrofit with 1-2' F17t8 lamp/EB	1	0.015
Ponte Vedra Library	2'X4' troffer, 3-4' lamps	1	0.12	retrofit w/3-T8/EB-reduced output	1	0.063
Ponte Vedra Library	2'X4' troffer, 3-4' lamps	30	3.49	retrofit w/2-T8/EB/reflector	30	1.44
Ponte Vedra Library	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	4	0.35	no change to existing fixture	4	0.348
Ponte Vedra Library	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	1	0.09	no change to existing fixture	1	0.087
Ponte Vedra Library	2'X2' troffer, 2-U lamps, T8/EB	1	0.06	no change to existing fixture	1	0.059
Ponte Vedra Library	2'X2' troffer, 2-U lamps, T8/EB	1	0.06	no change to existing fixture	1	0.059
Ponte Vedra Library	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	20	1.74	no change to existing fixture	20	1.74
Ponte Vedra Library	2'X2' troffer, 2-U lamps, T8/EB	8	0.47	no change to existing fixture	8	0.472
Ponte Vedra Library	incandescent, 65w	8	0.52	retrofit with PL13 floodlight screw-in adapter, dimmable	8	0.12
Ponte Vedra Library	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	2	0.17	no change to existing fixture	2	0.174
Ponte Vedra Library	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	6	0.52	no change to existing fixture	6	0.522
Ponte Vedra Library	compact fluorescent fixture, 1-26w PL lamp	1	0.03	no change to existing fixture	1	0.028
Ponte Vedra Library	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	1	0.09	no change to existing fixture	1	0.087
Ponte Vedra Library	2'X4' troffer, 3-4' lamps	2	0.23	retrofit w/2-T8/EB/reflector	2	0.096
Ponte Vedra Library	2'X4' troffer, 3-4' lamps	1	0.12	retrofit w/2-T8/EB/reflector	1	0.048
Ponte Vedra Library	incandescent 60w	1	0.06	replace with new PL13 fixture	1	0.015
Ponte Vedra Library	strip, 2-4' lamps	5	0.36	retrofit w/2-T8/EB-reduced output	5	0.21
Ponte Vedra Library	strip, 2-4' lamps	2	0.14	retrofit w/2-T8/EB-reduced output	2	0.084
Ponte Vedra Library	2'X4' troffer, 2-4' lamps	2	0.14	retrofit w/2-T8/EB-reduced output	2	0.084
Ponte Vedra Library	2'X4' troffer, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Ponte Vedra Library	wall bracket, 2-2' lamps	1	0.05	retrofit with 1-2' F17t8 lamp/EB	1	0.015
Ponte Vedra Library	wall bracket, 2-2' lamps	1	0.05	retrofit with 1-2' F17t8 lamp/EB	1	0.015
Ponte Vedra Library	2'X4' troffer, 2-4' lamps	3	0.22	retrofit w/2-T8/EB-reduced output	3	0.126
Ponte Vedra Library	compact fluorescent fixture, 2-26w PL lamps	4	0.24	no change to existing fixture	4	0.24
Ponte Vedra Library	compact fluorescent fixture, 1-13w PL lamp	1	0.02	replace with new PL13 fixture	1	0.015
Ponte Vedra Library	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	3	0.26	no change to existing fixture	3	0.261
Ponte Vedra Library	2'X4' troffer, 3-4' lamps, parabolic louver, T8/EB	2	0.17	no change to existing fixture	2	0.174

Ponte Vedra Library	2'X4' troffer, 3-4' lamps	3	0.35	retrofit w/2-T8/EB/reflector	3	0.144
Ponte Vedra Library	2'X4' troffer, 3-4' lamps	2	0.23	retrofit w/2-T8/EB/reflector	2	0.096
Ponte Vedra Library	2'X4' troffer, 3-4' lamps	2	0.23	retrofit w/2-T8/EB/reflector	2	0.096
Ponte Vedra Library	metal halide 175w	12	2.46	no change to existing fixture	12	2.46
Ponte Vedra Library	metal halide 175w	1	0.21	no change to existing fixture	1	0.205
Ponte Vedra Library	strip, 2-8' lamps	2	0.27	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps	2	0.096
Ponte Vedra Library	strip, 2-4' lamps, T8/EB	3	0.18	no change to existing fixture	3	0.177
Building Name	**Existing Fixture**	**Ext Qty**	**Ext Load**	**Post Fixture**	**Post Qty**	**Post Load**
Sawgrass WWTP	2'X4' troffer, 3-4' lamps	4	0.47	retrofit w/2-T8/EB	4	0.196
Sawgrass WWTP	2'X4' troffer, 3-4' lamps, T8/EB	2	0.17	no change to existing fixture	2	0.174
Sawgrass WWTP	2'X4' troffer, 3-4' lamps, T8/EB	4	0.35	no change to existing fixture	4	0.348
Sawgrass WWTP	2'X4' troffer, 3-4' lamps, T8/EB	2	0.17	no change to existing fixture	2	0.174
Sawgrass WWTP	2'X4' troffer, 3-4' lamps, T8/EB	4	0.35	no change to existing fixture	4	0.348
Sawgrass WWTP	2'X4' troffer, 3-4' lamps, T8/EB	2	0.17	no change to existing fixture	2	0.174
Sawgrass WWTP	incandescent 60w	1	0.06	retrofit with PL13 screw-in adapter	1	0.015
Sawgrass WWTP	incandescent 2-60w	1	0.12	replace with new, wrap fixture w/1-T8 2'/EB	1	0.017
Sawgrass WWTP	incandescent 60w	1	0.06	retrofit with PL13 screw-in adapter	1	0.015
Sawgrass WWTP	strip, 2-8' lamps	6	0.81	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps	6	0.288
Sawgrass WWTP	incandescent 100w	1	0.10	retrofit with PL26 screw-in adapter	1	0.028
Sawgrass WWTP	strip, 2-4' lamps	1	0.07	retrofit w/2-T8/EB-reduced output	1	0.042
Sawgrass WWTP	strip, 2-8' lamps	3	0.41	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps	3	0.144
Sawgrass WWTP	1'x 4' wraparound, 2-4' lamps, T8/EB, vaportight	2	0.12	no change to existing fixture	2	0.118
Sawgrass WWTP	strip, 2-8' lamps	1	0.14	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps	1	0.048
Sawgrass WWTP	strip, 2-8' lamps	2	0.27	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps	2	0.096
Sawgrass WWTP	strip, 2-4' lamps, T8/EB	1	0.06	no change to existing fixture	1	0.059
Sawgrass WWTP	industrial, 2-8' lamps	4	0.54	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps	4	0.192
Sawgrass WWTP	strip, 2-8' lamps	3	0.41	retrofit with 8' industrial T8 retrofit kit, using 2-4' lamps	3	0.144
Sawgrass WWTP	high pressure sodium 400w	4	1.86	no change to existing fixture	4	1.86
Sawgrass WWTP	high pressure sodium 100w	4	0.51	no change to existing fixture	4	0.512
Sawgrass WWTP	mercury vapor 175w	3	0.62	replace with new, 100w hps floodlight, photocell	3	0.384
Sawgrass WWTP	incandescent 500w	1	0.50	replace with new, 100w hps floodlight, photocell	1	0.128
Sawgrass WWTP	high pressure sodium 250w	2	0.60	no change to existing fixture	2	0.6
Sawgrass WWTP	high pressure sodium 150w	4	0.74	no change to existing fixture	4	0.74
Sawgrass WWTP	compact fluorescent fixture (avg watts)	1	0.03	no change to existing fixture	1	0.03

E. Install Occupancy Sensors

E.1 Agreed Upon Parameters

The following are mutually agreed upon parameters that form the basis of this Guarantee. These parameters are hereby stipulated for the purposes of this Agreement as fact and will not be measured, monitored or adjusted.

E.2 Applicability

This Guarantee applies to the energy conservation measure involving the installation of occupancy sensors in the selected areas of the following buildings: Bartram Library and Anastasia Library.

E.3 Input Assumptions

The interior lights in all occupied administration spaces are controlled with manual on/off switches. Lights are left on when occupants leave the room throughout the day and are left on overnight, which uses unnecessary energy. Table E.1 states the existing hours of operation and Table E.2 states the post-retrofit hours of operation for the areas included in this ECM

Table E.1

Building /Location	Existing Hours of operation
Bartram Library reading	3455.4
Bartram Library reading	3455.4
Bartram Library Reading	3455.4
Bartram Library Videos	3455.4
Bartram Library Left stacks	3455.4
Bartram Library Quiet reading	3455.4
Bartram Library Right stacks	3455.4
Bartram Library Children's	3455.4
Bartram Library Center hall	4655.04
Bartram Library Circulation	3455.4
Bartram Library Work	3124.16
Bartram Library Office	2671.24
Bartram Library Janitor	5970.64
Bartram Library Baths	5381.48
Bartram Library Office	2671.24
Bartram Library Lounge	630.24
Bartram Library Office	2671.24
Bartram Library Office	2671.24
Bartram Library Sink	3124.16
Bartram Library Storage	5970.64
Bartram Library Vestibule	4655.04
Bartram Library bath	5381.48
Bartram Library bath	5381.48
Bartram Library bath	5381.48
Bartram Library bath	5381.48
Bartram Library Conference	630.24

Table E.2

Building /Location	Post Hours of operation
Bartram Library reading	2675.92
Bartram Library reading	2675.92
Bartram Library Reading	2675.92
Bartram Library Videos	2675.92
Bartram Library Left stacks	2675.92
Bartram Library Quiet reading	2675.92
Bartram Library Right stacks	2675.92
Bartram Library Children's	2675.92
Bartram Library Center hall	3442.92
Bartram Library Circulation	2675.92
Bartram Library Work	2084.16
Bartram Library Office	1371.24
Bartram Library Janitor	2121.6
Bartram Library Baths	2031.12
Bartram Library Office	1371.24
Bartram Library Lounge	508.56
Bartram Library Office	1371.24
Bartram Library Office	1371.24
Bartram Library Sink	2084.16
Bartram Library Storage	2121.6
Bartram Library Vestibule	3442.92
Bartram Library bath	2031.12
Bartram Library bath	2031.12
Bartram Library bath	2031.12
Bartram Library bath	2031.12
Bartram Library Conference	508.56

E.5 Measurement Methodology

TRACE® 700 building simulation software was used to model the energy consumption of the facility. Known parameters such as local weather data, internal building loads (people and equipment), occupancy data, utility costs, percent outside air, etc., were all utilized in the modeling of the base case. This base case is as set forth in the Detailed Energy Analysis presented by Company. The accuracy of the pre-retrofit energy model was validated by its correlation to the actual utility data for St. John's County.

The operation of the lighting system as represented in the energy model was verified during the building survey conducted by Company.

E.6 Computation of Savings:

The following describes the methodology for computing Energy Use Savings based and presents the calculated and guaranteed Energy Use Savings.

Computation and Presentation of Energy Use Savings
The following describes the stipulated methodology for computing Energy Use Savings based on the validated building operations.

Its assumptions and results were collaboratively agreed upon by Customer and Company as stated and are hereby stipulated.

Presentation of Savings
For the purposes of this Guarantee the Energy Use Savings are hereby stipulated and will not be measured or adjusted throughout the life of the contract. The energy conservation measure described herein will result in the following Energy Use Savings:

Building Name	kWh savings	kW savings
Bartram Library	14,849	72
Anastasia Library	8,519	33

F. HVAC Temperature Controls

F. 1 Agreed Upon Parameters:

The following are mutually agreed upon parameters that form the basis of this Guarantee. These parameters are hereby stipulated for the purposes of this Agreement as fact and will not be measured, monitored or adjusted.

F.1a Applicability:

This Guarantee applies to the energy conservation measure involving the installation of temperature controls at various buildings in St. John's County. The controls will enable the buildings to set schedules based on occupancy, set back temperatures during unoccupied heating, set up temperatures during unoccupied cooling. The DDC controls will also close off ventilation air during unoccupied times. This energy conservation measure applies to the following locations in St. John's County, FL:

Cypress Links Golf Course- Maint.
Bartram Library
Anastasia Library
Animal Control

F.1b Existing Conditions:

For the purposes of this Agreement, the HVAC systems operate and consume energy as per the TRACE® 700 building modeling software analysis presented by Company based this building simulation on extensive survey and analysis. The Agency and Company

collaboratively agreed upon its assumptions and results throughout the modeling process.

F.2 Pre-Retrofit Consumption Data:

The pre-retrofit consumption data was established utilizing the following methodology stipulated to by Agency and Company.

F.2.a Measurement Methodology

TRACE® 700 building simulation software was used to model the energy consumption of the facility. Known parameters such as local weather data, internal building loads (people and equipment), occupancy data, utility costs, percent outside air, etc., were all utilized in the modeling of the base case. This base case is as set forth in the Detailed Energy Analysis presented by Company. The accuracy of the pre-retrofit energy model was validated by its correlation to the actual utility data for the buildings listed in this ECM for St. John's County.

F. 3 Post-Retrofit Measurements

The following describes the stipulated methodology for computing Energy Use Savings based on the stipulated data for the facility. All savings figures are annual figures.

F.3.a Measurement Methodology

Company has completed an engineering analysis for this conservation measure utilizing TRACE® 700 building simulation software.

F. 4 Computation of Savings

The following describes the stipulated methodology for computing savings based on the agreed to schedule changes, temperature setpoints, and ventilation operation.

Essentially, the bulk of the Energy Use Savings due to this conservation measure is going from a building that has limited set back control and scheduling to a building that has the set point and scheduling shown in Table F4.

TRACE™ 700 building simulation software was used to model the post-retrofit conditions of the buildings listed in this ECM. Known runtime parameters such as local weather data, internal building loads (people and equipment), occupancy data, etc., were all utilized in the modeling of the post-retrofit condition.

Table F4 – Post-Retrofit Conditions

Building	Occupied Hours	Occupied Temps, °F	Set back Temps, °F
Cypress Links Golf Course – Maint	10 a.m. to 2 p.m. everyday	68°F ht, 74°F clg	60°F ht, 80°F clg
Bartram Library	10 a.m. to 8 p.m. Mon, Tues, Thurs 10 a.m. to 6 p.m. Wed, Fri 10 a.m. to 5 p.m. Sat Closed Sun	68°F ht, 74°F clg	60°F ht, 80°F clg
Anastasia Library	10 a.m. to 8 p.m. Tues, Thurs 10 a.m. to 6 p.m. Wed, Fri 10 a.m. to 5 p.m. Sat Closed Sun & Mon	68°F ht, 74°F clg	60°F ht, 80°F clg
Animal Library	9 a.m. to 4 p.m. Mon - Fri 9 a.m. to 12:30 p.m. Sat Closed Sun	68°F ht, 74°F clg	60°F ht, 80°F clg

Customer is responsible to perform the updates to the control system to conform to the above table. The Customer should limit access to thermostats to its maintenance staff.

For the purpose of this Agreement, indoor temperature boundaries will be maintained at no warmer than 68° F for heating (ht) and no cooler than 74° F for cooling (clg) (within +/- 2 degrees).

Presentation of Savings:

Building Name	kWh Savings	kW Savings
Cypress Links Golf Course-Maint.	4,316	-17
Bartram Library	72,276	-97
Anastasia Library	24,930	-73
Animal Control	66,322	-20

G. Remove Existing HVAC systems and Install New Packaged Units

G. 1 Agreed Upon Parameters:

The following are mutually agreed upon parameters that form the basis of this performance guarantee. These parameters are hereby stipulated for the purposes of this Agreement as fact and will not be measured, monitored or adjusted.

G.1a Applicability:

This Guarantee applies to the energy conservation measure involving the replacement of packaged air conditioning units at the following buildings located in St. John's County:

Bartram Library
Cypress Links Golf Course- Club House
Cypress Links Golf Course- Maintenance Building.
Courthouse Annex - Public Defenders Office

G.1b Existing Conditions:

For the purposes of this Agreement, the existing packaged air conditioning units operate and consume energy as per the TRACE® 700 building modeling software analysis presented by Company based this building simulation on extensive survey and analysis. The Agency and Company collaboratively agreed upon its assumptions and results throughout the modeling process.

G.2 Pre-Retrofit Consumption Data:

The pre-retrofit consumption data was established utilizing the following methodology stipulated to by Agency and Company.

G.2.a Measurement Methodology

TRACE® 700 building simulation software was used to model the energy consumption of the facility. Known parameters such as local weather data, internal building loads (people and equipment), occupancy data, utility costs, percent outside air, etc., were all utilized in the modeling of the base case. This base case is as set forth in the Detailed Energy Analysis presented by Company. The accuracy of the pre-retrofit energy model was validated by its correlation to the actual utility data for the buildings in this ECM for St. John's County.

The operation and control of the packaged air conditioning units as represented in the energy model was verified during the building survey conducted by Company. Table G2 shows the location, quantity, capacity and efficiencies of the packaged air conditioning units to be replaced.

Table G2

Building	System Type	Qty	Capacity (tons)	Pre-Retrofit EER
Bartram Library	DX Split	2	15	8
Cypress Links Golf Course- Club House	DX Split	1	4	10
Cypress Links Golf Course- Maint.	DX Split	1	3	8
Courthouse Annex - Public Defenders Office	*Annex Packaged DX Rooftop Unit*	1	5	10

G. 3 Post-Retrofit Measurements

The following describes the stipulated methodology for computing Energy Use Savings based on the stipulated data for the facility. All savings figures are annual figures.

G.3.a Measurement Methodology

Company has completed an engineering analysis for this conservation measure utilizing TRACE® 700 building simulation software. Essentially, the basis of this analysis compares the efficiencies of the new packaged air conditioning units to the efficiencies of the existing units. Since all external variables (weather, hours of operation, utility rates, building envelope values, occupancy, etc.) have been established, the remaining items to validate are efficiencies of the new packaged air conditioning units.

In order to validate the efficiencies of the new packaged air conditioning units, Trane will supply submittal information for each unit noting the efficiency of each. Providing these submittals will be considered verification that the units are operating at the selected efficiencies. Table G.3 shows the location, quantity, capacity and efficiencies of the proposed packaged air conditioning units.

Table G.3

Building	System Type	Qty	Capacity (tons)	Post-Retrofit EER
Bartram Library	DX Split	2	15	11
Cypress Links Golf	DX Split	1	4	14

Course- Club House				
Cypress Links Golf Course- Maint.	DX Split	1	3	14
Courthouse Annex - Public Defenders Office	Chilled Water VAV Rooftop Unit with Demand Control Ventilation	1	5	.8 KW/TON

Presentation of Savings:

Building Name	kWh Savings	kW Savings	Therms
Bartram Library	12323	95	
Cypress Links Golf Course- Club House	2595	9	
Cypress Links Golf Course- Maint.	1932	14	
Courthouse Annex - Public Defenders Office	26888	161	-652

G. 4 Computation of Savings

The following describes the stipulated methodology for computing Energy Use Savings based on the validated efficiencies of the new packaged air conditioning units.

G.4.a Computation of Energy Cost Savings

Once the true efficiency for each unit is determined, actual annual Energy Use Savings will be calculated. The Energy Use Savings will be recalculated only if the efficiencies exceed the minimum threshold efficiency listed in the table below.

Building	Qty	Capacity (tons)	Post-Retrofit EER	Minimum Threshold EER
Bartram Library	2	15	11	10.5
Cypress Links Golf Course- Club House	1	4	14	12
Cypress Links Golf Course- Maint.	1	3	14	12
Courthouse Annex - Public Defenders Office	1	5	10	1 kw/ton

If the efficiency is better than or equal to the minimum threshold efficiency, it is considered to be within an acceptable tolerance based on Trane's conservative safety factor for this energy conservation measure. If the efficiency is worse than the minimum threshold efficiency, it will be compared to the simulation run

reflecting the pre-retrofit operation to yield actual annual Energy Use Savings, which is consistent with the original engineering analysis.

To accomplish this, Trane will enter the actual installed efficiency into the TRACE 700 software file previously utilized to calculate Energy Use Savings based on the projected values presented in this Schedule. Consistent with the original engineering analysis, the TRACE 700 run reflecting actual installed efficiency will be compared to the TRACE 700 run reflecting the pre-retrofit case to yield actual annual Energy Use Savings.

H. Water Retrofits

H.1 Agreed Upon Parameters

The following are mutually agreed upon parameters that form the basis of this performance guarantee. These parameters are hereby stipulated for the purposes of this Agreement as fact and will not be measured, monitored or adjusted.

H.1.a Applicability

This performance guarantee applies to the energy conservation measure involving the retrofit of urinals, sinks, showers, and toilets located at the following St. John's locations:

Main Library
Bartram Library
Animal Control
Ketterlinus Gym
Council of Aging
Cypress Links Golf

Base Utility Rates Water/Sewer rates are set forth in Schedule F Section B

H.1b Existing Conditions

Fixture Type	Existing Flow rating
Water Closets	3.5
Tank Tops	1.6
Sink Aerators	2.5
Kitchen Aerators	3.5

H.2 Pre-Retrofit Consumption Data:

Building Name	Total Existing gal/yr	Total Existing Kwh	Total Existing Therm
Main Library	226,961		70
Bartram Library	104,713	1,090	
Animal Control	89,910	2,016	
Kettelinus Gym	355,024		57
Cypress Links Golf	96,183	283	25

EOC	643,332		
Council of Aging	175,993	1,895	

H3. Computation of Savings:

The following describes the stipulated methodology for computing Energy Use Savings based on the agreed to water flow rates, usage rates, and flush data listed in table H.3

Table H.3

Cypress Lynks Golf				
Fixture Type	**Fixture Retrofit**	**pre flow**	**post flow**	**Quantity**
water closet	STANDARD > HE	3.50	1.28	6
water closet	TT > HETT	3.50	1.00	3
water closet	LC TT > HETT	1.60	1.00	2
urinal	STANDARD U > HEU	1.50	0.13	1
urinal	LCU > HEU	1.00	0.13	3
aerator	LAV AER	2.00	0.50	11
aerator	KIT AER	3.00	2.00	2
aerator	SHOWER	2.50	1.75	2

Council on Aging				
Fixture Type	**Fixture Retrofit**	**pre flow**	**post flow**	**Quantity**
water closet	STANDARD > HE	3.50	1.28	4
water closet	LC > HE	1.60	1.28	1
aerator	LAV AER	2.00	0.50	5
aerator	KIT AER	3.00	2.00	1

Ketterlinus Gym				
Fixture Type	**Fixture Retrofit**	**pre flow**	**post flow**	**Quantity**
water closet	LC > HE	1.60	1.28	8
urinal	LCU > HEUV	1.00	0.50	3
aerator	LC FAUCET > no retrofit	0.50	0.50	9

Main Library				
Fixture Type	Fixture Retrofit	pre flow	post flow	Quantity
water closet	STANDARD > LC	3.50	1.60	2
water closet	STANDARD > HE	3.50	1.28	5
urinal	U > HEU	1.00	0.13	1
aerator	LAV AER	2.00	0.50	6

Animal Control				
Fixture Type	Fixture Retrofit	pre flow	post flow	Quantity
water closet	TT > HETT	3.50	1.00	3
aerator	LAV AER	2.00	0.50	3
aerator	KIT AER	3.00	2.00	3
SH	SHOWER	2.50	1.75	1

Bartram Library				
Fixture Type	Fixture Retrofit	pre flow	post flow	Quantity
water closet	TT > HETT	3.50	1.00	3
water closet	LC TT > HETT	1.60	1.00	2
urinal	LCU > HEUV	1.00	0.50	1
aerator	LAV AER	2.00	0.50	3

EOC				
Fixture Type	Fixture Retrofit	pre flow	post flow	Quantity
water closet	STANDARD > HE	3.50	1.28	3
water closet	LC > HE	1.60	1.28	4
water closet	TT > HETT	3.50	1.00	10
water closet	LC TT > HETT	1.60	1.00	5
urinal	LCU > HEU	1.00	0.50	6
aerator	LAV AER	2.00	0.50	24
aerator	SHOWER	2.50	1.75	6

a) Water Savings Calculation for Toilets:

Annual Water Savings (gallons) = [(EXISTWTR - NEWWTR) * FLUSH# * TOILET# * DAYS#]

Annual Cost Savings = [Annual Water Savings / 1,000] * WTRCOST

b) Water Savings Calculation for Urinals:

Annual Water Savings (gallons) = [(EXISTWTR - NEWWTR) * FLUSH# * URINAL# * DAYS#]

Annual Cost Savings = [Annual Water Savings / 1,000] * WTRCOST

c) Water Savings Calculation for Sinks:

Annual Water Savings (gallons) = [(EXISTWTR - NEWWTR) * USE# * SINK# * DAYS#]

Annual Cost Savings = [Annual Water Savings / 1,000] * WTRCOST

d) Water Savings Calculation for Showers:

Annual Water Savings (gallons) = [(EXISTWTR - NEWWTR) * USE# * SHOWER# *DAYS#]

Annual Cost Savings = [Annual Water Savings / 1,000] * WTRCOST

e) Water Savings Calculation for Leaks:

Annual Water Savings (gallons) = [(EXISTLEAK - FIXLEAK) * MINUTE# *DAYS#]

Annual Cost Savings = [Annual Water Savings / 1,000] * WTRCOST

Presentation of Savings:

The following values are the stipulated Energy Use Savings the buildings listed below will realize by retrofitting the existing urinals, sinks, and toilets with new water economizing fixtures.

Building Name	Kwh Savings	Therm Savings	kGal Savings
Main Library		53	150
Bartram Library	818		67
Ketterlinus Gym			90
Animal Control	1599		54
EOC			313
Council of Aging			85

I. Install timers on domestic hot water heaters

I. 1 Agreed Upon Parameters:

The following are mutually agreed upon parameters that form the basis of this performance guarantee. These parameters are hereby stipulated for the purposes of this Agreement as fact and will not be measured, monitored or adjusted.

I.1a Applicability:

This Guarantee applies to the energy conservation measure involving the installation of time controls on the domestic hot water heaters at the following buildings located in St. John's County:

Bartram Library
Anastasia Library
Animal Control
Cypress Links Golf Course- Club House
Cypress Links Golf Course- Cart Barn
Cypress Links Golf Course- Maintenance

I.1b Existing Conditions:

The domestic hot water heaters operate twenty-four hours per day, seven days per week, regardless of occupancy or need of hot water. The Agency and Company collaboratively agreed upon its assumptions and results throughout the modeling process.

Existing heating usage = DHW heating element * hours per day * power usage per hour

I.2 Pre-Retrofit Consumption Data:

The pre-retrofit consumption data was established utilizing the following methodology stipulated to by Agency and Company.

I.2.a Measurement Methodology

Existing heating usage = DHW heating element *24 hours per day * power usage per hour

I. 3 Post-Retrofit Measurements

The following describes the stipulated methodology for computing Energy Use Savings based on the stipulated data for the facility. All savings figures are annual figures.

I. 4 Computation of Savings

Retrofitted heating usage = DHW heating element *11 hours/day * power usage/hour

Presentation of Savings:

Building Name	kWh Savings	ThermSavings
Bartram Library	3513	
Anastasia Library	1506	
Cypress Links Golf Course- Club House		301
Cypress Links Golf Course- Cart Barn	3011	
Cypress Links Golf Course- Maintenance	4517	

J. Retrofit DHW Heater System with Air Tap Instant Hot Water System

J. 1 Agreed Upon Parameters:

The following are mutually agreed upon parameters that form the basis of this performance guarantee. These parameters are hereby stipulated for the purposes of this Agreement as fact and will not be measured, monitored or adjusted.

J.1a Applicability:

This Guarantee applies to the energy conservation measure involving the installation of AirTaps to the domestic hot water heaters at Anastasia Library located in St. John's County:

J.1b Existing Conditions:

The domestic water heaters operate twenty-four hours per day, seven days per week at normal capacity. The Agency and Company collaboratively agreed upon its assumptions and results throughout the modeling process.

Assumptions: Water usage rate based on the 1999 ASHREA design manual is 30 gallons per person per day. Entering water temp is statewide average for ground water temperature, source USGS.

J.2 Pre-Retrofit Consumption Data:

The pre-retrofit consumption data was established utilizing the following methodology stipulated to by Agency and Company.

J.2.a Measurement Methodology

This base case is as set forth in the Detailed Energy Analysis presented by Company. The accuracy of the pre-retrofit energy model was validated by its correlation to the actual utility data for St. John's County.

J. 3 Post-Retrofit Measurements

The following describes the stipulated methodology for computing Energy Use Savings based on the stipulated data for the facility. All savings figures are annual figures.

J.3.a Measurement Methodology

Retrofitted heating usage = DHW heating element *11 hours per day * power usage per hour

J. 4 Computation of Savings

The following describes the stipulated methodology for computing Energy Use Savings based on the agreed to schedule changes.

.Presentation of Energy Use Savings:

Anastasia Library
Total Annual Guaranteed Electrical Energy Use Savings: 6471 kWh

K. Install Maximicers on Ice Machines

K. 1 Agreed Upon Parameters:

The following are mutually agreed upon parameters that form the basis of this performance guarantee. These parameters are hereby stipulated for the purposes of this Agreement as fact and will not be measured, monitored or adjusted.

K.1a Applicability:

This Guarantee applies to the installation of Maximicers on the ice machines at the following buildings located in St. John's County:

Cypress Links Golf Course- Club House
Cypress Links Golf Course- Maintenance

K.2 Pre-Retrofit Consumption Data:

The pre-retrofit consumption data was established utilizing the following methodology stipulated to by Agency and Company.

K.2.a Measurement Methodology

Current kW = (ARI* rated ice production (lbs. / 24 hrs)/100) * (ARI* rated KWH usage (KWH / 100 lbs.)) * Ice Machine Run Time (% per day)

K. 3 Post-Retrofit Measurements

The following describes the stipulated methodology for computing Energy Use Savings based on the stipulated data for the facility. All savings figures are annual figures.

K.3.a Measurement Methodology

Building Name	kWh Savings
Cypress Links Golf Course-Club House	9,344
Cypress Links Golf Course-Maintenance	9,344

Current kW = (ARI* rated ice production (lbs. / 24 hrs)/100) * (ARI* rated KWH usage (KWH / 100 lbs.)) * Ice Machine Run Time (% per day)*20%

K. 4 Computation of Savings

The following describes the stipulated methodology for computing Energy Use Savings based on the agreed to schedule changes

Presentation of Energy Use Savings:

L. Retrofit Existing Roof with Cool Roof

L. 1 Agreed Upon Parameters:

The following are mutually agreed upon parameters that form the basis of this

performance guarantee. These parameters are hereby stipulated for the purposes of this Agreement as fact and will not be measured, monitored or adjusted.

L.1a Applicability:

This Guarantee applies to the energy conservation measure involving the installation of a cool roof at the Courthouse Annex – Public Defenders Office.

L.1b Existing Conditions:

The existing roof construction is a black roof with built-up roofing and a rubber membrane. The Agency and Company collaboratively agreed upon the assumptions and results throughout the modeling process.

L.2 Pre-Retrofit Consumption Data:

The pre-retrofit consumption data was established utilizing the following methodology stipulated to by Agency and Company.

L.2.a Measurement Methodology

TRACE® 700 building simulation software was used to model the energy consumption of the facility. Known parameters such as local weather data, internal building loads (people and equipment), occupancy data, utility costs, percent outside air, etc., were all utilized in the modeling of the base case. This base case is as set forth in the Detailed Energy Analysis presented by Company. The accuracy of the pre-retrofit energy model was validated by its correlation to the actual utility data for the buildings listed in this ECM for St. John's County.

L. 3 Post-Retrofit Measurements

The following describes the stipulated methodology for computing Energy Use Savings based on the stipulated data for the facility. All savings figures are annual figures.

L.3.a Measurement Methodology

The Company has completed an engineering analysis for this conservation measure utilizing TRACE® 700 building simulation software. Essentially, the basis of this analysis compares the r-values of the existing roof to the r-values of the cool roof. Since all external variables (weather, hours of operation, utility rates, building envelope values, occupancy, etc.) have been established, the remaining items to validate are efficiencies of the new cool roof.

L. 4 Computation of Savings

Presentation of Savings:

Courthouse Annex - Public Defenders Office
Total Annual Guaranteed Electrical Energy Use Savings: 11,243 kWh

M. Install new air supply efficiency blowers on biosolids management

M. 1 Agreed Upon Parameters:

The following are mutually agreed upon parameters that form the basis of this performance guarantee. These parameters are hereby stipulated for the purposes of this Agreement as fact and will not be measured, monitored or adjusted.

M.1a Applicability:

This Guarantee applies to the energy conservation measure involving the installation of new air supply efficiency blowers on biosolids management.

M.1b Existing Conditions:

Building Name	Existing Horsepower
Anastasia WWTP	98
Sawgrass WWTP	75

M.2 Pre-Retrofit Consumption Data:

Building Name	Existing kWh/yr Consumption
Anastasia WWTP	490,190
Sawgrass WWTP	757,740

M. 3 Post-Retrofit Measurements

The following describes the stipulated methodology for computing Energy Cost Savings based on the stipulated data for the facility. All savings figures are annual figures.

Building Name	Updated Horsepower
Anastasia WWTP	75
Sawgrass WWTP	50

M. 4 Computation of Savings

The following describes the stipulated methodology for computing Energy Use Savings based on the agreed to schedule changes

(existing kwh/day) – (updated kwh/day) * 365 = kwh savings

Presentation of Energy Use Savings:
Anastasia WWTP
Total Annual Guaranteed Electrical Energy Use Savings: 144,905 kWh

Sawgrass WWTP
Total Annual Guaranteed Electrical Energy Use Savings: 143450 kWh

Schedule G
Construction and Installation Schedule

Within Two Hundred Seventy (270) days from Company's receipt of the Notice to Proceed issued pursuant to Section 4.6, Company shall have substantially completed performance of the work ("Substantial Completion"). If Company is delayed in the commencement or completion of any part of the work due to an Event of Force Majeure, delay in Agency's issuance of the Notice to Proceed, or due to Agency's action(s) or failure to perform its obligations under this Agreement or to cooperate with Company in the timely performance of the Equipment installation, then Company will notify Agency in writing of the existence, extent of, and reason(s) for such delay(s). Company and Agency shall extend the Substantial Completion time for such reasonable period as they shall agree and, if Company's cost for furnishing the Equipment installation is increased as a result, at the option of Agency, either (i) the Contract Price shall be increased by change order by the amount of Company's additional costs or (ii) the Agreement shall be terminated and Company shall be entitled to payment for all work furnished to date and cancellation charges, restocking fees, the price for any specially manufactured or non-stock items, whether in production or delivered, and any damages sustained by Company. In no event shall Company be liable (including for Agency's failure to receive grant funds) for delays in completion due to an Event of Force Majeure, delay in Agency's issuance of the Notice to Proceed, or due to Agency's action(s) or failure to perform its obligations under this Agreement or to cooperate with Company in the timely performance of the Equipment installation

Schedule H

Standards of Comfort

The Equipment will be maintained and operated by Agency in a manner that will provide the Standards of Comfort for heating, cooling, hot water, and lighting as described below:

The operating standards for the facilities included in the project are not changed by the scope of work included in this agreement. In addition, the savings estimates and guarantee do not anticipate any changes to the schedules, temperature setpoints, or operating standards. The Agency will maintain existing Standards of Comfort in effect at the time of contract execution.

Table of Operating Standards

Building Name	Weekdays	Weekends	Occupied Room Temperatures (within ± 2° F)	Unoccupied Room Temperatures (within ± 2° F)
Jail	24/7	24/7	68°F ht, 74°F clg	N/A
Sheriff's Administration	Mon – Fri 8 a.m. – 5 p.m.	Sat & Sun closed	68°F ht, 74°F clg	60°F ht, 80°F clg
Main Library	Mon – Wed 10a.m. to 8 p.m. Thurs – Fri 10 a.m.- 6 p.m.	Sat 10a.m. – 5 p.m. Sun closed	68°F ht, 74°F clg	60°F ht, 80°F clg
Ponte Vedra Libary	Mon – Wed 10a.m. to 8 p.m. Thurs – Fri 10 a.m.- 6 p.m.	Sat 10a.m. – 5 p.m. Sun closed	68°F ht, 74°F clg	60°F ht, 80°F clg
Bartram Libary	Mon,Tues, Thurs 10a.m. to 8 p.m. Wed, Fri 10 a.m.- 6 p.m.	Sat 10a.m. – 5 p.m. Sun closed	68°F ht, 74°F clg	60°F ht, 80°F clg
Anastasia Libary	Tues, Thurs 10a.m. to 8 p.m. Wed, Fri 10 a.m.- 6 p.m.	Sat 10a.m. – 5 p.m. Sun & Mon closed	68°F ht, 74°F clg	60°F ht, 80°F clg
Animal Control	Mon – Fri 9 a.m. to 4 p.m.	Sat 9 a.m. – 12:30 p.m. Sun closed	68°F ht, 74°F clg	60°F ht, 80°F clg
Ketterlinus Gym – Weight Room	Mon, Wed, Fri 4 p.m. to 7 p.m.	Byappointment on weekends	68°F ht, 74°F clg	60°F ht, 80°F clg

Building Name	Weekdays	Weekends	Occupied Room Temperatures (within ± 2° F)	Unoccupied Room Temperatures (within ± 2° F)
Ketterlinus Gym – Gymnasium	Mon – Fri 2 p.m. to 6 p.m.	Byappointment on weekends	68°F ht, 74°F clg	60°F ht, 80°F clg
Administration Building	Mon – Fri 8 a.m. to 5 p.m.	Sat & Sun closed	68°F ht, 74°F clg	60°F ht, 80°F clg
Cypress Links Golf Course – Clubhouse Resteraunt	7 days/week	7 a.m. – 8 p.m.	68°F ht, 74°F clg	60°F ht, 80°F clg
Cypress Links Golf Course – Maintenace Shop	Mon – Fri Unoccupied	10 a.m. – 2 p.m.	68°F ht, 74°F clg	60°F ht, 80°F clg
Cypress Links Golf Course – Cart Barn	Mon – Fri Unoccupied	Sat & Sun unoccupied	68°F ht, 74°F clg	60°F ht, 80°F clg
Anastasia Wastewater Treatment Plant	Mon – Fri Unoccupied	Sat & Sun unoccupied	68°F ht, 74°F clg	60°F ht, 80°F clg
Sawgrass Wastewater Treatment Plant	Mon – Fri Unoccupied	Sat & Sun unoccupied	68°F ht, 74°F clg	60°F ht, 80°F clg
Supervisor of Elections	Mon – Fri 8 a.m. to 5 p.m.	Sat & Sun closed	68°F ht, 74°F clg	60°F ht, 80°F clg
MIS offices	Mon – Fri 8 a.m. to 5 p.m.	Sat & Sun closed	68°F ht, 74°F clg	60°F ht, 80°F clg
MIS server rooms, EOC offices, and EOC dispatch	24/7	24/7	68°F ht, 74°F clg	N/A
Courthouse Annex-Public Defender's office	Mon – Fri 8 a.m. to 5 p.m.	Sat & Sun closed	68°F ht, 74°F clg	60°F ht, 80°F clg
Council on Aging	Mon – Fri 8 a.m. to 5 p.m.	Sat & Sun 8 a.m. – 5 p.m.	68°F ht, 74°F clg	60°F ht, 80°F clg

Schedule I
Company's Maintenance Responsibilities

Beginning on the Commencement Date, Company will perform the Maintenance described in this Schedule with respect to the Covered Equipment (identified below) upon the terms and conditions contained in this Schedule. In the event of any inconsistency or conflict between the terms and conditions of this Schedule and the terms and conditions of the balance of this Agreement, the terms and conditions of this Schedule shall control with respect to the Maintenance described in this **Schedule I**.

1. There are two elements to this maintenance responsibility section, equipment maintenance and measurement and verification. The Maintenance Price for each year of the Contract is set forth in **Schedule D**. Company may invoice the Maintenance Price once each year, semi-annually, or quarterly and each such invoice shall be due in advance of performance of the Maintenance, net thirty (30) days date of invoice. Late fees will be calculated and paid pursuant to Fla. Stat. Sec. 215.422. Company may discontinue Maintenance whenever payment is overdue. Agency shall pay all costs incurred by Company in attempting to collect amounts due. Note: The factory equipment maintenance for the TES chiller plant is included in the cost of the energy conservation method (ECM).

2. Term. Company's obligations to furnish the Maintenance shall begin on the Commencement Date as defined in Section 1.1 of this Agreement. The Measurement and Verification (M&V) portion of this responsibility will continue for the entire term of the contract. The Equipment Preventive Maintenance as detailed in this section for the covered equipment listed in this section is in force for two years. After that time the County can extend this Equipment Preventive Maintenance for the Company's normal and customary fee.

3. Performance. Company shall perform the Maintenance services hereunder with reasonable promptness in a workmanlike manner in accordance with industry standards generally applicable in the area. Except as otherwise provided in writing Maintenance will be performed during Company's normal business hours. Should the Agency request that Company perform Maintenance during other than normal business hours, the additional labor cost of performing such Maintenance shall be at the Agency's expense. During the Term, Company may elect to install/attach to Agency equipment or provide portable devices (hardware and/or software) for execution of control or diagnostic procedures. Such devices shall remain the personal proprietary property of Company and shall in no event become a fixture of Agency locations. Agency shall not acquire any interest, title or equity in any hardware, software, processes and other intellectual or proprietary rights to devices used in connection with providing service on equipment. Company reserves the right to remove such items at its discretion.

4. Exclusions. Unless expressly included in the Maintenance, the Maintenance to be provided by Company does not include, and Company shall not be liable for, any of the following:

a. Any guarantee of room conditions or system performance, except as may be set forth in **Schedule H** of this Agreement;
b. Inspection, maintenance, repair (unless under Company's warranty), replacement of or

services for: chilled water pumps and piping; heat exchangers, electrical disconnect switches or circuit breakers; motor starting equipment and interconnecting power wiring; recording or portable instruments, gauges or thermometers; any pipe covering or insulation containing asbestos, or non-maintainable parts of the system such as unit cabinets, shells, ductwork, electrical wiring, hydronic piping, structural supports, boiler refractory material and shells, storage tanks and similar items; damage sustained by other equipment or systems; and/or any failure, misadjustments or design deficiencies in other equipment or systems.

c. Repairs or replacement of parts made necessary as a result of electrical power failure, low voltage, burned out main or branch fuses, low water pressure, vandalism, misuse or abuse, improper operation, unauthorized alteration of Covered Equipment, accident, negligence of Agency or others, damage due to freezing weather, calamity or malicious act;

d. Any damage or malfunction resulting from freezing, contamination, corrosion or erosion on the water side of the equipment or caused by scale or sludge on internal tubes except where water treatment protection services are provided by Company as part of this Agreement;

e. Furnishing any items of equipment, material, or labor, or performing special tests recommended or required by insurance companies or federal, state, or local governments;

f. Failure or inadequacy of any structure or foundation supporting or surrounding the Covered Equipment or any portion thereof;

g. Building access or alterations that might be necessary to repair or replace Agency's existing equipment;

h. The normal function of starting and stopping the Covered Equipment or the opening and closing of valves, dampers or regulators normally installed to protect the Covered Equipment against damage;

i. Any responsibility for design or redesign of the system or the Covered Equipment, obsolescence, safety tests, or removal or reinstallation of valve bodies and dampers; and

j. Any services, claims, or damages arising out of Agency's failure to comply with its obligations under this Agreement.

The following is an overview of the scope of Company's Equipment Preventive Maintenance maintenance services to be performed on Covered Equipment. Items marked are included in this Agreement.

Services Included	Cooling Season Service
X	Annual Maintenance Inspection
X	Operating Inspections Qty(3)

Services Included	Labor and Materials for Covered Equipment
X	Scheduled Maintenance Labor
X	Scheduled Maintenance Parts and Materials
	Emergency Repair Parts and Materials
X	In warranty repairs during normal business hours
	Emergency Repair Labor: Repairs will be performed on covered equipment during Trane regular

	business hours.
	Overtime Repair Labor for Emergency Failures (outside Trane regular business hours)
	Refrigerant Replacement % of Charge per year
X	Refrigerant Usage Reporting

Services Included	Additional Services
X	Clean Condenser Coils once per year
	Evaporator Tube Brushing once performed in Contract Year _____
X	Starter Maintenance on 480 Volt or less, starters only; where applicable
	Air Filter Changes as required up to Qty _____ changes per year
X	Waste oil removal and proper disposal by Trane
	Drive Belts supplied by Trane once per year on the air handlers
X	Oil analysis performed once per year on the Chillers

COVERED EQUIPMENT

Equipment Type	Location	Manufacturer	Model	Serial	Service Type
2 Air Cooled Chillers	Old Jail, Sherriff's Annex, New Jail	Trane	RTHC	TBD	Scheduled
8 ICE Tanks	Old Jail, Sherriff's Annex, New Jail	CALMAC	1320C	TBD	Scheduled

Notes:

1) Newly installed Thermal Energy Storage Chillers will include Quarterly service by Trane for first two years.
2) New Trane HVAC equipment will ship with a 5 year warranty.
3) All other new equipment with have a 1 year warranty unless specifically stated .
4) Trane will offer the County a service contract option on the chiller plant for continuing factory service.
5) Preventive maintenance on all other new and existing systems with is the responsibility of the County.

ENERGY SAVINGS GUARANTEE MONITORING AND VERIFICATION SERVICES

Included if Checked	*Per Year*	*Maintenance Description*
X	4	Scheduled Service – Mechanical TES Trane RTAC Chillers (First two years only)
X		Monitoring and Verification (15 Years of Program)
X	4	• Utility Bill Coordination and Analysis
X	1	• Annual Reconciliation Report

Heli-Rotor Chillers, W-C (Small Tonnage Screw Chillers)

Comprehensive Annual Inspection Service – Trane ROT-210

- Report in with the Customer Representative.
- Record and report abnormal conditions, measurements taken, etc.
- Review customer logs with the customer for operational problems and trends.

General Assembly

- Leak-test the chiller and report the results.
- Repair minor leaks as required (e.g. valve packing, flare nuts).
- Visually inspect condenser coil for cleanliness.

Controls and Safeties

- Inspect the control panel for cleanliness.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Verify all settings in the electronic control panel.
- Verify ice making mode is operational
- Test the operation of the chilled water pump and condenser water pump starter auxiliary contacts.
- Verify the setting of the current control device.

Lubrication System

- Pull oil sample for spectroscopic analysis.
- Test oil for acid content, and discoloration. Make recommendations to the customer based on the results of the test.

Motor and Starter

- Clean the starter and cabinet.
- Inspect wiring and connections for tightness and signs of overheating and discoloration.
- Check condition of the contacts for wear and pitting.
- Check contactors for free and smooth operation.
- Check the mechanical linkages for wear, security and clearances.
- Check tightness of motor terminal connections.
- Meg the motor and record readings.
- Verify the operation of the electrical interlocks.
- Measure voltage and record. Voltage should be nominal voltage ±10 percent.

Mid-Season Running Inspection ROT-230

- Check the general operation of the unit.
- Log the operating temperatures, pressures, voltages, and amperages.
- Check the operation of the control circuit.
- Verify ice making mode is operational
- Check the operation of the motor and starter.
- Analyze the recorded data. Compare the data to the original design conditions.
- Review operating procedures with operating personnel.
- Provide a written report of completed work, operating log, and indicate any uncorrected deficiencies detected.

Special Analysis Procedures

Oil Sample/Spectrographic Analysis ANL-110

- Pull oil sample for spectrographic analysis.

Ice Tank Inspection ICE -110

- Check tank condition
- Log the amount of charge and time of day
- Check the glycol anti-freeze
- Compare to original design
- Review operating procedures with local operator
- Written report

TRANE SCHEDULED SERVICE AGREEMENT

"Company" shall mean Trane U.S. Inc..

1. Acceptance. These terms and conditions are an integral part of Company's offer and form the basis of any agreement (the "Agreement") resulting from Company's proposal (the "Proposal") for the services (the "Services") on equipment listed in the Proposal (the "Covered Equipment"). The Proposal is subject to acceptance in writing by the party to whom this offer is made or an authorized agent ("Customer") delivered to Company within 30 days from the date of the Proposal. If Customer's order is an acceptance of the Proposal, without the addition of any other terms and conditions of sale or any other modification, this document shall be treated solely as an acknowledgment of such order. If Customer's order is expressly conditioned upon the Company's acceptance or assent to terms and/or conditions other than those expressed herein, return of such order by Company with these terms and conditions attached or referenced serves as Company's notice of objection to Customer's terms and as Company's counter-offer to provide Services in accordance with scope and terms and conditions of the original Proposal. If Customer does not reject or object in writing to Company within 10 days, the Company's counter-offer will be deemed accepted. Customer's acceptance of goods and/or Services by Company will in any event constitute an acceptance by Customer of these terms and conditions. This Agreement is subject to credit approval by Company. Upon disapproval of credit, Company may delay or suspend performance or, at its option, renegotiate prices and/or terms and conditions with Customer. If Company and Customer are unable to agree on such revisions, this Agreement shall be cancelled without any liability, other than Customer's obligation to pay for Services rendered by Company to the date of cancellation.

2. Service Fees and Taxes. Fees for the Services (the "Service Fee(s)") shall be as set forth in the Proposal. Except as otherwise provided in the Proposal, the Service Fee is based on performance during regular business hours. Fees for Services performed outside Company's normal business hours shall be billed separately according to then prevailing overtime or emergency labor/labour rates. In addition to the stated Service Fee, Customer shall pay all taxes not legally required to be paid by Company or, alternatively, shall provide Company with an acceptable tax exemption certificate.

3. Term, Renewal, and Cancellation. The "Term" of this Agreement shall be as stated in the Proposal. Thereafter, unless earlier terminated, this Agreement shall be automatically renewed for succeeding 12 month terms (each a "Renewal Term"), subject to the Renewal Pricing Adjustment section herein, upon Company's delivery to Customer of a service renewal letter at least 45 days in advance of the scheduled expiration date and Customer's failure to notify Company in writing no later than 30 days prior to the scheduled expiration date that the Agreement shall not be renewed. This Agreement may be cancelled upon the written notice of either party to the other (for any reason or no reason) no later than 30 days prior to the scheduled expiration date; provided, however, that, in the event of a cancellation by Customer, Customer shall pay to Company the balance of the Service Fee applicable to the then current 12 month period of the Term or the Renewal Term.

4. Renewal Pricing Adjustment. The Service Fee for an impending Renewal Term shall be the current Service Fee (defined as the Service Fee for the initial Term or Renewal Term immediately preceding the impending Renewal Term) adjusted by the following: (a) increase and/or decrease for additions and/or deletions to Scope of Services; (b) 25% of the Current Service Fee shall be adjusted based upon the calendar year change in the (i) U.S. Bureau of Labor Statistics Producer Price Index for selected commodity groupings (Metals and Metal Products) for Services performed in the United States; or (ii) Statistics Canada Industrial Producer Price Index, Goods (Raw Material Price Indexes) for Services performed in Canada; (c) 65% of the Current Service Fee shall be adjusted based upon the change to cost of labor/labour; and (d) 10% of the Service Fee shall be adjusted based upon changes to Company services overhead costs, which include but are not limited to the cost of fuel, truck leasing, and office-related overhead factors. The Service Fee for an impending Renewal Term shall be set forth in the service renewal letter furnished to Customer.

5. Payment. Payment is due upon receipt of Company's invoice. The Service Fee shall be paid no less frequently than quarterly and in advance of performance of the Services. Company reserves the right to add to any account outstanding for more than 30 days a service charge equal to the lesser of the maximum allowable legal interest rate or 1.5% of the principal amount due at the end of each month. Without liability to Customer, Company may discontinue Services whenever payment is overdue. Customer shall pay all costs (including attorneys' fees) incurred by Company in attempting to collect amounts due or otherwise enforcing these terms and conditions.

6. Customer Breach. Each of the following events or conditions shall constitute a breach by Customer and shall give Company the right, without an election of remedies, to terminate this Agreement or suspend performance by delivery of written notice declaring termination, upon which event Customer shall be liable to the Company for all Services furnished to date and all damages sustained by Company (including lost profit and overhead): (1) Any failure by Customer to pay amounts when; or (2) any general assignment by Customer for the benefit of its creditors, or if Customer becomes bankrupt or insolvent or takes the benefit of any statute for bankrupt or insolvent debtors, or makes or proposes to make any proposal or arrangement with creditors, or if any steps are taken for the winding up or other termination of Customer or the liquidation of its assets, or if a trustee, receiver, or similar person is appointed over any of the assets or interests of Customer; (3) Any representation or warranty furnished by Customer in connection with this Agreement is false or misleading in any material respect when made; or (4) Any failure by Customer to perform or comply with any material provision of this Agreement.

7. Performance. Company shall perform the Services in accordance with industry standards generally applicable in the area under similar circumstances as of the time Company performs the Services. Company may refuse to perform any Services or work where working conditions could endanger property or put at risk the safety of people. Unless otherwise agreed to by Customer and Company, at Customer's expense and before the Services begin, Customer will provide any necessary access platforms, catwalks to safely perform the Services in compliance with OSHA or state industrial safety regulations. This Agreement presupposes that all major pieces of Covered Equipment are in proper operating condition as of the date hereof. Services furnished are premised on the Covered Equipment being in a maintainable condition. In no event shall Company have any obligation to replace Covered Equipment that is no longer maintainable. During the first 30 days of this Agreement, or upon initial inspection, and/or upon seasonal start-up (if included in the Services), if an inspection by Company of Covered Equipment indicates repairs or replacement is required, Company will provide a written quotation for such repairs or replacement. If Customer does not authorize such repairs or replacement,

Company may remove the unacceptable equipment from the Covered Equipment and adjust the Service Fee accordingly. During the Term or a Renewal Term, Company may elect to install/attach to Customer equipment or provide portable devices (hardware and/or software) for execution of control or diagnostic procedures. Such devices shall remain the personal proprietary property of Company and in no event shall become a fixture of Customer locations. Customer shall not acquire any interest, title or equity in any hardware, software, processes, and other intellectual or proprietary rights to devices used in connection with the Services on Customer equipment. Company reserves the right to remove such devices at its discretion.

8. Customer Obligations. Customer shall: (a) Provide Company reasonable and safe access to the Covered Equipment; (b) Follow manufacturer recommendations concerning teardown and internal inspection, major overhaul, restoration or refurbishing of the Covered Equipment; unless expressly stated in the Scope of Services statement, Company is not performing any manufacturer recommended teardown and internal inspection, major overhaul, restoration or refurbishing of the Covered Equipment; Company shall not be responsible to perform any subsequent repairs to the Covered Equipment necessitated by Customer's failure to follow such manufacturer recommendations; (c) Reimburse Company for services, repairs, and/or replacements performed by Company as set forth in this Agreement, beyond the Services or otherwise excluded hereunder. Such reimbursement shall be at the then prevailing applicable regular, overtime, or holiday rates for labor/labour and prices for materials and may at Company's option be subject to a separate written agreement prior to its undertaking such work; and (d) Where applicable, unless water treatment is expressly included in the Services, provide professional cooling tower water treatment in accordance with any reasonable recommendations provided by Company.

9. Exclusions. Unless expressly included in the Covered Equipment or this Agreement, the Services do not include, and Company shall not be liable for, any of the following: (a) Any guarantee of room conditions or system performance; (b) Inspection, maintenance, repair, replacement of or services for: chilled water and condenser water pumps and piping; electrical disconnect switches or circuit breakers; motor starting equipment that is not factory mounted and interconnecting power wiring; recording or portable instruments, gauges or thermometers; non-moving parts or non-maintainable parts of the system, including, but not limited to, storage tanks; pressure vessels, shells, coils, tubes, housings, castings, casings, drain pans, panels, duct work; piping: hydraulic, hydronic, pneumatic, gas, or refrigerant; insulation; pipe covering; refractory material; fuses, unit cabinets; electrical wiring; ductwork or conduit; electrical distribution system; hydronic structural supports and similar items; the appearance of decorative casing or cabinets; damage sustained by other equipment or systems; and/or any failure, misadjustment or design deficiencies in other equipment or systems; (c) Damage, repairs or replacement of parts made necessary as a result of electrical power failure, low voltage, burned out main or branch fuses, low water pressure, vandalism, misuse or abuse, water damage, improper operation, unauthorized alteration of Covered Equipment, accident, acts or omissions of Customer or others, damage due to freezing weather, calamity, malicious act, or any Event of Force Majeure; (d) Any damage or malfunction resulting from vibration, electrolytic action, freezing, contamination, corrosion, erosion, or caused by scale or sludge on internal tubes except where water treatment protection services are provided by Company as part of this Agreement; (e) Furnishing any items of equipment, material, or labor/labour, or performing special tests recommended or required by insurance companies or federal, state, or local governments; (f) Failure or inadequacy of any structure or foundation supporting or surrounding the Covered Equipment or any portion thereof; (g) Building access or alterations that might be necessary to repair or replace Customer's existing equipment; (h) The normal function of starting and stopping the Covered Equipment or the opening and closing of valves, dampers or regulators normally installed to protect the Covered Equipment against damage; (i) Valves that are not factory mounted: balance, stop, control, and other valves external to the device unless specifically included in the Agreement; (j) Any responsibility for design or redesign of the system or the Covered Equipment, obsolescence, safety tests, or removal or reinstallation of valve bodies and dampers; (k) Any services, claims, or damages arising out of Customer's failure to comply with its obligations under this Agreement; (l) Failure of Customer to follow manufacturer recommendations concerning overhaul and refurbishing of the Covered Equipment; (m) Any claims, damages, losses, or expenses, arising from or related to conditions that existed in, on, or upon the premises before the effective date of this Agreement ("Pre-Existing Conditions"), including, without limitation, damages, losses, or expenses involving pre-existing building envelope issues, mechanical issues, plumbing issues, and/or indoor air quality issues involving mold/mould and/or fungi; (n) Replacement of refrigerant is excluded, unless replacement of refrigerant is expressly stated as included within the Services, in which case replacement shall in no event exceed the stated percentage of rated system charge per year expressly stated in the Services. Customer shall be responsible for (o) The cost of any additional replacement refrigerant; (p) Operation of any equipment; and (q) Any claims, damages, losses, or expenses, arising from or related to work done by or services provided by individuals or entities that are not employed by or hired by Company.

10. Warranty. Company warrants that: (a) the material manufactured by Company and furnished hereunder is free from defects in material and manufacture for a period of 12 months from the earlier of the date of equipment start-up or replacement; and (b) the labor/labour portion of the Services is warranted to have been properly performed for a period of 90 days from date of completion (the "Warranty"). Company obligations of equipment start-up, If any are stated in the Proposal, are coterminous with the Warranty period. Defects must be reported to Company within the Warranty period. Company's obligation under the Warranty is limited to repairing or replacing the defective part at its option and to correcting any improperly performed labor/labour. No liability whatsoever shall attach to Company until the Services have been paid for in full. Exclusions from this Warranty include damage or failure arising from: wear and tear; corrosion, erosion, deterioration; Customer's failure to follow the Company-provided maintenance plan; and modifications made by others to Company's equipment. Company shall not be obligated to pay for the cost of lost refrigerant or lost product. Additional terms and conditions of warranty coverage are applicable for refrigeration equipment. Some components of Company equipment may be warranted directly from the component supplier, in which event this Company Warranty shall not apply to those components but shall be pursuant to the warranty given by such component supplier. Notwithstanding the foregoing, all warranties provided herein terminate upon termination or cancellation of this Agreement. Equipment, material and/or parts that are not manufactured by Company are not warranted by Company and have such warranties as may be extended by the respective manufacturer. **THE WARRANTY AND LIABILITY SET FORTH IN THIS AGREEMENT ARE IN LIEU OF ALL OTHER WARRANTIES AND LIABILITIES, WHETHER IN CONTRACT OR IN NEGLIGENCE, EXPRESS OR IMPLIED, IN LAW OR IN FACT, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND/OR OTHERS ARISING FROM COURSE OF DEALING OR TRADE. UNLESS EXPRESSLY WARRANTED IN WRITING FOR CERTAIN HUSSMANN BRANDED EQUIPMENT, COMPANY MAKES NO REPRESENTATION OR WARRANTY EXPRESS OR IMPLIED REGARDING PREVENTION BY THE SCOPE OF SERVICES, OR ANY COMPONENT THEREOF, OF MOLD/MOULD, FUNGUS, BACTERIA, MICROBIAL GROWTH, OR ANY OTHER CONTAMINATES. COMPANY SPECIFICALLY DISCLAIMS ANY LIABILITY IF THE SCOPE OF SERVICES OR ANY COMPONENT THEREOF IS USED TO PREVENT OR INHIBIT THE GROWTH OF SUCH MATERIALS.**

11. Indemnity. Company and Customer shall indemnify, defend and hold harmless each other from any and all claims, actions, costs, expenses, damages and liabilities, including reasonable attorneys' fees, resulting from death or bodily injury or damage to real or personal property, to the extent caused by the negligence or misconduct of the indemnifying party, and/or its respective employees or other authorized agents in connection with their activities within the scope of this Agreement. Neither party shall indemnify the other against claims, damages, expenses, or liabilities to the extent attributable to the acts or omissions of the other party. If the parties are both at fault, the obligation to indemnify shall be proportional to their relative fault. The duty to indemnify will continue in full force and effect, notwithstanding the expiration or early termination hereof, with respect to any claims based on facts or conditions that occurred prior to expiration or termination.

12. Limitation of Liability. NOTWITHSTANDING ANYTHING TO THE CONTRARY, NEITHER PARTY SHALL BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY NATURE (INCLUDING WITHOUT LIMITATION REFRIGERANT LOSS, PRODUCT LOSS, LOST REVENUE OR PROFITS), OR PUNITIVE DAMAGES WHETHER CLAIMED UNDER CONTRACT, WARRANTY, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER LEGAL THEORY OR FACTS. Should Company nevertheless be found liable for any damages they shall be limited to the purchase price of the Services for one location over a 12 month term. **IN NO EVENT SHALL COMPANY BE LIABLE FOR ANY DAMAGES (WHETHER DIRECT OR INDIRECT) RESULTING FROM MOLD/MOULD, FUNGUS, BACTERIA, MICROBIAL GROWTH, OR OTHER CONTAMINATES OR AIRBORNE BIOLOGICAL AGENTS.**

13. Asbestos and Hazardous Materials. The Services expressly exclude any identification, abatement, cleanup, control, disposal, removal or other work connected

with asbestos polychlorinated biphenyl ("PCB"), or other hazardous materials (collectively, "Hazardous Materials"). Customer warrants and represents that, except as set forth in a writing signed by Company, there are no Hazardous Materials on the Premises that will in any way affect Company's Services and Customer has disclosed to Company the existence and location of any Hazardous Materials in all areas within which Company will be performing the Services. Should Company become aware of or suspect the presence of Hazardous Materials, Company may immediately stop work in the affected area and shall notify Customer. Customer will be responsible for taking any and all action necessary to correct the condition in accordance with all applicable laws and regulations. Customer shall be exclusively responsible for and shall indemnify and hold harmless Company (including its employees, agents and subcontractors) from and against any loss, claim, liability, fees, penalties, injury (including death) or liability of any nature, and the payment thereof, arising out of or relating to any Hazardous Materials on or about the premises, not brought onto the premises by Company. Company shall be required to resume performance of the Services only in the absence of Hazardous Materials or when the affected area has been rendered harmless. In no event shall Company be obligated to transport or handle Hazardous Materials, provide any notices to any governmental agency, or examine the premises site for the presence of Hazardous Materials.

14. Insurance. Company agrees to maintain the following insurance during the term of this Agreement with limits not less than shown below and will, upon request from Customer, provide a Certificate of evidencing the following coverage:

Commercial General Liability	$2,000,000 per occurrence
Automobile Liability	$2,000,000 CSL
Workers Compensation	Statutory Limits

If Customer has requested to be named as an additional insured under Company's insurance policy, Company will do so subject to Company's manuscript additional insured endorsement. In no event does Company waive right of subrogation.

15. Force Majeure. Company's duty to perform under this Agreement is contingent upon the non-occurrence of an Event of Force Majeure. If Company shall be unable to carry out any material obligation under this Agreement due to an Event of Force Majeure, this Agreement shall at Company's election (i) remain in effect but Company's obligations shall be suspended until the uncontrollable event terminates or (ii) be terminated upon 10 days notice to Customer, in which event Customer shall pay Company for all parts of the Services furnished to the date of termination. An "Event of Force Majeure" shall mean any cause or event beyond the control of Company. Without limiting the foregoing, "Event of Force Majeure" includes: acts of God; acts of terrorism, war or the public enemy; flood; earthquake; lightning; tornado; storm; fire; civil disobedience; pandemic; insurrections; riots; labor/labour disputes; labor/labour or material shortages from the usual sources of supply; sabotage; restraint by court order or public authority (whether valid or invalid), and action or non-action by or inability to obtain or keep in force the necessary governmental authorizations, permits, licenses, certificates or approvals if not caused by Company; and the requirements of any applicable government in any manner that diverts either the material or the finished product to the direct or indirect benefit of the government.

16. Services Other Than Solely Scheduled Service. If Company's services hereunder are not limited solely to Scheduled Service, the following provisions shall also apply: (a) Required restoration shall be performed by Customer at its cost prior to Company being obligated to perform hereunder; (b) any changes, adjustments, service or repairs made to the Equipment by any party other than Company, unless approved by Company in writing, may, at Company's option, terminate Company's obligation to render further service to the Equipment so affected; in such case no refund of any portion of the Service Fee shall be made; and (c) Customer shall (i) promptly notify Company of any unusual performance of Equipment; (ii) permit only Company personnel to repair or adjust Equipment and/or controls during the Term or a Renewal Term; and (iii) utilize qualified personnel to properly operate the Equipment in accordance with the applicable operating manuals and recommended procedures.

17. General. Except as provided below, to the maximum extent provided by law, this Agreement is made and shall be interpreted and enforced in accordance with the laws of the state or province in which the Services are performed. Any dispute arising under or relating to this Agreement that is not disposed of by agreement shall be decided by litigation in a court of competent jurisdiction located in the state or province in which the Services are performed. To the extent the premises are owned and/or operated by any agency of the Federal Government, determination of any substantive issue of law shall be according to the Federal common law of Government contracts as enunciated and applied by Federal judicial bodies and boards of contract appeals of the Federal Government. This Agreement contains all of the agreements, representations and understandings of the parties and supersedes all previous understandings, commitments or agreements, oral or written, related to the subject matter hereof. Except as provided for Service Fee adjustments, this Agreement may not be amended, modified or terminated except by a writing signed by the parties hereto. No documents shall be incorporated herein by reference except to the extent Company is a signatory thereon. If any term or condition of this Agreement is invalid, illegal or incapable of being enforced by any rule of law, all other terms and conditions of this Agreement will nevertheless remain in full force and effect as long as the economic or legal substance of the transaction contemplated hereby is not affected in a manner adverse to any party hereto. Customer may not assign, transfer, or convey this Agreement, or any part hereof, without the written consent of Company. Subject to the foregoing, this Agreement shall bind and inure to the benefit of the parties hereto and their permitted successors and assigns. This Agreement may be executed in several counterparts, each of which when executed shall be deemed to be an original, but all together shall constitute but one and the same Agreement. A fully executed facsimile copy hereof or the several counterparts shall suffice as an original.

18. Equal Employment Opportunity/Affirmative Action Clause. Company is a federal contractor that complies fully with Executive Order 11246, as amended, and the applicable regulations contained in 41 C.F.R. Parts 60-1 through 60-60, 29 U.S.C. Section 793 and the applicable regulations contained in 41 C.F.R. Part 60-741; and 38 U.S.C. Section 4212 and the applicable regulations contained in 41 C.F.R. Part 60-250 in the United States and with Canadian Charter of Rights and Freedoms Schedule B to the Canada Act 1982 (U.K.) 1982, c. 11 and applicable Provincial Human Rights Codes and employment law in Canada.

19. U.S. Government Services. The following provision applies only to direct sales by Company to the US Government. The Parties acknowledge that all items or services ordered and delivered under this Agreement are Commercial Items as defined under Part 12 of the Federal Acquisition Regulation (FAR). In particular, Company agrees to be bound only by those Federal contracting clauses that apply to "commercial" suppliers and that are contained in FAR 52.212-5(e)(1). Company complies with 52.219-8 or 52.219-9 in its service and installation contracting business. **The following provision applies only to indirect sales by Company to the US Government**. As a Commercial Item Subcontractor, Company accepts only the following mandatory flow down provisions: 52.219-8; 52.222-26; 52.222-35; 52.222-36; 52.222-39; 52.247-64. If the Services are in connection with a U.S. Government contract, Customer certifies that it has provided and will provide current, accurate, and complete information, representations and certifications to all government officials, including but not limited to the contracting officer and officials of the Small Business Administration, on all matters related to the prime contract, including but not limited to all aspects of its ownership, eligibility, and performance. Anything herein notwithstanding, Company will have no obligations to Customer unless and until Customer provides Company with a true, correct and complete executed copy of the prime contract. Upon request, Customer will provide copies to Company of all requested written communications with any government official related to the prime contract prior to or concurrent with the execution thereof, including but not limited to any communications related to Customer's ownership, eligibility or performance of the prime contract. Customer will obtain written authorization and approval from Company prior to providing any government official any information about Company's performance of the Services that are the subject of the Proposal or this Agreement, other than the Proposal or this Agreement.

1-26.130-7 (0610)
Supersedes 1-26.130-7 (0110)

End of the Agreement

Schedule J
Agency's Maintenance Responsibilities

Agency Responsibilities: Agency acknowledges that it has an integral role in energy use achieving savings and agrees its responsibilities set forth below:

a. Provide Company reasonable and safe access to all Equipment;

b. Promptly notify Company of any unusual performance of equipment.

c. All equipment installed as part of this project will be maintained by the County or a qualified contractor following the OEM recommended intervals and procedures.

d. Properly maintain, repair, and replace all energy consuming non-covered equipment with equipment of equal or better energy and operational efficiencies and promptly notify Company of the repair and /or replacement, but no later than within 14 calendar days from the commencement thereof. **Schedule I** outlines the Covered Equipment by Trane and Trane's responsibilities for preventative maintenance and repair service.

e. Make available to Company upon its request copies of maintenance records and procedures regarding maintenance of the Facility;

f. Promptly provide Company with notice of system and building alterations at the Facility that impact energy consumption, including but not limited to: HVAC systems, energy management systems, automatic door operation, structural, occupancy sensors, photocell/timer control of exterior lighting and heat recovery systems;

g. Provide to Company true, accurate and complete copies of all energy related bills for each calendar year within ten (10) days after the end of each calendar year. In each event that Agency fails to provide energy related bills for any period within a calendar year within thirty (30) days after the end of the calendar year in which the missing bills relate, Company shall calculate savings equal to the guaranteed energy use savings, prorated for the utility billing period to which said energy bills relate, until such time as the bills are provided. In the event Company subsequently receives or obtains the untimely energy related bill and such bill discloses that savings were achieved in an amount greater or lesser than had been stipulated hereunder, such greater or lesser savings will be used in calculating Energy Cost Savings. In such event, the Company may charge the Agency an hourly rate for additional time required of Company to recalculate the actual savings for the annual reconciliation;

h. Provide to Company true, accurate and complete descriptions of all energy consuming devices within seven (7) days after installation and start up of such equipment. This equipment includes, but is not limited to heating, cooling or ventilating equipment, computers and other electronics, water heaters, kitchen

equipment, laundry equipment, mobile trailer units, portable hospital equipment;

i. Furnish to Company true, accurate and complete copies of any utility rate schedules or tariffs promptly upon Company's request for the same and, in any event, within thirty calendar days after Agency's receipt of notice of a utility rate change;

j. Maintain in effect and fully perform its maintenance obligations throughout the duration of the Guarantee;

k. The following items are, without limitation, the Agency's responsibility to properly maintain in order for the system to function properly:

- Controls
- Domestic Hot Water heaters
- Lights
- Blowers and motors
- VAV boxes
- Water Pumps
- Boiler(s)
- Air Handling Units and Filters
- Exhaust Fans
- Self-contained packaged and split A/C systems
- Any equipment not listed on the Covered Equipment page

l. Maintain a clean environment for the equipment to operate. Debris, materials, other equipment shall not be stored, placed, discarded in locations of new equipment. Access to all furnished equipment shall be maintained.

p. Insure that equipment is not tampered with, damaged, vandalized, or taken out of service without the express knowledge of Company.

Schedule K
Company's Training Responsibilities

Initial Training

Company will provide use and care owner training upon substantial completion of the project. Training will be scheduled at the Agency's convenience during normal business hours.

Training to include:

- Thermal Energy Storage System operation and recommended procedures
- Ozone Laundry operation and care
- New Automated Logic Control Systems overview and familiarization
- General Overview of ECMs with County personnel.

Documentation

Product Specifications and brochures
Operation Literature on all new systems provided
Engineering drawings (where applicable)
Warranty documents

EXHIBIT II(i)
Certificate of Substantial Completion

Certificate of Substantial Completion and Acceptance

St. Johns County Guaranteed Energy Savings Performance Contract

Trane Project No.:

Date Certificate Submitted to Agency:

The Services performed pursuant to the Guaranteed Energy Savings Performance Contract, by and between St. Johns County, a political subdivision of the State of Florida ("Agency"), and Trane U.S. Inc., dated as of , have been inspected by the undersigned Agency, have been determined to be substantially complete, and Agency accepts the same.

The Date(s) of Substantial Completion for the Services noted below is/are hereby established as the earlier of (i) the date Agency executes this Certificate, as noted below, or (ii) fourteen (14) calendar days after the date noted above as the date this Certificate is submitted to Agency.

The Warranty Period, pursuant to Article 7 of the Agreement, commences as of the Warranty Commencement Date stated below with respect to the following corresponding equipment or work:

Services: Description of Equipment or Work	Warranty Commencement Date

Agency, by and through the undersigned duly authorized representative, accepts the above listed Services as substantially complete and assumes full possession thereof as of the Date of Substantial Completion.

St. Johns County, Florida
(Agency)

By: _____

Its: _____

Date of Agency's Signature: _____

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EXHIBIT II (ii)
Certificate of Final Completion

Certificate of Final Completion and Acceptance

St. Johns County Guaranteed Energy Savings Performance Contract

Trane Project No.:
Date Certificate Submitted to Agency:

The Services performed pursuant to the Guaranteed Energy Savings Performance Contract, by and between St. Johns County, a political subdivision of the State of Florida ("Agency"), and Trane U.S. Inc., dated as of , have been inspected by the undersigned Agency and have been determined to be finally complete.

The Date of Final Completion is hereby established as the earlier of (i) the date Agency executes this Certificate, as noted below, or (ii) fourteen (14) calendar days after the date noted above as the date this Certificate is submitted to Agency.

The Warranty Period, pursuant to Article 7 of the Agreement, commences as of the Date of Final Completion, except as noted below with respect to the following equipment or work:

Description of Equipment or Work	Warranty Commencement Date

Agency, by and through the undersigned duly authorized representative, accepts the Services as finally complete and assumes full possession thereof as of the Date of Final Completion.

St. Johns County, Florida
(Agency)

By: _____

Its: _____

Date of Agency's Signature: _____

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INITIALED BY: ____Agency ____Trane
Exhibit B-2 (11-28-07), Trane Project No.: #
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Florida Department of Agriculture and Consumer Services
Division of Adminstration

ADAM H. PUTNAM
COMMISSIONER

CONTRACT AMENDMENT

FDACS CONTRACT #
017616

Please Respond To: April Groover
Office of Energy
Florida Department of Agriculture
and Consumer Services
600 S. Calhoun St., Suite 251
Tallahassee, FL 32399-0001

October 14, 2011

The Honorable Joseph "Ken" Bryan
Chair, St. Johns County Board of County Commissioners
500 San Sebastian View
St. Augustine, Florida 32084

RE: Amendment of Contract # 17616 dated 04/29/11.

This letter, upon execution by both parties and attachment to the original contract shall serve to amend said contract. The contract shall be amended as follows:

Attachment A, Grant Work Plan, is hereby deleted in its entirety and replaced with Attachment A-1, Revised Grant Work Plan, attached hereto and made a part of the Agreement. All references in the Agreement to Attachment A , Grant Work Plan, shall hereinafter refer to Attachment A-1, Revised Grant Work Plan.

NO OTHER PROVISIONS OF THIS CONTRACT ARE AMENDED OR OTHERWISE ALTERED BY THIS AMENDMENT.

Mike Gresham (Signature)
Director of Administration (Title)
Department of Agriculture and Consumer Services (Company)
November 14, 2011 (Date)
(Date)

ATTACHMENT A-1
REVISED GRANT WORK PLAN

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
GRANT AGREEMENT NO. 17616

STATE OF FLORIDA
GRANT ASSISTANCE
PURSUANT TO
AMERICAN RECOVERY AND REINVESTMENT ACT
UNITED STATES DEPARTMENT OF ENERGY AWARDS

A. PROJECT TITLE: St. Johns County Projects for Clean Energy

B. PROJECT LOCATION: St. Johns County

C. PROJECT BACKGROUND:

The Grantee has identified four energy conservation measures (ECMs) that will utilize both grant and St. Johns County (County) funds to increase the adoption of energy efficient technology and practices in Florida. The ECMs include a heating, ventilation, and air conditioning (HVAC) retrofit, a chiller retrofit, an indoor lighting retrofit and installation of cool roof coatings. The ECMs will be preformed at buildings operated and maintained by the County: Old Jail, Sheriffs Administration, Main Library, Ponte Vedra Library, Bartram Library, Ketterlinus Gym, New Jail Isolation Corridor, Courthouse Annex, Council On Aging, Sherriff's Office, Newer Section of Jail, Administration Building, Emergency Operations Center, Traffic Court Building and Sherriff's Annex.

D. PROJECT OBJECTIVES:

- **Objective 1:** To reduce energy consumption and energy costs by retrofitting inefficient HVAC units and installing energy management control system with related sensors.
- **Objective 2:** To reduce energy consumption and energy costs by retrofitting inefficient chiller systems.
- **Objective 3:** To reduce energy consumption and energy costs by retrofitting lights and exit signs.
- **Objective 4:** To reduce energy consumption and energy costs by installing cool roof coatings

E. PROJECT DESCRIPTION:

- **Task 1: HVAC Retrofits (Objective 1)**
  Task 1a: Select a vendor following the procurement procedures outlined in 10 CFR 600 to furnish and install 19 energy efficient 14-SEER HVAC units and an energy management control system with related sensors for 19 HVAC units at the Old Jail/Sheriffs Admin, Main Library, Ponte Vedra Library, Bartram Library, Ketterlinus Gym, New Jail Isolation Corridor, Courthouse Annex and Council On Aging. The vendor will be responsible for final engineering plans/specifications.
  Task 1b: Develop Waste Stream Plan and submit to the Department for approval.
  Task 1c: Oversee vendor installing HVAC units and energy management control system.

Task 1d: Provide a Final Report that includes procurement documents used to hire the vendor, contracts between the Grantee and vendor, Waste Stream Plan, photographs of installed retrofits, utility bills documenting energy reduction, and any applicable invoices.

- **Task 2: Chiller Retrofits (Objective 2)**
  Task 2a: Select a vendor following the procurement procedures outlined in 10 CFR 600 to provide and install two 180-ton chillers and related materials for installation Sherriff's Office, Older Section of Jail, Newer Section of Jail, a new Central Chilled Water Plant is proposed for all of these Buildings. Also Included is a Thermal Energy (ICE) Storage System which will permit making of ice during the night or unoccupied times to be used for cooling during peak energy usage times of the day. Related materials include New Condenser mounted VFD with Low Ambient Control for Fan Motors 75 HP. Remove 6 Chilled Water Pumps and Replace them with 3 new High Efficiency Pumps with VFD's (Variable Speed Drives). 75HP. The vendor will be responsible for final engineering plans/specifications.
  Task 2b: Develop Waste Stream Plan and submit to the Department for approval.
  Task 2c: Install chillers and related materials.
  Task 2d: Provide a Final Report that includes a copy of final plans/specifications, procurement documents used to procure chillers and related materials, Waste Stream Plan, photographs of installed retrofits, utility bills documenting energy reduction, and any applicable invoices.

- **Task 3: Lighting Retrofits (Objective 3)**
  Task 3a: Select a vendor following the procurement procedures outlined in 10 CFR 600 to provide and install materials for lighting retrofits: 90 less than 40 watt fluorescent lights; 18 light emitting diode (LED) exit signs; 1235 T8 or T5 fluorescent lights; 70 T8 or T5 lights for two-foot fixtures; 130 T8 or T5 fluorescent lights for three- and four-foot fixtures; 103 CFL (greater than or equal to 40 W); 19 Metal Halide (300W to 500W); 40 Metal Halide (100W to 300W). These ECM's will be located at the following facilities: Main Library, Ponte Vedra Library, Ketterlinus Gym, Council on Aging Building and Administration Building. The vendor will be responsible for final engineering plans/specifications.
  Task 3b: Develop Waste Stream Plan and submit to the Department for approval.
  Task 3c: Install lighting retrofits.
  Task 3d: Provide a Final Report that includes a copy of final plans/specifications, procurement documents used to procure materials for lighting retrofits, Waste Stream Plan, photographs of installed retrofits, utility bills documenting energy reduction, and any applicable invoices.

- **Task 4: Cool Roof Retrofit (Objective 4)**
  Task 4a: Select a vendor following the procurement procedures outlined in 10 CFR 600 to provide and install materials for a Cool Roof coating system to cover 101,660 square feet of existing roof at KetterlinusGym, Emergency Operations Center, Traffic Court Building, Sherriff's Annex and Ponte Vedra Library. The energy savings cool roof retrofit is a monolithic elastomeric coating that provides 90 percent reflectivity of the sun's radiation and provides a thermal emittance rating of 90 percent. The roof surface temperature remains near ambient temperature keeping interior spaces cooler. The vendor will be responsible for final engineering plans/specifications.
  Task 4c: Develop Waste Stream Plan and submit to the Department for approval.
  Task 4d: Install Cool Roof installation system.
  Task 4e: Provide a Final Report that includes a copy of final plans/specifications, procurement documents used to procure materials for Cool Roof insulation system, Waste Stream Plan, photographs of installed Cool Roof insulation system, utility bills documenting energy reduction, and any applicable invoices.

F. PROJECT DELIVERABLES/OUTPUTS:

The table below identifies the month of the project each task will start and be accomplished.

ATTACHMENT A-1
REVISED GRANT WORK PLAN

No.	Task/Activity Description	Deliverables/ Outputs	Start Month	Deadline Month
1	**HVAC Retrofits (Objective 1)**			
1a	Select a vendor to furnish and install 19 14-SEER energy efficient HVAC units and an energy management control system with related sensors for 19 HVAC units. Establish final engineering plans/specifications.	Procurement documents used to select the vendor, contracts between the Grantee and vendor and a copy of final plans/specifications.	1	7
1b	Develop Waste Stream Plan and submit to the Department for approval.	Waste Stream Plan.	7	8
1c	Oversee vendor installing HVAC units and energy management control system.	Photographs of installed retrofits.	7	9
1d	Provide a Final Report.	Final Report that includes procurement documents used to hire the vendor, contracts between the Grantee and vendor, Waste Stream Plan, photographs of installed retrofits and any applicable invoices.	10	11
2	**Chiller Retrofits (Objective 2)**			
2a	Select a vendor to provide and install two 180-ton chillers and related materials for installation. Establish final engineering plans/specifications.	Procurement documents used to procure chillers and related materials and a copy of final plans/specifications	1	7
2b	Develop Waste Stream Plan and submit to the Department for approval.	Waste Stream Plan.	7	8
2c	Install chillers and related materials.	Photographs of installed retrofits.	8	9
2d	Provide a Final Report.	Final Report that includes a copy of final plans/specifications, procurement documents used to procure chillers and related materials, Waste Stream Plan, photographs of installed retrofits and any applicable invoices.	10	11

ATTACHMENT A-1
REVISED GRANT WORK PLAN

3	**Lighting Retrofits (Objective 3)**			
3a	Select a vendor to provide and install lighting retrofits. Establish final engineering plans/specifications.	Procurement documents used to procure materials for lighting retrofits and a copy of final plans/specifications.	1	7
3b	Develop Waste Stream Plan and submit to the Department for approval.	Waste Stream Plan.	7	8
3c	Install lighting retrofits.	Photographs of installed retrofits.	8	9
3d	Provide a Final Report.	Final Report that includes a copy of final plans/specifications, procurement documents used to procure materials for lighting retrofits, Waste Stream Plan, photographs of installed retrofits and any applicable invoices.	10	11
4	**Cool Roof Retrofits (Objective 4)**			
4a	Select a vendor to provide and install materials for Cool Roof coating system to cover 101,660 square feet of existing roof. Establish final engineering plans/specifications.	Procurement documents used to procure materials for Cool Roof coating system and a copy of final plans/specifications.	1	7
4b	Develop Waste Stream Plan and submit to the Department for approval.	Waste Stream Plan	7	8
4c	Install Cool Roof coating system.	Photographs of installed Cool Roof coating system.	8	9
4d	Provide a Final Report	Final Report that includes a copy of final plans/specifications, procurement documents used to procure materials for Cool Roof coating system, Waste Stream Plan, photographs of installed Cool Roof coating system and any applicable invoices.	10	11

ATTACHMENT A-1
REVISED GRANT WORK PLAN

G. PROJECT BUDGET:

The budget below summarizes the project by Funding Category. All dollar amounts are rounded to the nearest whole dollar value.

Funding Category	Grant Funds	Cost Share: Matching Funds and Other In-Kind Contributions	
		Funding	Source of Funds
1. Salaries		$19,910.98	Grantee
2. Fringe Benefits		$7,388.02	Grantee
3. Travel (if authorized)			
4. Supplies/Other Expenses			
5. Equipment			
6. Contractual Services	$394,000.00	$888,871.00	Grantee
7. Indirect (if authorized)			
Total Project Budget	$394,000.00	$916,080.00	
Total Project Cost	$1,310,080.00	= Grants Funds + Cost Share	
Cost Share Percentage	69.9%	= Cost Share / Total Project Cost	

H. TOTAL BUDGET BY TASK:

The project budget below summarizes the project by Project Task. Project Tasks correspond to the "Project Description" section. All dollar amounts are rounded to the nearest whole dollar value.

Project Task		Grant Funds	Cost Share: Matching Funds and Other In-Kind Contributions	
			Matching Funds	Source
1	HVAC Retrofits	$72,000.00	$140,897.00	Grantee
2	Chiller Retrofits	$168,406.00	$421,606.00	Grantee
3	Lighting Retrofits	$67,298.00	$146,173.00	Grantee
4	Cool Roof Retrofits	$86,296.00	$207,404.00	Grantee
Totals:		$394,000.00	$916,080.00	
Total Project Cost:		$1,310,080.00	= Grant Funds + Cost Share	

ATTACHMENT A-1
REVISED GRANT WORK PLAN

I. BUDGET DETAIL:

Using the definitions provided below, the detailed, line-item budget clarifies the Budget Summary shown in Section G. Budget Category Sub-Totals have been rounded to the nearest whole dollar value. Up to 10% of grant funds may be used for administrative costs, excluding the cost of meeting reporting requirements of the program. Administrative costs are defined as: allowable, reasonable, and allocable Direct and Indirect costs related to overall management of the awarded grant (including travel). For each budget line-item, the appropriate column identifies if the cost is: 1) Grant or Match, 2) a Direct cost used to calculate Indirect Costs (if approved) and 3) whether the cost is Administrative in nature. A description of what is required for each budget category is as follows:

1. *Salaries* - Identify the persons to be compensated for work on this project by name (if known), position, and title. Show the hourly cost and total hours to be charged for each person or position. Divide annual salaries by 2080 hours and nine month academic salaries by 1560 hours, to find the hourly rate.

2. *Fringe Benefits* - Multiply the rate by the total salaries to which fringe benefits apply. If the rate is variable, explain and show calculations.

3. *Travel* - List trips by their purpose and/or destination. Indicate the number of days for each trip. The Department will only reimburse for travel at the appropriate State of Florida rate (Section 112.061, Florida Statutes), using the forms referenced in Attachment B, Payment Request Summary Form. Be prepared to provide the Department with details on costs utilized to calculate the "Amount Budgeted" for each trip.

4. *Supplies & Other Expenses* - List expendable supplies by category description, unit costs and quantity. List other expenses not included in any of the above categories. Examples would be printing, copying, postage, communications, etc. Non-expendable equipment valued at less than $1,000 may be listed also. Include only expenses directly related to the project, not expenses of a general nature. For Match only, list costs related to donated real property such as land (not to exceed the fair market value of the property).

5. *Equipment* - List non-expendable personal property/equipment valued at $1,000 or more by description, unit cost, and quantity. Computers and data-processing equipment should be described in detail.

6. *Contractual Services* - Subcontractors should provide the same information required by this budget table, with the following exceptions: (a) when professional services are provided at a pre-existing approved rate or fee shown on the budget; or (b) the subcontract is to be obtained competitively. For either (a) or (b), show an estimated maximum amount.

7. *Indirect Costs/Rate* –Indirect Costs are not authorized.

8. *Total Budget Category* – Show the total of all line-items within a Budget Category.

9. *Total Budget* - Show the total of all categories.

ATTACHMENT A-1
REVISED GRANT WORK PLAN

1. Salaries

Salaries (Name/Position)	Hourly Cost ($)	*	Hours/wk. or % FTE	=	Total Gross Salary ($)	Grant = G or Match = M	Direct costs used to calculate Indirect Cost? Y/N	Admin. Cost? Y/N
Mike Rubin / Director	$44.41	*	3 * 16 wks = 60	=	$2,131.49	M	N	Y
Gene Burns / Department Head	$41.92	*	4 * 16 wks = 88	=	$2,682.88	M	N	Y
Bill Behne / Facilities Specialist	$27.24	*	15 * 16 wks = 260	=	$6,537.60	M	N	Y
Phyllis Thorpe / Project Manager	$20.47	*	14 5 * 16 wks = 240	=	$4,749.04	M	N	Y
Mike Dalton / Business Manager	$30.62	*	5.4 * 16 wks = 88	=	$2,645.57	M	N	Y
Jay Kamys / Special Projects	$29.11	*	1 * 40 wks =40	=	$1,164.40	M	N	Y
				Sub-Totals for Salaries Category	$19,910.98			

2. Fringe Benefits

Name of Employee	Amount Gross Salary ($)	Approved % per Work Plan or enter "N/A" & provide break-out	Benefit # 1 & Cost	Benefit # 2 & Cost	Benefit # 3 & Cost	Total Fringe Benefits ($)	Grant = G or Match = M	Direct costs used to calculate Indirect Cost? Y/N	Admin. Cost Y/N
Mike Rubin	$2,131.49	34.7%	$	$	$	$739.40	M	N	Y
Gene Burns	$2,682.88	30.2%	$	$	$	$811.37	M	N	Y
Bill Behne	$6,537.60	37.6%	$	$	$	$2,459.70	M	N	Y
Phyllis Thorpe	$4,749.04	42.8%	$	$	$	$2,033.04	M	N	Y
Mike Dalton	$2,645.57	35.4%	$	$	$	$935.25	M	N	Y
Jay Kamys	$ 1,164.40	35.1%	$	$	$	$409.26	M	N	Y
					Sub-Total of Fringe Benefits Category	$7,388.02			

ATTACHMENT A-1
REVISED GRANT WORK PLAN

3. Travel * Cannot exceed cost limitations required by Section 112.061, Florida Statutes							
Name of Employee	Destination	Period of Trip (# of days)	Purpose of Trip	Amount Budgeted	Grant = G or Match = M	Direct costs used to calculate Indirect Cost? Y/N	Admin. Cost Y/N
				$			
				$			
				$			
			Sub-Total of Travel Category	$ N/A			

4. Supplies - Other Expenses								
Description	Unit Cost ($)	*	Quantity	=	Total Cost ($)	Grant = G or Match = M	Direct costs used to calculate Indirect Cost? Y/N	Admin. Cost Y/N
				Sub-Total of Supplies - Other Expenses Category	$ N/A			

5. Equipment								
Description	Unit Cost ($)	*	Quantity	=	Total Cost ($)	Grant = G or Match = M	Direct costs used to calculate Indirect Cost? Y/N	Admin. Cost Y/N
	$	*		=				
	$	*		=				
				Sub-Total of Equipment Category	$ N/A			

ATTACHMENT A-1
REVISED GRANT WORK PLAN

6. Contractual Services									
Name of Vendor	**Description**	**Fee/Rate ($)**	*	**Quantity**	=	**Total Cost ($)**	**Grant = G or Match = M**	**Direct costs used to calculate Indirect Cost? Y/N**	**Admin. Cost Y/N**
To Be Determined	HVAC Retrofits/ Chiller Retrofits/Indoor Lighting Retrofit/ Cool Roof Coating (engineering, equipment and installation)	$394,000.00	*	1	=	$394,000.00	G	N/A	N
To Be Determined	HVAC Retrofits/ Chiller Retrofits/Indoor Lighting Retrofit/ Cool Roof Coating (engineering, equipment and installation)	$888,781.00	*	1	=	$888,781.00	M	N/A	N
				Sub-Total of Contractual Services Category		$1,282,781.00			

7. Indirect Cost (if approved)									
Budget Category included in Base of Indirect Cost Calculations	**Total Direct Costs for Budget Category**	*	**Approved Indirect Cost Rate (%) from Grant Work Plan**	=	**Total Indirect Cost for Budget Category ($)**	=	**Total Indirect Costs for Grant**	+	**Total Indirect Costs for Match**
	$	*		=	$	=	$	+	$
	$	*		=	$	=	$	+	$
	$	*		=	$	=	$	+	$
	$	*		=	$	=	$	+	$
			Sub-Total of Indirect Costs Category		$ N/A	=	$	+	$

ATTACHMENT A-1
REVISED GRANT WORK PLAN

8. Total Project Budget					
Budget Category	**Total Costs for Budget Category**	=	**Total Grant Costs**	+	**Total Match Costs**
Salaries	$20,999.00	=	$0.00	+	$19,910.98
Fringe Benefits	$6,300.00	=	$0.00	+	$7,388.02
Travel (if authorized)	$0.00	=	$0.00	+	$0.00
Supplies/Other Expenses	$0.00	=	$0.00	+	$0.00
Equipment	$0.00	=	$0.00	+	$0.00
Contractual Services	$1,282,781.00	=	$394,000.00	+	$ 888,781.00
Indirect (if authorized)	$0.00	=	$0.00	+	$0.00
Total Project Budget	$1,310,080.00	=	$394,000.00	+	$916,080.00

J. MEASURES OF SUCCESS: In the Final Report, the Grantee shall address how the project objectives were accomplished.

EXHIBIT III (ii)

FLORIDA ENERGY AND CLIMATE COMMISSION
GRANT AGREEMENT NO. ARS074

ATTACHMENT E
FEDERAL REGULATIONS

STATE OF FLORIDA
GRANT ASSISTANCE
PURSUANT TO
AMERICAN RECOVERY AND REINVESTMENT ACT
UNITED STATES DEPARTMENT OF ENERGY AWARDS

Formal regulations concerning administrative procedures for USDOE grants appear in Title 10 of the Code of Federal Regulations. Grant program administrative regulations appear in Part 600. Other USDOE regulations also impact grant programs. The following list contains regulations and Office of Management and Budget Circulars which may apply to the work performed under this Agreement.	
2 CFR 176	Award Terms for Assistance Agreements that include funds under the American Recovery and Reinvestment Act of 2009, Public Law 111-5
2 CFR 901	Nonprocurement Debarment and Suspension
10 CFR 600	Financial Assistance Rules
10 CFR 601	New Restrictions on Lobbying
10 CFR 607	Government wide requirements for drug-free work place (financial assistance)
10 CFR 1039	Uniform relocation assistance and real property acquisition for federal and federally assisted programs
10 CRF 1040	Nondiscrimination in Federally Assisted Programs or Activities
10 CFR 1041	Enforcement of Nondiscrimination on the basis of handicap in programs or activities conducted by USDOE
10 CFR 1042	Nondiscrimination on the basis of sex in education programs or activities receiving federal financial assistance
Other Federal Regulations	
45 CFR Subtitle A – Appendix E to Part 74	Principles for Determining Costs Applicable to Research and Development Under Grants and Contracts with Hospitals
48 CFR 31	Contract Cost Principles and Procedures, or uniform cost accounting standards that comply with cost principles acceptable to the federal agency
Office of Management and Budget Circulars	
A-21	Cost Principles for Educational Institutions
A-87	Cost Principles for State, Local, and Indian Tribal Governments
A-102	Grants and Cooperative Agreements with State and Local Governments
A-110	Uniform Administrative Requirements for Grants and Agreements With Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations
A-122	Cost Principles for Non-Profit Organizations
A-133	Audit Requirements

EXHIBIT III (iii)

(ATTACHMENT F) - FEDERAL FUNDING GRANTEE, SUBGRANTEE AND CONTRACTOR PROVISIONS

FLORIDA ENERGY AND CLIMATE COMMISSION
GRANT AGREEMENT NO.
STATE OF FLORIDA
GRANT ASSISTANCE
PURSUANT TO
AMERICAN RECOVERY AND REINVESTMENT ACT
UNITED STATES DEPARTMENT OF ENERGY AWARDS

All subgrants and contracts awarded by the Grantee, including small purchases, shall contain the following provisions as applicable:

1. **Equal Employment Opportunity** - All contracts shall contain a provision requiring compliance with E.O. 11246, "Equal Employment Opportunity," as amended by E.O. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

2. **Copeland "Anti-Kickback" Act (18 U.S.C. 874 and 40 U.S.C. 276c)** - All contracts and subgrants in excess of $2,000 for construction or repair awarded by recipients and subrecipients shall include a provision for compliance with the Copeland "Anti-Kickback" Act (18 U.S.C. 874), as supplemented by Department of Labor regulations (29 CFR part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he is otherwise entitled. The recipient shall report all suspected or reported violations to the Federal awarding agency.

3. **Davis-Bacon Act, as amended (40 U.S.C. 276a to a-7)** - When required by Federal program legislation, all construction contracts awarded by the recipients and subrecipients of more than $2,000 shall include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 276a to a-7) and as supplemented by Department of Labor regulations (29 CFR part 5, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction"). Under this Act, contractors shall be required to pay wages to laborers and mechanics at a rate not less than the minimum wages specified in a wage determination made by the Secretary of Labor. In addition, contractors shall be required to pay wages not less than once a week. The recipient shall place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation and the award of a contract shall be conditioned upon the acceptance of the wage determination. The recipient shall report all suspected or reported violations to the Federal awarding agency.

4. **Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333)** - Where applicable, all contracts awarded by recipients in excess of $2000 for construction contracts and in excess of $2,500 for other contracts that involve the employment of mechanics or laborers shall include a provision for compliance with Sections 102 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333), as supplemented by Department of Labor regulations (29 CFR part 5). Under Section 102 of the Act, each contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than 1 ½ times the basic rate of pay for all hours worked in excess of 40 hours in the work week. Section 107 of the Act is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or

materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

5. **Rights to Inventions Made Under a Contract or Agreement** - Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the Federal Government and the recipient in any resulting invention in accordance with 10 CFR part 600.325, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

6. **Clean Air Act (42 U.S.C. 7401 et seq.), and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as amended** - Contracts and subgrants of amounts in excess of $100,000 shall contain a provision that requires the recipient to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 et seq.). Violations shall be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

7. **Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)** - Contractors who apply or bid for an award of $100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

8. **Debarment and Suspension (E.O.s 12549 and 12689)** - No contract shall be made to parties listed on the General Services Administration's List of Parties Excluded from Federal Procurement or Nonprocurement Programs in accordance with E.O.s 12549 and 12689, "Debarment and Suspension." This list contains the names of parties debarred, suspended, or otherwise excluded by agencies, and contractors declared ineligible under statutory or regulatory authority other than E.O. 12549. Contractors with awards that exceed the small purchase threshold shall provide the required certification regarding its exclusion status and that of its principal employees.

9. **Section 508 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1368) and Section 1424(e) of the Safe Drinking Water Act, (42 U.S.C. 300h-3(e))** - Contracts and subgrants of amounts in excess of $100,000 shall contain a provision that requires the recipient to agree to comply with all applicable standards, orders or regulations issued pursuant to Section 508 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1368) and Section 1424(e) of the Safe Drinking Water Act, (42 U.S.C. 300h-3(e)). Violations shall be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

10. **Compliance with all Federal statutes relating to nondiscrimination.** These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of sex; (b) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 795), which prohibits discrimination on the basis of handicaps; (c) the Age Discrimination Act of 1975, as amended (42 U.S.C. 6101-6107), which prohibits discrimination on the basis of age; (d) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (e) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (f) Sections 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (g) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (h) any other nondiscrimination provisions in the specific statute(s) made; and, (i) the requirements of any other nondiscrimination statute(s) which may apply.

11. **Compliance with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646)** which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs.

These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.

12. **Compliance with the provision of the Hatch Act (5 U.S.C. 1501 – 1508 and 7324 – 7328)** which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

13. **Comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234)** which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.

14. **Compliance with environmental standards which may be prescribed to the following:** (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EP 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplain in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. 7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

15. **Compliance with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271 et seq.)** related to protecting components or potential components of the national wild and scenic rivers system.

16. **Compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq.)**

17. **Compliance with P.L. 93-348** regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.

18. **Compliance with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. 2131 et seq.)** pertaining to the care, handling, and treatment of warm bloodied animals held for research, teaching, or other activities supported by this Contract.

19. **Compliance with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4801 et seq.)** which prohibits the use of lead based paint in construction or rehabilitation of residence structures.

20. **Compliance with the mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plan issued in accordance with the Energy Policy and Conservation Act (Pub. L. 94-163, 89 Stat. 871).**

21. **Assist the Commission in complying with the State Energy Conservation Program as described in the Code of Federal Regulations, Title 10, Parts 420 and 450 and guidance issued by the U.S. Department of Energy and subsequent guidance issued by the U.S. Department of Energy; the Financial Assistance Rules described in Title 10, Part 600, as well as those regulations concerning the use of oil overcharge recovery funds.**

22. **The Commission reserves the right to transfer equipment acquired under this grant as provided in Title 10, Part 600.117. The Recipient can obtain a release of this right upon application containing certain commitments.**

23. **Compliance with the Buy American Act (41 U.S.C. 10a-10c)** By accepting funds under this Contract, the Grantee agrees to comply with sections 2 through 4 of the Act of March 3, 1933, popularly known as the "Buy American Act." The Grantee should review the provisions of the Act to ensure that expenditures made under this Contract are in accordance with it. It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under this Contract should be American-made.

24. **Preservation of open and competition and government neutrality towards contractors' labor relations on federally funded construction projects**

a. Unless in conflict with State or local laws, you must ensure that bid specifications, project agreement, or other controlling documents in construction contracts awarded pursuant to this Contract, or pursuant to a subaward to this Contract, do not:

1. Require or prohibit bidders, offerors, contractors, or subcontractors to enter into or adhere to agreements with one or more labor organizations, on the same or other related construction project(s); or

2. Otherwise discriminate against bidders, offerors, contractors, or subcontractors for becoming or refusing to become or remain signatories or otherwise to adhere to agreements with one or more labor organizations, on the same or other related construction project(s).

b. The term "construction contract" as used in this provision means any contract for the construction, rehabilitation, alteration, conversion, extension, or repair of buildings, highways, or other improvements to real property.

c. Nothing in this provision prohibits bidders, offerors, contractors, or subcontractors from voluntarily entering into agreements with labor organizations.

25. **Compliance with the provision included in Title XV and Title XVI of Public Law 111-5, the American Recovery and Reinvestment Act of 2009.**

26. **Segregation of Costs** – Recipients must segregate the obligations and expenditures related to funding under the Recovery Act. Financial and accounting systems should be revised as necessary to segregate, track, and maintain these funds apart and separate from other revenue streams. No part of the funds from the Recovery Act shall be commingled with any other funds or used for a purpose other than that of making payments for costs allowable for Recovery Act projects.

27. **False Claims Act** – Recipient and sub-recipients shall promptly refer to the DOE or other appropriate Inspector General any credible evidence that a principle, employee, agent, contractor, sub-grantee, subcontractor, or other person has submitted a false claim under the False Claims Act or has committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity or similar misconduct involving those funds.

Exhibit IV

Notice to Proceed

St. Johns County Guaranteed Energy Savings Performance Contract

St. Johns County, a political subdivision of the State of Florida, (the "Agency") has closed on its financing (the "Financing Closing") of the Guaranteed Energy Performance Savings Contract, dated 12/8, 2011.

The entity providing funding to Agency:

Company Name: SunTrust Equipment Finance & Leasing Corp
Address: 300 East Joppa Rd, 7th Floor
Towson MD 21286
Contact Name: Gregory Faherty
Telephone No.: 410 307-6648
Email: _____

Pursuant to Section 4.6 of the Contract, the Agency hereby executes and issues this written Notice to Proceed authorizing Company to immediately commence performance of the work in accordance with the Contract.

St. Johns County, Florida

By: _____
Title: Chairman Mark P. Miner
Dated: 12-06-11