# State of New Hampshire

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**DEPARTMENT OF ADMINISTRATIVE SERVICES**
OFFICE OF THE COMMISSIONER
25 Capitol Street – Room 120
Concord, New Hampshire 03301

LINDA M. HODGDON
Commissioner
(603) 271-3201

JOSEPH B. BOUCHARD
Assistant Commissioner
(603) 271-3204


50

February 3, 2015

Her Excellency, Governor Margaret Wood Hassan
and the Honorable Council
State House
Concord, New Hampshire 03301

## REQUESTED ACTION

(1)Authorize the Department of Administrative Services to enter into a contract with Consolidated Edison Solutions, Inc., Valhalla, NY, vendor code #202287, to install energy and fossil fuel energy conservation measures at four state owned buildings located on Hazen Drive in Concord. The contract will be effective upon Governor and Council approval through June 30, 2021. The cost to implement the various energy conservation measures is $12,691,282. The project includes monitoring and verification for 5 years after the date of final completion. The contract will be effective upon Governor and Council approval through June 30, 2021.

(2) Authorize the Department of Administrative Services to install and pay for additional energy and fossil fuel energy conservation measures with the use of any rebates or grants that may be obtained during the life of the project for a not to exceed cost of $971,991. These energy and fossil fuel energy conservation measures are contingent on receipt of any rebates and or grants, effective upon Governor and Council approval through June 30, 2021.

## EXPLANATION

The Department of Administrative Services developed a Request for Proposals to implement guaranteed energy conservation measures at four state owned buildings located on Hazen Drive in Concord. The four buildings are the John O Morton building, the Division of Motor Vehicles building, the Health and Human Services building (including laboratory and Data Center) and the Department of Safety building. These buildings were targeted because they are major users of energy averaging $2.5 million dollars per year in energy costs. When the energy and fossil fuel measures are installed we are looking to reduce our energy costs approximately $949,508 per year. These savings will be utilized to offset the cost of the measures plus interest with an average payback of 16.95 years. In accordance with RSA 21-I:19-d the cost of the energy and fossil fuel reduction improvements must be financed within 20 years from guaranteed energy cost savings through a performance contract and requires no upfront capital from the State.

Notification of the RFP was released on January 22, 2013 to several firms within the industry. The RFP was also posted on the Department of Administrative Services web site. Bids were received from seven Energy Service Companies. The RFP requested that the Energy Service Companies propose their energy and fossil fuel saving measures for the following categories: lighting systems and controls, building automated control systems, HVAC, premium efficiency motors and variable frequency drives, building envelope, water conservation, boiler plants, domestic hot water systems and renewable energy systems. In accordance with Executive Order 2011-01 state agencies are required to reduce fossil fuel usage 25% from the base year of 2005 by 2025. As a result, fifty percent of the total score was based on the maximum fossil fuel reduction.

Proposals were submitted in April of 2013 from seven firms. From April until August of 2013, a five member review team comprised of representatives from Administrative Services, Environmental Services and the Office of Energy and Planning interviewed the companies, reviewed each proposal and rated them using criteria established and published in the RFP. The criteria were broken down into the following areas: 50% fossil fuel and energy reductions, 5% presentation and responsiveness, 15% qualifications, experience and resources, 20% technical approach and 10% management approach. Based on the evaluation criteria, Consolidated Edison Solutions, Inc., was chosen as the highest ranking proposal. Attached are copies of the scoring sheets from the original proposal. Consolidated Edison Solutions, Inc., proposed energy and fossil fuel saving measures providing the highest amount of energy reduction 68,036,408 kBTUs and the highest amount of fossil fuel reduction 57,367,143 kBTUs.

In August, the team worked with the selected vendor to fine tune the items that were to be included in the detailed feasibility study and draft the eventual contract. Based on the results of the RFP, the Governor and Council approved a contract on December 20, 2013, item #24 with Consolidated Edison Solutions, Inc. to complete a detailed feasibility study. Consolidated Energy Solutions was required to conduct a detailed feasibility study or detailed audit and guarantee a minimum of 85% of the energy and fossil fuel savings that they submitted in their original proposal. During the detailed feasibility study, Consolidated Energy Solutions worked with the Department of Administrative Services to fine tune the energy saving initiatives that are further described in Exhibit 1. This resulted in a reduction of 56,816,855 kBTUs or 99.04% of the initial fossil fuel savings.

Consolidated Edison Solutions conducted a detailed audit or detailed feasibility study of the four state owned buildings on Hazen Drive from December of 2013 to May of 2014. The results of the detailed feasibility study were submitted to the state on May 12, 2014. The state then worked with Consolidated Energy Solutions to develop the scope of work and specifications that are included in this contract to install the actual energy saving measures. The proposed contract was completed in November of 2014 awaiting financing by the Treasury Department.

This is a complete turnkey project with Consolidated Edison Solutions providing design, construction and commissioning of the energy saving initiatives. The cost for the energy saving initiatives (Requested Action #1) totals $12,691,282 and is detailed in Exhibit B. This cost

includes $170,000 for the Bureau of Public Works Design and Construction to oversee the project as well as $226,690 for Consolidated Edison Solutions, Inc., to provide measure and verification (M&V) services for 5 years and Operation and Maintenance Oversight for one year after completion of the project. Energy and fossil fuel savings are being guaranteed for five years after the final acceptance of the project. In accordance with RSA 21-I: 19-d, the cost of the energy and fossil fuel energy conservation measures will be financed through a separate financing or leasing agreement with Banc of America Public Capital Corp. through the State Treasurer and paid back with energy cost savings over a period 17.58 years.

Requested Action #2 is for additional energy saving initiatives that will be paid from any rebates and or grants that we may receive as part of this project. The initiatives are further described in Exhibit #1. We are anticipating $462,474 in rebates and $509,517 in the form of a grant from the Public Utilities Commission renewable energy fund. If the rebates and or grant do not materialize we will not move forward with these energy saving initiatives.

Respectfully submitted,

Linda M. Hodgdon,
Commissioner

Attachments

# Hazen Drive Energy Performance Contract

**Purpose**
Enter into an energy performance contract for four buildings on Hazen Drive in Concord, NH to help reduce energy use (and fossil fuel use) in accordance with the goals in Executive Order 2011-1.

**Definition**
Energy Performance Contract – An alternative way to finance projects that allows building owners to use future cost savings to pay for new efficient equipment and services, while guaranteeing that cost savings will meet or exceed payments for equipment or services over the contract period.

**Existing**

- 4 high energy use buildings on Hazen Drive
    - Department of Safety, 33 Hazen Drive
    - Division of Motor Vehicles, 23 Hazen Drive
    - Health and Welfare and DoIT, 27/29 Hazen Drive
    - Department of Transportation, 7 Hazen Drive
- 610,000 square feet
- $2.5 million in energy costs annually
- $4.10 per square foot in average energy costs annually

**Proposed**

- 16.95 year average payback on projects
- 17.58 year contract
- $12,691,282 total project cost, plus $3,399,795.36 in interest costs over project term
- Construction to be completed over 18 months
- 2.5955% interest rate
- $949,508 in annual energy savings
- 67,182,712 kBtus in energy savings
- 56,816,855 kBtus in fossil fuel savings
- 36% reduction in energy cost
- 71% reduction in fossil fuel use
- Measures to be completed in the following categories
    - Lighting and lighting controls
    - HVAC and plumbing
    - Building controls and monitoring
    - Building envelope
    - Motors and variable frequency drives
    - Water conservation
    - Renewable energy systems

# Important Dates for Hazen Drive Performance Contract

January 22, 2013 – Issued RFP 2013-157

April 12, 2013 – Proposals due for abovementioned RFP

April – August 9, 2013 – Review 7 proposals and interview all vendors

August – December, 2013 – Negotiation of contract terms for Detailed Feasibility Study

December 20, 2013 – G&C approval for abovementioned contract

May 12, 2014 – Detailed feasibility report received

June 9, 2014 – Revised report received

June – November, 2014 – Negotiation of contract terms for implementation of FFECMs

January 28, 2015 – Financing contract finalized

February 11, 2015 – Presentation of both contracts to G&C

| | **ConEdison Proposal** | **ConEdison Contract** |
|---|---|---|
| **Study Fee** | $60,000 | $0 – waived if State proceeds with implementation |
| **Total Annual Savings** | $673,570 (at FY13 energy rates) | $949,508 – adjusted for current energy prices |
| **Capital Costs** | $10,909,214 | $12,691,282 |
| **Financing Costs** | $2,413,537 (2%, specified in RFP) | $3,399,795.36 |
| **Incentives/Rebates** | $0 | $971,991 |
| **Total Project Cost (with interest, without rebates)** | $13,322,751 | $16,091,077.36 |
| **Payback Period (Yrs)** | 19.8 | 16.95 |
| **Maintenance Cost (20 Yrs)** | $675,472 | No maintenance agreement |
| **Total Annual Cost Reduction** | $731,129 | $949,508 |
| **Total Cost Reduction %** | 27.5% | 35.7% |
| **Total Energy Reduction (kBtu)** | 68,036,408* | 67,182,712* |
| **Total Energy Reduction % (natural gas and electricity)** | 57.9% | 57.2% |
| **Fossil Fuel Reduction (kBtu)** | 57,367,143 | 56,816,855 |

*These savings are based on utility savings and do not take into consideration any additional wood chip fuel usage

# TITLE I
# THE STATE AND ITS GOVERNMENT

## CHAPTER 21-I
## DEPARTMENT OF ADMINISTRATIVE SERVICES

## State Facility Energy Cost Reduction

### Section 21-I:19-b

**21-I:19-b Definitions.** – In this subdivision:

I. "Energy cost saving measure" means any construction, improvement, repair, alteration, or betterment of any building or facility or any equipment, fixture, or furnishing to be added to or used in any building or facility that will be a cost effective energy-related project. This shall include any project that will lower energy or utility costs in connection with the operation or maintenance of such building or facility and will achieve energy cost savings sufficient to recover any project costs or incurred debt service within 20 years from the date of project implementation.

II. "Energy performance contract" means an agreement for the provision of energy services or equipment or both. This shall include, but shall not be limited to, energy conservation-enhancing projects in buildings and alternate energy technologies, in which a private sector person or company agrees to finance, design, construct, install, maintain, operate, or manage energy systems or equipment to improve the energy efficiency of, or produce energy in connection with, a state government agency or facility in exchange for a portion of the energy cost savings or specified revenues. The level of payments made would be contingent upon measured energy cost savings or energy production.

III. "Positive cash flow financing" means an agreement among an agency, a capital leasing firm, and a provider of design/build energy management services under which the leasing cost of the project, including all interest payments, is equal to or less than the energy cost the project avoids.

IV. "Shared-savings contract" means an agreement under which a private sector person or company undertakes to design, implement, install, operate, and maintain improvements to the agency's or municipality's procedures, equipment or facilities, and the agency or municipality agrees to pay a contractually specified amount of measured or estimated energy cost savings.

V. "Date of project implementation" means the expected date established in the energy performance contract that the construction, improvement, repair, alteration, or betterment is to be completed and become operational. If the energy performance contract includes more than one energy cost saving measure, the "date of project implementation" may be alternatively defined by the contracting state agency or municipality to be the date that the last of the energy cost saving measures is expected to become operational.

VI. "Demand response program" means a program under which the state receives payment for voluntarily reducing electricity demand in response to grid instability as dictated by the regional independent system operator or in response to high wholesale electricity prices.

**Source.** 1993, 74:1. 1999, 225:6. 2000, 276:5. 2008, 166:2, eff. July 1, 2008. 2012, 149:3, eff. Aug. 6, 2012.

| | |
|---|---|
| **Total Project Costs** | **12,691,282.00** |
| **Repayment Term (yrs.)** | **17.58** |
| **Interest Rate** | **2.5955%** |
| **Closing/Funding Date (est.)** | **2/13/15** |
| **Average Life** | **10.321** |

| Pmt. No. | Year No. | Payment Date | Funding Amount | Payment Amount | Interest Portion | Principal Portion | Outstanding Balance |
|---|---|---|---|---|---|---|---|
| 0 | 0 | 2/13/2015 | 12,691,282.00 | 0.00 | | | 12,691,282.00 |
| 1 | 1 | 9/21/2016 | | 949,508.00 | 528,873.57 | 420,634.43 | 12,270,647.57 |
| 2 | 2 | 9/21/2017 | | 949,508.00 | 318,484.66 | 631,023.34 | 11,639,624.23 |
| 3 | 3 | 9/21/2018 | | 949,508.00 | 302,106.45 | 647,401.55 | 10,992,222.68 |
| 4 | 4 | 9/21/2019 | | 949,508.00 | 285,303.14 | 664,204.86 | 10,328,017.82 |
| 5 | 5 | 9/21/2020 | | 949,508.00 | 268,063.70 | 681,444.30 | 9,646,573.52 |
| 6 | 6 | 9/21/2021 | | 949,508.00 | 250,376.82 | 699,131.18 | 8,947,442.33 |
| 7 | 7 | 9/21/2022 | | 949,508.00 | 232,230.87 | 717,277.13 | 8,230,165.20 |
| 8 | 8 | 9/21/2023 | | 949,508.00 | 213,613.94 | 735,894.06 | 7,494,271.14 |
| 9 | 9 | 9/21/2024 | | 949,508.00 | 194,513.81 | 754,994.19 | 6,739,276.94 |
| 10 | 10 | 9/21/2025 | | 949,508.00 | 174,917.93 | 774,590.07 | 5,964,686.88 |
| 11 | 11 | 9/21/2026 | | 949,508.00 | 154,813.45 | 794,694.55 | 5,169,992.33 |
| 12 | 12 | 9/21/2027 | | 949,508.00 | 134,187.15 | 815,320.85 | 4,354,671.48 |
| 13 | 13 | 9/21/2028 | | 949,508.00 | 113,025.50 | 836,482.50 | 3,518,188.97 |
| 14 | 14 | 9/21/2029 | | 949,508.00 | 91,314.59 | 858,193.41 | 2,659,995.57 |
| 15 | 15 | 9/21/2030 | | 949,508.00 | 69,040.18 | 880,467.82 | 1,779,527.75 |
| 16 | 16 | 9/21/2031 | | 949,508.00 | 46,187.64 | 903,320.36 | 876,207.40 |
| 17 | 17 | 9/21/2032 | | 898,949.36 | 22,741.96 | 876,207.40 | - |
| | | | | 16,091,077.36 | 3,399,795.36 | 12,691,282.00 | |

**RFP 2013-157 Energy Performance Contract for Buildings on Hazen Drive**

**Evaluation Committee Members**

**Karen Rantamaki, State Energy Manager, Department of Administrative Services**

Karen has been the State Energy Manager for the past five years where she works with state agencies to complete energy efficiency projects within their facilities and performs various other energy related responsibilities. A former energy auditor, Karen has a degree in mechanical engineering and is a licensed professional engineer. Karen was the primary author of the Request for Proposals that was issued for the Hazen Drive Performance Contract project.

**Ron White, Administrator IV, Department of Administrative Services**

Ron has been the Administrator of the Bureau of General Services for the past six years which includes overseeing thirty State of New Hampshire facilities including all sites located on Hazen Drive which are included in the performance contract. Ron has been in facilities management for high technology companies such as General Electric, ON Semiconductor, and Analog Devices. He has a Bachelors Degree in Industrial Technology.

**Susan Thorne, State Energy Program Associate, Office of Energy and Planning**

Susan has been involved with energy efficiency in State buildings since joining the NH Office of Energy and Planning two years ago. A registered architect, Susan has worked in the design and construction industries on energy efficient and high performance buildings. She has also provided LEED building certification consultation and trained professionals seeking LEED accreditation. Susan served on the committee reviewing Proposals submitted for the Hazen Drive Performance Contract project.

**Chris Skoglund, Energy and Climate Analyst, Department of Environmental Services**

Chris manages the State's greenhouse gas inventory and provides technical and policy analysis of energy and climate programs and policies. Chris was the staff coordinator for the state level group that developed the NH Climate Action Plan from 2008-2009. In this role, he coordinated the efforts of six working groups that assessed the opportunities within NH to reduce the use of fossil fuels. In support of their work, Chris also managed and advised the project's technical consultant that evaluated the potential cost and benefits associated with nearly 100 separate state-level actions. Chris was also involved in the development of 2011 recommendation by the Energy & Climate Collaborative concerning energy performance contracting, which helped inform the design of the Hazen Drive RFP.

RFP 2013-157 Energy Performance Contract for Buildings on Hazen Drive

| ConEdison | FF (50%) | Presentation (5%) | Qulifications (15%) | Technical Approach (20%) | Management Approach (10%) | Total | Average Score |
|---|---|---|---|---|---|---|---|
| Mike | 44.9 | 4.5 | 12.3 | 16.1 | 8 | 85.8 | |
| Ron | 47.5 | 4 | 14.25 | 19 | 9 | 93.75 | 87.11 |
| Sue | 47.5 | 4.6 | 13.5 | 16.3 | 8.7 | 90.6 | |
| Chris | 44.4 | 4.3 | 15 | 16.2 | 8.5 | 88.4 | |
| Karen | 38 | 4 | 13 | 14 | 8 | 77 | |
| AVG | 44.46 | 4.28 | 13.61 | 16.32 | 8.44 | | |

| Honeywell | FF (50%) | Presentation (5%) | Qulifications (15%) | Technical Approach (20%) | Management Approach (10%) | Total | Average Score |
|---|---|---|---|---|---|---|---|
| Mike | 44.6 | 3.8 | 12.9 | 15.8 | 8 | 85.1 | |
| Ron | 46.5 | 4 | 13.5 | 18 | 7.5 | 89.5 | |
| Sue | 45 | 4.4 | 13.7 | 17.2 | 9.4 | 89.7 | 85.56 |
| Chris | 40.5 | 4.3 | 15 | 16.2 | 8.5 | 84.5 | |
| Karen | 37 | 5 | 13 | 15 | 9 | 79 | |
| AVG | 42.72 | 4.3 | 13.62 | 16.44 | 8.48 | | |

| Schneider | FF (50%) | Presentation (5%) | Qulifications (15%) | Technical Approach (20%) | Management Approach (10%) | Total | Average Score |
|---|---|---|---|---|---|---|---|
| Mike | 42.5 | 4.5 | 12.9 | 16.5 | 8 | 84.4 | |
| Ron | 44.5 | 4.5 | 14.25 | 19 | 9 | 91.25 | |
| Sue | 39.75 | 4.15 | 13.3 | 15.1 | 8.5 | 80.8 | 83.81 |
| Chris | 41.6 | 4.3 | 15 | 15.2 | 8.5 | 84.6 | |
| Karen | 38 | 4 | 12 | 16 | 8 | 78 | |
| AVG | 41.27 | 4.29 | 13.49 | 16.36 | 8.4 | | |

| Constellation | FF (50%) | Presentation (5%) | Qulifications (15%) | Technical Approach (20%) | Management Approach (10%) | Total | Average Score |
|---|---|---|---|---|---|---|---|
| Mike | 32.5 | 2.1 | 11.9 | 12.2 | 8 | 66.7 | |
| Ron | 40.5 | 3.5 | 12.75 | 16 | 9 | 81.75 | |
| Sue | 38.675 | 3.7 | 13.1 | 14.5 | 8 | 77.975 | 72.805 |
| Chris | 33 | 3.9 | 15 | 14.2 | 8.5 | 74.6 | |
| Karen | 27 | 3 | 12 | 13 | 8 | 63 | |
| AVG | 34.335 | 3.24 | 12.95 | 13.98 | 8.3 | | |

| Noresco | FF (50%) | Presentation (5%) | Qulifications (15%) | Technical Approach (20%) | Management Approach (10%) | Total | Average Score |
|---|---|---|---|---|---|---|---|
| Mike | 31.9 | 4.3 | 12.9 | 15.1 | 8 | 72.2 | |
| Ron | 41.5 | 4 | 13.5 | 16 | 9 | 84 | |
| Sue | 38.25 | 4.2 | 13.7 | 16.2 | 8.2 | 80.55 | 77.17 |
| Chris | 36.2 | 4.3 | 15 | 17.1 | 8.5 | 81.1 | |
| Karen | 29 | 3 | 14 | 14 | 8 | 68 | |
| AVG | 35.37 | 3.96 | 13.82 | 15.68 | 8.34 | | |

| Ameresco | FF (50%) | Presentation (5%) | Qulifications (15%) | Technical Approach (20%) | Management Approach (10%) | Total | Average Score |
|---|---|---|---|---|---|---|---|
| Mike | 26 | 4.3 | 12.3 | 14.4 | 8 | 65.00 | |
| Ron | 35 | 3.75 | 13.5 | 18 | 9 | 79.25 | |
| Sue | 27 | 3.5 | 11.7 | 14.9 | 7.9 | 65.00 | 67.33 |
| Chris | 20 | 4.3 | 15 | 14.6 | 8.5 | 62.40 | |
| Karen | 28 | 3 | 12 | 14 | 8 | 65.00 | |
| AVG | 27.2 | 3.77 | 12.9 | 15.18 | 8.28 | | |

| Johnson | FF (50%) | Presentation (5%) | Qulifications (15%) | Technical Approach (20%) | Management Approach (10%) | Total | Average Score |
|---|---|---|---|---|---|---|---|
| Mike | 36.3 | 4.3 | 12.9 | 14.7 | 8 | 76.2 | |
| Ron | 39.5 | 3.5 | 13.5 | 18 | 9 | 83.5 | |
| Sue | 35.725 | 4.3 | 11.9 | 15.8 | 8 | 75.725 | 75.465 |
| Chris | 29.4 | 4.3 | 15 | 15.4 | 8.8 | 72.9 | |
| Karen | 30 | 4 | 13 | 14 | 8 | 69 | |
| AVG | 34.185 | 4.08 | 13.26 | 15.58 | 8.36 | | |

# RFP 2013-157 Energy Performance Contracts for Buildings on Hazen Drive
8/9/2013

| Proposer Name | 1. ConEdison | 2. Noresco #1 | 2. Noresco #2 | 3. Constellation | Honeywell | Schneider | Ameresco | Johnson Base | Johnson Biomass |
|---|---|---|---|---|---|---|---|---|---|
| Study Fee | $60,000 | $30,000 | $75,500 | $30,450 | $50,000 | $48,762 | $25,736 | $0 | $0 |
| Capital Costs | $ 10,909,392 | $ 6,351,174 | $ 5,164,328 | $ 8,520,653 | $ 7,546,570 | $ 12,282,452 | $ 5,234,419 | $ 6,837,217 | $ 10,710,239 |
| Financing Costs | $ 2,413,537 | $ 629,234 | $ 457,171 | $ 1,785,916 | $ 1,406,949 | $ 2,680,325 | $ 1,102,441 | $ 1,426,923 | $ 2,675,455 |
| Total Project Cost (With interest, Minus Rebates) | $13,322,929 | $6,308,237 | $4,952,142 | $ 9,969,785 | $8,953,519 | $14,962,777 | $6,063,786 | $8,264,140 | $13,385,694 |
| Payback Period (Years) | 18.2 | 10.2 | 9.4 | 17.8 | 17.2 | 20.0 | 18.5 | 16.9 | 26.5 |
| Maintenance Cost (Total) | $ 675,472 | $ 839,756 | $ 839,756 | TBD | $ 1,261,583 | $ 883,260 | $ 2,725,949 | $ 3,293,886 | $ 5,614,820 |
| Total Cost Reduction ($)- From E-2 | $ 731,129 | $ 617,118 | $ 528,577 | $ 560,846 | $ 521,593 | $ 748,138 | $ 327,883 | $ 490,089 | $ 505,550 |
| Total Cost Reduction (% change) | 27.5% | 23.2% | 19.9% | 21.1% | 19.6% | 28.2% | 12.3% | 18.5% | 19.0% |
| Total Energy Reduction (kBtu) | 68,036,408 | 43,983,567 | 34,473,437 | 38,345,606 | 59,877,427 | 51,849,811 | 20,015,648 | 35,385,952 | 65,534,152 |
| Total Energy Reduction (% change) | 57.9% | 37.4% | 29.3% | 32.6% | 50.9% | 44.1% | 17.0% | 30.1% | 55.7% |
| Fossil Fuel Reduction Total (kBtu) | 57,367,143 | 36,025,531 | 26,915,216 * | 32,026,298 | 54,837,415 | 41,900,683 | 14,901,067 | 28,981,345 | 59,129,545 * |

*Second proposals not considered as we asked for one proposal per vendor. Additionally, Johnson biomass proposal exceeds the 20 year payback limit.

ConEdison's project proposal includes lighting upgrades in all buildings; HVAC and plumbing measures including heating systems, cooling systems, domestic hot water systems and the lab ventilation system; building controls in all buildings including the labs; VFDs on pumps and fans; building envelope measures including insulation, weather-stripping, and air sealing; a biomass boiler for 29 Hazen Drive; solar PV; EE transformers; and plug load improvements.

| **Measure I.D. Category** | **Project Costs** | **Annual Savings** | | | | | **Simple Payback (No Financing)** | **Fossil Fuel Savings (kBtu)** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | (A) Total ($) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (F) Energy/ Water Savings ($) Proposal | (A) / (F) | Electric (B)*0.43*3.413 | Natural Gas (D) * 100 | Total Fossil Fuel Savings |
| Lighting | $ 1,290,207 | 728,738 | 253 | -10,260 | 0 | $ 68,871 | 18.73 | 1,069,489 | (1,026,000) | 43,489 |
| Plumbing and HVAC | $ 1,101,520 | 1,308,580 | 106 | 98,013 | 285,600 | $ 197,080 | 5.59 | 1,920,459 | 9,801,300 | 11,721,759 |
| Building Controls & Monitoring | $ 1,333,335 | 1,516,868 | 0 | 119,543 | 0 | $ 211,754 | 6.30 | 2,226,140 | 11,954,300 | 14,180,440 |
| Motors & VFDs | $ 747,865 | 1,253,992 | 134 | 0 | 0 | $ 109,261 | 6.84 | 1,840,346 | - | 1,840,346 |
| Building Envelope | $ 13,923 | 825 | 0 | 4,115 | 0 | $ 3,193 | 4.36 | 1,211 | 411,500 | 412,711 |
| Renewable Energy Systems | $ 5,897,771 | 275,000 | 0 | 281,773 | 0 | $ 106,283 | 55.49 | 403,587 | 28,177,300 | 28,580,887 |
| Additional Measures | $ 524,593 | 400,324 | 38 | 0 | 0 | $ 34,687 | 15.12 | 587,511 | - | 587,511 |
| **Totals:** | **$ 10,909,214** | **5,484,327** | **531** | **493,184** | **285,600** | **$ 731,129** | **14.92** | **8,048,743** | **49,318,400** | **57,367,143** |

Print Form

Subject: Guaranteed Energy Performance Contract Hazen Drive

FORM NUMBER P-37 ( version 1/09)

**AGREEMENT**

The State of New Hampshire and the Contractor hereby mutually agree as follows:

**GENERAL PROVISIONS**

**1. IDENTIFICATION.**

| | |
|---|---|
| 1.1 State Agency Name<br>Administrative Services | 1.2 State Agency Address<br>25 Capitol Street, Room 102, Concord, NH 03301 |
| 1.3 Contractor Name<br>Consolidated Edison Solutions, Inc. | 1.4 Contractor Address<br>100 Summit Lake Drive, Suite 410, Valhalla, NY 10595 |
| 1.5 Contractor Phone Number<br>781-203-2705 / 1.6 Account Number | 1.7 Completion Date<br>June 30, 2021 / 1.8 Price Limitation<br>$13,663,273 |
| 1.9 Contracting Officer for State Agency<br>Ronald White, Administrator | 1.10 State Agency Telephone Number<br>(603) 271-3148 |
| 1.11 Contractor Signature | 1.12 Name and Title of Contractor Signatory<br>Jorge J. Lopez, President and CEO |

1.13 Acknowledgement: State of New York, County of Westchester

On November 13, 2014, before the undersigned officer, personally appeared the person identified in block 1.12, or satisfactorily proven to be the person whose name is signed in block 1.11, and acknowledged that s/he executed this document in the capacity indicated in block 1.12.

1.13.1 Signature of Notary Public or Justice of the Peace

[Seal]

PAUL FARRELL MAPELLI
Notary Public, State of New York
No. 02MA4967056
Qualified in Rockland County
Commission Expires May 21, 2018

1.13.2 Name and Title of Notary or Justice of the Peace

Paul Farrell Mapelli, notary public

| | |
|---|---|
| 1.14 State Agency Signature | 1.15 Name and Title of State Agency Signatory<br>Linda M. Hodgdon, Commissioner |

1.16 Approval by the N.H. Department of Administration, Division of Personnel *(if applicable)*

By: Director, On:

1.17 Approval by the Attorney General (Form, Substance and Exccution)

By: On: 2-2-15

1.18 Approval by the Governor and Executive Council

By: On:

**2. EMPLOYMENT OF CONTRACTOR/SERVICES TO BE PERFORMED.** The State of New Hampshire, acting through the agency identified in block 1.1 ("State"), engages contractor identified in block 1.3 ("Contractor") to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT A which is incorporated herein by reference ("Services").

**3. EFFECTIVE DATE/COMPLETION OF SERVICES.**
3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, this Agreement, and all obligations of the parties hereunder, shall not become effective until the date the Governor and Executive Council approve this Agreement ("Effective Date").
3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed. Contractor must complete all Services by the Completion Date specified in block 1.7.

**4. CONDITIONAL NATURE OF AGREEMENT.**
Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this Agreement immediately upon giving the Contractor notice of such termination. The State shall not be required to transfer funds from any other account to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

**5. CONTRACT PRICE/PRICE LIMITATION/ PAYMENT.**
5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT B which is incorporated herein by reference.
5.2 The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance hereof, and shall be the only and the complete compensation to the Contractor for the Services. The State shall have no liability to the Contractor other than the contract price.
5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.
5.4 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8.

**6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/ EQUAL EMPLOYMENT OPPORTUNITY.**
6.1 In connection with the performance of the Services, the Contractor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal opportunity laws. In addition, the Contractor shall comply with all applicable copyright laws.
6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap, sexual orientation, or national origin and will take affirmative action to prevent such discrimination.
6.3 If this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all the provisions of Executive Order No. 11246 ("Equal Employment Opportunity"), as supplemented by the regulations of the United States Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. The Contractor further agrees to permit the State or United States access to any of the Contractor's books, records and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.

**7. PERSONNEL.**
7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.
7.2 Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Contractor shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State employee or official, who is materially involved in the procurement, administration or performance of this Agreement. This provision shall survive termination of this Agreement.
7.3 The Contracting Officer specified in block 1.9, or his or her successor, shall be the State's representative. In the event of any dispute concerning the interpretation of this Agreement, the Contracting Officer's decision shall be final for the State.



Contractor Initials JJL
Date 11/13/14

**8. EVENT OF DEFAULT/REMEDIES.**
8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):
8.1.1 failure to perform the Services satisfactorily or on schedule;
8.1.2 failure to submit any report required hereunder; and/or
8.1.3 failure to perform any other covenant, term or condition of this Agreement.
8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:
8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Contractor notice of termination;
8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;
8.2.3 set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or
8.2.4 treat the Agreement as breached and pursue any of its remedies at law or in equity, or both.

**9. DATA/ACCESS/CONFIDENTIALITY/ PRESERVATION.**
9.1 As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.
9.2 All data and any property which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.
9.3 Confidentiality of data shall be governed by N.H. RSA chapter 91-A or other existing law. Disclosure of data requires prior written approval of the State.

**10. TERMINATION.** In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall deliver to the Contracting Officer, not later than fifteen (15) days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. The form, subject matter, content, and number of copies of the Termination Report shall be identical to those of any Final Report described in the attached EXHIBIT A.

**11. CONTRACTOR'S RELATION TO THE STATE.** In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

**12. ASSIGNMENT/DELEGATION/SUBCONTRACTS.**
The Contractor shall not assign, or otherwise transfer any interest in this Agreement without the prior written consent of the N.H. Department of Administrative Services. None of the Services shall be subcontracted by the Contractor without the prior written consent of the State.

**13. INDEMNIFICATION.** The Contractor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based or resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Contractor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

**14. INSURANCE.**
14.1 The Contractor shall, at its sole expense, obtain and maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:
14.1.1 comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than $250,000 per claim and $2,000,000 per occurrence; and
14.1.2 fire and extended coverage insurance covering all property subject to subparagraph 9.2 herein, in an amount not less than 80% of the whole replacement value of the property.
14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.
14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement. Contractor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than fifteen (15) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be



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attached and are incorporated herein by reference. Each certificate(s) of insurance shall contain a clause requiring the insurer to endeavor to provide the Contracting Officer identified in block 1.9, or his or her successor, no less than ten (10) days prior written notice of cancellation or modification of the policy.

**15. WORKERS' COMPENSATION.**
15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A *("Workers' Compensation").*
*15.2* To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. Contractor shall furnish the Contracting Officer identified in block 1.9, or his or her successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

**16. WAIVER OF BREACH.** No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event of Default, or any subsequent Event of Default. No express failure to enforce any Event of Default shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other Event of Default on the part of the Contractor.

**17. NOTICE.** Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

**18. AMENDMENT.** This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire.

**19. CONSTRUCTION OF AGREEMENT AND TERMS.** This Agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

**20. THIRD PARTIES.** The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

**21. HEADINGS.** The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

**22. SPECIAL PROVISIONS.** Additional provisions set forth in the attached EXHIBIT C are incorporated herein by reference.

**23. SEVERABILITY.** In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

**24. ENTIRE AGREEMENT.** This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire Agreement and understanding between the parties, and supersedes all prior Agreements and understandings relating hereto.



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Date 11/13/14

# Agreement for Guaranteed Fossil Fuel Energy Savings

## Exhibit A
## Scope of Services

1. The State of New Hampshire, acting through the Department of Administrative Services ("State"), engages Consolidated Edison Solutions, Inc., ("Contractor") to perform, and the Contractor shall perform, that work or sale of goods, or both, identified and more particularly described in Exhibits 1-6 incorporated herein ("Services").

2. Contractor has performed a comprehensive assessment of the Facilities and submitted a Detailed Feasibility Study to provide certain services and equipment. The Contractor shall perform the Services at the following facilities (each, a "Facility" and collectively, the "Facilities" or the "Project"):

- The Health and Welfare Building, 27/29 Hazen Drive
- The Safety Building, 33 Hazen Drive
- The Morton Building, 7 Hazen Drive
- The Division of Motor Vehicles, 23 Hazen Drive

3. The Contractor is guaranteeing that the State will realize energy cost savings during each year of the Term, as defined in Section 3.1, calculated and adjusted according to the terms of Exhibit 3, equal or greater than the guaranteed amounts shown in Section 7.

4. The State has accepted the Detailed Feasibility Study dated May 12, 2014, as revised November 21, 2014, and wishes to engage Contractor to evaluate, design, furnish, install, commission, operate, maintain, measure and verify energy efficiency improvements to the Facilities for the purpose of reducing fossil fuel energy consumption and costs.

5. The work to be performed at the Facilities by Contractor (the "Services") will be performed in two phases. The first phase will be a complete design, installation, commissioning, and initial measurement and verification of the Fossil Fuel Energy Conservation Measures (FFECMs). The second phase will be the periodic measurement and verification of the FFECMs and guarantee of energy cost savings. The second phase will also include facility staff training in the operation and maintenance of the installed FFECMs. A delineation of Operation, Maintenance Services and Responsibilities for both the State and Contractor is attached as Exhibit 4.

6. This Project will be financed through a Master Lease Financing Program established by the State. A lease agreement with the financial services provider will be established for this Project.

## 1. Definitions

**Agreement.** This Energy Savings Performance Agreement, including all appendices and exhibits attached hereto and all amendments and supplements hereto including the accepted Detailed Feasibility Study, all of which are made part hereof as though herein set forth in full.

**Alteration Order.** A written agreement between the Contractor and the State that amends the Agreement and identifies Work that affects either the Contract Price, completion date for any Fossil Fuel Energy Conservation Measure, Credit or any combination thereof.

**Baseline Energy Use.** A calculation of energy use of a building or piece of equipment for a specified period that is used to project energy use had the Project not been implemented. It is calculated by taking the energy consumption for a similar period prior to Project implementation (as recorded in the Energy Use History) and adjusting it to reflect changes for agreed upon variables, such as degree days, occupancy and building use, energy costs in accordance with a methodology set forth in Exhibit 3. Energy use savings attributable to the Project are determined in accordance with the methodology set forth in Exhibit 3.

**Certificate of Project Acceptance.** The written Certificate of Final Completion and Acceptance is issued by the State to the Contractor pursuant to Section 7.5 certifying that the State accepts the Project as complete.

**Commissioning Report.** The report, required by section 7.1 of this Agreement, provided by the Contractor after installation of an FFECM to verify that the specified equipment has been properly installed, is functioning properly, and with proper maintenance and operation has the potential to generate the predicted savings. The Commissioning Report includes documentation that provides a description and inventory of the installed energy efficient equipment, performance test results and estimates of energy savings.

**Compensation Schedule.** The meaning assigned to that term in Exhibit B.

**Conditional Nature of Agreement.** The meaning assigned to that term in Paragraph 4 of the General Terms and Conditions Form P-37.

**Contract Documents.** Collectively DAS RFP #2013-157 Performance Contract for Buildings on Hazen Drive, State Office Park East, with addendums #1 - 7 which is incorporated herein by reference, proposal in response to RFP # 2013-157, dated April 12, 2013, contract performance and payment bond,

Specifications, Drawings, and other documents included in the Agreement, and modifications, clarifications, and authorized Alteration Orders, issued after the execution of the Agreement, to complete the Project. All documents shall be written in English.

**Contract Price.** The meaning assigned to that term in Exhibit B, Paragraph 1.1

**Contractor.** The Energy Services Company that is responsible to perform according to the requirements set forth in this Agreement and includes all agents, subcontractors, employees and consultants whose services are utilized by the Energy Services Company in the performance of this Agreement.

**Credit.** Any change that results in a reduction in the Contract Price. All credits shall be processed with an Alteration Order.

**Day.** Shall refer to calendar day unless otherwise specified.

**Detailed Feasibility Study.** Also referred to as the "Detailed Energy Audit" or "Study Report". A survey of existing energy systems of a Facility for the purpose of proposing FFECMs and verifying that the proposed FFECMs have the potential to generate energy savings and meet the financial requirements within the specified term. The results of a Detailed Feasibility Study are presented in a written report that includes a methodology for the calculation of the Baseline Energy Use and a description of physical conditions, equipment counts, nameplate data and control strategies. For each FFECM recommended, the Detailed Feasibility Study generally provides equipment counts, implementation costs, efficiency levels or performance characteristics of the equipment comprising the proposed FFECM, on-going maintenance costs, annual energy and cost savings, the useful life of the FFECM and a life-cycle cost analysis. Projected energy savings must account for interaction among recommended FFECMs. See Section 4 and the State RFP #2013-157 "Performance Contract for Buildings on Hazen Drive, State Office Park East".

**Drawings (Plans).** The graphic and pictorial documents or reproducions thereof, which show the location, character, dimensions, and details of the prescribed work.

**Effective Date.** The meaning assigned to that term in Section 3.1.

**Facility(ies).** The buildings, systems, and other energy-consuming or -producing equipment included in the scope of this Agreement, as documented in Exhibit 1 and the Detailed Feasibility Study.

**Force Majeure.** The meaning assigned to that term in Section 12.

**Fossil Fuel Energy Conservation Measure.** Each and all of the new devices or systems; or modifications of existing systems; or revised operations and maintenance procedures; furnished, installed, and/or implemented by the Contractor for the purpose of reducing fossil fuel energy use and achieving the Guaranteed Savings, as described in Exhibit 3.

**Fossil Fuel Energy Conservation Measure Acceptance.** The written certification by the State that it has accepted the FFECM as complete and installed in accordance with the design, equipment, implementation and commissioning standards as set forth in this Agreement. Further, the Contractor warrants that the FFECM will produce its share of the annual Guaranteed Savings.

**Fossil Fuel Energy Conservation Measure Acceptance Date.** The date on which FFECM Acceptance occurs, which shall be shown on the Certificate of FFECM Acceptance to be provided by the State as set forth in Section 7.6.

**Fossil Fuel Energy Savings Performance Agreement.** This Agreement which is for an energy cost reduction project where the cost of implementing FFECMs and the proposed ongoing energy services, including equipment maintenance, energy savings guarantees, and measurement and verification activities, is recovered through energy and energy-related cost savings. Financing will be provided through Third-Party Financing.

**Guaranteed Savings.** The annual energy savings calculated according to the method described in Exhibit 3, which Contractor guarantees will be realized by the State as a result of the Project.

**Measurement and Verification (M&V).** The process of monitoring and measuring the energy consumption of a facility or specific equipment or systems, before and after Project implementation, to determine if guaranteed or predicted energy savings are being realized.

**Operations and Maintenance (O&M).** The process of operating and maintaining newly installed energy saving equipment as further described in Exhibit 4.

**Project.** The energy and cost reduction program contemplated herein, pursuant to, inter alia, RSA 21-I:19 a-e.

**Project Acceptance ["Final Acceptance"].** The written certification by the State that it has accepted the Project as complete and installed in accordance with the design, equipment, implementation and commissioning standards as set forth in this Agreement. Further, the Contractor warrants that the Project will produce the annual Guaranteed Savings.

**Project Acceptance Date ["Final Acceptance Date"].** The date on which Project Acceptance occurs, which shall be shown on the Certificate of Project Acceptance to be provided by the State as set forth in Section 7.6.

**Punch List.** Uncompleted or corrective work that the Contractor is to complete or correct promptly prior to Final Project Acceptance.

**Specifications.** Exhibit 2 information that consists of written requirements for material, equipment, construction systems, standards and workmanship, and other documents or reports as applicable.

**Standards of Service and Comfort.** The facility performance requirements to be maintained in accordance with Section 10 and Exhibit 6.

**State.** State of New Hampshire

**Study Acceptance Form.** The meaning assigned to that term in Section 4.3.

**Substantial Completion.** As reasonably determined by an inspection by the State that the work or a portion thereof is substantially complete in accordance with the Contract Documents, such that the State may occupy or utilize the Work for its intended use without disruption or interference by the Contractor in completing or correcting any remaining unfinished or unacceptable Work.

**Third Party Financing.** Project financing provided to the State by an independent financial institution.

**Total Project Cost.** All costs associated with the development and implementation of an Energy Performance Contract, including, but not limited to: Detailed Feasibility Study; FFECM design, procurement and installation; construction contract bonds; interest charges; training of facility staff; NH Bureau of Public Works Design and Construction Project Oversight; Measurement and Verification; maintenance and service; project management; and contractor overhead and profit.

**Work.** The construction and services required by the Contract Documents to furnish all labor, materials, equipment, and incidentals necessary to complete the duties, obligations, and requirements imposed by the Agreement.

MB 2/4/15

## 2. Project Financing and Contract Bond

2.1 This Project is contingent upon financing being provided by Banc of America Capital Corp. The established finance rate at the time of Governor and Council review shall be used to determine whether this Project continues to meet the 20 year payback requirements as stated in RSA 21-I:19 d.

2/3/15

**2.2** The successful Contractor shall furnish the State with a Payment and Performance Bond in an amount equal to 100% of the value of the Contract Price. The Payment and Performance Bond shall be in place for the duration of the construction phase of the Project which will conclude at Final Project Acceptance. The Contractor shall bear the full expense of the Payment and Performance Bond. The requirement for the Payment and Performance Bond will be terminated by the State on the Project Acceptance Date.

The Payment and Performance Bond shall be in a form and substance satisfactory to the State. The Payment and Performance Bond shall be maintained by the Contractor in full force and effect until Project Acceptance. The Contractor or any of its sureties shall not be released from their obligations under the Payment and Performance Bond from any change or extension of time, or termination of this Contract.

The Payment and Performance Bond shall be issued by a licensed insurance company authorized to do business in the State of New Hampshire and made payable to the State of New Hampshire. The Payment and Performance Bond shall contain the Contract number and dates of performance.

The Contract Bond shall comply with RSA 447:16 and be executed by the Contractor and their Surety or Sureties, guaranteeing complete execution of the contract and all supplemental agreements pertaining thereto including the payment of all legal debts pertaining to the Project.

The State reserves the right to review the Payment and Performance Bond and to require the Contractor to substitute a more acceptable Payment and Performance Bond in such form(s) as the State deems necessary prior to acceptance of the Payment and Performance Bond.

**2.3** The Contractor assumes all liability for damage to or loss of Equipment and material directly purchased by the Contractor prior to its Installation and Final Completion and Acceptance by the State.

## 3. Effective Date: Completion of Services

**3.1** This Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Council of the State of New Hampshire approve this Agreement ("the Effective Date") and shall continue for a period of 78 months (the "Term"), which is comprised of an estimated eighteen (18) months of construction, followed by sixty (60) months of Metering and Verification Services commencing after the Project Acceptance Date, unless sooner terminated under an Event of Default as described in Exhibit C.

**3.2** If the date for commencement in Exhibits 1 through 6 precedes the Effective Date, all services performed by Contractor between the commencement date and the Effective Date shall be performed at the sole risk of the Contractor and in the event that this Agreement does not become effective, the State shall be under no obligation to pay the Contractor for any costs incurred or services performed; provided, however, if this Agreement becomes effective, all costs

incurred prior to the effective date shall be paid under the terms of this Agreement. All construction and FFECM implementation services must be completed by the date specified for construction completion.

## 4. Detailed Feasibility Study and Report

**4.1 Detailed Feasibility Study**. Contractor has performed a detailed feasibility energy study (the "Study") of the Facility at its sole expense. The Study has identified all feasible energy conservation, load management, building envelope, water conservation and renewable resource options for which the total savings benefits are expected to exceed Total Project Cost over a period not to exceed twenty (20) years.

**4.2 Submittals.** The Contractor has furnished a written report of its findings (the "Study Report" contained in Appendices B & C which are incorporated herein by reference) including all of the information listed in Exhibits 1 through 6.

**4.3 Review; Acceptance**. The State has reviewed the Study Report and executed the Study Acceptance Form.

## 5. Design

**5.1** Within 14 days of written receipt of the Governor and Council's approval of this Agreement for Guaranteed Energy Savings, Contractor shall commence designing the FFECMs. Drawings and specifications for this Project shall be in compliance with all applicable laws, ordinances, rules, codes, regulations and requirements for the FFECMs noted in Exhibit 2 and shall be submitted to the State for review and approval, which shall not be unreasonably withheld or delayed.

**5.2** The Contractor shall submit all Professional Engineer stamped drawings and specifications for review and approval by the New Hampshire State Fire Marshal. No actual construction shall begin before obtaining approval from the State Fire Marshal.

**5.3** Design review meetings shall be held when mutually deemed necessary and at a minimum when design drawings are 50% complete and fully complete. Contractor shall provide six (6) complete sets of documents for State review prior to each review meeting. State shall have 10 business days to review and provide comments after documents are received.

**5.4** The Contractor shall not proceed with obtaining or installing any FFECM until the State has given written notice that it has reviewed and accepted the design documents for such FFECM. Such acceptance shall not be unreasonably withheld or delayed.

**5.5** The Scope of Work, including the complete design, engineering, procurement, and installation of the FFECMs listed on Exhibit 1 and as further detailed in Appendix C, the Study Report, shall be accomplished in accordance with the requirements outlined in the Study Report and all provisions of this Agreement.

**5.6** The drawings and specifications prepared for this Project shall not, without the prior written approval of the State, specify or require any article, design or process which requires payment by the State of royalties for its use.

## 6. Installation

**6.1** Within 14 days of written receipt of notice of State acceptance of the design documents, Contractor shall commence procuring, installing and/or implementing the FFECMs.

**6.2** Without relieving it of, or in any way limiting, its obligations to the State under this Agreement, the Contractor may enter into purchase orders for the purchase of materials or Equipment in accordance with the provisions of Exhibit 2.

**6.3** All Project materials and Equipment installed in the Facilities by the Contractor or its subcontractors shall become the sole property of the State after installation and upon FFECM Acceptance.

**6.4** During the installation, the Facilities will be occupied. The Contractor shall perform all work with extreme care to avoid damage to existing construction and installations. The Contractor shall make all necessary provisions as to the scheduling of work and storage of materials to minimize interferences and, to the extent practical, shall confine its operations, materials, and equipment within the immediate vicinity of the work. Contractor shall prearrange all disruptive and/or noise-producing construction activities with the DAS staff so as not to unreasonably interfere with ongoing activities within the Facilities. The work shall be coordinated and planned in a manner which will permit normal operation of the facility with minimum interruptions and/or inconvenience.

**6.5** Unless otherwise specifically provided for in the design documents, all equipment, materials and articles incorporated in the work covered by this Agreement are to be new and of the specification indicated in the Study Report. All work to be executed shall be of the highest quality and performed by skilled mechanics in the best workmanlike manner. The State may require the Contractor to dismiss from the work any employee, employees, or subcontractors that the State deems incompetent, careless, insubordinate, or otherwise objectionable. The State may reject any equipment and materials if such

equipment and materials are inconsistent with the specifications of Exhibit 2. All equipment shall be installed to allow for easy access to perform maintenance and repairs.

**6.6** The Contractor shall provide adequate, clearly marked and/or lighted barricades or warning signs at all open trenches, excavation and contract work areas for the protection of the work and safety of the public and occupants.

**6.7** Contractor shall acquire and maintain, at its own cost, any and all permits, licenses, easements, waivers, and permissions of every nature necessary to perform the work. This includes any City of Concord building and inspection permits.

**6.8** The Contractor shall, as directed during the progress of the work, remove and properly dispose of resultant dirt and debris and keep the premises reasonably clean. The Contractor shall take all necessary precautions during the progress of the work to protect the Facility as well as adjoining property, roadways, walkways, trees, lawns, landscape, and buildings from damage and injury and shall promptly repair any such damage to the satisfaction of the State, at no cost to the State.

**6.9** The Contractor shall be responsible for quality control during FFECM installation. The Contractor shall provide a competent superintendent, satisfactory to the State, on the work at all times during progress of the work with authority to act for the Contractor. The Contractor shall inspect and test all work performed to insure compliance with Agreement requirements. The Contractor shall maintain records of inspections and tests, including inspections and tests conducted by or for utility or other regulatory agencies.

**6.10** The Contractor shall provide to the State once each month during the period that design, engineering, procurement, installation, implementation and Commissioning for the FFECMs are performed hereunder, brief progress reports comparing actual work progress to the planned work progress as shall be presented in the Exhibit 5 Installation Schedule for the preceding month. Such reports shall describe any difficulties encountered during the reporting period and shall include a statement of the Contractor's Project Coordinator setting forth the costs of the work during the reporting period. Progress Reports shall be submitted in duplicate no later than the 15$^{th}$ of each month. Progress Reports shall be in a letter format and shall include the following subjects, with appropriate explanation and discussion: During construction the Contractor shall hold weekly construction meetings to discuss the progress to date and provide a 2 week look ahead for the project.

a. Title of project.
b. Agreement number.
c. Period of this report.

d. Actual Progress during reporting period.
e. Planned progress in the future.
f. Identification of problems.
g. Planned solutions.
h. Ability to meet schedule, reasons for slippage in schedule.
i. Schedule – percentage completed and projected percentage of completion of performance by months – could be a bar chart or milestone chart.
j. Analysis of Project cost incurred in relation to the Compensation Schedule, Exhibit B.

The Contractor shall meet with representatives of the State upon reasonable notice to discuss any matters concerning the Project.

**6.11** In the event that unknown circumstances or conditions at a Facility (such as the presence of asbestos or faulty wiring) are discovered after the Agreement is signed, and such conditions increase the agreed upon cost of completing an FFECM installation or implementation at a specific facility, work on that FFECM shall be immediately suspended until the State and the Contractor mutually determine if or how the installation work shall be completed. The Agreement may be revised by an Alteration Order to incorporate necessary changes in the scope of work, the Equipment, or the costs not to exceed Section 1.8 of the P-37 contract form.

**6.12** The State Bureau of Public Works Design and Construction (NHBPW) will be responsible for overseeing the actual installation of FFECMs to ensure that all identified codes and regulations are met and that the Contractor complies with the Specifications as detailed in Exhibit 2.

**6.13** The Contractor and all of its Subcontractors shall follow all applicable Federal, State, and local codes; ordinances; and Health and Safety laws, as required by law.

**6.14** The Contractor shall provide two signed affidavits each from the registered design professionals responsible for architecture, mechanical engineering, electrical engineering, structural engineering, and civil engineering. Design affidavits shall be submitted at the conclusion of the design phase, but prior to the beginning of the construction phase, and shall state that the design professionals' respective design meets all applicable state and federal codes. The Installation affidavit shall be submitted after Substantial Completion of the Project for each FFECM, but before the issuance of a Certificate of Occupancy, and shall state that the design professionals made periodic visits to the site to observe the work and, to the best of their knowledge, information and belief, the FFCEMs was constructed in accordance with the design. The frequency of site visits shall be such as to provide the design professionals a reasonable assurance that the work is being done per the design documents.

The design professional shall keep a log of all site visits, noting the dates and times of the visits and all pertinent observations and shall submit monthly reports to the Contractor noting all findings during the site visits of that month. The design professionals shall promptly notify the Contractor of any of the following events or conditions which they observe in the course of performing their duties: code violations; changes which affect code compliance; the use of any materials, assemblies, components, or equipment prohibited by code, major or substantial changes between approved plans and specifications and the work in progress; or any condition which they identify as constituting an immediate hazard to the public.

## 7. Commissioning, Fossil Fuel Energy Conservation Measure Acceptance, Project Acceptance

**7.1** The Contractor shall deliver to the State a written report (the "Commissioning Report") as each FFECM covered by the Agreement is completed. In the Commissioning Report(s), the Contractor shall provide measurement and verification documentation, as applicable in accordance with Exhibit 3, that verifies that the specified equipment or systems have been properly installed, are functioning properly, and have the potential to generate the Guaranteed Savings (or that FFECM's share of the Project's Guaranteed Savings).

**7.2** The Commissioning Report(s) shall include the results of performance tests to verify that the installed FFECM(s) will operate as designed, consistent with the standards set forth in the design documents, which shall minimally conform to all applicable codes. The tests shall be conducted in accordance with the methodology prepared for each type of FFECM in Exhibit 3 during the installation phase. As mutually agreed upon, the Commissioning Report(s) shall be accompanied by complete reproducible as-built record drawings that are CAD generated in .DWG format, conforming to generally accepted engineering standards of all modified or newly installed equipment including, but not limited to, architectural, mechanical, electrical, and controls, along with manufacturers' operating and repair manuals and parts lists. Manufacturer's warranties shall accompany the Commissioning Report(s) and shall be assigned to the State upon completion and FFECM Acceptance.

**7.3** Within 10 business days of receiving a Commissioning Report from Contractor, the State shall review the report and inspect the FFECM and either (a) deliver to the Contractor a written Certificate of Final Completion and Acceptance of the FFECM(s) or (b) provide the Contractor with a written Punch List of corrective action the State deems necessary. If FFECM(s) are rejected, the State will set forth the reasons for such rejection and the Contractor shall promptly remedy the deficiencies.

**7.4** Upon receipt of a written notice from the Contractor that the Punch List items have been completed, the State shall have ten (10) calendar days to respond. Final Completion and Acceptance shall occur when all reasonable or undisputed Punch List work is complete. If the State fails to respond within the ten-calendar-day period, Final Completion and Acceptance shall be deemed to have occurred.

**7.5** Within 15 business days of submission of the final Commissioning Report, Contractor shall deliver to the State notice that the Project is completed and a request for Project Acceptance. In this notice, the Contractor shall warrant that the completed Project will produce the Guaranteed Savings, in accordance with the provisions of Exhibit 3.

**7.6** Within 15 business days of receipt of the request for Project or FFECM Acceptance, The State shall either deliver to Contractor: a) a written Certificate of Project or FFECM Acceptance; b) a written extension of time notice to review for Project and or FFECM Acceptance; or c), if good cause exists, a written punch list of the corrective actions it deems necessary. In the event the State delivers a punch list, Contractor shall promptly remedy the deficiencies and the applicable procedures set forth in this Section for notice and Project or FFECM Acceptance shall apply again. In the event the State doesn't deliver a), b) or c) above, the FFECM shall be deemed accepted.

**7.7** Upon Project Acceptance by the State, all right, title, and interest in and to all improvements and equipment constructed or installed on the premises and additions, shall vest exclusively in the State at no additional cost, free and clear of all and any liens and encumbrances created or caused by the Contractor.

**7.8** Contractor guarantees that the State will realize energy and cost savings, calculated and adjusted as set forth in Section 9 and Exhibit 3, each year for five (5) years after the Project Acceptance Date as follows:

| Year | Guaranteed Cost Savings |
|---|---|
| 1 | = $949,508* |
| 2 | = $949,508* |
| 3 | = $949,508* |
| 4 | = $949,508* |
| 5 | = $949,508* |

*Note: The Guaranteed cost Savings only applies for those years in which M&V is being performed.

## 8. Operations, Maintenance, Repairs, and Training

**8.1** The Contractor's and the State's responsibilities for operation, maintenance and repair of all installed FFECMs are described in Exhibit 4. Maintenance includes all work and costs associated with periodic inspections, tests, calibrations, and adjustments required to sustain and/or restore energy system operational status to as-designed performance and performance requirements of this Agreement. Repair includes all labor, material, equipment, and services required to replace, rebuild, or restore to as-designed performance systems and equipment that have failed, are in danger of failing, or are inadequate. Required response times for repair activities shall be as described in Exhibit 4.

**8.2** The State shall perform or cause to be performed all operation, maintenance, and repairs to its unmodified pre-existing equipment necessary to realize the Guaranteed Energy and Fossil Fuel Savings. Such operation, maintenance, and repairs are fully described in Exhibit 4.

**8.3** Contractor shall furnish operation and maintenance manuals and recommended spare parts lists for operations and maintenance of the FFECMs and modified State equipment. Within 30 days of the Project Acceptance, Contractor shall train State personnel as needed to operate and maintain the FFECM(s) in order to perform any State maintenance responsibilities required under this Agreement or in the event of emergency. During the Term, Contractor shall train State personnel (or State's designee) as needed to operate and maintain the FFECM(s) to preserve the FFECM(s) energy efficiency performance, as provided for in Exhibit 4.

## 9. Measurement and Verification of Energy Savings

**9.1** The monitoring and measurement of the Energy Savings that result from the FFECM(s) shall be as set forth in the Measurement and Verification Plan (M&V Plan) included in Exhibit 3.

**9.2** The Measurement and Verification Plan shall be in accordance with concepts and definitions provided in the International Performance Measurement and Verification Protocol (IPMVP).

a) In the event that the M&V Plan requires the use of Contractor-owned measurement equipment, Contractor shall test such meters, metering devices, and equipment in the manner and frequency described in the M&V Plan and such testing shall be at Contractor's expense. Contractor shall give the State

reasonable advance notice of all metering tests and the State shall have the right to observe such tests.

b) If, upon testing, any measurement equipment is found to be inaccurate by more than the agreed upon level of accuracy as specified in the M&V Plan, then previous recordings of or by such equipment shall be considered inaccurate and will be corrected to zero error. If the period of inaccuracy cannot be accurately determined as a basis for adjustment, then retroactive billing adjustments for errors shall be made for a period equal to one-half of the time elapsed since the previous test, but in no event more than six months. Contractor shall promptly adjust such equipment to record correctly.

**9.3** Measurement and Verification of savings shall commence on the Project acceptance Date of the FFECM and shall continue for a period of **five (5) years** after the Acceptance of the FFECMs.

**9.4** The energy and fossil fuel savings shall be determined in the manner described in Exhibit 3 Guaranteed Energy Savings.

**9.5** The Contractor will prepare an Energy Cost Savings Report detailing the results of the M&V services based off of the M&V Plan detailed in Exhibit 3.

**9.6** Within 150 days from the date of each anniversary of the Final Project Completion and Acceptance Date, the Contractor shall submit a verification of energy cost savings in accordance with the M&V Plan detailed in Exhibit 3. The calculation shall incorporate all adjustments in energy cost savings as provided for in Exhibit 3. Should the energy savings be less than the annual guaranteed amount of savings, pursuant to the M&V Plan in Exhibit 3, the Contractor shall pay the State an amount equal to the difference. Said check shall be provided to the State with the reconciliation of energy costs savings report.

This Guarantee of Energy Cost Savings only applies for those years in which M&V is being performed, in accordance with Exhibit 3.

## 10. Standards of Service and Comfort

**10.1** Contractor shall design, install, operate, and maintain the FFECMs to deliver the facility performance requirements described in Exhibit 6 throughout the Agreement Term.

**10.2** The Contractor's services shall be performed in a good, workmanlike manner so that the Equipment will perform consistent with the

standards for heating, cooling, hot water, and lighting pursuant to Exhibit 6, Standards of Service and Comfort.

## 11. Representations and Warranties

**11.1** Each party hereby represents and warrants to the other that subject to the requisite approvals of Governor and Council and requisite financing and appropriation:

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

b) this Agreement has been duly executed and delivered for it by the signatories authorized, and it constitutes its legal, valid and binding obligation;

c) its execution, delivery, and performance of this Agreement shall not result in a breach or violation of, or constitute default under, any agreement, lease, or instrument to which it is a party or by which it or its properties may be bound or affected; and

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.

**11.2** Contractor further represents and warrants that:

a) it is financially capable and technically qualified to perform the Project;

b) it is familiar with and will comply with all general and special federal, state, municipal, and local laws, ordinances, codes, and regulations, that may in any way relate to or affect the performance of this Project;

c) the design, supervision, and workmanship furnished with respect to completing the Project shall be in accordance with sound and currently accepted construction and engineering practices; and

d) all materials, equipment, and workmanship furnished by it and by subcontractors in performance of the Project or any portion thereof shall be free of defects in design, material, and

workmanship, and all such materials and equipment shall be in accordance with the requirements of the Agreement, shall conform with all applicable laws, codes, specifications, standards, regulations, rules, and ordinances and shall have service lives and maintenance characteristics suitable for their intended purposes in accordance with sound and currently accepted engineering and construction practices.

## 12. Force Majeure

**12.1** The term "Force Majeure" as used herein means unforeseeable causes beyond the reasonable control of and without the fault or negligence of the party claiming Force Majeure. Force Majeure includes acts of God, labor disputes, sudden actions of the elements, actions by federal, state and municipal agencies and actions of legislative, judicial, or regulatory agencies which, in any of the foregoing cases, by exercise of due foresight such Party could not reasonably have been expected to avoid.

**12.2** If either Party documents that it is unable to perform its obligations under this Agreement because of Force Majeure, then the affected Party shall be excused from whatever performance is affected by the Force Majeure, to the extent it is affected, except as to obligations to pay money, and shall not be liable in damages or otherwise resulting from the Force Majeure, provided that:

a) the non-performing Party provides as promptly as possible a written notice to the other Party describing the events of the Force Majeure. In no event shall notification occur later than 30 days after the non-performing Party learns of the event;

b) the suspension of the performance is of no greater scope and of no longer duration or magnitude than is reasonably required by the Force Majeure;

c) the non-performing Party uses all reasonable efforts to remedy its inability to perform; and

d) as soon as the non-performing Party is able to resume performance of its obligations excused as a result of the occurrence, it shall give prompt written notification thereof to the other Party.

## 13. Environmental Compliance

**13.1** Hazardous Materials shall include, without limitation, substances defined or classified as "hazardous substances," "hazardous waste," or "toxic

substances" under federal, state, or local law, statute, regulation, or ordinance (collectively "Hazardous Materials"). Contractor shall fully comply with all federal, State of New Hampshire, and local laws, statutes, codes, regulations, and ordinances in effect or which shall come into effect during the Term of this Agreement regarding the generation, use, storage, handling, transportation and disposal of Hazardous Materials.

**13.2** As part of the Study Report submitted to the State by the Contractor, Contractor has certified in writing that Contractor has a plan to coordinate all activities involving handling, transport, and disposal of Hazardous Materials, including asbestos, affected by the installation of FFECMs under this Agreement. Hazardous material abatement and/or disposal, and assumed responsibilities, are contained under "General Assumptions and Clarifications" in Exhibit 2.

**13.3** This Project has the potential to develop waste such as, but not limited to, PCB ballasts, mercury-containing lamps, electronic waste (or e-waste), etc. The Contractor is responsible for properly disposing of (i.e. recycling) all waste materials generated from this Project.

## 14. Personnel

**14.1** The performance of the Services shall be carried out by the Contractor. The Contractor shall at its own expense, provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.

**14.2** The Contractor shall not hire, and shall permit no subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services, to hire any person who has a contractual relationship with the State or who is a State officer or employee, elected or appointed.

**14.3** The Contracting Officer specified, or his or her successor, shall be the State's representative.

## 15. Project Suspension

**15.1 Stop Work Order.** The State may at any time, by written stop work order to the Contractor, require the Contractor to stop all or any part of the work called for by this Agreement for a period of up to 90 calendar days after the stop work order is delivered to the Contractor, and for any further period to which the parties may agree. Any such order shall be specifically identified as a stop work order; the Contractor shall forthwith comply with its terms and take all steps to minimize the incurrence of costs and public health and safety problems allocable to the work covered by the stop work order during the period of work stoppage.

Within a period of 90 calendar days after a stop work order is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the State shall either:

a) By written notice to the Contractor, cancel the stop work order, which shall be effective as provided in such cancellation notice, or if not specified therein, upon receipt by the Contractor, or

b) Terminate the work covered by such order as provided in Exhibit C.

**15.2** If a stop work order issued under this section is cancelled or the period of the stop work order or any extension thereof expires, the Contractor shall resume work. An equitable adjustment shall be made in the delivery schedule, the estimated cost, the fee, if any, or a combination thereof, and in any other provisions of the Agreement that may be affected, and the Agreement shall be modified in writing accordingly, if:

a) The stop work order results in an increase in the time required for, or in the Contractor's compensation for, the performance of any part of this Agreement, and

b) The Contractor asserts a claim for such adjustments within 30 calendar days after the end of the period of work stoppage; provided that, if the State decides the facts justify such action, the State may receive and act upon any such claim asserted at any time prior to final payment under this Agreement.

**15.3** If a stop work order is not cancelled and the work covered by such stop work order is terminated, the reasonable costs resulting from the stop work order shall be allowed by equitable adjustment or otherwise.

**15.4** Notwithstanding the provision of this Section, the maximum amount payable by the State to the Contractor pursuant to this Section shall not be increased or deemed to be increased except by specific written amendment hereto.

## 16. Changes

**16.1 Emergency Situations:** The Contractor and the State shall use their best efforts to notify the respective parties or their designee within twenty-four (24) hours after actual knowledge of an emergency situation or other occurrence that might affect performance including:

a) Any malfunction in the operation of the installed Equipment or any pre-existing energy-related equipment;

b) Any interruption or alteration of the energy supply to the facilities;

c) Any alteration or modification of the installed Equipment or its operation, and;

d) Any other emergency situation likely to affect the Project.

**16.2 Proposed and Non-Emergency Material Changes.** The Contractor and or the State shall report all such changes in the Facilities to the respective party with a written notice describing and explaining all actual or proposed changes in the State's selected Facilities or in their operations and the anticipated effect on energy use. Except as otherwise provided below with respect to the closing of a Facility, notice must be delivered to either party no less than seven (7) calendar days before any actual or proposed change occurs except for Emergency Situations as provided by Section 16.1 hereof. In the event the Facility is contemplated to be closed for a period of three hundred sixty-five (365) calendar days or longer, the State agrees to give the Contractor a minimum of sixty (60) calendar days' notice of the closing of such Facility. In the event of such closing, the State shall pay the Contractor in accordance with Exhibit C, Paragraph 10 Termination, of Form P-37.

**16.3** Upon acceptance of the installation by the State and in the absence of any reported Material Changes in the Facility or in its operations, it is agreed energy consumption should not change substantially from year to year. Therefore, beginning one (1) year after installation, if energy consumption for any month increases by 15% percent or more from the energy consumption for the same month of the preceding year, the Contractor shall have the right to investigate the Facilities to ascertain whether or not a Material Change has occurred which may require a change in the Baseline Energy Use data. Any resulting changes shall be subject to State approval, which shall be unreasonably withheld or delayed.

**16.4 Fire, Flood, or Other Casualty.** Any construction or restoration of a facility following or necessitated by fire, flood, or other casualty, shall be deemed a Material Change, and the provisions of Section 16 hereof and its subparts shall be applicable. If the casualty renders a majority of any facility uninhabitable or unusable and the restoration or reconstruction of the affected portion is not commenced within twelve months from the date of such casualty, the Contractor shall have the option to terminate its Agreement with respect to that site by a written notice to the State. Upon such termination, the State shall pay to the Contractor in accordance with Exhibit C, Paragraph 10 Termination, of Form P-37. The mere occurrence of a fire, flood or other casualty shall not affect, modify, impair or limit the State's obligation to make payments to the Contractor.

## 17. Entire Agreement

### 17.1 Contract Documents

This Contract consists of the following Contract Documents:

a. Form P-37 standard terms and Conditions
b. Exhibit A Scope of Work
c. Exhibit B Payment Terms ["Cost Detail" and "Schedule of Values and Expected Monthly Draws"]
d. Exhibit C Special Provisions
e. Exhibit 1 Fossil Fuel Energy Conservation Measures
f. Exhibit 2 Specifications
g. Exhibit 3 Guaranteed Energy Savings, Measure and Verification Plan, and Commissioning
h. Exhibit 4 Operations and Maintenance
i. Exhibit 5 Installation Schedule
j. Exhibit 6 Standards of Service and Comfort
k. Appendix A Specifications
l. Appendix B Energy Saving Calculations dated October 10, 2014 (Attached by Reference)
m. Appendix C Detailed Feasibility Study dated May 12, 2014 as revised November 21, 2014 (Attached by Reference)

**17.2 Order of Precedence.** In the event of conflict or ambiguity among any of the text of the Agreement, the following Order of Precedence shall govern:

a) Form P-37 General Terms and Conditions and Exhibit C

b) Exhibits A and B, Exhibits 1 through 6 and Appendixes A, B and C.

c) DAS RFP #2013-157 Performance Contract for Buildings on Hazen Drive, State Office Park East, with addendums #1-7 which is incorporated herein by reference; then

d) Proposal in response to RFP # 2013-157, dated April 12, 2013, which is incorporated by reference herein.

## 18. Notice

18.1 Any notice by a party hereto to the other party, unless specifically provided for herein, shall be deemed to have been duly delivered, or given at the time of mailing. All notices required or permitted under this Agreement shall be in writing and shall be personally delivered or sent by certified United States mail, postage prepaid, or overnight express mail or courier service addressed as follows:

**If to Contractor to:** **If to the State Agency to:**

Michael Gibson, Vice President
Consolidated Edison Solutions, Inc.
100 Summit Lake Drive
Suite 410
Valhalla, NY 10595

Ronald White, Administrator
NH- Dept. of Administrative Services
Bureau of General Services
25 Capital Street, Rm. 408
Concord, NH 03301

or to such other person at such other address as a Party shall designate by like notice to the other Party. Any notices sent by email or facsimile shall also be sent by mail or overnight express or courier service.

Con Edison Exhibit A 11052014

11/5/2014

# Exhibit B

## Payment Terms

**1.1** The Contract Price, method of payment, and terms of payment are identified and more particularly described in the Compensation Schedule and Cost Detail. The Compensation Schedule and Cost Detail shall include all Project costs for each FFECM. The Compensation Schedule will indicate progress payments owed by the State to the Contractor. The Compensation Schedule shall be coordinated and consistent with the Installation Schedule attached as Exhibit 5. Notwithstanding anything in this agreement to the contrary, and not withstanding unexpected circumstances, such as an actual approved Rebate value of less than $971,991, in no event shall the total of all payments authorized, or actually made, hereunder exceed the Contract Price of $13,663,273 [Agreement Price plus total grants and rebates] as indicated in the Price Limitation block on Section 1.8 of the P-37 contract form.

**1.2** This contract will enable the State to reduce utility costs by $949,508 annually, through the acquisition of $12,691,282 ("Agreement Price") in capital improvements (which amount includes, $170,000 in fees to be passed through without markups by Contractor to the State's Bureau of Public Works for their project oversight services plus $226,690 for five years of M&V and one year of O&M Oversight services). The Agreement Price will be financed through Bank of America Public Capital Corp. This financing is estimated to cost ~~$5,127,789~~ $4,794,993.69 3,399,795.36 in interest costs. In addition, this project will qualify for electric utility incentives and grants ("Rebates"). We estimate the Rebates to total $971,991. All Rebates shall be applied to FFECMs that are identified as contingent projects in Exhibits 1 and 3. In no event shall the Contractor proceed with the installation of FFECMs labeled "(CONTINGENT ON GRANTS AND REBATES)" until the State and the Contractor reach mutual agreement on the contingent FFECMs that will be installed and the Contractor receives written approval from the State. In no Event shall the ("Total Project Cost") exceed ~~$18,701,062~~ $17,063,068.36 (Agreement Price + Estimated Financing + Estimated Rebate Amount). This is the maximum cost allowed under the guidelines of RSA 21-1:19a-e.

**1.3** The payment by the State of the Agreement Price and any Rebate contingent projects with Rebate funds shall be the only, and the complete, reimbursement to the Contractor for all expenses, of whatever nature, incurred by the Contractor in the performance hereof, and shall be the only and the complete compensation to the Contractor for the Services. The State shall have no liability to the Contractor other than the Agreement Price plus the price of any contingent projects paid using Grants and Rebates ( Contract Price).

**1.4** The Compensation Schedule will be used as the basis for applications for payments to the Contractor by the State or the State's Lessor,

based upon the percentage of completion of the FFECMs.

**1.5** The Contractor shall submit applications for payment on a monthly basis in a form acceptable to the State in accordance with the Compensation Schedule. All progress payments shall be subject to five (5%) percent retainage. Release of retainage shall occur when Final Completion and Acceptance has been achieved.

**1.6** Upon receipt by the State or its designee of the application for payment, it shall be reviewed and, if approved, Contractor shall be paid by the State directly or through the State's Lessor. If a portion of the application for payment is in dispute, the State shall not pay any disputed portion of the application for payment until such disputed portion is resolved between the Parties.

**1.7** The costs paid to the subcontractors by the Contractor for approved Project work shall be deemed covered by the Contract Price to be paid by the State to the Contractor.

**1.8 Construction Administration Services.** The State Bureau of Public Works Design and Construction (NHBPW) will be responsible for overseeing the design and construction of the Project to ensure that all identified codes and regulations are met.

The NHBPW Construction Administration Services shall be paid out of the Agreement Price as follows: Payment for Construction Administration Services shall be paid monthly up to but not exceeding $170,000 to be paid to the NHBPW upon invoicing. If the final cost of Construction Administration Services is less than $170,000, the difference shall be allocated toward the project as jointly determined by the Contractor and the State. The costs for these services are included in the Agreement Price.

**1.9 Schedule of Value Cost Detail and Estimated Draw Schedule.** The following table provides the total Turnkey price for each FFECM and the estimated draw schedule for payments to be made by the State to Contractor during the Construction Phase.

## CONTINGENT PROJECTS ONLY

### Morton Building

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 206 (Contingent on Rebates or Grants) | $364,457 | $14,461 | $16,867 | $19,260 | $6,041 | $1,919 | $52,874 | $21,150 | $2,982 | $500,000 | $9,517 | $509,517 |

### 29 Hazen Dr. HHS

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 418 (Contingent on Rebates or Grants) | $116,969 | $7,135 | $8,328 | $9,510 | $2,983 | $947 | $18,234 | $7,294 | $1,028 | $172,429 | $2,481 | $174,890 |

### Department of Safety Building

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 603 (Contingent on Rebates or Grants) | $231,296 | $2,116 | $2,470 | $2,821 | $885 | $281 | $29,984 | $11,993 | $1,691 | $283,537 | $4,047 | $287,584 |

### ALL BUILDINGS

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total - All CONTINGENT PROJECTS | $712,722 | $23,702 | $27,666 | $31,590 | $9,908 | $3,147 | $101,092 | $40,437 | $5,702 | $955,965 | $16,026 | $971,991 |

| | |
|---|---|
| LESS TOTAL GRANTS AND REBATES: | -$971,991 |
| NET FINANCED AMOUNT (Contingent Projects Only): | $0 |

## Division of Motor Vehicles Building

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | $76,272 | $3,024 | $3,630 | $4,031 | $1,284 | $402 | $11,065 | $4,426 | $624 | | $104,638 | $1,494 | $106,132 |
| 101 | $147,819 | $1,353 | $1,679 | $1,803 | $565 | $180 | $19,162 | $7,665 | $1,081 | | $181,206 | $2,587 | $183,792 |
| 102 | $54,260 | $3,310 | $3,853 | $4,411 | $1,384 | $440 | $8,458 | $3,383 | $477 | | $79,987 | $1,142 | $81,129 |
| 103 | $9,588 | $497 | $580 | $663 | $208 | $66 | $1,450 | $580 | $82 | | $13,713 | $196 | $13,909 |
| 104 | $12,888 | $668 | $780 | $891 | $279 | $89 | $1,949 | $780 | $110 | | $18,433 | $263 | $18,696 |
| 105 | $825 | $43 | $50 | $57 | $18 | $6 | $125 | $50 | $7 | | $1,180 | $17 | $1,197 |
| 106 | $9,270 | $481 | $561 | $641 | $201 | $64 | $1,402 | $561 | $79 | | $13,259 | $189 | $13,448 |
| 107 | $30,662 | $1,590 | $1,856 | $2,119 | $665 | $211 | $4,638 | $1,855 | $262 | | $43,857 | $626 | $44,483 |
| NHBPW | | | | | | | | | | $6,283 | $6,283 | | $6,283 |
| Division of Motor Vehicles Building BASE PROJECTS Subtotals including BPW ("Agreement Price") | $341,583 | $10,965 | $12,799 | $14,814 | $4,584 | $1,456 | $48,250 | $19,300 | $2,721 | $6,283 | $462,556 | $6,513 | $469,069 |

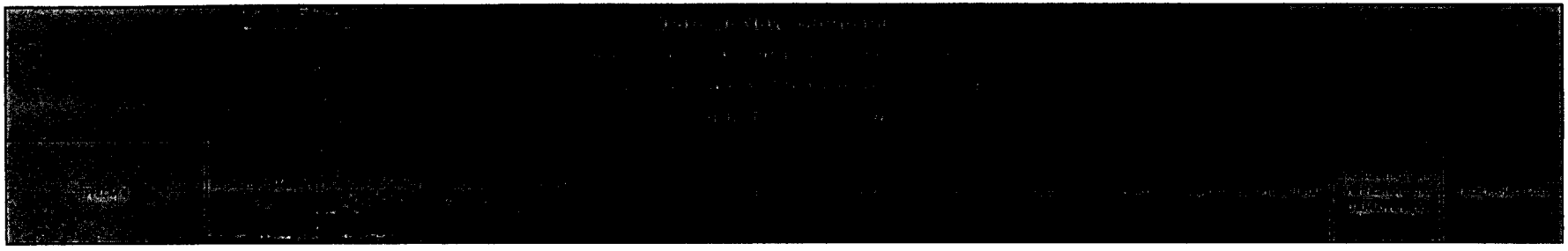
## Morton Building

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 200 | $141,047 | $5,593 | $6,528 | $7,454 | $2,338 | $743 | $20,463 | $8,185 | $1,154 | | $193,503 | $2,762 | $196,265 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 201 | $78,840 | $7,214 | $8,420 | $9,615 | $3,016 | $958 | $13,508 | $5,403 | $762 | | $127,735 | $1,823 | $129,559 |
| 202 | $344,225 | $31,497 | $36,763 | $41,978 | $13,187 | $4,182 | $58,976 | $23,591 | $3,326 | | $557,705 | $7,961 | $565,666 |
| 203 | $3,615 | $33 | $39 | $44 | $14 | $4 | $469 | $187 | $26 | | $4,431 | $63 | $4,494 |
| 204 | $11,503 | $105 | $123 | $140 | $44 | $14 | $1,491 | $596 | $84 | | $14,102 | $201 | $14,303 |
| 205 | $21,036 | $192 | $225 | $257 | $80 | $26 | $2,727 | $1,091 | $154 | | $25,789 | $368 | $26,157 |
| 206 | $56,467 | $517 | $603 | $689 | $216 | $69 | $7,320 | $2,928 | $413 | | $89,221 | $988 | $70,209 |
| 209 | $16,694 | $171 | $200 | $228 | $72 | $23 | $2,423 | $969 | $137 | | $22,916 | $327 | $23,243 |
| NHBPW | | | | | | | | | | $13,983 | $13,983 | | $13,983 |
| Morton Building BASE PROJECTS Subtotals including BPW ("Agreement Price") | $675,428 | $45,321 | $52,900 | $80,404 | $18,948 | $6,018 | $107,377 | $42,951 | $6,056 | $13,983 | $1,029,384 | $14,495 | $1,043,878 |

## 27 Hazen Dr. DoIT

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 300 | $110,903 | $4,397 | $5,133 | $5,861 | $1,838 | $584 | $16,089 | $6,438 | $907 | | $152,148 | $2,172 | $154,320 |
| 301 | $182,165 | $11,112 | $12,970 | $14,810 | $4,645 | $1,476 | $28,397 | $11,359 | $1,602 | | $268,536 | $3,833 | $272,369 |



| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 302 | $33,163 | $2,023 | $2,361 | $2,696 | $846 | $269 | $5,170 | $2,068 | $292 | | $48,887 | $598 | $49,585 |
| 303 | $66,000 | $4,026 | $4,699 | $5,366 | $1,683 | $535 | $10,289 | $4,115 | $580 | | $97,292 | $1,389 | $98,681 |
| 304 | $6,802 | $403 | $470 | $537 | $168 | $53 | $1,029 | $412 | $58 | | $9,732 | $139 | $9,871 |
| 305 | $1,239 | $76 | $88 | $101 | $32 | $10 | $193 | $77 | $11 | | $1,826 | $26 | $1,852 |
| 308 | $89,221 | $5,442 | $6,353 | $7,254 | $2,275 | $723 | $13,908 | $5,563 | $784 | | $131,523 | $1,877 | $133,401 |
| NHBPW | | | | | | | | | | $9,776 | $9,776 | | $9,776 |
| 27 Hazen Dr. DoIT BASE PROJECTS Subtotals including BPW ("Agreement Price") | $489,293 | $27,479 | $32,074 | $38,624 | $11,467 | $3,649 | $75,078 | $30,030 | $4,234 | $9,776 | $719,722 | $10,134 | $729,856 |

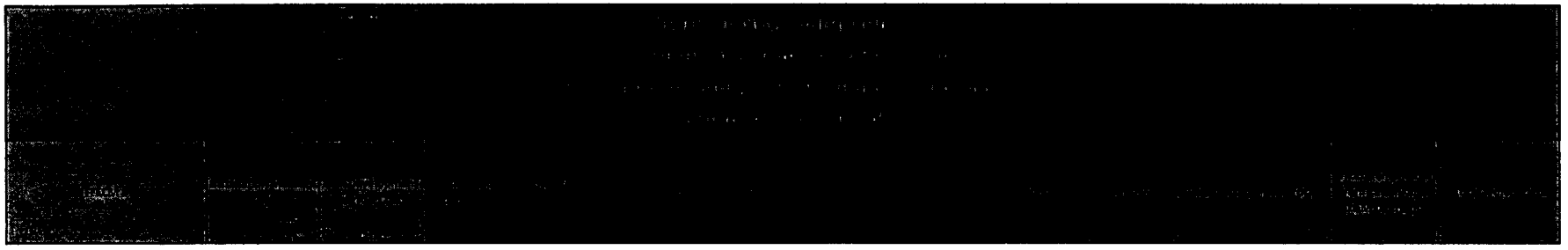
## 29 Hazen Dr. HHS

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 400 | $302,185 | $11,982 | $13,985 | $15,989 | $5,009 | $1,591 | $43,640 | $17,536 | $2,473 | | $414,570 | $5,918 | $420,488 |
| 401 | $6,600 | $403 | $470 | $537 | $168 | $53 | $1,029 | $412 | $58 | | $9,729 | $139 | $9,868 |
| 402 | $297,082 | $18,122 | $21,152 | $24,153 | $7,576 | $2,408 | $46,311 | $18,525 | $2,612 | | $437,939 | $6,252 | $444,191 |
| 403 | $84,839 | $5,175 | $6,041 | $6,897 | $2,163 | $687 | $13,225 | $5,290 | $746 | | $125,064 | $1,785 | $126,850 |
| 404 | $26,408 | $1,611 | $1,880 | $2,147 | $673 | $214 | $4,117 | $1,647 | $232 | | $38,929 | $556 | $39,485 |
| 405 | $60,566 | $3,695 | $4,312 | $4,924 | $1,544 | $491 | $9,441 | $3,777 | $532 | | $89,282 | $1,275 | $90,557 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 406 | $20,416 | $1,245 | $1,454 | $1,660 | $521 | $165 | $3,183 | $1,273 | $179 | | $30,096 | $430 | $30,526 |
| 408 | $168,322 | $10,268 | $11,985 | $13,685 | $4,292 | $1,363 | $26,239 | $10,496 | $1,480 | | $248,129 | $3,542 | $251,671 |
| 409 | $61,069 | $3,725 | $4,348 | $4,965 | $1,557 | $495 | $9,520 | $3,808 | $537 | | $90,024 | $1,285 | $91,309 |
| 411 | $18,962 | $1,158 | $1,352 | $1,543 | $484 | $154 | $2,959 | $1,184 | $167 | | $27,982 | $399 | $28,382 |
| NHBPW | | | | | | | | | | $20,818 | $20,818 | | $20,818 |
| 29 Hazen Dr. HHS BASE PROJECTS Subtotals including BPW ("Agreement Price") | $1,046,470 | $57,383 | $66,978 | $76,479 | $23,988 | $7,620 | $159,865 | $63,946 | $9,016 | $20,818 | $1,532,563 | $21,580 | $1,554,143 |

## 29 Hazen Dr. Labs

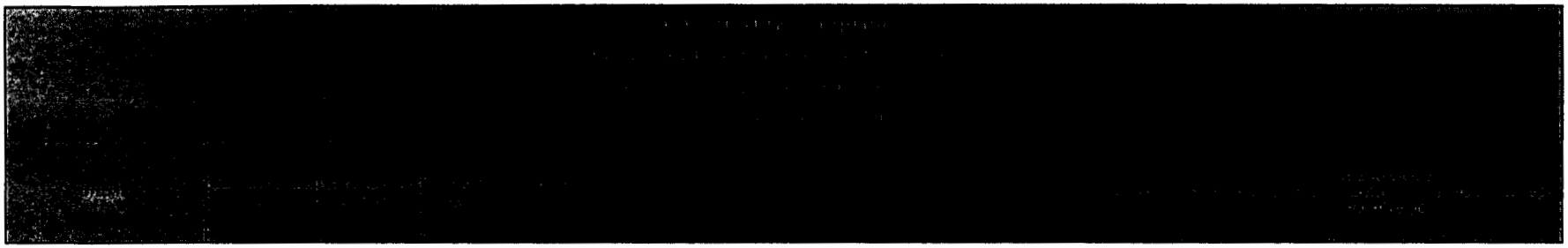
| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 500 | $167,355 | $6,636 | $7,745 | $8,844 | $2,774 | $881 | $24,279 | $9,712 | $1,369 | | $229,595 | $3,277 | $232,873 |
| 501 | $1,129,027 | $66,671 | $80,367 | $91,790 | $28,790 | $9,145 | $176,001 | $70,401 | $9,926 | | $1,664,338 | $31,678 | $1,696,016 |
| 502 | $36,699 | $2,239 | $2,613 | $2,984 | $936 | $297 | $5,721 | $2,288 | $323 | | $54,099 | $772 | $54,872 |
| 503 | $58,300 | $3,556 | $4,151 | $4,740 | $1,487 | $472 | $9,088 | $3,635 | $513 | | $85,942 | $1,227 | $87,169 |



| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 504 | $168,356 | $10,270 | $11,987 | $13,687 | $4,293 | $1,364 | $26,245 | $10,498 | $1,480 | | $248,179 | $3,543 | $251,722 |
| 505 | $40,772 | $2,487 | $2,903 | $3,315 | $1,040 | $330 | $6,356 | $2,542 | $358 | | $60,103 | $858 | $60,961 |
| 506 | $433,393 | $26,437 | $30,856 | $35,235 | $11,052 | $3,510 | $67,561 | $27,024 | $3,810 | | $638,879 | $12,160 | $651,039 |
| 507 | $42,671 | $2,603 | $3,038 | $3,469 | $1,088 | $346 | $6,652 | $2,661 | $375 | | $62,903 | $1,197 | $64,100 |
| 508 | $16,071 | $980 | $1,144 | $1,307 | $410 | $130 | $2,505 | $1,002 | $141 | | $23,690 | $451 | $24,141 |
| 509 | $1,239 | $11 | $13 | $15 | $5 | $2 | $161 | $64 | $9 | | $1,519 | $22 | $1,540 |
| 510 | $3,869,929 | $78,689 | $91,846 | $104,875 | $32,894 | $10,449 | $523,585 | $209,434 | $29,530 | | $4,951,232 | $94,238 | $5,045,470 |
| NHBPW | | | | | | | | | | $110,922 | $110,922 | | $110,922 |
| 27 Hazen Dr. Labs BASE PROJECTS Subtotals including BPW ("Agreement Price") | $5,963,812 | $202,778 | $238,665 | $270,260 | $84,768 | $26,928 | $848,154 | $339,261 | $47,836 | $110,922 | $6,131,402 | $149,423 | $8,260,826 |

## Department of Safety Building

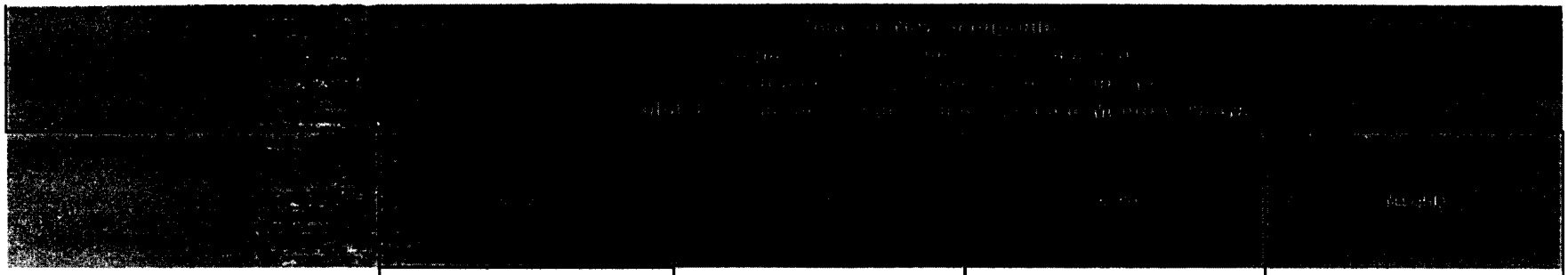
| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 600 | $161,672 | $6,022 | $7,029 | $8,026 | $2,517 | $800 | $22,033 | $8,813 | $1,243 | | $208,354 | $2,974 | $211,329 |



| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 601 | $23,576 | $216 | $252 | $288 | $90 | $29 | $3,056 | $1,222 | $172 | | $28,901 | $413 | $29,313 |
| 602 | $55,849 | $511 | $596 | $681 | $214 | $68 | $7,240 | $2,896 | $408 | | $68,463 | $977 | $69,441 |
| 604 | $60,142 | $550 | $642 | $733 | $230 | $73 | $7,796 | $3,119 | $440 | | $73,726 | $1,052 | $74,778 |
| 605 | $1,650 | $15 | $18 | $20 | $6 | $2 | $214 | $86 | $12 | | $2,023 | $29 | $2,052 |
| 606 | $32,723 | $299 | $349 | $399 | $125 | $40 | $4,242 | $1,697 | $239 | | $40,114 | $573 | $40,686 |
| 607 | $120,296 | $1,101 | $1,285 | $1,467 | $460 | $146 | $15,594 | $6,238 | $880 | | $147,467 | $2,105 | $149,572 |
| 608 | $22,618 | $207 | $242 | $276 | $87 | $27 | $2,932 | $1,173 | $165 | | $27,725 | $396 | $28,120 |
| NHBPW | | | | | | | | | | $8,218 | $8,218 | | $8,218 |
| Department of Safety Building BASE PROJECTS Subtotals including BPW ("Agreement Price") | $468,725 | $6,921 | $10,413 | $11,690 | $3,729 | $1,185 | $63,108 | $25,243 | $3,559 | $8,218 | $604,990 | $8,519 | $613,509 |

## ALL BUILDINGS

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agreement Price - All BASE PROJECTS including BPW | $6,985,310 | $352,648 | $411,849 | $470,271 | $147,502 | $46,854 | $1,301,829 | $520,732 | $73,423 | $170,000 | $12,480,617 | $210,665 | $12,691,282 |



| FFECM # | Cost of Service Phase Fees over Life of Project (1 Yr O&M Oversight, 5 Yr M&V) | FFECM Value | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Motor Vehicles Building** | | | | | | | | | | | | | | |
| 100 | $1,494 | $104,638 | 2% | 2% | $2,093 | 15% | 17% | $15,696 | 18% | 35% | $18,835 | 23% | 58% | $24,067 |
| 101 | $2,587 | $181,206 | 1% | 1% | $1,812 | 8% | 9% | $14,496 | 13% | 22% | $23,557 | 14% | 36% | $25,369 |
| 102 | $1,142 | $79,987 | 1% | 1% | $800 | 1% | 2% | $800 | 6% | 8% | $4,799 | 7% | 15% | $5,599 |
| 103 | $196 | $13,713 | 1% | 1% | $137 | 1% | 2% | $137 | 6% | 8% | $823 | 7% | 15% | $960 |
| 104 | $263 | $18,433 | 1% | 1% | $184 | 8% | 9% | $1,475 | 13% | 22% | $2,396 | 14% | 36% | $2,581 |
| 105 | $17 | $1,180 | 2% | 2% | $24 | 13% | 15% | $153 | 20% | 35% | $236 | 25% | 60% | $295 |
| 106 | $189 | $13,259 | 1% | 1% | $133 | 9% | 10% | $1,193 | 14% | 24% | $1,856 | 15% | 39% | $1,989 |
| 107 | $626 | $43,857 | 1% | 1% | $439 | 9% | 10% | $3,947 | 14% | 24% | $6,140 | 15% | 39% | $6,579 |
| Base Projects, excl BPW fees | $6,513 | $456,273 | | Invoice, excl BPW | $5,621 | | Invoice, excl BPW | $37,898 | | Invoice, excl BPW | $58,642 | | Invoice, excl BPW | $67,438 |
| Prorata BPW Fees | | $6,283 | | Prorata BPW Fees | $77 | | Prorata BPW Fees | $522 | | Prorata BPW Fees | $808 | | Prorata BPW Fees | $929 |

| FFECM # | Cost of Service Phase Fees over Life of Project (1 Yr O&M Oversight, 5 Yr M&V) | FFECM Value | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Morton Building** | | | | | | | | | | | | | | |
| 200 | $2,762 | $193,503 | 2% | 2% | $3,870 | 15% | 17% | $29,025 | 18% | 35% | $34,830 | 23% | 58% | $44,506 |
| 201 | $1,823 | $127,735 | 1% | 1% | $1,277 | 8% | 9% | $10,219 | 13% | 22% | $16,606 | 14% | 36% | $17,883 |
| 202 | $7,961 | $557,705 | 1% | 1% | $5,577 | 1% | 2% | $5,577 | 6% | 8% | $33,462 | 7% | 15% | $39,039 |
| 203 | $63 | $4,431 | 1% | 1% | $44 | 1% | 2% | $44 | 6% | 8% | $266 | 7% | 15% | $310 |
| 204 | $201 | $14,102 | 2% | 2% | $282 | 13% | 15% | $1,833 | 20% | 35% | $2,820 | 25% | 60% | $3,525 |
| 205 | $368 | $25,789 | 1% | 1% | $258 | 9% | 10% | $2,321 | 14% | 24% | $3,610 | 15% | 39% | $3,868 |
| 208 | $988 | $69,221 | 1% | 1% | $692 | 9% | 10% | $6,230 | 14% | 24% | $9,691 | 15% | 39% | $10,383 |
| 209 | $327 | $22,916 | 1% | 1% | $229 | 9% | 10% | $2,062 | 14% | 24% | $3,208 | 15% | 39% | $3,437 |
| Base Projects, excl BPW fees | $14,495 | $1,015,401 | | | $12,230 | | Invoice, excl BPW | $57,312 | | Invoice, excl BPW | $104,494 | | Invoice, excl BPW | $122,952 |
| Prorata BPW Fees | | $13,983 | | Prorata BPW Fees | $113 | | Prorata BPW Fees | $529 | | Prorata BPW Fees | $964 | | Prorata BPW Fees | $1,134 |
| **27 Hazen Dr. DoIT** | | | | | | | | | | | | | | |

| FFECM # | Cost of Service Phase Fees over Life of Project (1 Yr O&M Oversight, 5 Yr M&V) | FFECM Value | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 300 | $2,172 | $152,148 | 2% | 2% | $3,043 | 15% | 17% | $22,822 | 18% | 35% | $27,387 | 23% | 58% | $34,994 |
| 301 | $3,833 | $268,536 | 1% | 1% | $2,685 | 8% | 9% | $21,483 | 13% | 22% | $34,910 | 14% | 36% | $37,595 |
| 302 | $698 | $48,887 | 1% | 1% | $489 | 8% | 9% | $3,911 | 13% | 22% | $6,355 | 14% | 36% | $6,844 |
| 303 | $1,389 | $97,292 | 1% | 1% | $973 | 1% | 2% | $973 | 6% | 8% | $5,838 | 7% | 15% | $6,810 |
| 304 | $139 | $9,732 | 1% | 1% | $97 | 1% | 2% | $97 | 6% | 8% | $584 | 7% | 15% | $681 |
| 305 | $26 | $1,826 | 2% | 2% | $37 | 13% | 15% | $237 | 20% | 35% | $365 | 25% | 60% | $457 |
| 306 | $1,877 | $131,523 | 1% | 1% | $1,315 | 9% | 10% | $11,837 | 14% | 24% | $18,413 | 15% | 39% | $19,729 |
| Base Projects, excl BPW fees | $10,134 | $709,946 | | Invoice, excl BPW | $8,639 | | Invoice, excl BPW | $61,361 | | Invoice, excl BPW | $93,852 | | Invoice, excl BPW | $107,110 |
| Prorata BPW Fees | | $9,776 | | Prorata BPW Fees | $119 | | Prorata BPW Fees | $845 | | Prorata BPW Fees | $1,292 | | Prorata BPW Fees | $1,475 |
| **29 Hazen Dr. HHS** | | | | | | | | | | | | | | |
| 400 | $5,918 | $414,570 | 2% | 2% | $8,291 | 15% | 17% | $62,185 | 18% | 35% | $74,623 | 23% | 58% | $95,351 |
| 401 | $139 | $9,729 | 1% | 1% | $97 | 8% | 9% | $778 | 13% | 22% | $1,265 | 14% | 36% | $1,362 |
| 402 | $6,252 | $437,939 | 1% | 1% | $4,379 | 1% | 2% | $4,379 | 6% | 8% | $26,276 | 7% | 15% | $30,656 |

| FFECM # | Cost of Service Phase Fees over Life of Project (1 Yr O&M Oversight, 5 Yr M&V) | FFECM Value | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 403 | $1,785 | $125,064 | 1% | 1% | $1,251 | 1% | 2% | $1,251 | 6% | 8% | $7,504 | 7% | 15% | $8,754 |
| 404 | $556 | $38,929 | 1% | 1% | $389 | 1% | 2% | $389 | 6% | 8% | $2,336 | 7% | 15% | $2,725 |
| 405 | $1,275 | $89,282 | 2% | 2% | $1,786 | 13% | 15% | $11,607 | 20% | 35% | $17,856 | 25% | 60% | $22,321 |
| 406 | $430 | $30,096 | 1% | 1% | $301 | 9% | 10% | $2,709 | 14% | 24% | $4,213 | 15% | 39% | $4,514 |
| 408 | $3,542 | $248,129 | 1% | 1% | $2,481 | 9% | 10% | $22,332 | 14% | 24% | $34,738 | 15% | 39% | $37,219 |
| 409 | $1,285 | $90,024 | 1% | 1% | $900 | 9% | 10% | $8,102 | 14% | 24% | $12,603 | 15% | 39% | $13,504 |
| 411 | $399 | $27,982 | 1% | 1% | $280 | 9% | 10% | $2,518 | 14% | 24% | $3,918 | 15% | 39% | $4,197 |
| Base Projects, excl BPW fees | $21,580 | $1,511,745 | | Base Projects | $20,156 | | Base Projects | $116,251 | | Base Projects | $185,332 | | Base Projects | $220,604 |
| Prorata BPW Fees | | $20,818 | | Prorata BPW Fees | $249 | | Prorata BPW Fees | $1,437 | | Prorata BPW Fees | $2,291 | | Prorata BPW Fees | $2,727 |
| **29 Hazen Dr. Labs** | | | | | | | | | | | | | | |
| 500 | $3,277 | $229,595 | 2% | 2% | $4,592 | 15% | 17% | $34,439 | 18% | 35% | $41,327 | 23% | 58% | $52,807 |

| FFECM # | Cost of Service Phase Fees over Life of Project (1 Yr O&M Oversight, 5 Yr M&V) | FFECM Value | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 501 | $31,678 | $1,664,338 | 1% | 1% | $16,643 | 8% | 9% | $133,147 | 13% | 22% | $216,364 | 14% | 36% | $233,007 |
| 502 | $772 | $54,099 | 1% | 1% | $541 | 8% | 9% | $4,328 | 13% | 22% | $7,033 | 14% | 36% | $7,574 |
| 503 | $1,227 | $85,942 | 1% | 1% | $859 | 8% | 9% | $6,875 | 13% | 22% | $11,172 | 14% | 36% | $12,032 |
| 504 | $3,543 | $248,179 | 1% | 1% | $2,482 | 1% | 2% | $2,482 | 6% | 8% | $14,891 | 7% | 15% | $17,373 |
| 505 | $858 | $60,103 | 1% | 1% | $601 | 1% | 2% | $601 | 6% | 8% | $3,606 | 7% | 15% | $4,207 |
| 506 | $12,160 | $638,879 | 1% | 1% | $6,389 | 9% | 10% | $57,499 | 14% | 24% | $89,443 | 15% | 39% | $95,832 |
| 507 | $1,197 | $62,903 | 1% | 1% | $629 | 9% | 10% | $5,661 | 14% | 24% | $8,806 | 15% | 39% | $9,435 |
| 508 | $451 | $23,690 | 1% | 1% | $237 | 1% | 2% | $237 | 6% | 8% | $1,421 | 7% | 15% | $1,658 |
| 509 | $22 | $1,519 | 2% | 2% | $30 | 13% | 15% | $197 | 20% | 35% | $304 | 25% | 60% | $380 |

| FFECM # | Cost of Service Phase Fees over Life of Project (1 Yr O&M Oversight, 8 Yr M&V) | FFECM Value | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 510 | $94,238 | $4,951,232 | 1% | 1% | $49,512 | 7% | 8% | $346,586 | 10% | 18% | $495,123 | 12% | 30% | $594,148 |
| Base Projects, excl BPW fees | $149,423 | $8,020,481 | | Invoice, excl BPW | $82,516 | | Invoice, excl BPW | $592,053 | | Invoice, excl BPW | $889,491 | | Invoice, excl BPW | $1,028,453 |
| Prorata BPW Fees | | $110,922 | | Prorata BPW Fees | $1,141 | | Prorata BPW Fees | $8,188 | | Prorata BPW Fees | $12,302 | | Prorata BPW Fees | $14,223 |
| **Department of Safety Building** | | | | | | | | | | | | | | |
| 600 | $2,974 | $208,354 | 2% | 2% | $4,167 | 15% | 17% | $31,253 | 18% | 35% | $37,504 | 23% | 58% | $47,921 |
| 601 | $413 | $28,901 | 1% | 1% | $289 | 8% | 9% | $2,312 | 13% | 22% | $3,757 | 14% | 36% | $4,046 |
| 602 | $977 | $68,463 | 1% | 1% | $685 | 8% | 9% | $5,477 | 13% | 22% | $8,900 | 14% | 36% | $9,585 |
| 604 | $1,052 | $73,726 | 1% | 1% | $737 | 1% | 2% | $737 | 6% | 8% | $4,424 | 7% | 15% | $5,161 |
| 605 | $29 | $2,023 | 2% | 2% | $40 | 13% | 15% | $263 | 20% | 35% | $405 | 25% | 60% | $506 |
| 606 | $573 | $40,114 | 1% | 1% | $401 | 9% | 10% | $3,610 | 14% | 24% | $5,616 | 15% | 39% | $6,017 |
| 607 | $2,105 | $147,467 | 1% | 1% | $1,475 | 9% | 10% | $13,272 | 14% | 24% | $20,645 | 15% | 39% | $22,120 |
| 608 | $396 | $27,725 | 1% | 1% | $277 | 9% | 10% | $2,495 | 14% | 24% | $3,881 | 15% | 39% | $4,159 |
| Base Projects, excl BPW fees | $8,519 | $596,772 | | Base Projects | $8,071 | | Base Projects | $59,420 | | Base Projects | $85,132 | | Base Projects | $99,515 |
| Prorata BPW Fees | | $8,218 | | Prorata BPW Fees | $75 | | Prorata BPW Fees | $555 | | Prorata BPW Fees | $795 | | Prorata BPW Fees | $929 |

| FFECM # | Cost of Service Phase Fees over Life of Project (1 Yr O&M Oversight, 5 Yr M&V) | FFECM Value | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
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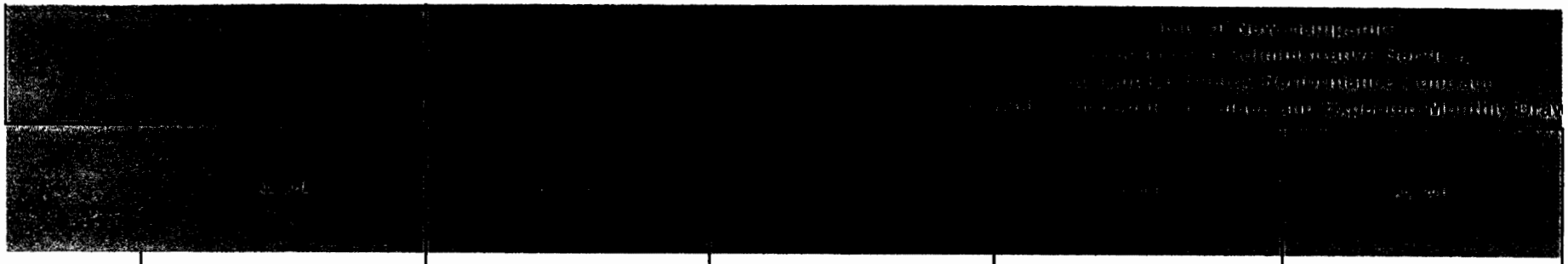
| **All FFECMS, All Buildings:** | | | | | | | | | | | | | | |
| Base Projects, excl BPW fees | $210,665 | $12,310,617 | | Base Projects | $137,234 | | Base Projects | $924,295 | | Base Projects | $1,416,943 | | Base Projects | $1,646,071 |
| TOTAL BPW Fees | | $170,000 | | TOTAL BPW Fees | $1,775 | | TOTAL BPW Fees | $12,075 | | TOTAL BPW Fees | $18,451 | | TOTAL BPW Fees | $21,417 |
| BASE PROJECTS Payments | $210,665 | $12,480,617 | | Total Payments | $139,008 | | Total Payments | $936,370 | | Total Payments | $1,435,395 | | Total Payments | $1,667,489 |



| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
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| **Motor Vehicles Building** | | | | | | | | | | | | | | | |
| 100 | 15% | 73% | $15,696 | 10% | 83% | $10,464 | 7% | 90% | $7,325 | 2% | 92% | $2,093 | 2% | 94% | $2,093 |
| 101 | 14% | 50% | $25,369 | 13% | 63% | $23,557 | 11% | 74% | $19,933 | 9% | 83% | $16,309 | 5% | 88% | $9,060 |
| 102 | 8% | 23% | $6,399 | 10% | 33% | $7,999 | 10% | 43% | $7,999 | 11% | 54% | $8,799 | 9% | 63% | $7,199 |
| 103 | 8% | 23% | $1,097 | 10% | 33% | $1,371 | 10% | 43% | $1,371 | 11% | 54% | $1,508 | 9% | 63% | $1,234 |
| 104 | 14% | 50% | $2,581 | 13% | 63% | $2,396 | 11% | 74% | $2,028 | 9% | 83% | $1,659 | 5% | 88% | $922 |
| 105 | 20% | 80% | $236 | 9% | 89% | $106 | 3% | 92% | $35 | 2% | 94% | $24 | 6% | 100% | $71 |
| 106 | 16% | 55% | $2,121 | 12% | 67% | $1,591 | 9% | 76% | $1,193 | 6% | 82% | $796 | 4% | 86% | $530 |
| 107 | 16% | 55% | $7,017 | 12% | 67% | $5,263 | 9% | 76% | $3,947 | 6% | 82% | $2,631 | 4% | 86% | $1,754 |
| **Base Projects, excl BPW fees** | | **Invoice, excl BPW** | **$60,516** | | **Invoice, excl BPW** | **$52,747** | | **Invoice, excl BPW** | **$43,831** | | **Invoice, excl BPW** | **$33,818** | | **Invoice, excl BPW** | **$22,863** |
| **Prorata BPW Fees** | | **Prorata BPW Fees** | **$833** | | **Prorata BPW Fees** | **$726** | | **Prorata BPW Fees** | **$604** | | **Prorata BPW Fees** | **$466** | | **Prorata BPW Fees** | **$315** |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
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| **Morton Building** | | | | | | | | | | | | | | | |
| 200 | 15% | 73% | $29,025 | 10% | 83% | $19,350 | 7% | 90% | $13,545 | 2% | 92% | $3,870 | 2% | 94% | $3,870 |
| 201 | 14% | 50% | $17,883 | 13% | 63% | $16,606 | 11% | 74% | $14,051 | 9% | 83% | $11,496 | 5% | 88% | $6,387 |
| 202 | 8% | 23% | $44,616 | 10% | 33% | $55,770 | 10% | 43% | $55,770 | 11% | 54% | $61,348 | 9% | 63% | $50,193 |
| 203 | 8% | 23% | $354 | 10% | 33% | $443 | 10% | 43% | $443 | 11% | 54% | $487 | 9% | 63% | $399 |
| 204 | 20% | 80% | $2,820 | 9% | 89% | $1,269 | 3% | 92% | $423 | 2% | 94% | $282 | 6% | 100% | $846 |
| 205 | 16% | 55% | $4,126 | 12% | 67% | $3,095 | 9% | 76% | $2,321 | 6% | 82% | $1,547 | 4% | 86% | $1,032 |
| 208 | 16% | 55% | $11,075 | 12% | 67% | $8,306 | 9% | 76% | $6,230 | 6% | 82% | $4,153 | 4% | 86% | $2,769 |
| 209 | 16% | 55% | $3,667 | 12% | 67% | $2,750 | 9% | 76% | $2,062 | 6% | 82% | $1,375 | 4% | 86% | $917 |
| Base Projects, excl BPW fees | | Invoice, excl BPW | $113,568 | | Invoice, excl BPW | $107,590 | | Invoice, excl BPW | $94,846 | | Invoice, excl BPW | $84,559 | | Invoice, excl BPW | $66,412 |
| Prorata BPW Fees | | Prorata BPW Fees | $1,048 | | Prorata BPW Fees | $993 | | Prorata BPW Fees | $1,106 | | Prorata BPW Fees | $1,242 | | Prorata BPW Fees | $1,536 |
| **27 Hazen Dr. DoIT** | | | | | | | | | | | | | | | |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
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| 300 | 15% | 73% | $22,822 | 10% | 83% | $15,215 | 7% | 90% | $10,650 | 2% | 92% | $3,043 | 2% | 94% | $3,043 |
| 301 | 14% | 50% | $37,595 | 13% | 63% | $34,910 | 11% | 74% | $29,539 | 9% | 83% | $24,168 | 5% | 88% | $13,427 |
| 302 | 14% | 50% | $6,844 | 13% | 63% | $6,355 | 11% | 74% | $5,378 | 9% | 83% | $4,400 | 5% | 88% | $2,444 |
| 303 | 8% | 23% | $7,783 | 10% | 33% | $9,729 | 10% | 43% | $9,729 | 11% | 54% | $10,702 | 9% | 63% | $8,756 |
| 304 | 8% | 23% | $779 | 10% | 33% | $973 | 10% | 43% | $973 | 11% | 54% | $1,071 | 9% | 63% | $876 |
| 305 | 20% | 80% | $365 | 9% | 89% | $164 | 3% | 92% | $55 | 2% | 94% | $37 | 6% | 100% | $110 |
| 306 | 16% | 55% | $21,044 | 12% | 67% | $15,783 | 9% | 76% | $11,837 | 6% | 82% | $7,891 | 4% | 86% | $5,261 |
| Base Projects, excl BPW fees | | Invoice, excl BPW | $97,232 | | Invoice, excl BPW | $83,129 | | Invoice, excl BPW | $68,161 | | Invoice, excl BPW | $51,312 | | Invoice, excl BPW | $33,917 |
| Prorata BPW Fees | | Prorata BPW Fees | $1,339 | | Prorata BPW Fees | $1,145 | | Prorata BPW Fees | $939 | | Prorata BPW Fees | $707 | | Prorata BPW Fees | $467 |
| **29 Hazen Dr. HHS** | | | | | | | | | | | | | | | |
| 400 | 15% | 73% | $62,185 | 10% | 83% | $41,457 | 7% | 90% | $29,020 | 2% | 92% | $8,291 | 2% | 94% | $8,291 |
| 401 | 14% | 50% | $1,362 | 13% | 63% | $1,265 | 11% | 74% | $1,070 | 9% | 83% | $876 | 5% | 88% | $486 |
| 402 | 8% | 23% | $35,035 | 10% | 33% | $43,794 | 10% | 43% | $43,794 | 11% | 54% | $48,173 | 9% | 63% | $39,415 |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
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| 403 | 8% | 23% | $10,005 | 10% | 33% | $12,506 | 10% | 43% | $12,506 | 11% | 54% | $13,757 | 9% | 63% | $11,256 |
| 404 | 8% | 23% | $3,114 | 10% | 33% | $3,893 | 10% | 43% | $3,893 | 11% | 54% | $4,282 | 9% | 63% | $3,504 |
| 405 | 20% | 80% | $17,856 | 9% | 89% | $8,035 | 3% | 92% | $2,678 | 2% | 94% | $1,786 | 6% | 100% | $5,357 |
| 406 | 16% | 55% | $4,815 | 12% | 67% | $3,612 | 9% | 76% | $2,709 | 6% | 82% | $1,806 | 4% | 86% | $1,204 |
| 408 | 16% | 55% | $39,701 | 12% | 67% | $29,775 | 9% | 76% | $22,332 | 6% | 82% | $14,888 | 4% | 86% | $9,925 |
| 409 | 16% | 55% | $14,404 | 12% | 67% | $10,803 | 9% | 76% | $8,102 | 6% | 82% | $5,401 | 4% | 86% | $3,601 |
| 411 | 16% | 55% | $4,477 | 12% | 67% | $3,358 | 9% | 76% | $2,518 | 6% | 82% | $1,679 | 4% | 86% | $1,119 |
| Base Projects, excl BPW fees | | Base Projects | $192,956 | | Base Projects | $158,498 | | Base Projects | $128,623 | | Base Projects | $100,939 | | Base Projects | $84,158 |
| Prorata BPW Fees | | Prorata BPW Fees | $2,385 | | Prorata BPW Fees | $1,959 | | Prorata BPW Fees | $1,590 | | Prorata BPW Fees | $1,248 | | Prorata BPW Fees | $1,040 |
| **29 Hazen Dr. Labs** | | | | | | | | | | | | | | | |
| 500 | 15% | 73% | $34,439 | 10% | 83% | $22,960 | 7% | 90% | $16,072 | 2% | 92% | $4,592 | 2% | 94% | $4,592 |

| FFECM # | | | | | | | | | | | | | | | |
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| | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
| 501 | 14% | 50% | $233,007 | 13% | 63% | $216,364 | 11% | 74% | $183,077 | 9% | 83% | $149,790 | 5% | 88% | $83,217 |
| 502 | 14% | 50% | $7,574 | 13% | 63% | $7,033 | 11% | 74% | $5,951 | 9% | 83% | $4,869 | 5% | 88% | $2,705 |
| 503 | 14% | 50% | $12,032 | 13% | 63% | $11,172 | 11% | 74% | $9,454 | 9% | 83% | $7,735 | 5% | 88% | $4,297 |
| 504 | 8% | 23% | $19,854 | 10% | 33% | $24,818 | 10% | 43% | $24,818 | 11% | 54% | $27,300 | 9% | 63% | $22,336 |
| 505 | 8% | 23% | $4,808 | 10% | 33% | $6,010 | 10% | 43% | $6,010 | 11% | 54% | $6,611 | 9% | 63% | $5,409 |
| 506 | 16% | 55% | $102,221 | 12% | 67% | $76,666 | 9% | 76% | $57,499 | 6% | 82% | $38,333 | 4% | 86% | $25,555 |
| 507 | 16% | 55% | $10,064 | 12% | 67% | $7,548 | 9% | 76% | $5,661 | 6% | 82% | $3,774 | 4% | 86% | $2,516 |
| 508 | 8% | 23% | $1,895 | 10% | 33% | $2,369 | 10% | 43% | $2,369 | 11% | 54% | $2,606 | 9% | 63% | $2,132 |
| 509 | 20% | 80% | $304 | 9% | 89% | $137 | 3% | 92% | $46 | 2% | 94% | $30 | 6% | 100% | $91 |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
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| 510 | 14% | 44% | $693,172 | 15% | 59% | $742,685 | 10% | 69% | $495,123 | 9% | 78% | $445,611 | 6% | 84% | $297,074 |
| Base Projects, excl BPW fees | | Invoice, excl BPW | $1,119,372 | | Invoice, excl BPW | $1,117,762 | | Invoice, excl BPW | $806,080 | | Invoice, excl BPW | $691,251 | | Invoice, excl BPW | $449,925 |
| Prorata BPW Fees | | Prorata BPW Fees | $15,481 | | Prorata BPW Fees | $15,458 | | Prorata BPW Fees | $11,148 | | Prorata BPW Fees | $9,560 | | Prorata BPW Fees | $6,222 |
| **Department of Safety Building** | | | | | | | | | | | | | | | |
| 600 | 15% | 73% | $31,253 | 10% | 83% | $20,835 | 7% | 90% | $14,585 | 2% | 92% | $4,167 | 2% | 94% | $4,167 |
| 601 | 14% | 50% | $4,046 | 13% | 63% | $3,757 | 11% | 74% | $3,179 | 9% | 83% | $2,601 | 5% | 88% | $1,445 |
| 602 | 14% | 50% | $9,585 | 13% | 63% | $8,900 | 11% | 74% | $7,531 | 9% | 83% | $6,162 | 5% | 88% | $3,423 |
| 604 | 8% | 23% | $5,898 | 10% | 33% | $7,373 | 10% | 43% | $7,373 | 11% | 54% | $8,110 | 9% | 63% | $6,635 |
| 605 | 20% | 80% | $405 | 9% | 89% | $182 | 3% | 92% | $61 | 2% | 94% | $40 | 6% | 100% | $121 |
| 606 | 16% | 55% | $6,418 | 12% | 67% | $4,814 | 9% | 76% | $3,610 | 6% | 82% | $2,407 | 4% | 86% | $1,605 |
| 607 | 16% | 55% | $23,595 | 12% | 67% | $17,696 | 9% | 76% | $13,272 | 6% | 82% | $8,848 | 4% | 86% | $5,899 |
| 608 | 16% | 55% | $4,436 | 12% | 67% | $3,327 | 9% | 76% | $2,495 | 6% | 82% | $1,663 | 4% | 86% | $1,109 |
| Base Projects, excl BPW fees | | Base Projects | $85,636 | | Base Projects | $66,884 | | Base Projects | $52,106 | | Base Projects | $33,998 | | Base Projects | $24,404 |
| Prorata BPW Fees | | Prorata BPW Fees | $799 | | Prorata BPW Fees | $624 | | Prorata BPW Fees | $751 | | Prorata BPW Fees | $847 | | Prorata BPW Fees | $890 |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
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| **All FFECMS, All Buildings:** | | | | | | | | | | | | | | | |
| Base Projects, excl BPW fees | | Base Projects | $1,669,279 | | Base Projects | $1,586,610 | | Base Projects | $1,193,646 | | Base Projects | $995,877 | | Base Projects | $681,679 |
| TOTAL BPW Fees | | TOTAL BPW Fees | $21,885 | | TOTAL BPW Fees | $20,906 | | TOTAL BPW Fees | $16,137 | | TOTAL BPW Fees | $14,068 | | TOTAL BPW Fees | $10,470 |
| BASE PROJECTS Payments | | Total Payments | $1,691,164 | | Total Payments | $1,607,516 | | Total Payments | $1,209,783 | | Total Payments | $1,009,945 | | Total Payments | $692,149 |

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| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
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| **Motor Vehicles Building** | | | | | | | | | | | | | | | |
| 100 | 6% | 100% | $6,278 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 |
| 101 | 2% | 90% | $3,624 | 2% | 92% | $3,624 | 2% | 94% | $3,624 | 6% | 100% | $10,872 | 0% | 100% | $0 |
| 102 | 8% | 71% | $6,399 | 6% | 77% | $4,799 | 5% | 82% | $3,999 | 4% | 86% | $3,199 | 2% | 88% | $1,600 |
| 103 | 8% | 71% | $1,097 | 6% | 77% | $823 | 5% | 82% | $686 | 4% | 86% | $549 | 2% | 88% | $274 |
| 104 | 2% | 90% | $369 | 2% | 92% | $369 | 2% | 94% | $369 | 6% | 100% | $1,106 | 0% | 100% | $0 |
| 105 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 |
| 106 | 2% | 88% | $265 | 6% | 94% | $796 | 6% | 100% | $796 | 0% | 100% | $0 | 0% | 100% | $0 |
| 107 | 2% | 88% | $877 | 6% | 94% | $2,631 | 6% | 100% | $2,631 | 0% | 100% | $0 | 0% | 100% | $0 |
| Base Projects, excl BPW fees | | Invoice, excl BPW | $18,909 | | Invoice, excl BPW | $13,042 | | Invoice, excl BPW | $12,105 | | Invoice, excl BPW | $15,726 | | Invoice, excl BPW | $1,874 |
| Prorata BPW Fees | | Prorata BPW Fees | $260 | | Prorata BPW Fees | $180 | | Prorata BPW Fees | $167 | | Prorata BPW Fees | $217 | | Prorata BPW Fees | $26 |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
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| **Morton Building** | | | | | | | | | | | | | | | |
| 200 | 6% | 100% | $11,610 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 |
| 201 | 2% | 90% | $2,555 | 2% | 92% | $2,555 | 2% | 94% | $2,555 | 6% | 100% | $7,664 | 0% | 100% | $0 |
| 202 | 8% | 71% | $44,616 | 6% | 77% | $33,462 | 5% | 82% | $27,885 | 4% | 86% | $22,308 | 2% | 88% | $11,154 |
| 203 | 8% | 71% | $354 | 6% | 77% | $266 | 5% | 82% | $222 | 4% | 86% | $177 | 2% | 88% | $89 |
| 204 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 |
| 205 | 2% | 88% | $516 | 6% | 94% | $1,547 | 6% | 100% | $1,547 | 0% | 100% | $0 | 0% | 100% | $0 |
| 208 | 2% | 88% | $1,384 | 6% | 94% | $4,153 | 6% | 100% | $4,153 | 0% | 100% | $0 | 0% | 100% | $0 |
| 209 | 2% | 88% | $458 | 6% | 94% | $1,375 | 6% | 100% | $1,375 | 0% | 100% | $0 | 0% | 100% | $0 |
| **Base Projects, excl BPW fees** | | Invoice, excl BPW | $61,494 | | Invoice, excl BPW | $43,358 | | Invoice, excl BPW | $37,737 | | Invoice, excl BPW | $30,150 | | Invoice, excl BPW | $11,243 |
| **Prorata BPW Fees** | | **Prorata BPW Fees** | **$2,413** | | **Prorata BPW Fees** | **$1,323** | | **Prorata BPW Fees** | **$579** | | **Prorata BPW Fees** | **$278** | | **Prorata BPW Fees** | **$104** |
| **27 Hazen Dr. DoIT** | | | | | | | | | | | | | | | |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 300 | 6% | 100% | $9,129 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 |
| 301 | 2% | 90% | $5,371 | 2% | 92% | $5,371 | 2% | 94% | $5,371 | 6% | 100% | $16,112 | 0% | 100% | $0 |
| 302 | 2% | 90% | $978 | 2% | 92% | $978 | 2% | 94% | $978 | 6% | 100% | $2,933 | 0% | 100% | $0 |
| 303 | 8% | 71% | $7,783 | 6% | 77% | $5,838 | 5% | 82% | $4,865 | 4% | 86% | $3,892 | 2% | 88% | $1,946 |
| 304 | 8% | 71% | $779 | 6% | 77% | $584 | 5% | 82% | $487 | 4% | 86% | $389 | 2% | 88% | $195 |
| 305 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 |
| 306 | 2% | 88% | $2,630 | 6% | 94% | $7,891 | 6% | 100% | $7,891 | 0% | 100% | $0 | 0% | 100% | $0 |
| Base Projects, excl BPW fees | | Invoice, excl BPW | $26,670 | | Invoice, excl BPW | $20,661 | | Invoice, excl BPW | $19,591 | | Invoice, excl BPW | $23,326 | | Invoice, excl BPW | $2,140 |
| Prorata BPW Fees | | Prorata BPW Fees | $367 | | Prorata BPW Fees | $285 | | Prorata BPW Fees | $270 | | Prorata BPW Fees | $321 | | Prorata BPW Fees | $29 |
| **29 Hazen Dr. HHS** | | | | | | | | | | | | | | | |
| 400 | 6% | 100% | $24,874 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 |
| 401 | 2% | 90% | $195 | 2% | 92% | $195 | 2% | 94% | $195 | 6% | 100% | $584 | 0% | 100% | $0 |
| 402 | 8% | 71% | $35,035 | 6% | 77% | $26,276 | 5% | 82% | $21,897 | 4% | 86% | $17,518 | 2% | 88% | $8,759 |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 403 | 8% | 71% | $10,005 | 6% | 77% | $7,504 | 5% | 82% | $6,253 | 4% | 85% | $5,003 | 2% | 88% | $2,501 |
| 404 | 8% | 71% | $3,114 | 6% | 77% | $2,336 | 5% | 82% | $1,946 | 4% | 86% | $1,557 | 2% | 88% | $779 |
| 405 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 |
| 406 | 2% | 88% | $602 | 6% | 94% | $1,806 | 6% | 100% | $1,806 | 0% | 100% | $0 | 0% | 100% | $0 |
| 408 | 2% | 88% | $4,963 | 6% | 94% | $14,888 | 6% | 100% | $14,888 | 0% | 100% | $0 | 0% | 100% | $0 |
| 409 | 2% | 88% | $1,800 | 6% | 94% | $5,401 | 6% | 100% | $5,401 | 0% | 100% | $0 | 0% | 100% | $0 |
| 411 | 2% | 88% | $560 | 6% | 94% | $1,679 | 6% | 100% | $1,679 | 0% | 100% | $0 | 0% | 100% | $0 |
| Base Projects, excl BPW fees | | Base Projects | $81,148 | | Base Projects | $60,084 | | Base Projects | $54,065 | | Base Projects | $24,661 | | Base Projects | $12,039 |
| Prorata BPW Fees | | Prorata BPW Fees | $1,003 | | Prorata BPW Fees | $743 | | Prorata BPW Fees | $668 | | Prorata BPW Fees | $518 | | Prorata BPW Fees | $575 |
| **29 Hazen Dr. Labs** | | | | | | | | | | | | | | | |
| 500 | 6% | 100% | $13,776 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 501 | 2% | 90% | $33,287 | 2% | 92% | $33,287 | 2% | 94% | $33,287 | 6% | 100% | $99,860 | 0% | 100% | $0 |
| 502 | 2% | 90% | $1,082 | 2% | 92% | $1,082 | 2% | 94% | $1,082 | 6% | 100% | $3,246 | 0% | 100% | $0 |
| 503 | 2% | 90% | $1,719 | 2% | 92% | $1,719 | 2% | 94% | $1,719 | 6% | 100% | $5,157 | 0% | 100% | $0 |
| 504 | 8% | 71% | $19,854 | 6% | 77% | $14,891 | 5% | 82% | $12,409 | 4% | 86% | $9,927 | 2% | 88% | $4,964 |
| 505 | 8% | 71% | $4,808 | 6% | 77% | $3,606 | 5% | 82% | $3,005 | 4% | 86% | $2,404 | 2% | 88% | $1,202 |
| 506 | 2% | 88% | $12,778 | 6% | 94% | $38,333 | 6% | 100% | $38,333 | 0% | 100% | $0 | 0% | 100% | $0 |
| 507 | 2% | 88% | $1,258 | 6% | 94% | $3,774 | 6% | 100% | $3,774 | 0% | 100% | $0 | 0% | 100% | $0 |
| 508 | 8% | 71% | $1,895 | 6% | 77% | $1,421 | 5% | 82% | $1,185 | 4% | 86% | $948 | 2% | 88% | $474 |
| 509 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 510 | 4% | 88% | $198,049 | 2% | 90% | $99,025 | 2% | 92% | $99,025 | 2% | 94% | $99,025 | 6% | 100% | $297,074 |
| Base Projects, excl BPW fees | | Invoice, excl BPW | $288,506 | | Invoice, excl BPW | $197,138 | | Invoice, excl BPW | $193,818 | | Invoice, excl BPW | $220,566 | | Invoice, excl BPW | $303,713 |
| Prorata BPW Fees | | Prorata BPW Fees | $3,990 | | Prorata BPW Fees | $2,726 | | Prorata BPW Fees | $2,680 | | Prorata BPW Fees | $3,050 | | Prorata BPW Fees | $4,200 |
| **Department of Safety Building** | | | | | | | | | | | | | | | |
| 600 | 6% | 100% | $12,501 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 |
| 601 | 2% | 90% | $578 | 2% | 92% | $578 | 2% | 94% | $578 | 6% | 100% | $1,734 | 0% | 100% | $0 |
| 602 | 2% | 90% | $1,369 | 2% | 92% | $1,369 | 2% | 94% | $1,369 | 6% | 100% | $4,108 | 0% | 100% | $0 |
| 604 | 8% | 71% | $5,898 | 6% | 77% | $4,424 | 5% | 82% | $3,686 | 4% | 86% | $2,949 | 2% | 88% | $1,475 |
| 605 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 |
| 606 | 2% | 88% | $802 | 6% | 94% | $2,407 | 6% | 100% | $2,407 | 0% | 100% | $0 | 0% | 100% | $0 |
| 607 | 2% | 88% | $2,949 | 6% | 94% | $8,848 | 6% | 100% | $8,848 | 0% | 100% | $0 | 0% | 100% | $0 |
| 608 | 2% | 88% | $554 | 6% | 94% | $1,663 | 6% | 100% | $1,663 | 0% | 100% | $0 | 0% | 100% | $0 |
| Base Projects, excl BPW fees | | Base Projects | $24,653 | | Base Projects | $19,289 | | Base Projects | $18,552 | | Base Projects | $8,791 | | Base Projects | $1,475 |
| Prorata BPW Fees | | Prorata BPW Fees | $892 | | Prorata BPW Fees | $445 | | Prorata BPW Fees | $438 | | Prorata BPW Fees | $82 | | Prorata BPW Fees | $14 |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **All FFECMS, All Buildings:** | | | | | | | | | | | | | | | |
| Base Projects, excl BPW fees | | Base Projects | $501,380 | | Base Projects | $353,573 | | Base Projects | $335,868 | | Base Projects | $323,221 | | Base Projects | $332,484 |
| TOTAL BPW Fees | | TOTAL BPW Fees | $8,925 | | TOTAL BPW Fees | $5,701 | | TOTAL BPW Fees | $4,802 | | TOTAL BPW Fees | $4,466 | | TOTAL BPW Fees | $4,948 |
| BASE PROJECTS Payments | | Total Payments | $510,306 | | Total Payments | $359,273 | | Total Payments | $340,670 | | Total Payments | $327,687 | | Total Payments | $337,432 |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Pre-payment for Service Phase Fees | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Motor Vehicles Building** | | | | | | | | | | | | | | |
| 100 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $104,638 |
| 101 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $181,206 |
| 102 | 2% | 90% | $1,600 | 2% | 92% | $1,600 | 2% | 94% | $1,600 | 6% | 100.00% | $4,799 | | $79,987 |
| 103 | 2% | 90% | $274 | 2% | 92% | $274 | 2% | 94% | $274 | 6% | 100.00% | $823 | | $13,713 |
| 104 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $18,433 |
| 105 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $1,180 |
| 106 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $13,259 |
| 107 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $43,857 |
| Base Projects, excl BPW fees | | Invoice, excl BPW | $1,874 | | Invoice, excl BPW | $1,874 | | Invoice, excl BPW | $1,874 | | Invoice, excl BPW | $5,622 | | $456,273 |
| Prorata BPW Fees | | Prorata BPW Fees | $26 | | Prorata BPW Fees | $26 | | Prorata BPW Fees | $26 | | Prorata BPW Fees | $77 | | $6,283 |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Pre-payment for Service Phase Fees | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Morton Building** | | | | | | | | | | | | | | $0 |
| 200 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $193,503 |
| 201 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $127,735 |
| 202 | 2% | 90% | $11,154 | 2% | 92% | $11,154 | 2% | 94% | $11,154 | 6% | 100.00% | $33,462 | | $557,705 |
| 203 | 2% | 90% | $89 | 2% | 92% | $89 | 2% | 94% | $89 | 6% | 100.00% | $266 | | $4,431 |
| 204 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $14,102 |
| 205 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $25,789 |
| 208 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $69,221 |
| 209 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $22,916 |
| | | | | | | | | | | | | | | $1,015,401 |
| Base Projects, excl BPW fees | | Invoice, excl BPW | $11,243 | | Invoice, excl BPW | $11,243 | | Invoice, excl BPW | $11,243 | | Invoice, excl BPW | $33,728 | | |
| Prorata BPW Fees | | Prorata BPW Fees | $104 | | Prorata BPW Fees | $104 | | Prorata BPW Fees | $104 | | Prorata BPW Fees | $311 | | $13,983 |
| **27 Hazen Dr. DoIT** | | | | | | | | | | | | | | $0 |

| FFECM #. | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Pre-payment for Service Phase Fees | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 300 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $152,148 |
| 301 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $268,536 |
| 302 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $48,887 |
| 303 | 2% | 90% | $1,946 | 2% | 92% | $1,946 | 2% | 94% | $1,946 | 6% | 100.00% | $5,838 | | $97,292 |
| 304 | 2% | 90% | $195 | 2% | 92% | $195 | 2% | 94% | $195 | 6% | 100.00% | $584 | | $9,732 |
| 305 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $1,826 |
| 306 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $131,523 |
| Base Projects, excl BPW fees | | Invoice, excl BPW | $2,140 | | Invoice, excl BPW | $2,140 | | Invoice, excl BPW | $2,140 | | Invoice, excl BPW | $6,421 | | $709,946 |
| Prorata BPW Fees | | Prorata BPW Fees | $29 | | Prorata BPW Fees | $29 | | Prorata BPW Fees | $29 | | Prorata BPW Fees | $88 | | $9,776 |
| **29 Hazen Dr. HHS** | | | | | | | | | | | | | | $0 |
| 400 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $414,570 |
| 401 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $9,729 |
| 402 | 2% | 90% | $8,759 | 2% | 92% | $8,759 | 2% | 94% | $8,759 | 6% | 100.00% | $26,276 | | $437,939 |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Pre-payment for Service Phase Fees | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 403 | 2% | 90% | $2,501 | 2% | 92% | $2,501 | 2% | 94% | $2,501 | 6% | 100.00% | $7,504 | | $125,064 |
| 404 | 2% | 90% | $779 | 2% | 92% | $779 | 2% | 94% | $779 | 6% | 100.00% | $2,336 | | $38,929 |
| 405 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $89,282 |
| 406 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $30,096 |
| 408 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $248,129 |
| 409 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $90,024 |
| 411 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $27,982 |
| | | | | | | | | | | | | | | $1,511,745 |
| Base Projects, excl BPW fees | | Base Projects | $12,039 | | Base Projects | $12,039 | | Base Projects | $12,039 | | Base Projects | $36,116 | | |
| Prorata BPW Fees | | Prorata BPW Fees | $788 | | Prorata BPW Fees | $788 | | Prorata BPW Fees | $362 | | Prorata BPW Fees | $446 | | $20,818 |
| **29 Hazen Dr. Labs** | | | | | | | | | | | | | | $0 |
| 500 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $229,595 |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Pre-payment for Service Phase Fees | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 501 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $1,664,338 |
| 502 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $54,099 |
| 503 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $85,942 |
| 504 | 2% | 90% | $4,964 | 2% | 92% | $4,964 | 2% | 94% | $4,964 | 6% | 100.00% | $14,891 | | $248,179 |
| 505 | 2% | 90% | $1,202 | 2% | 92% | $1,202 | 2% | 94% | $1,202 | 6% | 100.00% | $3,606 | | $60,103 |
| 506 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $638,879 |
| 507 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $62,903 |
| 508 | 2% | 90% | $474 | 2% | 92% | $474 | 2% | 94% | $474 | 6% | 100.00% | $1,421 | | $23,690 |
| 509 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $1,519 |

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Pre-payment for Service Phase Fees | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 510 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $4,951,232 |
| Base Projects, excl BPW fees | | Invoice, excl BPW | $6,639 | | Invoice, excl BPW | $6,639 | | Invoice, excl BPW | $6,639 | | Invoice, excl BPW | $19,918 | | $8,020,481 |
| Prorata BPW Fees | | Prorata BPW Fees | $92 | | Prorata BPW Fees | $92 | | Prorata BPW Fees | $92 | | Prorata BPW Fees | $275 | | $110,922 |
| | | | | | | | | | | | | | | $0 |
| **Department of Safety Building** | | | | | | | | | | | | | | |
| 600 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $208,354 |
| 601 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $28,901 |
| 602 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $68,463 |
| 604 | 2% | 90% | $1,475 | 2% | 92% | $1,475 | 2% | 94% | $1,475 | 6% | 100.00% | $4,424 | | $73,726 |
| 605 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $2,023 |
| 606 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $40,114 |
| 607 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $147,467 |
| 608 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100% | $0 | 0% | 100.00% | $0 | | $27,725 |
| | | | | | | | | | | | | | | $596,772 |
| Base Projects, excl BPW fees | | Base Projects | $1,475 | | Base Projects | $1,475 | | Base Projects | $1,475 | | Base Projects | $4,424 | | |
| Prorata BPW Fees | | Prorata BPW Fees | $14 | | Prorata BPW Fees | $14 | | Prorata BPW Fees | $14 | | Prorata BPW Fees | $41 | | $8,218 |

[redacted]

| FFECM # | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Expected Work to be Completed This Month % | Work Completed Cumulative % | Amount Due This Month | Pre-payment for Service Phase Fees | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **All FFECMS, All Buildings:** | | | | | | | | | | | | | | |
| Base Projects, excl BPW fees | | Base Projects | $35,410 | | Base Projects | $35,410 | | Base Projects | $35,410 | | Base Projects | $106,229 | | $12,310,617 |
| TOTAL BPW Fees | | TOTAL BPW Fees | $1,053 | | TOTAL BPW Fees | $1,053 | | TOTAL BPW Fees | $627 | | TOTAL BPW Fees | $1,240 | | $170,000 |
| BASE PROJECTS Payments | | Total Payments | $36,463 | | Total Payments | $36,463 | | Total Payments | $36,036 | | Total Payments | $107,470 | Total Payments $210,665 | $12,691,282 |

# Exhibit C

## Special Provisions

1. Delete Paragraph 8 Event of Default/Remedies and replace it in its entirety with the following:

**8. Event of Default/Remedies.**

**8.1 Default by the Contractor.** Any one or more of the following acts or omissions of the Contractor shall constitute an event of default unless the Contractor's actions are caused by Force Majeure hereunder ("Event of Default"):

8.1.1 Failure to produce the Guaranteed Energy Savings and failure to pay the State the Guarantee Payment as set forth in Section 7 and Exhibit 3, and the failure continues for a period of 30 days after the State gives Contractor written notice of the failure.

8.1.2 Failure to maintain the Standards of Service and Comfort set forth in Section 10 due to failure of the Contractor to properly design, install, maintain, repair, or adjust FFECMs, and said failure continues for 30 days after the State gives written notice to the Contractor, or if a remedy cannot be effected in such 30 days, without a good faith effort by Contractor to perform in that period and diligent subsequent performance to ameliorate the problem as soon as possible.

8.1.3 Failure to perform or comply with any material obligation imposed upon Contractor by this Agreement, and the failure continues for a period of 30 days after the State gives Contractor written notice of the failure, provided that such failure continues for thirty (30) days after notice to the Contractor demanding that such failure to perform be cured or if such cure cannot be effected in such thirty (30) days, the Contractor shall be deemed to have cured default upon the commencement of a cure within such thirty (30) days and diligent subsequent completion thereof.

8.1.4 The Contractor provides, or has provided, false or misleading information to the State in Contractor's proposal, during negotiations, or in documents provided pursuant to this Agreement and the State has relied upon this information in entering into this Agreement and Contractor fails to correct or retract such false or misleading information and take the steps reasonably required by the State to mitigate the effects of the false or misleading information within 30 days of written notice thereof.

8.1.5 Contractor fails to perform satisfactorily or on schedule.

8.1.6 Contractor fails to submit any report required hereunder.

8.1.7 Contractor fails to perform any other covenant or condition of this Agreement.

**8.2 Default by the State.** The occurrence of one or more of the following is an Event of Default by the State unless the State's actions are caused by a Force Majeure, an Event of Default by Contractor (Section 8.1), or a breach by Contractor of this Agreement.

8.2.1 The State fails to perform or comply with any material obligation imposed upon the State by this Agreement, including breach of any covenant contained herein, provided that such failure continues for thirty (30) days after notice to the State demanding that such failure to perform be cured or if such cure cannot be effected in such thirty (30) days, the State shall be deemed to have cured default upon the commencement of a cure within such thirty (30) days and diligent subsequent completion thereof.

8.2.2 The State fails to make any payment or payments required under this Agreement when due and the failure continues for a period of 30 days after Contractor gives the State written notice of failure.

8.2.3 The State made any representation or warranty in this Agreement that was false or misleading in any material respect when made.

**8.3. Remedies upon Default; Liquidated Damages.** Upon occurrence of a Default by the Contractor, the State may take one, or more, or all of the following actions:

8.3.1 If the Event of Default is not timely remedied, as provided in Section 8.1.3 above, terminate this Agreement, effective two (2) business days after giving the Contractor written notice of termination.

8.3.2 Give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the Agreement price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall not be paid to the Contractor.

8.3.3 Set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default.

8.3.4 Treat the Agreement as breached and pursue any of its remedies at law and in equity.

8.3.5 Upon occurrence of a Default by the State, the Contractor may, exercise any and all remedies at law and in equity, as well as terminating this Agreement,

if the Event of Default is not timely remedied, as provided in 8.2.1 above, effective two (2) business days after giving the State written notice of termination.

8.3.6 Liquidated Damages. The Contractor and the State recognize that the State will suffer damages in the event the Contractor fails to complete the project in accordance with the project schedule submitted by the Contractor and attached to the Agreement as Exhibit 5. However, it is difficult to determine the actual damages that will result. Therefore, the Contractor and the State agree that if Substantial Completion has not occurred within thirty days of the date scheduled for Substantial Completion , as shown in Exhibit 5, then the Contractor shall pay the State, as liquidated damages and not as penalty, an amount equal to one twelfth of the guaranteed annual energy cost savings attributed to the portion of the FFECMs not yet completed as of the date scheduled for Substantial Completion. Payments for liquidated damages are due within 30 days following each 30 day time period for which Substantial Completion has exceeded the scheduled Substantial Completion date.

2. Delete Paragraph 10 Termination and replace it in its entirety with the following:

**10. Termination of Agreement**

**10.1** The State may, by written notice, terminate (without prejudice to any right or remedy of the State) performance of work under this Agreement, in whole or in part, whenever the State determines that such termination is in its best interest. The State may terminate without regard to fault and is not liable in any manner for termination. Any termination shall be effected by a notice in writing to the Contractor specifying the date upon which such termination shall become effective and the extent to which performance of the Agreement shall be terminated. Such termination shall be effective on the date and to the extent specified in said notice.

**10.2** In the event of an early termination of this Agreement for any reason other than the completion to the Services, the Contractor, after receipt of a written notice of termination and except as otherwise directed in writing by the State, shall:

a) deliver to the Contracting Officer, not later than (15) days after the date of termination, a report ("the Termination Report") describing in detail all Services performed, and the Agreement Price earned, to and including the date of termination. To the extent possible, the form, subject matter, content, and number of copies of the Termination Report shall be identical to those of any Final Report described in EXHIBITS 1 through 6.

b) stop performing work on the date and as specified in the notice of termination;

c) place no further orders or subcontracts for materials, equipment, services, or facilities;

d) cancel all orders or subcontracts, upon terms acceptable to the State, to the extent they relate to the performance of work terminated,

e) assign to the State all right, title, and interest of Contractor in all orders and subcontracts;

f) take such action as may be necessary or as directed by the State to preserve and protect the work, project site, and any other property related to this project in which the State has an interest; and

g) continue performance only to the extent not terminated.

**10.3** Notwithstanding the foregoing, should the notice of termination relate to only a portion of the work covered by the Agreement, The Contractor shall proceed with the completion of such portions of the work as are not terminated. The State will pay and the Contractor will accept, in full consideration for the performance and completion of the portions of the work as are not terminated.

**10.4** Upon compliance by the Contractor with the foregoing provisions of this Section and subject to deductions for payments previously made, the State, for the portions of work terminated, shall compensate the Contractor as follows:

a) By reimbursing Contractor for actual expenditures made with respect only to completion of Project work, including expenditures made in connection with any portion thereof that was completed prior to termination, as well as expenditures made after termination in completing those portions of the work covered by the Agreement which the Contractor was required by the notice of termination to complete. The State shall determine the allocation and amount of such expenditures.

b) By reimbursing the Contractor for all actual Project expenditures made, with the prior written approval of the State or pursuant to a court judgment.

c) By reimbursing the Contractor for all actual Project expenditures made after the effective date of the notice of termination resulting from or caused by the Contractor taking necessary and

approved action or action prescribed by the State.

d) By paying the Contractor a markup, not to exceed 10 percent, which markup is to cover the Contractor's overhead, supervision and profit for work directly performed by the Contractor and 10 percent for Contractor's overhead and profit for work directly performed by a subcontractor under this Agreement.

**10.5** The sum of all amounts payable under this Section, plus the sum of all amounts previously paid by the State under the provisions of the Agreement, shall not exceed the amount due the Contractor as set forth in Exhibit B, Payment Terms. In no event shall the Contractor be entitled to any payment for loss of anticipated profits on uncompleted work and the State shall not be liable for same.

**10.6** Termination by the State under the provisions of this Section shall be without prejudice to any claims or rights which the State may have against the Contractor. The State may retain from the amount due to the Contractor under the provisions of this Section such monies as may be necessary to satisfy any claim which the State may have against the Contractor in connection with the Agreement, provided, however, that the State's failure to retain such monies shall not be deemed a waiver of any of its rights or claims against the Contractor.

**10.7** Notwithstanding the foregoing, where the Contractor and the State can agree upon another method of determining the amount of the consideration to be paid to the Contractor under the provisions of this Section, such method, subject to the approval of the State, may, at the option of the State, be substituted for the method set forth above.

3. Delete Paragraph 14 Insurance and replace it in its entirety with the following:

**14. Insurance.**

**14.1** The Contractor shall, at its sole expense, obtain and maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 Commercial General Liability Insurance:
Occurrence Form Policy: Include full Contractual Liability, Explosion, Collapse, and Underground coverage's:
Limit of Liability:
a. $1,000,000 Each Occurrence Bodily Injury and Property Damage.
b. $2,000,000 General Aggregate – Include per Project Aggregate Endorsement.

c. $2,000,000 Products/Completed Operations Aggregate.
d. State shall be named as an additional named insured.

14.1.2 If blasting and/or demolition is required by the Contract, the Contractor or subcontractor shall obtain the respective coverage for those activities, and shall furnish to the Commissioner a Certificate of Insurance evidencing the required coverages prior to commencement of any operations involving blasting and or demolition.

14.1.3 Owner's Protective Liability coverage for the benefit of the State of New Hampshire Department of Administrative Services.

Limits of Liability:
$2,000,000 Each Occurrence
$3,000,000 Aggregate

14.1.4 Commercial Automobile Liability covering all motor vehicles including owned, hired, borrowed, and auto-owned vehicles.

Limits of Liability:
$1,000,000 Each Occurrence
$1,000,000 Aggregate

14.1.5 Builders' Risk Insurance (Fire and Extended Coverage):

The Contractor shall insure the work included in the Contract, including extras and change orders, on an "All Risk" basis, on one hundred percent (100% completed value basis of the Contract , as modified, Builder's Risk coverage shall include materials located at the Contractor' premises, on-site, in-transit, and at any temporary site. The policy by its own terms or by endorsement shall specifically permit partial or beneficiary occupancy prior to completion of acceptance of the entire work. The policies shall be in the name of the State Department of Administrative Services and the Contractors, Subcontractors, and others employed on the premises as insureds. The policies shall stipulate that the insurance companies shall have no right of subrogation against any Contractor, Subcontractors or other parties employed on the premises.

14.1.6 Workers' Compensation Insurance: In accordance with RSA 281-A.

Employers Liability:
$100,000 each accident.
$500,000 Disease-policy limit.
$100,000 Disease-each employee.

14.1.7 Professional Liability Insurance

The Designer/Contractor Team, or the Designer shall purchase and maintain professional liability coverage for this project. The coverage shall provide the State of New Hampshire with protection against design errors and omissions and shall have an annual aggregate limit of no less than $2,000,000. The coverage shall be maintained through the legal stature of repose period, currently stipulated to be three (3) years from the date of Substantial Completion. If the professional liability coverage is maintained by other that the Contractor for this Project, the Contractor shall provide evidence of indemnifications, approved by the State of New Hampshire, that indicate that this insurance coverage is in place and available for the

protection of the State. The indemnification may not create a re-assignment of contractual responsibilities between the State and the Contractor.

14.1.8 General Insurance Conditions

Each policy shall contain a clause prohibiting cancellation or modifications of the policy earlier that thirty (30) days or ten (10) days in cases of non-payment of premium after written notice thereof has been received by the State.

The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

4. Delete Paragraph 18 Amendment and replace it in its entirety with the following:

**18. Amendment; Modification**

**18.1** This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Council of the State of New Hampshire.

**18.2** The State may at any time, by written change order to the Contractor, adjust pricing and direct additions, deletions, and revisions to the Project work as may be necessary to ensure the continuity and purposes set forth in RSA 21-I:19a-e. If the Contractor determines that such changes affect the cost, safety, performance, efficiency, time of performance, or any other terms of this Agreement, the Contractor shall provide the State with written notice requesting an appropriate adjustment and the parties shall negotiate the terms of the change order to the Agreement.

**18.3** The Contractor may, with at least seven (7) calendar days prior written notice, and with the approval of the State, change the installed Equipment, revise procedures, or implement other energy saving action in the facilities, provided that the standards of service set forth in the Agreement shall not be reduced. All replacement, deletions, alterations, or additions of Equipment or revisions to the procedures, including an estimated time of completion, as agreed to by the State shall be described in a supplemental schedule or schedules to be provided in writing to and approved by the State, and upon approval shall be attached to this Agreement and shall become a part hereof. Replacement, substitutions alterations or additions of Equipment shall become a part of the installed Equipment pursuant to the terms of this Agreement and must be practical and

necessary to meet applicable legal standards as set forth in RSA 19-I:21 a-e. Disposition of Equipment that was replaced shall be mutually agreed to by the State and the Contractor.

5. There are no other special provisions of this contract.

ConEdison Exhibit C 11052014

# Exhibit 1

## Fossil Fuel Energy Conservation Measures

The Contractor shall design, furnish and install Fossil Fuel Energy Conservation Measures (FFECMs) as described herein at the following locations.

| Building Name | Location | Square Footage |
|---|---|---|
| Div of Motor Vehicles | 23 Hazen Drive, Concord, NH | 79,388 |
| Morton Building | 7 Hazen Drive, Concord, NH | 96,800 |
| Health and Human Services Building | 27/29 Hazen Drive, Concord, NH | 316,230 |
| Department of Safety Building | 33 Hazen Drive, Concord, NH | 117,123 |
| | Total | 609,531 |

The Contractor shall complete the following FFECMs as listed below and as further detailed in the Detailed Feasibility Study dated May 12, 2014, as revised November 21, 2014, labeled Appendices B and C and incorporated herein by reference. In addition the Contractor shall complete all work as detailed in the specifications described in Appendix A, attached hereto.

## Division of Motor Vehicles Building

| | | |
|---|---|---|
| 100 | Lighting | Re-lamp and re-ballast the existing 4' T8 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures and reflectors, and incandescent with LEDs. Install ceiling motion sensors, and photocells. Replace exterior MH fixtures with new LED fixtures. |

| Measure ID | Measure ID Category | Measure Description |
|---|---|---|
| 101 | HVAC and Plumbing Measures | Install (1) new condensing boiler to serve all heating and DHW loads in the building. Keep existing larger unit as backup. Link new boiler to DDC controls; add DHW re-circulator pump control. |
| 102 | Building Controls and Monitoring | Install new EMCS front-end with more graphics and failure alerts; integrate with DAS campus EMCS network; improve occ/unocc htg/clg setpoints and schedules. Retro-Commission (Retro-Cx) existing controls. Install CO2 control for (4) AHUs. Install networked sub-metering. |
| 103 | Building Controls and Monitoring | Add sequences & VFD for occupancy-based partial setback for the auditorium. (Includes new supply fan VSD for auditorium) |
| 104 | HVAC and Plumbing Measures | Install VFD(s) to replace bypass dampers in (2) AHUs. |
| 105 | Building Envelope | Install/Replace weather-stripping around doors. |
| 106 | Additional Measures | Install new low-flow flush valves on urinals and water closets and make faucets low flow. |
| 107 | Additional Measures | Install power factor correction capacitors to use electricity more efficiently. |

# Morton Building

| | | |
|---|---|---|
| 200 | Lighting | Re-lamp and re-ballast the existing 4' T8 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures and reflectors, and incandescent with LEDs. Install new LED exit signs. Replace exterior pole MH fixtures with new LED fixtures. |

| Measure ID | Measure Category | Measure Description |
|---|---|---|
| 201 | HVAC and Plumbing Measures | Upgrade chiller system piping, valves and controls to improve chilled water system efficiency and comfort. Retro-Cx and repair DDC and mechanical control components of chilled water system. |
| 202 | Building Controls and Monitoring | Improve Hot-deck/Cold-deck control sequences and occupied & unoccupied htg/clg setpoints and schedules; Modulate OA dampers with new sequences for CO2 and partial economizer control; Replace failed VFDs for (2) existing OA supply fans; Install DDC control of RTU and Chiller; Retro-Commission hot-water system reset schedule and pumps. Implement DHW recirculation pump DDC control. Test and balance ventilation and htg/clg water distribution systems throughout building. Install networked sub-metering in Morton Building, Materials Lab, and Fish & Game Building. Install new R2/AX replacement JACE. |
| 203 | Building Controls and Monitoring | Install controls for (2) kitchen hoods and (2) unit ventilators and eliminate exhaust and make-up air when not cooking. Provide user control switch integrated with EMCS (manual ON/OFF, schedule off after 3pm; 2-hour temporary override functions). |
| 204 | Building Envelope | Insulate bottom of exposed floor slab in one area at front of building; Install/Replace weather-stripping around doors. |
| 205 | Additional Measures | Install new low-flow flush valves on urinals and water closets and make faucets low flow. |
| 208 | Additional Measures | Replace all electrical transformers older than 15 years with high efficiency units |
| 209 | Additional Measures | Install power factor correction capacitors to use electricity more efficiently. |
| 206 | Renewable Energy Systems | (SIZE CONTINGENT ON AMOUNT OF PV GRANT - Project INCLUDED in building subtotal)<br>Install large (~82 kW) Solar PV system to generate renewable electricity (potential PUC grant of $500,000). |
| 207 | Renewable Energy Systems | (CONTINGENT ON GRANTS AND REBATES - Project EXCLUDED FROM building subtotal)<br>Install small (5.4 kW) Solar PV system to generate renewable electricity (Alternate FFECM if $500,000 PUC grant is not available). |

# 27 Hazen Dr. DoIT

| | | |
|---|---|---|
| 300 | Lighting | Re-lamp and re-ballast the existing 4' T8 and T12 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures with reflectors. Install ceiling motion sensors, and new LED exit signs. |
| 301 | HVAC and Plumbing Measures | Replace (2) 40 ton chillers with (2) 30 ton chillers equiped with buffer tanks; this system provides cooling for (1) small lower level AHU and (1) larger AHU. Revise existing DDC controls to accommodate new chillers. |
| 302 | HVAC and Plumbing Measures | In basement UPS room, eliminate Liebert cooling and install new split DX cooling unit; install new DDC temperature monitoring point for EMCS. |
| 303 | Building Controls and Monitoring | Replace pneumatic controls and actuators for all VAV boxes and heating zones associate with AHU-D1 with new DDC controls; repair/replace dampers, and repair HVAC systems. Replace pneumatic controls for AHU serving lower level with new DDC controls. Install networked sub-metering. Retro-Commission all existing DDC controls. |
| 304 | Building Controls and Monitoring | Install CO2 sensor control to match outside air ventilation to actual occupancy for areas served by AHU-D1. |
| 305 | Building Envelope | Install/Replace weather-stripping around doors. |
| 306 | Additional Measures | Replace all electrical transformers older than 15 years with high efficiency units. |

# 29 Hazen Dr. HHS

| | | |
|---|---|---|
| 400 | Lighting | Re-lamp and re-ballast the existing 4' T8 and T12 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures with reflectors, and incandescent with LEDs. Install ceiling and wall motion sensors, photocells, and new LED exit signs. Replace exterior MH fixtures with new LED fixtures. |
| 401 | HVAC and Plumbing Measures | Replace failed stream traps and insulated bare steam pipes (allowance) following steam survey to be provided by utility. |
| 402 | Building Controls and Monitoring | Upgrade (12) single-zone and multi-zone AHUs from existing pneumatic controls to new DDC controls. Retro-commission existing DDC controls. Repair all dampers in AHUs 1E and 1W (large air houses) and install new electric actuators. Install networked sub-metering. |
| 403 | Building Controls and Monitoring | Install CO2 sensor control to match outside air ventilation to actual occupancy for areas served by AHU-1E, 1W and (11) single-zone and multi-zone AHUs. Upgrade VAVs and heating zone controls served by AHUs 1E and 1W (two large air houses) from existing pneumatic controls to new DDC controls. |
| 404 | Building Controls and Monitoring | Install new pump VFDs and DDC controls for steam converter HX-5 in boiler room (heating hot water supply to HHS). Provide new steam valve and pressure transducer. |
| 405 | Building Envelope | Insulate bottom of exposed floor slabs in three areas of building; Install/Replace weather-stripping around doors. |
| 406 | Additional Measures | Install smart-strip time programmable controllers on laser-jet printers (116). |
| 408 | Additional Measures | Replace 59% of all electrical transformers older than 15 years with high efficiency units |
| 409 | Additional Measures | Install power factor correction capacitors to use electricity more efficiently |
| 411 | Additional Measures | Install new low-flow flush valves on urinals and water closets and make faucets low flow. |

| | | |
|---|---|---|
| 418 | Additional Measures | (CONTINGENT ON GRANTS AND REBATES - Project INCLUDED in building subtotal)<br>Replace 41% of all electrical transformers older than 15 years with high efficiency units |

# 29 Hazen Dr. Labs

| | | |
|---|---|---|
| 500 | Lighting | Re-lamp and re-ballast the existing 4' T8 and T12 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures with reflectors, and incandescent with LEDs. Install ceiling and wall motion sensors, photocells, and new LED exit signs. Replace exterior MH fixtures with new LED fixtures. |
| 501 | HVAC and Plumbing Measures | Install Phoenix variable flow valves to convert (26) fume hoods to variable flow using Phoenix valves. Replace (12) fume hoods with new Erlab ventless hoods having both HEPA and gas-phase filtration. Remove (28) un-needed snorkel ducts and install (28) high/low flow control valves in other snorkel ducts serving variable heat/humidity loads where feasible. Convert (7) bio-safety cabinets to ventless operation by eliminating connection to exhaust duct. Test and Balance all Lab room supply and exhaust air valves and adjust for occupied and unoccupied flow rates. Recalibrate (3) flow-safe room alerts, (139) SV and EV flow stations, and (approximately 20 out-of-calibration) space temperature sensors.<br>Note: Recertification of all lab hoods will be done during the lab's next regularly-scheduled facility recertification, which will be paid for by NH DAS. |
| 502 | HVAC and Plumbing Measures | Eliminate winter CHW operation for 3 FCUs. Install split DX cooling units for tel-comm, electrical and lobby areas; integrate with DDC control system. |
| 503 | HVAC and Plumbing Measures | Reengineer design of water-cooled condensers in 4 freezer/cooler condensing units to reduce size of circulating pump, add water bypass as needed, and reduce unneeded water waste. This will improve utilization of existing chilled water cooling system when chiller is operation. Automate switchover from once-through water cooling to chilled water cooling. |

| [illegible] | [illegible] | [illegible] |
|---|---|---|
| 504 | Building Controls and Monitoring | Retro-Cx all HVAC control systems (mechanical and DDC) serving laboratory areas including all ERUs and AHUs . Repair dampers, valves, sensors and actuators. Recalibrate AHU flow stations, and pressure/temperature/humidity sensors. Optimize chilled water system controls (CHW DP setpoint, recalibrate CHW flow meter). Install networked sub-metering. |
| 505 | Building Controls and Monitoring | Retro-Cx all HVAC Systems serving non-laboratory areas (office, hallway, conference, etc). Repair existing temperature sensors, VAV dampers, and BAS and add schedule controls to setback the space temperatures in the non-laboratory areas when unoccupied. Test and Balance all non-lab supply and exhaust air flow rates for occupied and unoccupied conditions. |
| 506 | Motors and Variable Frequency Drives | Install Strobic fan VFDs and control system to reduce laboratory exhaust fan energy use. Integrate new Strobic control system with building EMCS and provide sequence for improved freeze protection. Retro-Cx and repair bypass and isolation dampers, static pressure sensors, air flow stations and controls. Relocate static pressure sensor for lab addition exhaust system. |
| 507 | Motors and Variable Frequency Drives | Install VFD(s) on (6) ERU glycol pumps and Retro-Cx/repair 3-way valve operation. Reprogram sequence to improve heat recovery to AHUs and shutdown glycol loop in conditions when there is insufficient recoverable heat (small difference in temperature between exhaust and supply). |
| 508 | Building Controls and Monitoring | Install VFD(s) on domestic water booster pump system and remove pressure reducing valves. Install check valves and differential pressure sensor. Implement DDC control for (3) DHW recirculation pumps. |
| 509 | Building Envelope | Install/Replace weather-stripping around doors |
| 510 | Renewable Energy Systems | Install 8,300,000 btu/hr output biomass boiler to reduce natural gas (fossil fuel) consumption for steam supply to the laboratory and HHS. Integrate with existing steam boiler plant and heating system DDC controls. |

# Department of Safety Building

| | | |
|---|---|---|
| 600 | Lighting | Re-lamp and re-ballast the existing 4' T8 and T12 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures with reflectors. Install photocells, and new LED exit signs. Replace exterior MH fixtures with new LED fixtures. |
| 601 | HVAC and Plumbing Measures | Replace (5) laboratory hoods with ventless lab hoods with HEPA and gas-phase filtration. Install snorkels to remove heat from (4) mass spectrometers. Remove unused hood over photo lab sink. |
| 602 | HVAC and Plumbing Measures | Install stand-alone condensing DHW boiler and DHW storage tank. Provide DDC control of boiler and DHW re-circulating pump. |
| 604 | Building Controls and Monitoring | Retro-Cx existing DDC controls. Repair dampers valves and actuators. Revise ERU operating sequence to operate exhaust fan at low speed during unoccupied periods to avoid overheating in the laboratory without the energy expense of operating the ERU supply fan. Install networked sub-metering. |
| 605 | Building Envelope | Install/Replace weather-stripping around doors. |
| 606 | Additional Measures | Install new low-flow flush valves on urinals and water closets and make faucets low flow. |
| 607 | Additional Measures | Replace all electrical transformers older than 15 years with high efficiency units. |
| 608 | Additional Measures | Install power factor correction capacitors to use electricity more efficiently. |

| [illegible] | [illegible] | [illegible] |
|---|---|---|
| 603 | Building Controls and Monitoring | (CONTINGENT ON GRANTS AND REBATES - Project INCLUDED in building subtotal)<br>Replace pneumatic controls with new DDC controls for VAVs and heating zone controls associated with the following AHUs:<br>-- Core: AC-1 thru AC-8<br>-- Phase II: Crime Lab Trane RTU, AC-10<br>-- Phase III: McQuay RTU, AC-11, HV-1 |

# Exhibit 2

## Specifications

The Contractor shall design, furnish, and install the Fossil Fuel Energy Conservation Measures (FFECMs) as described below and in Appendix A, attached hereto.

The Contractor is fully responsible for the conceptualization and development of all FFECMs proposed. The Contractor shall present full design documents and stamped engineering drawings for review and approval by the State, in an ongoing process through project development, design, implementation, and final generation of record drawings.

The Contractor shall provide all construction management services throughout the project. The Contractor is fully responsible for the management of all subcontractors. The Contractor shall provide a Project Manager and on-site Construction Manager assigned to the project.

The Contractor shall provide weekly construction meetings with the State and team members to review progress, schedule, problems, and issues, and to provide a look-ahead schedule for facility managers.

The following provides details about the procedures proposed to be used in performing work in critical BSL-2 and BSL-3 laboratories, including installation of Phoenix variable flow valves for fume hoods, ventless fume hoods, snorkel valves, and other adjustments to the main room supply and exhaust air control valves:

**Proposed Procedures for working in the State Laboratories.**

**General Preparations and Notifications prior to initiation of work**

1. The State will assign a designated representative to approve and coordinate the activities in the state laboratories.
2. The State Lab representatives will provide a detailed list of all hazardous materials contained in the labs and in each specific affected equipment.
3. The Contractor shall identify which labs correspond to which air handler and which Strobic exhaust system.
4. The Contractor shall provide an overall schedule of planned activities affecting labs.
5. Prior to any work being performed, the Contractor shall conduct a risk assessment of each lab and its respective hazardous materials (biological, chemical, radioactive, etc.). The Contractor shall help assess which materials need to be moved to alternative locations for storage, and which can be left in place in secondary containers.
6. The Contractor shall consider flammable materials that may be adversely affected by any heat or spark from construction activities. The Contractor's schedule will need to take into account any experiments and or procedures that may run

overnight or for long periods of time. The Contractor shall also take into consideration how shutting down a specific lab ventilation system zone may impact other lab areas that are not necessarily in the construction zone.

7. Prior to shutdown of any of the three major supply/exhaust systems, the Contractor shall prepare a detailed, written work plan and schedule for each lab to be worked on and will submit these to the State lab director and lab managers for approval *at least (20) business days prior to desired lab work initiation date*.
8. *No later than (10) business days prior to the desired work initiation date*, the State Construction Manager in consultation with all laboratory managers who will be affected by the proposed work will acknowledge, by the Contractor's written work plan and schedule, that:
    a) (if applicable) the signatories understand that their lab exhaust and supply systems will be shut down and that they have discontinued all processes that require exhaust
    b) (if applicable) the signatories have assured that all processes that continue to emit materials even after they have been shut off have been moved into alternate ventilation appliances that will capture their emissions
    c) (if applicable) the signatories have made arrangements to perform necessary lab work in alternate building wings during the shut-down
    d) the signatories have coordinated with all people responsible for safe operation of the affected lab to assure that these people know and acknowledge responsibility for their part of the proposed work procedure.
9. The Contractor shall survey all fume hoods for perchloric acid residues prior to any work being performed.
10. The Contractor shall be responsible for proper decontamination services.

The following provides specifics of the time required and the preparations required to perform the work in the critical BSL-2 and BSL-3 laboratories:

**A. Isolation of lab zone to be retrofitted (~ 1 day)**

a. State: Remove all equipment and materials from lab hoods and surrounding areas that will have plastic sheeting installed.
b. CTI ($2^{nd}$ shift work): Reprogram EV and SV in applicable zone to zero cfm; adjust EV and SV in alternate lab space to increase overall flow rates to maintain negative lab space static pressure and provide for comfort cooling.
c. Contractor ($2^{nd}$ shift work): Install plastic sheeting from ceiling to floor, seal off affected area with taped joints.

**B. Prepare ceiling for installation of valves (~ 1 day)**

a. Contractor ($2^{nd}$ shift work): Cut holes in hard ceiling, install hatch (2' x 2'), clean up and remove all dust and debris using HEPA filter vacuum.
b. Decon sub ($1^{st}$ shift work): Decontaminate hood interior.

**C. Install primary new Phoenix valves (1 night)**

a. Contractor Construction Manager: **Coordinate main air shutdown with State labs: requires approximate 2-8 hour shutdown of Main Air Handlers and Strobic exhaust fans for following task.**
b. CTI (2nd shift work): Override to off position the supply fans serving the laboratory being worked on, and then override to off position all Strobic fans serving the laboratory being worked on. (Note: the Contractor will evaluate feasibility of leaving one Strobic fan on while following work is being done to maintain a slight negative exhaust duct pressure.)
c. Decon sub (2nd shift work): Cut out existing EV and SV, including nearby ductwork, and cut out existing exhaust duct section where a new Phoenix general exhaust damper will be installed (if applicable). Decontaminate removed exhaust ductwork and decontaminate inside duct surfaces of remaining exhaust ductwork. Remove all decontaminated ductwork and valves to outside building (dumpster) before end of work shift.
d. Ductwork sub (2nd shift work): (All of following connections to be either welded or slip fit with sealant and compression band.)
    i. Install new straight-through exhaust duct with shut-off damper in place of old EV valve using either welded connection or slip fit connection. Close exhaust shut-off damper.
    ii. Install new tee with shut-off damper where new Phoenix general exhaust valve will be located. Close exhaust shut-off damper.
    iii. Install new Phoenix supply valve and associated ductwork. Manually close off new supply damper to zero cfm position.
    iv. Verify all exhaust and supply shut-off valves are tightly closed and flowing zero cfm.
e. Ductwork sub (2nd shift work): If necessary for comfort control, install temporary supply and exhaust duct (with shut-off dampers) from adjacent SV and EV zone to provide some minimal air flow to lab space during the next phases of work.
f. CTI (2nd shift work): Restart Strobic fans and associated supply fans and verify stable operation and appropriate negative or positive room pressure differentials in all laboratory rooms. Go to each affected lab room and reset all "Lab Air Flow" alarms. Verify proper hood face velocities are being achieved in hood at time the alarm is reset.

**D. Install Phoenix fume hood controls and valves (~ 3 days)**

a. Ductwork sub (1st shift work): Install blank-off plates for fume hoods to close off bypass. Install new Phoenix hood exhaust valves and associated ductwork.

b. CTI (1st shift work): Install control wiring, sensors, etc., including conduit, from all Phoenix exhaust and supply valves to the zone Phoenix controller.
c. Phoenix and CTI (2nd shift work): Commission, start-up and test all valves and controls. Verify adequate fume hood face velocities in all hoods at all sash heights. Mark maximum safe position of sash on hood using new decal; remove old decals and other sash height markings. Verify adequate lab air flow when all hoods have sashes in down position.
d. The State shall complete ASHRAE 110 Fume Hood Testing on all "existing to remain" and modified fume hoods in all modified laboratory areas.

**E. Final clean-up (~ 1 night)**

a. GC sub (2nd shift work): Repair, sand and paint the ceiling cuts and access hatches, the new Phoenix valves, and the new ductwork installed. Paint color and finish to match existing ductwork paint.
b. GC sub (2nd shift work): Clean up debris, remove dust using HEPA filter vacuum, remove plastic sheeting and perform final inspection of entire lab area affected. (Note this work may be done simultaneously with installation of new plastic sheeting in the next laboratory area to be retrofitted.)

CTI will create a restart/commissioning plan and submit to the Contractor for approval.

**General Assumptions and Clarifications**

- Correction of existing code violations uncovered during the installation of the work is not included in the scope of work
- Hazardous material abatement and/or disposal are not included. All asbestos and other hazardous material abatement and associated ACBM disposal necessary to complete the installation of the proposed FFECMs will be provided by the State and the abatement performance period will be coordinated to accommodate the completion of ECM construction per the project schedule. It is assumed that no hazardous material exists in the site. As such, no remediation services are included in the Contractor's scope of work.
- The State shall provide on-site space for construction materials storage, trailers and parking.
- The State is responsible for recertification of all chemical fume hoods and biological safety cabinets after completion of FFECM scope by the Contractor.

**State Approvals:** The modifications proposed in the lab hood FFECMs, including conversions of fume hoods from ducted to ventless hoods, removal of BSC exhaust ducts,

elimination or control of snorkel exhausts, reduction of laboratory general air change rates, and improvements to the occupied and unoccupied ventilation rates have been reviewed and approved by the Contractor's laboratory design consultants, hood consultants, and lab hood testing and balancing consultants as appropriate and fully compliant with safety requirements in the various laboratory areas affected. Additionally, all recommended changes listed above have been fully discussed with the respective laboratory directors and the above scope of work and laboratory changes have been presented to them for approval on numerous occasions. All recommendations were accepted by the State as meeting their respective laboratory's requirements, subject to confirmation by the Contractor's professional engineering consultant.

**PE Stamped Design Documentation:** The final design that will be implemented by the Contractor shall be reviewed and PE-stamped by the Contractor's outside consulting engineering firm (licensed in New Hampshire), which is experienced in laboratories and in testing, balancing and certifying fume hoods, BSCs, and general laboratory ventilation systems. The final design is also subject to review and approval by the NH State Fire Marshal before any construction can begin.

**Commissioning and Verification prior to re-occupancy of lab spaces:** The Contractor shall ensure that an independent, third-party, industry-standard testing and validation for the Phoenix valves will be performed prior to completing work in each laboratory and to show Phoenix Controls successfully completed all the requirements to commission its valves and controllers.

# Exhibit 3

## Guaranteed Energy Savings, Measure and Verification Plan, and Commissioning

1. The Contractor shall complete the following fossil fuel energy conservation measures (FFECMs) and guarantee the energy unit savings as detailed in the Detailed Feasibility Study in the amounts listed in the Table 1. Guaranteed Cost Savings are based on the guaranteed energy unit savings multiplied by the base line rates defined herein. This guarantee shall apply for a period of five (5) years, which period shall commence after Substantial Completion of all FFECMs.

**Table 1 Guaranteed Energy Measures**

| [illegible] | [illegible] | [illegible] | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (A) Project Costs (INCLUDES service phase costs; excludes finance costs) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (E2) Wood-chips Tons | (F) Guaranteed Energy/Water Savings | (A) / (F) | Electric (B) x 0.43 x 3.412 | Natural Gas (D) x 100 | Total Fossil Fuel Savings |

## Division of Motor Vehicles Building

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | Lighting | Re-lamp and re-ballast the existing 4' T8 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures and reflectors, and incandescent with LEDs. Install ceiling motion sensors, and photocells. Replace exterior MH fixtures with new LED fixtures. | $106,132 | 85,022 | 35 | -796 | 0 | 0 | $11,812 | 9.0 | 138,217 | -79,579 | 58,639 |
| 101 | HVAC and Plumbing Measures | Install (1) new condensing boiler to serve all heating and DHW loads in the building. Keep existing larger unit as backup. Link new boiler to DDC controls; add DHW re-circulator pump control. | $183,792 | 0 | 0 | 5,155 | 0 | 0 | $4,417 | 41.6 | 0 | 571,213 | 571,213 |
| 102 | Building Controls and Monitoring | Install new EMCS front-end with more graphics and failure alerts; integrate with DAS campus EMCS network; improve occ/unocc htg/clg setpoints and schedules. Retro-Commission (Retro-Cx) existing controls. Install CO2 control for (4) AHUs. Install networked sub-metering. | $81,129 | 14,520 | 0 | 1,586 | 0 | 0 | $3,003 | 27.0 | 23,604 | 175,758 | 199,362 |
| 103 | Building Controls and Monitoring | Add sequences & VFD for occupancy-based partial setback for the auditorium. (Includes new supply fan VSD for auditorium) | $13,909 | 1,052 | 0 | 1,190 | 0 | 0 | $1,138 | 12.2 | 1,710 | 131,818 | 133,529 |

| Measure No. | Measure ID Category | Measure Description | (A) Project Costs (INCLUDES service phase costs; excludes finance costs) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (E2) Wood-chips Tons | (F) Guaranteed Energy/Water Savings | (A) / (F) | Electric (B) x 0.43 x 3.412 | Natural Gas (D) x 100 | Total Fossil Fuel Savings |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 104 | HVAC and Plumbing Measures | Install VFD(s) to replace bypass dampers in (2) AHUs. | $18,696 | 5,261 | 0 | 0 | 0 | 0 | $595 | 31.4 | 8,552 | 0 | 8,552 |
| 105 | Building Envelope | Install/Replace weather-stripping around doors. | $1,197 | 39 | 0 | 195 | 0 | 0 | $172 | 7.0 | 64 | 21,657 | 21,721 |
| 106 | Additional Measures | Install new low-flow flush valves on urinals and water closets and make faucets low flow. | $13,448 | 0 | 0 | 156 | 399 | 0 | $5,775 | 2.3 | 0 | 17,279 | 17,279 |
| 107 | Additional Measures | Install power factor correction capacitors to use electricity more efficiently. | $44,483 | 0 | 65 | 0 | 0 | 0 | $5,274 | 8.4 | 0 | 0 | 0 |
| | | **BPW Fees (Prorata portion)** | **$6,283** | | | | | | | | | | |
| | | **Agreement Price (including BPW fees)** | **$469,069** | **105,894** | **100** | **7,564** | **399** | **0** | **$32,187** | **14.6** | **172,147** | **838,146** | **1,010,293** |

## Morton Building

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 200 | Lighting | Re-lamp and re-ballast the existing 4' T8 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures and reflectors, and incandescent with LEDs. Install new LED exit signs. Replace exterior pole MH fixtures with new LED fixtures. | $196,265 | 101,232 | 39 | -1,579 | 0 | 0 | $13,106 | 15.0 | 164,570 | -157,918 | 6,651 |
| 201 | HVAC and Plumbing Measures | Upgrade chiller system piping, valves and controls to improve chilled water system efficiency and comfort. Retro-Cx and repair DDC and mechanical control components of chilled water system. | $129,559 | 144,289 | 0 | 1,926 | 0 | 0 | $18,172 | 7.1 | 234,565 | 213,379 | 447,944 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (A) Project Costs (INCLUDES service phase costs; excludes finance costs) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (E2) Wood-chips Tons | (F) Guaranteed Energy/Water Savings | (A) / (F) | Electric (B) x 0.43 x 3.412 | Natural Gas (D) x 100 | Total Fossil Fuel Savings |
| 202 | Building Controls and Monitoring | Improve Hot-deck/Cold-deck control sequences and occupied & unoccupied htg/clg setpoints and schedules; Modulate OA dampers with new sequences for CO2 and partial economizer control; Replace failed VFDs for (2) existing OA supply fans; Install DDC control of RTU and Chiller; Retro-Commission hot-water system reset schedule and pumps. Implement DHW recirculation pump DDC control. Test and balance ventilation and htg/clg water distribution systems throughout building. Install networked sub-metering in Morton Building, Materials Lab, and Fish & Game Building. Install new R2/AX replacement JACE. | $565,666 | 240,481 | 0 | 15,599 | 0 | 0 | $42,122 | 13.4 | 390,941 | 1,728,371 | 2,119,312 |
| 203 | Building Controls and Monitoring | Install controls for (2) kitchen hoods and (2) unit ventilators and eliminate exhaust and make-up air when not cooking. Provide user control switch integrated with EMCS (manual ON/OFF, schedule off after 3pm; 2-hour temporary override functions). | $4,494 | 16,032 | 0 | 1,733 | 0 | 0 | $3,470 | 1.3 | 26,063 | 192,041 | 218,104 |
| 204 | Building Envelope | Insulate bottom of exposed floor slab in one area at front of building; Install/Replace weather-stripping around doors. | $14,303 | 235 | 0 | 1,869 | 0 | 0 | $1,812 | 7.9 | 382 | 207,080 | 207,462 |
| 205 | Additional Measures | Install new low-flow flush valves on urinals and water closets and make faucets low flow. | $26,157 | 0 | 0 | 223 | 571 | 0 | $3,940 | 6.6 | 0 | 24,722 | 24,722 |
| 208 | Additional Measures | Replace all electrical transformers older than 15 years with high efficiency units | $70,209 | 47,189 | 5 | 0 | 0 | 0 | $5,781 | 12.1 | 76,713 | 0 | 76,713 |
| 209 | Additional Measures | Install power factor correction capacitors to use electricity more efficiently. | $23,243 | 0 | 40 | 0 | 0 | 0 | $3,215 | 7.2 | 0 | 0 | 0 |
| 206 | Renewable Energy Systems | (PROJECT INCLUSION AND SIZE CONTINGENT ON AMOUNT OF PUC GRANT) Install large (~82 kW) Solar PV system to generate renewable electricity (potential PUC grant of $500,000). | $509,517 | 0 | 0 | 0 | 0 | 0 | $9,757 | 52.2 | 126,467 | 0 | 126,467 |

| Measure ID | Measure ID Category | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (A) Project Costs (INCLUDES service phase costs; excludes finance costs) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (E2) Wood-chips Tons | (F) Guaranteed Energy/Water Savings | (A) / (F) | Electric (B) x 0.43 x 3.412 | Natural Gas (D) x 100 | Total Fossil Fuel Savings |
| 207 | Renewable Energy Systems | (CONTINGENT ON GRANTS AND REBATES - ALTERNATE FFECM if PUC grant is not available.) Install small (5.4 kW) Solar PV system to generate renewable electricity | $33,569 (EXCL) | 0 | 0 | 0 | 0 | 0 | $568 (EXCL) | 59.1 | 0 | 0 | 0 |
| | | **BPW Fees (Prorata portion)** | **$13,983** | | | | | | | | | | |
| | | **Morton Building BASE PROJECTS Subtotals including BPW ("Agreement Price")** | **$1,043,878** | 549,458 | 84 | 19,924 | 571 | 0 | $91,619 | 11.4 | 893,234 | 2,207,674 | 3,100,908 |
| | | **Morton Building CONTINGENT PROJECTS Subtotals (FFECM 206 and 207)** | **$509,517** | 0 | 0 | 0 | 0 | 0 | $9,757 | 52.2 | 126,467 | 0 | 126,467 |
| | | **Morton Building Contract Price Subtotals** | **$1,553,395** | **549,458** | **84** | **19,924** | **571** | **0** | **$101,376** | **15.3** | **1,019,701** | **2,207,674** | **3,227,375** |

## 27 Hazen Dr. DoIT

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (A) Project Costs (INCLUDES service phase costs; excludes finance costs) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (E2) Wood-chips Tons | (F) Guaranteed Energy/Water Savings | (A) / (F) | Electric (B) x 0.43 x 3.412 | Natural Gas (D) x 100 | Total Fossil Fuel Savings |
| 300 | Lighting | Re-lamp and re-ballast the existing 4' T8 and T12 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures with reflectors. Install ceiling motion sensors, and new LED exit signs. | $154,320 | 55,724 | 20 | -869 | 0 | 0 | $7,114 | 21.7 | 90,588 | -86,927 | 3,661 |
| 301 | HVAC and Plumbing Measures | Replace (2) 40 ton chillers with (2) 30 ton chillers equiped with buffer tanks; this system provides cooling for (1) small lower level AHU and (1) larger AHU. Revise existing DDC controls to accommodate new chillers. | $272,369 | 50,109 | 27 | 0 | 0 | 0 | $7,871 | 34.6 | 81,460 | 0 | 81,460 |
| 302 | HVAC and Plumbing Measures | In basement UPS room, eliminate Liebert cooling and install new split DX cooling unit; install new DDC temperature monitoring point for EMCS. | $49,585 | 35,736 | 16 | 0 | 0 | 0 | $5,309 | 9.3 | 58,095 | 0 | 58,095 |
| 303 | Building Controls and Monitoring | Replace pneumatic controls and actuators for all VAV boxes and heating zones associate with AHU-D1 with new DDC controls; repair/replace dampers, and repair HVAC systems. Replace pneumatic controls for AHU serving lower level with new DDC controls. Install networked sub-metering. Retro-Commission all existing DDC controls. | $98,681 | 12,694 | 0 | 3,745 | 0 | 0 | $4,840 | 20.4 | 20,637 | 414,920 | 435,557 |
| 304 | Building Controls and Monitoring | Install CO2 sensor control to match outside air ventilation to actual occupancy for areas served by AHU-D1. | $9,871 | 4,009 | 0 | 1,605 | 0 | 0 | $1,912 | 5.2 | 6,517 | 177,823 | 184,340 |
| 305 | Building Envelope | Install/Replace weather-stripping around doors. | $1,852 | 78 | 0 | 391 | 0 | 0 | $364 | 5.1 | 127 | 43,314 | 43,441 |
| 306 | Additional Measures | Replace all electrical transformers older than 15 years with high efficiency units. | $133,401 | 56,446 | 6 | 0 | 0 | 0 | $6,915 | 19.3 | 91,762 | 0 | 91,762 |
| | | **BPW Fees (Prorata portion)** | **$9,776** | | | | | | | | | | |

| Measure ID | Measure ID Category | | (A) Project Costs (INCLUDES service phase costs; excludes finance costs) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (E2) Wood-chips Tons | (F) Guaranteed Energy/Water Savings | (A) / (F) | Electric (B) x 0.43 x 3.412 | Natural Gas (D) x 100 | Total Fossil Fuel Savings |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **27 Hazen Dr. DoIT Subtotals** | **$729,856** | **214,797** | **69** | **4,956** | **0** | **0** | **$34,324** | **21.3** | **349,187** | **549,130** | **898,316** |

## 29 Hazen Dr. HHS

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 400 | Lighting | Re-lamp and re-ballast the existing 4' T8 and T12 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures with reflectors, and incandescent with LEDs. Install ceiling and wall motion sensors, photocells, and new LED exit signs. Replace exterior MH fixtures with new LED fixtures. | $420,488 | 254,687 | 85 | -306 | 0 | -36 | $33,486 | 12.6 | 414,035 | -30,624 | 383,411 |
| 401 | HVAC and Plumbing Measures | Replace failed stream traps and insulated bare steam pipes (allowance) following steam survey to be provided by utility. | $9,868 | 0 | 0 | 1,867 | 0 | 271 | $13,932 | 0.7 | 0 | 206,841 | 206,841 |
| 402 | Building Controls and Monitoring | Upgrade (12) single-zone and multi-zone AHUs from existing pneumatic controls to new DDC controls. Retro-commission existing DDC controls. Repair all dampers in AHUs 1E and 1W (large air houses) and install new electric actuators. Install networked sub-metering. | $444,191 | 153,939 | 0 | 739 | 0 | 97 | $22,940 | 19.4 | 250,254 | 81,886 | 332,140 |
| 403 | Building Controls and Monitoring | Install CO2 sensor control to match outside air ventilation to actual occupancy for areas served by AHU-1E, 1W and (11) single-zone and multi-zone AHUs. Upgrade VAVs and heating zone controls served by AHUs 1E and 1W (two large air houses) from existing pneumatic controls to new DDC controls. | $126,850 | 43,419 | 0 | 1,570 | 0 | 206 | $16,635 | 7.6 | 70,584 | 174,009 | 244,593 |
| 404 | Building Controls and Monitoring | Install new pump VFDs and DDC controls for steam converter HX-5 in boiler room (heating hot water supply to HHS). Provide new steam valve and pressure transducer. | $39,485 | 0 | 0 | 139 | 0 | 20 | $1,038 | 38.0 | 0 | 15,416 | 15,416 |

| Measure ID | Measure ID Category | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (A) Project Costs (INCLUDES service phase costs; excludes finance costs) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (E2) Wood-chips Tons | (F) Guaranteed Energy/Water Savings | (A) / (F) | Electric (B) x 0.43 x 3.412 | Natural Gas (D) x 100 | Total Fossil Fuel Savings |
| 405 | Building Envelope | Insulate bottom of exposed floor slabs in three areas of building; Install/Replace weather-stripping around doors. | $90,557 | 157 | 0 | 157 | 0 | 21 | $1,189 | 76.2 | 255 | 17,384 | 17,639 |
| 406 | Additional Measures | Install smart-strip time programmable controllers on laser-jet printers (116). | $30,526 | 19,271 | 0 | 0 | 0 | 0 | $2,181 | 14.0 | 31,329 | 0 | 31,329 |
| 408 | Additional Measures | Replace 59% of all electrical transformers older than 15 years with high efficiency units | $251,671 | 99,162 | 11 | 0 | 0 | 0 | $12,148 | 20.7 | 161,203 | 0 | 161,203 |
| 409 | Additional Measures | Install power factor correction capacitors to use electricity more efficiently | $91,309 | 0 | 129 | 0 | 0 | 0 | $10,504 | 8.7 | 0 | 0 | 0 |
| 411 | Additional Measures | Install new low-flow flush valves on urinals and water closets and make faucets low flow. | $28,382 | 0 | 0 | 16 | 529 | 2 | $3,234 | 8.8 | 0 | 1,766 | 1,766 |
| 418 | Additional Measures | (CONTINGENT ON GRANTS AND REBATES) Replace 41% of all electrical transformers older than 15 years with high efficiency units | $174,890 | 99,162 | 11 | 0 | 0 | 0 | $12,148 | 14.4 | 161,203 | 0 | 161,203 |
| | | **BPW Fees (Prorata portion)** | **$20,818** | | | | | | | | | | |
| | | **29 Hazen Dr. HHS BASE PROJECTS Subtotals including BPW ("Agreement Price")** | **554,143** | 570,635 | 226 | 4,212 | 529 | 552 | $117,286 | 13.3 | 927,660 | 466,678 | 1,394,338 |
| | | **29 Hazen Dr. HHS CONTINGENT PROJECTS Subtotals (FFECM 418)** | **$174,890** | 99,162 | 11 | 0 | 0 | 0 | $12,148 | 14.4 | 161,203 | 0 | 161,203 |
| | | **29 Hazen Dr. HHS Contract Price Subtotals** | **$1,729,033** | **669,797** | **238** | **4,212** | **529** | **552** | **$129,433** | **13.4** | **1,088,863** | **466,678** | **1,555,542** |

| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (A) Project Costs (INCLUDES service phase costs; excludes finance costs) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (E2) Wood-chips Tons | (F) Guaranteed Energy/Water Savings | (A) / (F) | Electric (B) x 0.43 x 3.412 | Natural Gas (D) x 100 | Total Fossil Fuel Savings |

## 29 Hazen Dr. Labs

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 500 | Lighting | Re-lamp and re-ballast the existing 4' T8 and T12 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures with reflectors, and incandescent with LEDs. Install ceiling and wall motion sensors, photocells, and new LED exit signs. Replace exterior MH fixtures with new LED fixtures. | $232,873 | 129,850 | 50 | -156 | 0 | -18 | $17,606 | 13.2 | 211,092 | -15,614 | 195,479 |
| 501 | HVAC and Plumbing Measures | Install Phoenix variable flow valves to convert (26) fume hoods to variable flow using Phoenix valves. Replace (12) fume hoods with new Erlab ventless hoods having both HEPA and gas-phase filtration. Remove (28) un-needed snorkel ducts and install (28) high/low flow control valves in other snorkel ducts serving variable heat/humidity loads where feasible. Convert (7) bio-safety cabinets to ventless operation by eliminating connection to exhaust duct. Test and Balance all Lab room supply and exhaust air valves and adjust for occupied and unoccupied flow rates. Recalibrate (3) flow-safe room alerts, (139) SV and EV flow stations, and (approximately 20 out-of-calibration) space temperature sensors. Note: Recertification of all lab hoods will be done during the lab's next regularly-scheduled facility recertification, which will be paid for by NH DAS. | $1,696,016 | 430,991 | 0 | 5,862 | 0 | 768 | $92,533 | 18.3 | 700,646 | 649,533 | 1,350,179 |

| Measure ID | Measure Category | Measure Description | (A) Project Costs (INCLUDES service phase costs; excludes finance costs) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (E2) Wood-chips Tons | (F) Guaranteed Energy/Water Savings | (A) / (F) | Electric (B) x 0.43 x 3.412 | Natural Gas (D) x 100 | Total Fossil Fuel Savings |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 502 | HVAC and Plumbing Measures | Eliminate winter CHW operation for 3 FCUs. Install split DX cooling units for tel-comm, electrical and lobby areas; integrate with DDC control system. | $54,872 | 390,224 | 53 | 0 | 0 | 0 | $45,947 | 1.2 | 634,373 | 0 | 634,373 |
| 503 | HVAC and Plumbing Measures | Reengineer design of water-cooled condensers in 4 freezer/cooler condensing units to reduce size of circulating pump, add water bypass as needed, and reduce unneeded water waste. This will improve utilization of existing chilled water cooling system when chiller is operation. Automate switchover from once-through water cooling to chilled water cooling. | $87,169 | 24,488 | 0 | 0 | 345 | 0 | $4,801 | 18.2 | 39,809 | 0 | 39,809 |
| 504 | Building Controls and Monitoring | Retro-Cx all HVAC control systems (mechanical and DDC) serving laboratory areas including all ERUs and AHUs . Repair dampers, valves, sensors and actuators. Recalibrate AHU flow stations, and pressure/temperature/humidity sensors. Optimize chilled water system controls (CHW DP setpoint, recalibrate CHW flow meter). Install networked sub-metering. | $251,722 | 429,668 | 0 | 3,475 | 0 | 456 | $74,567 | 3.4 | 698,494 | 385,028 | 1,083,522 |
| 505 | Building Controls and Monitoring | Retro-Cx all HVAC Systems serving non-laboratory areas (office, hallway, conference, etc). Repair existing temperature sensors, VAV dampers, and BAS and add schedule controls to setback the space temperatures in the non-laboratory areas when unoccupied. Test and Balance all non-lab supply and exhaust air flow rates for occupied and unoccupied conditions. | $60,961 | 430,991 | 0 | 3,517 | 0 | 461 | $75,033 | 0.8 | 700,646 | 389,720 | 1,090,366 |
| 506 | Motors and Variable Frequency Drives | Install Strobic fan VFDs and control system to reduce laboratory exhaust fan energy use. Integrate new Strobic control system with building EMCS and provide sequence for improved freeze protection. Retro-Cx and repair bypass and isolation dampers, static pressure sensors, air flow stations and controls. Relocate static pressure sensor for lab addition exhaust system. | $651,039 | 1,018,707 | 110 | 0 | 0 | 0 | $124,234 | 5.2 | 1,656,073 | 0 | 1,656,073 |

| ECM ID | ECM Category | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (A) Project Costs (INCLUDES service phase costs; excludes finance costs) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (E2) Wood-chips Tons | (F) Guaranteed Energy/Water Savings | (A) / (F) | Electric (B) x 0.43 x 3.412 | Natural Gas (D) x 100 | Total Fossil Fuel Savings |
| 507 | Motors and Variable Frequency Drives | Install VFD(s) on (6) ERU glycol pumps and Retro-Cx/repair 3-way valve operation. Reprogram sequence to improve heat recovery to AHUs and shutdown glycol loop in conditions when there is insufficient recoverable heat (small difference in temperature between exhaust and supply). | $64,100 | 48,976 | 14 | 2,345 | 0 | 307 | $23,713 | 2.7 | 79,619 | 259,813 | 339,432 |
| 508 | Building Controls and Monitoring | Install VFD(s) on domestic water booster pump system and remove pressure reducing valves. Install check valves and differential pressure sensor. Implement DDC control for (3) DHW recirculation pumps. | $24,141 | 9,795 | 2 | 0 | 0 | 0 | $1,210 | 19.9 | 15,924 | 0 | 15,924 |
| 509 | Building Envelope | Install/Replace weather-stripping around doors | $1,540 | 78 | 0 | 30 | 0 | 4 | $234 | 6.6 | 127 | 3,339 | 3,466 |
| 510 | Renewable Energy Systems | Install 8,300,000 btu/hr output biomass boiler to reduce natural gas (fossil fuel) consumption for steam supply to the laboratory and HHS. Integrate with existing steam boiler plant and heating system DDC controls. | $5,045,470 | -63,072 | 0 | 380,615 | 0 | -4,617 | $130,402 | 38.7 | -92,537 | 42,173,408 | 42,080,871 |
| | | **BPW Fees (Prorata portion)** | **$110,922** | | | | | | | | | | |
| | | **29 Hazen Dr. Labs Subtotals** | **$8,280,826** | **2,856,847** | **229** | **395,703** | **345** | **-2,189** | **$590,279** | **14.0** | **4,644,268** | **43,845,226** | **48,489,494** |

## Department of Safety Building

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (A) Project Costs (INCLUDES service phase costs; excludes finance costs) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (E2) Wood-chips Tons | (F) Guaranteed Energy/Water Savings | (A) / (F) | Electric (B) x 0.43 x 3.412 | Natural Gas (D) x 100 | Total Fossil Fuel Savings |
| 600 | Lighting | Re-lamp and re-ballast the existing 4' T8 and T12 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures with reflectors. Install photocells, and new LED exit signs. Replace exterior MH fixtures with new LED fixtures. | $211,329 | 162,989 | 66 | -2,543 | 0 | 0 | $21,401 | 9.9 | 264,965 | -254,256 | 10,709 |
| 601 | HVAC and Plumbing Measures | Replace (5) laboratory hoods with ventless lab hoods with HEPA and gas-phase filtration. Install snorkels to remove heat from (4) mass spectrometers. Remove unused hood over photo lab sink. | $29,313 | 6,842 | 0 | 4,704 | 0 | 0 | $5,269 | 5.6 | 11,122 | 521,178 | 532,301 |
| 602 | HVAC and Plumbing Measures | Install stand-alone condensing DHW boiler and DHW storage tank. Provide DDC control of boiler and DHW re-circulating pump. | $69,441 | 0 | 0 | 1,036 | 0 | 0 | $990 | 70.2 | 0 | 114,783 | 114,783 |
| 604 | Building Controls and Monitoring | Retro-Cx existing DDC controls. Repair dampers valves and actuators. Revise ERU operating sequence to operate exhaust fan at low speed during unoccupied periods to avoid overheating in the laboratory without the energy expense of operating the ERU supply fan. Install networked sub-metering. | $74,778 | 58,644 | 0 | 5,140 | 0 | 0 | $11,550 | 6.5 | 95,336 | 569,573 | 664,909 |
| 605 | Building Envelope | Install/Replace weather-stripping around doors. | $2,052 | 157 | 0 | 782 | 0 | 0 | $765 | 2.7 | 255 | 86,628 | 86,882 |
| 606 | Additional Measures | Install new low-flow flush valves on urinals and water closets and make faucets low flow. | $40,686 | 0 | 0 | 158 | 404 | 0 | $4,934 | 8.2 | 0 | 17,491 | 17,491 |
| 607 | Additional Measures | Replace all electrical transformers older than 15 years with high efficiency units. | $149,572 | 74,787 | 9 | 0 | 0 | 0 | $9,160 | 16.3 | 121,579 | 0 | 121,579 |
| 608 | Additional Measures | Install power factor correction capacitors to use electricity more efficiently. | $28,120 | 0 | 48 | 0 | 0 | 0 | $3,890 | 7.2 | 0 | 0 | 0 |

| [illegible] ID | [illegible] Category | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (A) Project Costs (INCLUDES service phase costs; excludes finance costs) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (E2) Wood-chips Tons | (F) Guaranteed Energy/Water Savings | (A) / (F) | Electric (B) x 0.43 x 3.412 | Natural Gas (D) x 100 | Total Fossil Fuel Savings |
| 603 | Building Controls and Monitoring | (CONTINGENT ON GRANTS AND REBATES) Replace pneumatic controls with new DDC controls for VAVs and heating zone controls associated with the following AHUs:<br>-- Core: AC-1 thru AC-8<br>-- Phase II: Crime Lab Trane RTU, AC-10<br>-- Phase III: McQuay RTU, AC-11, HV-1 | $287,584 | 32,254 | 0 | 314 | 0 | 0 | $3,950 | 72.8 | 52,435 | 34,745 | 87,180 |
| | | **BPW Fees (Prorata portion)** | **$8,218** | | | | | | | | | | |
| | | **Department of Safety Building BASE PROJECTS Subtotals including BPW ("Agreement Price")** | **$613,509** | **303,419** | **123** | **9,525** | **404** | **34,344** | **$57,958** | **10.6** | **493,257** | **1,055,398** | **1,548,654** |
| | | **Department of Safety Building CONTINGENT PROJECTS Subtotals (FFECM 603)** | **$287,584** | 32,254 | 0 | 314 | 0 | 0 | $3,950 | 72.8 | 52,435 | 34,745 | 87,180 |
| | | **Department of Safety Building Contract Price Subtotals** | **$901,093** | **335,673** | **123** | **9,839** | **404** | **37,995** | **$61,908** | **14.6** | **545,691** | **1,090,143** | **1,635,834** |

11/5/2014

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (A) Project Costs (INCLUDES service phase costs; excludes finance costs) | (B) Electric kWh | (C) Electric kW | (D) Natural Gas Therms | (E) Water Gallons | (E2) Wood-chips Tons | (F) Guaranteed Energy/Water Savings | (A) / (F) | Electric (B) x 0.43 x 3.412 | Natural Gas (D) x 100 | Total Fossil Fuel Savings |
| | | Grand Total – BASE PROJECTS | $12,521,282 | 4,601,050 | 831 | 441,884 | 2,247 | 520,793 | $923,653 | 13.6 | 7,556,465 | 48,962,253 | 56,518,718 |
| | | Grand Total - BPW Fees: | $170,000 | | | | | | | | | | |
| | | Total - BASE PROJECTS plus BPW Fees: ("Agreement Price") | $12,691,282 | | | | | | | | | | |
| | | Grand Total – CONTINGENT PROJECTS (Paid entirely by Grants and Rebates) | $971,991 | 131,416 | 11 | 314 | 0 | 14,875 | $25,855 * | 37.6 | 213,638 | 34,745 | 248,383 |
| | | Contract Price | $13,663,273 | 4,732,466 | 842 | 442,198 | 2,247 | 535,668 | $949,508 * | 14.4 | 7,819,857 | 48,996,998 | 56,816,855 |

* These savings are guaranteed even if contingent projects are not implemented.

## Baseline Energy Use

**Table 2 Baseline Energy Use**

| Utility Data | Source and Time Frame | Amount |
|---|---|---|
| **Total Electric Consumption and Demand** | Utility summary provided by the State - Fiscal Year 2011; review of annual master meter data indicates usage has been very stable for the past three years. | Total - 16,210,822 kWh |
| **Building Electric Consumption and Demand** | Electrical breakdown provided by the State - Fiscal Year 2011 | DMV - 509,970 kWh<br>27/29 Hazen - 11,020,546 kWh<br>Morton - 96,800 kWh<br>Safety - 117,113 kWh |
| **Natural Gas Consumption** | Utility bills - Latest two years of utility Feb. 2012 to Feb. 2014 | DMV - 21,063 therms<br>27/29 Hazen - 471,204 therms<br>Morton - 40,446 therms<br>Safety - 30,580 therms |

**Preliminary Measurement and Verification Plan**

## Part 1: Savings Measurement and Verification

Measurement and verification (M&V) allows the State to determine whether the savings projected in the Detailed Feasibility Study (DFS) are achieved. The M&V is based on the 2012 International Performance Measurement and Verification Protocol (IPMVP). The M&V plan identifies how energy savings generated by each installed fossil fuel energy conservation measure (FFECM) will be measured. This section explains standard terminology associated with M&V, the M&V protocols that will be used to determine whether projected energy savings are achieved, and M&V reporting. The M&V plan and annual reporting will be in-place for the duration of the contract.

Standard Terminology

Baseline refers to the amount of energy and/or energy costs, equipment conditions and operations, before installation of the respective FFECMs of the project.

Pre-installation period occurs after the pre-award development and continues until all FFECMs are installed.

Post-installation period starts after the completion of the pre-installation period and continues until the FFECMs are accepted by the State.

Performance period begins after the FFECMs are accepted by the State and lasts until the contract terminates.

## Part 2: Post-Installation Measurement and Verification

Measurement and verification strategies are based on IPMVP Option A, Retrofit Isolation, or B, Measured Retrofit Isolation, as specified in the NH DAS RFP #2013-157. Engineering calculations of the savings are based on key parameters that are measured and/or verified as well as parameters that are estimated such as historical data, industry standard engineering values, typical operating hours, or manufacturer's equipment specifications.

M&V Protocols

The standard M&V protocols are described below.

Option A - Retrofit Isolation: Savings are predicted using engineering or statistical methods that do not involve short-term or long-term measurements.

Option B – Measured Retrofit Isolation: Involves short-term, spot measurements, or continuous metering, which may be used as inputs to savings models. Measurements occur during any phase of the project, from pre-award development through the performance period, to determine energy consumption. Measurements are taken at the device or system level.

The table on the following page shows the M&V Options to be used for each FFECM.

**IPMVP methods used to measure savings**

**Table 3 M&V Plan Summary Table**

# Division of Motor Vehicles Building

| | | | | |
|---|---|---|---|---|
| 100 | Lighting | Re-lamp and re-ballast the existing 4' T8 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures and reflectors, and incandescent with LEDs. Install ceiling motion sensors, and photocells. Replace exterior MH fixtures with new LED fixtures. | A | **Detailed review of drawings and room-by-room lighting counts; random inspection of a sampling of ballasts and lamps to confirm equipment types & wattages** |

| | | | | |
|---|---|---|---|---|
| 101 | HVAC and Plumbing Measures | Install (1) new condensing boiler to serve all heating and DHW loads in the building. Keep existing larger unit as backup. Link new boiler to DDC controls; add DHW re-circulator pump control. | B | **One-time combustion efficiency measurement (at initial construction completion) of boiler efficiency during typical operating conditions. Ongoing annual combustion efficiency measurement and notification to owner of any deviation from building model input parameters** |
| 102 | Building Controls and Monitoring | Install new EMCS front-end with more graphics and failure alerts; integrate with DAS campus EMCS network; improve occ/unocc htg/clg setpoints and schedules. Retro-Commission (Retro-Cx) existing controls. Install CO2 control for (4) AHUs. Install networked sub-metering. | B | **Review and Commission EMCS programming, setpoints, seq of operation and communication links to verify that specified EMCS parameters have been achieved; Document sequence for ~25% sampling of EMCS points and sequences** |
| 103 | Building Controls and Monitoring | Add sequences & VFD for occupancy-based partial setback for the auditorium. (Includes new supply fan VSD for auditorium) | B | **Using a 24 hour trend period, measure and verify the average VFD speed. Notify the owner of any deviation from the building model input parameters** |
| 104 | HVAC and Plumbing Measures | Install VFD(s) to replace bypass dampers in (2) AHUs. | B | **Using a 24 hour trend period, measure and verify the average VFD speed. Notify the owner of any deviation from the building model input parameters** |
| 105 | Building Envelope | Install/Replace weather-stripping around doors. | A | **Field inspection will verify equipment has been properly installed and commissioned** |
| 106 | Additional Measures | Install new low-flow flush valves on urinals and water closets and make faucets low flow. | A | **Detailed review of drawings and room-by-room fixture counts with identification of gallons per use** |
| 107 | Additional Measures | Install power factor correction capacitors to use electricity more efficiently. | B | **Field inspection of ALL equipment installed to verify equipment has been properly installed and commissioned** |

# Morton Building

| | | | | |
|---|---|---|---|---|
| 200 | Lighting | Re-lamp and re-ballast the existing 4' T8 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures and reflectors, and incandescent with LEDs. Install new LED exit signs. Replace exterior pole MH fixtures with new LED fixtures. | A | **Detailed review of drawings and room-by-room lighting counts; random inspection of a sampling of ballasts and lamps to confirm equipment types & wattages** |
| 201 | HVAC and Plumbing Measures | Upgrade chiller system piping, valves and controls to improve chilled water system efficiency and comfort. Retro-Cx and repair DDC and mechanical control components of chilled water system. | A | **Field inspection of ALL equipment installed to verify equipment has been properly installed and commissioned** |
| 202 | Building Controls and Monitoring | Improve Hot-deck/Cold-deck control sequences and occupied & unoccupied htg/clg setpoints and schedules; Modulate OA dampers with new sequences for CO2 and partial economizer control; Replace failed VFDs for (2) existing OA supply fans; Install DDC control of RTU and Chiller; Retro-Commission hot-water system reset schedule and pumps. Implement DHW recirculation pump DDC control. Test and balance ventilation and htg/clg water distribution systems throughout building. Install networked sub-metering in Morton Building, Materials Lab, and Fish & Game Building. Install new R2/AX replacement JACE. | B | **Using a 24 hour trend period, measure and verify the average outdoor air damper position. Calculated outdoor air volume and notify the owner of any deviation from the building model input parameters** |
| 203 | Building Controls and Monitoring | Install controls for (2) kitchen hoods and (2) unit ventilators and eliminate exhaust and make-up air when not cooking. Provide user control switch integrated with EMCS (manual ON/OFF, schedule off after 3pm; 2-hour temporary override functions). | B | **Using a 24 hour trend period, measure and verify the average VFD speed. Notify the owner of any deviation from the building model input parameters** |
| 204 | Building Envelope | Insulate bottom of exposed floor slab in one area at front of building; Install/Replace weather-stripping around | A | **Field inspection will verify equipment has been properly installed and commissioned** |

| | | | | |
|---|---|---|---|---|
| | | doors. | | |
| 205 | Additional Measures | Install new low-flow flush valves on urinals and water closets and make faucets low flow. | A | **Detailed review of drawings and room-by-room fixture counts with identification of gallons per use** |
| 208 | Additional Measures | Replace all electrical transformers older than 15 years with high efficiency units | B | **One-time verification (at initial construction completion) of nameplate KW rating** |
| 209 | Additional Measures | Install power factor correction capacitors to use electricity more efficiently. | A | **Field inspection of ALL equipment installed to verify equipment has been properly installed and commissioned** |
| 206 | Renewable Energy Systems | (SIZE CONTINGENT ON AMOUNT OF PV GRANT - Project INCLUDED in building subtotal)<br>Install large (~82 kW) Solar PV system to generate renewable electricity (potential PUC grant of $500,000). | B | **One-time verification (at initial construction completion) of nameplate KW rating** |
| 207 | Renewable Energy Systems | (CONTINGENT ON GRANTS AND REBATES - Project EXCLUDED FROM building subtotal)<br>Install small (5.4 kW) Solar PV system to generate renewable electricity (Alternate FFECM if $500,000 PUC grant is not available). | B | **One-time verification (at initial construction completion) of nameplate KW rating** |

# 27 Hazen
# Dr. DoIT

| | | | | |
|---|---|---|---|---|
| 300 | Lighting | Re-lamp and re-ballast the existing 4' T8 and T12 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures with reflectors. Install ceiling motion sensors, and new LED exit signs. | A | **Detailed review of drawings and room-by-room lighting counts; random inspection of a sampling of ballasts and lamps to confirm equipment types & wattages** |
| 301 | HVAC and Plumbing Measures | Replace (2) 40 ton chillers with (2) 30 ton chillers equiped with buffer tanks; this system provides cooling for (1) small lower level AHU and (1) larger AHU. | B | **One-time verification (at initial construction completion) of nameplate KW rating** |

| | | | | |
|---|---|---|---|---|
| | | Revise existing DDC controls to accommodate new chillers. | | |
| 302 | HVAC and Plumbing Measures | In basement UPS room, eliminate Liebert cooling and install new split DX cooling unit; install new DDC temperature monitoring point for EMCS. | B | **One-time verification (at initial construction completion) of nameplate KW rating** |
| 303 | Building Controls and Monitoring | Replace pneumatic controls and actuators for all VAV boxes and heating zones associate with AHU-D1 with new DDC controls; repair/replace dampers, and repair HVAC systems. Replace pneumatic controls for AHU serving lower level with new DDC controls. Install networked sub-metering. Retro-Commission all existing DDC controls. | B | **Using a 24 hour trend period, measure and verify the average VAV CFM flow rate or damper position. Notify the owner of any deviation from the building model input parameters** |
| 304 | Building Controls and Monitoring | Install CO2 sensor control to match outside air ventilation to actual occupancy for areas served by AHU-D1. | B | **Verify CO2 set point values. Verify that CO2 sensor readings are within normal ranges. Measure CO2 in spaces with unusual or out of range values. Notify owner of any incorrect set points or failed or out of calibration CO2 sensors** |
| 305 | Building Envelope | Install/Replace weather-stripping around doors. | A | **Field inspection will verify equipment has been properly installed and commissioned** |
| 306 | Additional Measures | Replace all electrical transformers older than 15 years with high efficiency units. | B | **One-time verification (at initial construction completion) of nameplate KW rating** |

# 29 Hazen
# Dr. HHS

| | | | | |
|---|---|---|---|---|
| 400 | Lighting | Re-lamp and re-ballast the existing 4' T8 and T12 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures with reflectors, and incandescent with LEDs. Install ceiling and wall motion sensors, photocells, and | A | **Detailed review of drawings and room-by-room lighting counts; random inspection of a sampling of ballasts and lamps to confirm equipment types & wattages** |

| | | | | |
|---|---|---|---|---|
| | | new LED exit signs. Replace exterior MH fixtures with new LED fixtures. | | |
| 401 | HVAC and Plumbing Measures | Replace failed stream traps and insulated bare steam pipes (allowance) following steam survey to be provided by utility. | A | **Field inspection of a sampling (~25%) of steam traps and insulation blankets** |
| 402 | Building Controls and Monitoring | Upgrade (12) single-zone and multi-zone AHUs from existing pneumatic controls to new DDC controls. Retro-commission existing DDC controls. Repair all dampers in AHUs 1E and 1W (large air houses) and install new electric actuators. Install networked sub-metering. | A | **Using a 24 hour trend period, measure and verify the average outdoor air damper position. Calculated outdoor air volume and notify the owner of any deviation from the building model input parameters** |
| 403 | Building Controls and Monitoring | Install CO2 sensor control to match outside air ventilation to actual occupancy for areas served by AHU-1E, 1W and (11) single-zone and multi-zone AHUs. Upgrade VAVs and heating zone controls served by AHUs 1E and 1W (two large air houses) from existing pneumatic controls to new DDC controls. | B | **Using a 24 hour trend period, measure and verify the average outdoor air damper position. Calculated outdoor air volume and notify the owner of any deviation from the building model input parameters** |
| 404 | Building Controls and Monitoring | Install new pump VFDs and DDC controls for steam converter HX-5 in boiler room (heating hot water supply to HHS). Provide new steam valve and pressure transducer. | B | **Using a 24 hour trend period, measure and verify the average VFD speed. Notify the owner of any deviation from the building model input parameters** |
| 405 | Building Envelope | Insulate bottom of exposed floor slabs in three areas of building; Install/Replace weather-stripping around doors. | A | **Field inspection will verify equipment has been properly installed and commissioned** |
| 406 | Additional Measures | Install smart-strip time programmable controllers on laser-jet printers (116). | A | **Field inspection will verify equipment has been properly installed and commissioned** |
| 408 | Additional Measures | Replace 59% of all electrical transformers older than 15 years with high efficiency units | B | **One-time verification (at initial construction completion) of nameplate KW rating** |
| 409 | Additional Measures | Install power factor correction capacitors to use electricity more efficiently | A | **Field inspection of ALL equipment installed to verify equipment has been properly installed** |

| | | | | |
|---|---|---|---|---|
| | | | | and commissioned |
| 411 | Additional Measures | Install new low-flow flush valves on urinals and water closets and make faucets low flow. | A | **Detailed review of drawings and room-by-room fixture counts with identification of gallons per use** |
| 418 | Additional Measures | (CONTINGENT ON GRANTS AND REBATES - Project INCLUDED in building subtotal) Replace 41% of all electrical transformers older than 15 years with high efficiency units | B | **One-time verification (at initial construction completion) of nameplate KW rating** |

# 29 Hazen Dr. Labs

| | | | | |
|---|---|---|---|---|
| 500 | Lighting | Re-lamp and re-ballast the existing 4' T8 and T12 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures with reflectors, and incandescent with LEDs. Install ceiling and wall motion sensors, photocells, and new LED exit signs. Replace exterior MH fixtures with new LED fixtures. | A | **Detailed review of drawings and room-by-room lighting counts; random inspection of a sampling of ballasts and lamps to confirm equipment types & wattages** |

| | | | | |
|---|---|---|---|---|
| 501 | HVAC and Plumbing Measures | Install Phoenix variable flow valves to convert (26) fume hoods to variable flow using Phoenix valves. Replace (12) fume hoods with new Erlab ventless hoods having both HEPA and gas-phase filtration. Remove (28) un-needed snorkel ducts and install (28) high/low flow control valves in other snorkel ducts serving variable heat/humidity loads where feasible. Convert (7) bio-safety cabinets to ventless operation by eliminating connection to exhaust duct. Test and Balance all Lab room supply and exhaust air valves and adjust for occupied and unoccupied flow rates. Recalibrate (3) flow-safe room alerts, (139) SV and EV flow stations, and (approximately 20 out-of-calibration) space temperature sensors. Note: Recertification of all lab hoods will be done during the lab's next regularly-scheduled facility recertification, which will be paid for by NH DAS. | B | **Using a 24 hour trend period, measure and verify the average VAV CFM flow rate or damper position. Notify the owner of any deviation from the building model input parameters** |
| 502 | HVAC and Plumbing Measures | Eliminate winter CHW operation for 3 FCUs. Install split DX cooling units for tel-comm, electrical and lobby areas; integrate with DDC control system. | B | **One-time verification (at initial construction completion) of nameplate KW rating** |
| 503 | HVAC and Plumbing Measures | Reengineer design of water-cooled condensers in 4 freezer/cooler condensing units to reduce size of circulating pump, add water bypass as needed, and reduce unneeded water waste. This will improve utilization of existing chilled water cooling system when chiller is operation. Automate switchover from once-through water cooling to chilled water cooling. | A | **Field inspection will verify equipment has been properly installed and commissioned** |

| | | | | |
|---|---|---|---|---|
| 504 | Building Controls and Monitoring | Retro-Cx all HVAC control systems (mechanical and DDC) serving laboratory areas including all ERUs and AHUs . Repair dampers, valves, sensors and actuators. Recalibrate AHU flow stations, and pressure/temperature/humidity sensors. Optimize chilled water system controls (CHW DP setpoint, recalibrate CHW flow meter). Install networked sub-metering. | B | **Using a 24 hour trend period, measure and verify the average outdoor air damper position. Calculated outdoor air volume and notify the owner of any deviation from the building model input parameters** |
| 505 | Building Controls and Monitoring | Retro-Cx all HVAC Systems serving non-laboratory areas (office, hallway, conference, etc). Repair existing temperature sensors, VAV dampers, and BAS and add schedule controls to setback the space temperatures in the non-laboratory areas when unoccupied. Test and Balance all non-lab supply and exhaust air flow rates for occupied and unoccupied conditions. | B | **Using a 24 hour trend period, measure and verify the average outdoor air damper position. Calculated outdoor air volume and notify the owner of any deviation from the building model input parameters** |
| 506 | Motors and Variable Frequency Drives | Install Strobic fan VFDs and control system to reduce laboratory exhaust fan energy use. Integrate new Strobic control system with building EMCS and provide sequence for improved freeze protection. Retro-Cx and repair bypass and isolation dampers, static pressure sensors, air flow stations and controls. Relocate static pressure sensor for lab addition exhaust system. | B | **Using a 24 hour trend period, measure and verify the average VFD speed. Notify the owner of any deviation from the building model input parameters** |
| 507 | Motors and Variable Frequency Drives | Install VFD(s) on (6) ERU glycol pumps and Retro-Cx/repair 3-way valve operation. Reprogram sequence to improve heat recovery to AHUs and shutdown glycol loop in conditions when there is insufficient recoverable heat (small difference in temperature between exhaust and supply). | B | **Verify that discharge and return air temperatures are consistent with proper heat recovery system performance. Notify owner of any deviation from the building model input parameters** |
| 508 | Building Controls and Monitoring | Install VFD(s) on domestic water booster pump system and remove pressure reducing valves. Install check valves and differential pressure sensor. Implement | B | **Short-term (~2 week) logging of kW with portable equipment; extrapolate results based on building model** |

| | | | | |
|---|---|---|---|---|
| | | DDC control for (3) DHW recirculation pumps. | | |
| 509 | Building Envelope | Install/Replace weather-stripping around doors | A | **Field inspection will verify equipment has been properly installed and commissioned** |
| 510 | Renewable Energy Systems | Install 8,300,000 btu/hr output biomass boiler to reduce natural gas (fossil fuel) consumption for steam supply to the laboratory and HHS. Integrate with existing steam boiler plant and heating system DDC controls. | B | **Using a 24 hour trend period, verify biomass boiler % load and steam pressure.** |

# Department of Safety Building

| | | | | |
|---|---|---|---|---|
| 600 | Lighting | Re-lamp and re-ballast the existing 4' T8 and T12 fluorescent fixtures to high-efficiency electronic low power ballasts and supersaver T8 (25 watt) fluorescent lamps. Replace 2'x2' U tube fixtures with new fixtures with reflectors. Install photocells, and new LED exit signs. Replace exterior MH fixtures with new LED fixtures. | A | **Detailed review of drawings and room-by-room lighting counts; random inspection of a sampling of ballasts and lamps to confirm equipment types & wattages** |
| 601 | HVAC and Plumbing Measures | Replace (5) laboratory hoods with ventless lab hoods with HEPA and gas-phase filtration. Install snorkels to remove heat from (4) mass spectrometers. Remove unused hood over photo lab sink. | B | **Field inspection will verify equipment has been properly installed and commissioned** |
| 602 | HVAC and Plumbing Measures | Install stand-alone condensing DHW boiler and DHW storage tank. Provide DDC control of boiler and DHW re-circulating pump. | B | **One-time combustion efficiency measurement (at initial construction completion) of boiler efficiency during typical operating conditions. Ongoing annual combustion efficiency measurement and notification to owner of any deviation from building model input parameters** |

| | | | | |
|---|---|---|---|---|
| 604 | Building Controls and Monitoring | Retro-Cx existing DDC controls. Repair dampers valves and actuators. Revise ERU operating sequence to operate exhaust fan at low speed during unoccupied periods to avoid overheating in the laboratory without the energy expense of operating the ERU supply fan. Install networked sub-metering. | B | **Using a 24 hour trend period, measure and verify the average VAV CFM flow rate or damper position. Notify the owner of any deviation from the building model input parameters** |
| 605 | Building Envelope | Install/Replace weather-stripping around doors. | A | **Field inspection will verify equipment has been properly installed and commissioned** |
| 606 | Additional Measures | Install new low-flow flush valves on urinals and water closets and make faucets low flow. | A | **Detailed review of drawings and room-by-room fixture counts with identification of gallons per use** |
| 607 | Additional Measures | Replace all electrical transformers older than 15 years with high efficiency units. | B | **One-time verification (at initial construction completion) of nameplate KW rating** |
| 608 | Additional Measures | Install power factor correction capacitors to use electricity more efficiently. | A | **Field inspection of ALL equipment installed to verify equipment has been properly installed and commissioned** |
| 603 | Building Controls and Monitoring | (CONTINGENT ON GRANTS AND REBATES - Project INCLUDED in building subtotal) Replace pneumatic controls with new DDC controls for VAVs and heating zone controls associated with the following AHUs:<br>-- Core: AC-1 thru AC-8<br>-- Phase II: Crime Lab Trane RTU, AC-10<br>-- Phase III: McQuay RTU, AC-11, HV-1 | A | **Review and Commission EMCS programming, setpoints, seq of operation and communication links to verify that specified EMCS parameters have been achieved; Document sequence for ~25% sampling of EMCS points and sequences** |

## Part 3: Annual M&V Reporting

The M&V report will be submitted as detailed in Exhibit A, Section 9.3, attached hereto. The M&V Report will conform to the following outline:

1. Executive Summary & Project Background
2. Project and ECM Description
3. Proposed & Verified Energy Savings for the Performance Period
4. Savings Adjustments
5. O & M Oversight
6. Utility Price Data for Current Year
7. Verified Savings

### Methodology for Calculation of Baseline Energy Consumption

The baseline natural gas consumption in Table 2 is based upon the latest two years of natural gas bills (February 2012 to February 2014.) The natural gas usage from year 2011 was the baseline in the Initial Proposal, but was not included in this Detailed Feasibility Study because it represented an unusually high usage year, and it was felt that February 2012 to February 2014 was more representative of typical historic gas use.

The baseline electric consumption in Table 2 is based upon submetered electrical usage data for FY 2011, provided by the State and included in the Initial Proposal. This data was used because electric use in the period 2011 to 2014 was found to be stable from year to year and it was unnecessary to update the data to 2014.

### Method of determining guaranteed energy unit and cost savings

Calculations of energy savings for lighting, energy management control system upgrades, HVAC and boilers, building envelope, motors and VFDs, renewable and other additional FFECMs were done using bin models based on ASHRAE methods and/or using other spreadsheet calculation methods. All energy calculation models showing the proposed annual verification of actual energy savings, for purposes of showing annual achievement of guaranteed savings requirements, are attached by reference as Appendix B and incorporated herein by reference. These models utilize specific, identified equipment operating parameter inputs that will be measured and used to calculate actual energy unit savings, based upon typical 30-year meteorological weather data for the Concord, NH area. Cost savings shall be calculated using the above actual energy unit savings multiplied by stipulated utility rates applicable to each Service Phase year.

## Utility Rates

The following rates were used for calculating baseline energy costs and energy cost savings. All rates are incremental costs excluding fixed monthly charges. The State has also stipulated use of $50.00 per ton of wood chip fuel.

### Table 4 Stipulated Utility Rates

**Baseline Utility Rates below shall apply throughout the entire contract term.**

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| | | | | | |
| Division of Motor Vehicles Building | $0.1132 | $6.77 | $0.8568 | $14.14 | |
| 27 Hazen Dr. DoIT | $0.1132 | $6.77 | $0.9088 | $5.89 | |
| 29 Hazen Dr. HHS | $0.1132 | $6.77 | $0.9088 | $5.89 | $50.00 * |
| 29 Hazen Dr. Labs | $0.1132 | $6.77 | $0.9088 | $5.89 | $50.00 * |
| Morton Building | $0.1132 | $6.77 | $0.9554 | $6.53 | |
| Department of Safety Building | $0.1132 | $6.77 | $0.9556 | $11.84 | |

**Note: Price of woodchips based on moisture content of no more than 40%, ash content of no more than 2% (equal to net content of 9,900,000 btu/ton of raw woodchips). Usage of woodchips shall be adjusted to reflect differences in moisture and/or ash content for purposes of calculating the net usable btu/ton of woodchips actually used and for adjusting increased consumption caused by use of inferior woodchips to these specifications.**

### Table 5 Stipulated Hours of Operation

**Standard Hours of Operation**

| Building | Address | Area | Base Hours of Operation |
|---|---|---|---|
| **Morton Bldg.** | **7 Hazen Drive** | **Office** | **M-F 6:30 am to 5:30 pm** |
| | | **Computer Room** | **24 x 7 x 365** |
| **Div of Motor Vehicles** | **23 Hazen Drive** | **Office** | **Nov – March** |
| | | | **M,W,Th,F 7am – 6pm** |
| | | | **Tu 7am – 7:30 pm** |
| | | | **Sat 9am- 1 pm** |
| | | | **April – Oct** |

| | | | |
|---|---|---|---|
| | | | Fri 7am – 9pm |
| | | | Sat, Sun 8am – 5pm |
| | | Computer Rooms | 24 x 7 x 365 |
| Dept of Info Technology | 27 Hazen Drive | Office | Mon –Sun 7am – 5pm |
| | | Computer Room | 24 x 7 x 365 |
| H&HS | 29 Hazen Drive | Laboratories | Mon – Fri 7am – 6pm |
| H&HS | 29 Hazen Drive | Laboratories | Sat 8am – 4 :30 pm |
| | | | Holidays 8am – 4 :30 pm |
| H&HS | 29 Hazen Drive | Offices | Mon – Fri 8am – 6pm |
| | | Computer Room | 24 x 7 x 365 |
| Safety Building | 33 Hazen Drive | All Except Gun Line | Mon – Fri 6am – 5 :30 pm |
| | | Gun Line Area | Mon – Sun 9am – 10 pm |
| | | Computer Rooms | 24 x 7 x 365 |

**Table 6 M&V Services to be Performed Annually for the Five (5) Years following Substantial Completion**

## Metering and Verification Services

| | Task | Hours per Task | Task Frequency | Annual Hours |
|---|---|---|---|---|
| 1 | Remote access verification of setpoints, schedules, air flows, sequences, VFDs | 54 | 1 per year | 54 |
| 2 | Site Visits for efficiency testing, override inspection, sensor verifications, other spot measurements | 32 | 1 per year | 32 |
| 3 | Summarize building model inputs vs. observed parameters | 40 | 1 per year | 40 |
| 4 | Prepare M&V Report | 32 | 1 per year | 32 |
| 5 | Management Review of M&V | 16 | 1 per year | 16 |
| 6 | Presentations of M&V Report to NH DAS | 20 | 1 per year | 20 |
| | | | | 194 |
| | | | | $26,038.76 per year |

**Performance Guarantee**

Energy unit savings shall be the basis of the guaranteed performance guarantee, and guaranteed cost savings are extrapolated from the energy unit savings and baseline utility costs. Since energy costs fluctuate, the Contractor must meet the guaranteed annual energy unit savings as a requirement of the performance guarantee. Under no circumstances shall guaranteed cost savings be utilized as the sole condition for meeting the performance guarantee. All savings shall be calculated using the energy costs listed above in the tables and no inflation or escalation of costs shall be allowed.

The Contractor guarantees the energy unit savings shown in Table 1, as measured according to the agreed-upon Measurement and Verification plan above. The associated cost savings are determined by multiplying the energy unit savings by the stipulated utility rates shown in Table 4, above. The same utility rates are used for baseline energy use and for all service phase years.

If the actual savings to the State, as measured according to the agreed-upon Measurement and Verification plan, does not equal or exceed the guaranteed energy savings stated herein, the Contractor shall pay the State the difference between its guaranteed amount of savings and the actual savings achieved, multiplying such shortfall in guaranteed savings by the agreed-upon utility price in the year of such shortfall. Excess annual energy and cost savings obtained by the State beyond the Contractor's annual guarantee shall not be used as a credit by the Contractor in any previous or subsequent years of the contract term and shall not be applied for any shortfall in guaranteed energy or cost savings during the contract term. All energy unit and cost savings derived from the implementation of the Project shall be retained by the State and shall not be shared in any capacity.

**Commissioning**

During the construction phase of the project the Contractor shall prepare a Commissioning (Cx) Plan for review by the State. The finalized Cx Plan will outline the scope of work, objectives, organization, schedule, documentation requirements, and testing procedures for each ECM. The State facility personnel shall be allowed and encouraged to participate in any or all phases of the Cx process.

As part of commissioning, Contractor shall ensure that the building systems perform interactively according to the design intent and the State's operational needs. The commissioning process shall begin during the design phase and the Contractor shall document the design intent continuing through construction, acceptance, and the warranty period with actual M&V of performance, Operations and Maintenance, and training of maintenance personnel. The Contractor shall perform these tasks directly on all FFECMs it installs as general contractor and shall work with the State to assure that each vendor properly provides these services. The objectives of the commissioning plan are as follows:

**Design Phase**

During the design phase the Contractor shall work with the engineer of record to ensure clear and complete design intent documentation is developed and commissioning-focused design reviews are conducted. The Contractor shall work with all subcontractors to include the same level of

commissioning and ensure that they fulfill the requirements of the commissioning plan.

**Construction Phase**

During the construction phase the Contractor shall work with subcontractors to ensure that the design intent is being met. The Contractor shall ensure that all equipment documentation is obtained and installation, start-up guidelines, etc. are met. The Contractor shall also ensure that 1) installation check-out, 2) pre-functional testing, 3) functional performance testing and 4) global functional test procedures are followed and the proper documentation is maintained.

**Post Construction Phase**

During the post-construction phase, the Contractor shall update and organize all equipment manuals, and provide 6 complete sets to the operations staff and others as required. The Contractor shall confirm thorough performance of step-by-step operational testing of all equipment to certify that the equipment performs according to design intent. State agency maintenance personnel shall be allowed to participate in this process as part of their hands-on training. The Contractor shall provide Operations and Maintenance manuals on all equipment and discuss the contents during training. The Contractor shall also provide information documenting the commissioning process in the project submittals to the State for future reference and ongoing commissioning.

# Exhibit 4

## Operation and Maintenance Services, Training

The following summarizes Operation and Maintenance Service (O&M) responsibilities for the State and the Contractor during the service phase (also known as the 'second phase' under Exhibit A) of this project.

### 1.1 Operations

The State will perform all operations of installed equipment.

The Contractor shall provide training, operations manuals, and periodic verification and oversight of optimal operation of equipment during the first year following the Final Acceptance of the Project. During this period the Contractor shall communicate any deviations in the performance of the equipment that could affect potential energy savings.

### 1.2 Preventive Maintenance

The State will perform all preventive maintenance of installed equipment to maintain operational performance throughout the Term of the contract.

The Contractor shall provide training, operations manuals, preventive maintenance requirements and schedules, and periodic verification and oversight of optimal preventive maintenance of equipment during the first year following the Final Acceptance of the Project. During this same first year, the Contractor shall communicate any deviations in the preventative maintenance or performance of the equipment that could affect potential energy savings in writing, to the State.

### 1.3 Equipment Repair and Replacement

Except for the warranty period for each FFECM, the State will perform all equipment repair and replacement throughout the Term of the contract to maintain operational performance throughout the term.

The Contractor shall provide periodic verification and oversight of optimal maintenance of equipment during the first year following the Final Acceptance of the Project. During this same first year, the Contractor shall communicate any deviations in the repair and/or replacement of the equipment that could affect potential energy savings.

### 1.4 Warranty

The Contractor shall provide a full warranty including all parts and labor for one year after Substantial Completion of each FFECM. After the warranty expires, the State will be responsible for repair and replacement of failed equipment (other than failures caused by the Contractor's negligence) at its own expense.

The Contractor shall provide an emergency response number that shall be monitored on a 24 x 7 x 365 basis for emergency situations during the construction phase of the project.

The Contractor must respond to service calls during the construction phase in accordance with the following minimum requirements:

- Emergency Calls must be returned within one hour with the Contractor responding to the site within two hours.
- Non-Emergency Calls must be returned within one business hours 8AM to 5PM weekdays with the Contractor responding to the site within one business day.

### 1.5 Operations and Maintenance Oversight

During the construction period, the Contractor shall develop a consolidated summary of maintenance requirements for all new equipment, and a list of responsibilities and schedule for annual and quarterly O&M oversight work. These activities shall be closely coordinated with the State's maintenance staff.

During the first year after the Final Acceptance of the Project, the Contractor shall provide O&M oversight and provide reports of their findings to the State's Contract Manager for the FFECMs. As part of this O&M support and oversight responsibility the Contractor shall also provide operations and maintenance training and manuals for the State facility staff.

During the first year after Substantial Completion of the Project, the Contractor shall perform the following services:

**Operations and Maintenance Oversight Services**

| | Task | Hours per Task | Task Frequency | Annual Hours |
|---|---|---|---|---|
| 1 | **Review basic operating parameters for all bldgs:** EMCS Setpoints, Schedules, Overrides, CFMs, Fan and Pump RPMs, AHU discharge temperatures | 16 | 12 per year | 192 |
| 2 | **Perform functional checks:** Phoenix valves, laboratory ventilation rates, overrides, operating problems, and other issues affecting savings | 8 | 12 per year | 96 |
| 3 | **Biomass boiler oversight:** review opeating and mainte3nance pr4ocedures, optimize performance and turndown capability, review logs and fuel usage, evaluate operating steam pressures and modulation tracking | 16 | 4 per year | 64 |
| 4 | **Prepare monthly O&M reports** of: findings and recommendations | 12 | 12 per year | 144 |
| 5 | **Management review** of O&M reports | 4 | 12 per year | 48 |
| 6 | **Troubleshooting services** (1st year shown, will be less in future years) | 80 | 1 per year | 80 |
| 7 | **Presentations** of O&M findings to NH DAS management | 8 | 6 per year | 48 |

| | | | | |
|---|---|---|---|---|
| 8 | **Other Miscellaneous Services**<br>Retraining, phone inquiry responses, etc. | 40 | 1 per year | 40 |
| | | | | **712** |
| | | | | **$96,496.57** |

### 1.6 Training

The Contractor shall provide classroom style training; hands-on demonstrations; and training manual review. The training program shall be available to all appropriate facilities staff on-site beginning during the commissioning phase. The Contractor shall provide all necessary documentation such as service, operation, parts, and maintenance manuals, for all affected equipment. These manuals shall be thoroughly reviewed with the appropriate facilities staff.

The Contractor shall provide the following training services:

All training shall be conducted on site at State of New Hampshire facilities. Training classes shall be available for up to 14 students and must include training materials for all students.

## NH DAS - Hazen Drive - Initial FFECM Training Services

| | Training Tasks related to FFECMs<br>(Building staff from all buildings will attend joint training sessions) | Training Hours |
|---|---|---|
| 1 | **Lighting:**<br>- Review with building staff lamps and ballast specifications being installed; discuss like-for-like replacements in future<br>- Discuss occupancy sensor settings procedures; review sensitivity and timing variables<br>- Discuss LED outdoor lighting fixture and sensor maintenance | 4 |
| 2 | **Smaller HVAC and Plumbing Projects:**<br>- Train on condensing boiler setpoints, maintenance, sequences, start-up<br>- Train on DX heat pump operation, setpoints, sequences, troubleshooting<br>- Train on chiller controls, setpoints, sequences, interface with EMCS | 16 |
| 3 | **Building Management System Controls:**<br>- Train on new energy-saving sequences, setpoints, new points installed, new network controllers, new head-end equipment<br>- Discuss routine maintenance, recalibration, testing, and overrides<br>- Review routine checks on EMCS displays for trouble areas and energy waste | 32 |
| 4 | **Building Envelope:**<br>- Discuss Inspection and repair of weather-stripping | 1 |

| | | |
|---|---|---|
| 5 | **Renewable Energy Projects:**<br>**- Biomass Boiler**<br>- Review cold start-up procedures<br>- Discuss operational modes, setpoints, sequences, adjustments<br>- Review daily, weekly, monthly inspection requirements<br>- Discuss routine maintenance requirements<br>- Review training manuals<br>- Review emergency shutdown and fire suppression procedures<br>- Discuss peripheral building equipment and controls (chip conveyors, supplemental heaters, chip pit ventilation)<br>- Review ESP maintenance and special inspection requirements<br>- Review EPA, NH DES testing requirements<br>**- Photovoltaic Systems**<br>- DIscuss inverter maintenance and inspections<br>- DIscuss monthly PV panel inspections<br>- Review emergency procedures | 40 |
| 6 | **Plug-Load Controls:**<br>- Discuss smart strip operation and maintenance | 1 |
| 7 | **Motors and VFDs:**<br>- Discuss special settings and speed adjustments for VFD controls<br>- Review interfaces with EMCS and monitoring of control parameters vs VFD output | 2 |
| 8 | **Laboratory Upgrades:**<br>- Review new CFM settings for all Supply and Exhaust Valves (Day and Night Settings)<br>- Discuss Phoenix controls - theory, operation, maintenance, testing, daily hood closure requirements<br>- Train on snorkel air control valves and local control switches with pilot lights<br>- Review Strobic fan control sequences and damper testing and maintenance requirements<br>- Discuss ERU testing, maintenance, inspections, and monitoring requirements (Glycol loop temperatures, air temperatures, VFD speeds)<br>- Review humidification settings and lockouts<br>- DIscuss SV discharge air temperature limits to prevent heat stratification by limiting heating valve max. % open<br>- Review BSL-3 labs' negative pressure monitoring systems<br>- Review all hood alarms, settings, and procedures | 40 |
| | **Total Training Hours** | **136** |

**NOTE:**

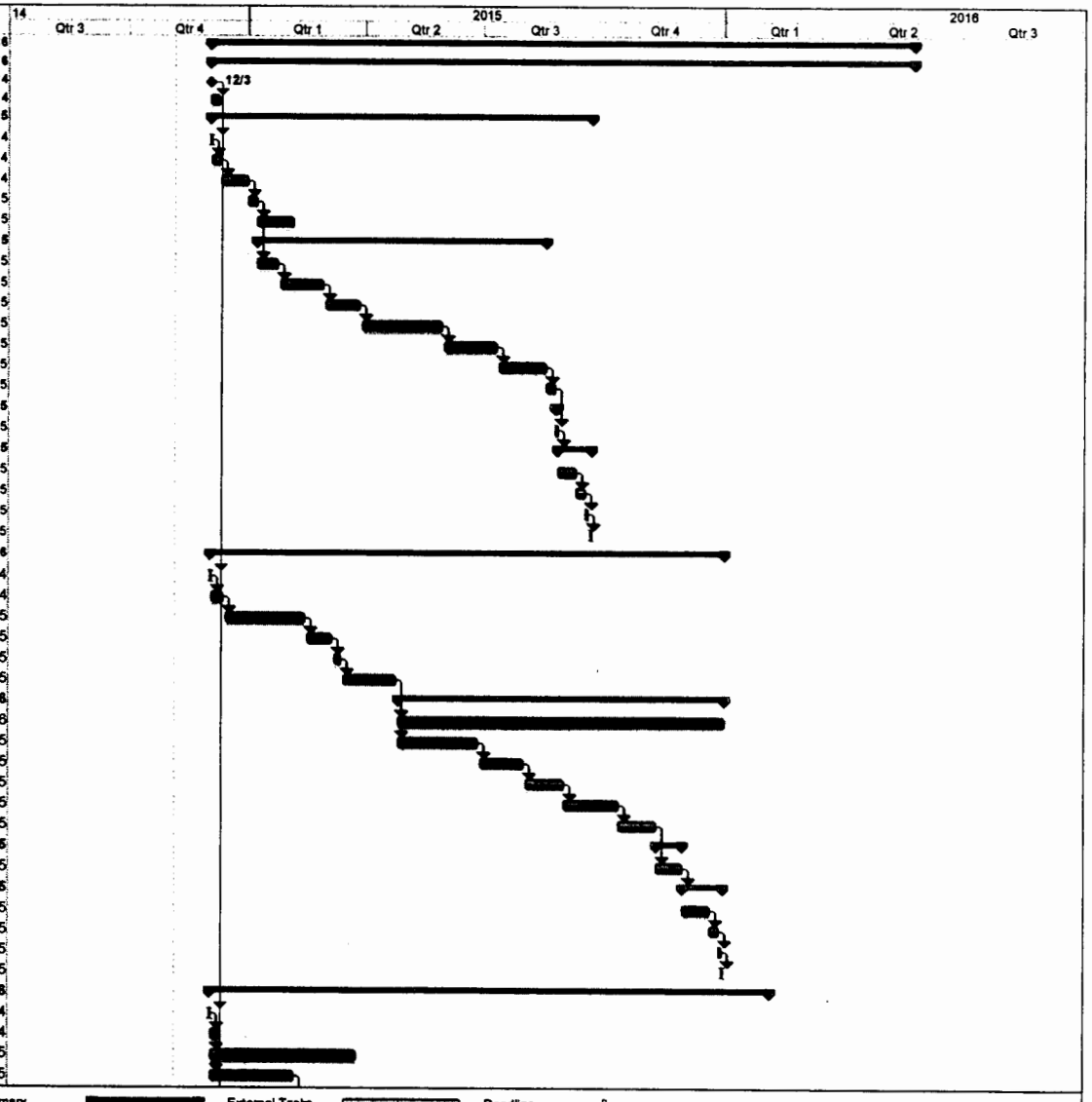
- On-going retraining and new staff training will occur during ConEd's O&M Oversight services throughout each year
- Such training will be done on an ad hoc, as-needed basis upon request from NH DAS building staff

ConEdison Exhibit 4 operations and maintenance 11052014

# Exhibit 5

# Schedule

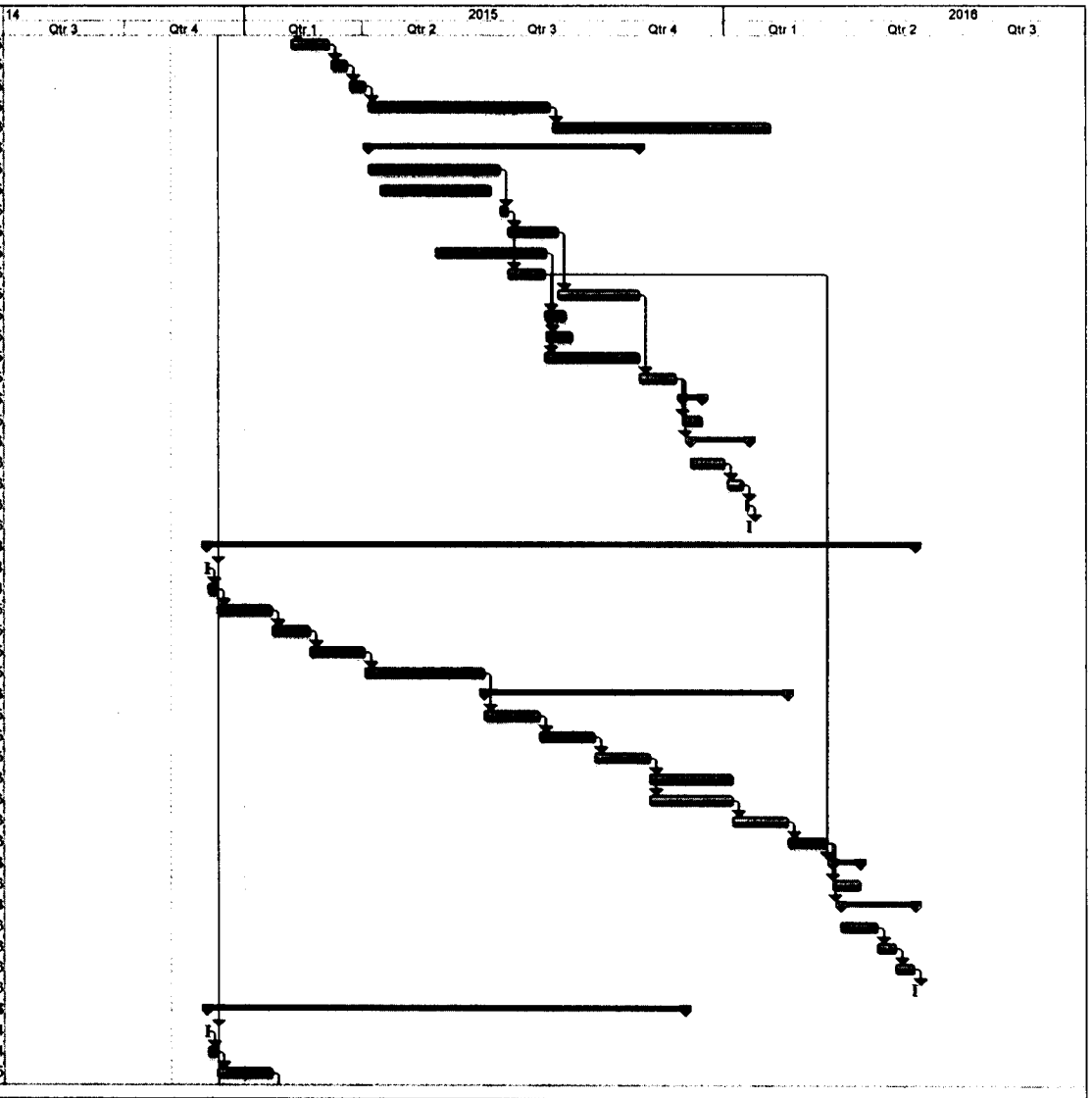
| ID | Task Name | Duration | Start | Finish |
|---|---|---|---|---|
| 1 | **NH Dept of Administration - Energy Performance Project** | **386 days** | **Wed 12/3/14** | **Wed 6/25/16** |
| 2 | **Construction** | **386 days** | **Wed 12/3/14** | **Wed 6/25/16** |
| 3 | Notice to Proceed / Contract Award | 0 days | Wed 12/3/14 | Wed 12/3/14 |
| 4 | Project Implementation Kick-Off and Mobilization | 5 days | Wed 12/3/14 | Tue 12/9/14 |
| 5 | **Lighting and Lighting Controls (Synergy)** | **209 days** | **Wed 12/3/14** | **Mon 9/21/15** |
| 6 | Notice to Proceed to vendor | 1 day | Wed 12/3/14 | Wed 12/3/14 |
| 7 | Signed Contract or P.O. | 5 days | Thu 12/4/14 | Wed 12/10/14 |
| 8 | Submittal Review | 3 wks | Thu 12/11/14 | Wed 12/31/14 |
| 9 | Obtain All Required Permits and Approvals | 5 days | Thu 1/1/15 | Wed 1/7/15 |
| 10 | Procurement | 20 days | Thu 1/8/15 | Wed 2/4/15 |
| 11 | **Implementation** | **158 days** | **Thu 1/8/15** | **Mon 8/17/15** |
| 12 | DMV | 12 days | Thu 1/8/15 | Fri 1/23/15 |
| 13 | Morton | 25 days | Mon 1/26/15 | Fri 2/27/15 |
| 14 | 27 Hazen Dr. DoIT | 20 days | Mon 3/2/15 | Fri 3/27/15 |
| 15 | 29 Hazen Dr. HHS | 45 days | Mon 3/30/15 | Fri 5/29/15 |
| 16 | 29 Hazen Dr. Labs | 30 days | Mon 6/1/15 | Fri 7/10/15 |
| 17 | Dept of Safety | 26 days | Mon 7/13/15 | Mon 8/17/15 |
| 18 | Substantial Completion | 5 days | Tue 8/18/15 | Mon 8/24/15 |
| 19 | **Commissioning of Equipment and Systems** | **2 days** | **Tue 8/25/15** | **Wed 8/26/15** |
| 20 | Training of Facility Personnel | 2 days | Tue 8/25/15 | Wed 8/26/15 |
| 21 | **Completion of Construction and Training** | **18 days** | **Thu 8/27/15** | **Mon 9/21/15** |
| 22 | Close-Out, as-builts, post installation submittals | 2 wks | Thu 8/27/15 | Wed 9/9/15 |
| 23 | Project Acceptance | 1 wk | Thu 9/10/15 | Wed 9/16/15 |
| 24 | Project Completion | 2 days | Thu 9/17/15 | Fri 9/18/15 |
| 25 | Start of Performance Period | 1 day | Mon 9/21/15 | Mon 9/21/15 |
| 26 | **HVAC & Plumbing** | **283 days** | **Wed 12/3/14** | **Fri 1/1/16** |
| 27 | Notice to Proceed to vendor | 1 day | Wed 12/3/14 | Wed 12/3/14 |
| 28 | Signed Contract or P.O. (CTI, DDMI, EH&E) | 7 days | Thu 12/4/14 | Fri 12/12/14 |
| 29 | Design Specifications and Drawings (CTI, DDMI, EH&E) | 9 wks | Mon 12/15/14 | Fri 2/13/15 |
| 30 | Submittal Review (50% & 100% submittals) | 3 wks | Mon 2/16/15 | Fri 3/6/15 |
| 31 | Obtain All Required Permits and Approvals | 5 days | Mon 3/9/15 | Fri 3/13/15 |
| 32 | Procurement | 30 days | Mon 3/16/15 | Fri 4/24/15 |
| 33 | **Implementation** | **180 days** | **Mon 4/27/15** | **Fri 1/1/16** |
| 34 | 29 Hazen Dr. Labs (CTI, Erlab, Eastern Vent, Enpro, ( | 180 days | Mon 4/27/15 | Fri 1/1/16 |
| 35 | 27 Hazen Dr. DoIT (Eckhardt & Johnson, CTI) | 45 days | Mon 4/27/15 | Fri 6/26/15 |
| 36 | DMV (Eckhardt & Johnson, CTI) | 25 days | Mon 6/29/15 | Fri 7/31/15 |
| 37 | Morton (Eckhardt & Johnson, CTI) | 21 days | Mon 8/3/15 | Mon 8/31/15 |
| 38 | Dept of Safety (Eckhardt & Johnson, CTI, Erlab, Cote | 30 days | Tue 9/1/15 | Mon 10/12/15 |
| 39 | Substantial Completion | 21 days | Tue 10/13/15 | Tue 11/10/15 |
| 40 | **Commissioning of Equipment and Systems** | **14 days** | **Wed 11/11/15** | **Mon 11/30/15** |
| 41 | Training of Facility Personnel | 14 days | Wed 11/11/15 | Mon 11/30/15 |
| 42 | **Completion of Construction and Training** | **23 days** | **Tue 12/1/15** | **Thu 12/31/15** |
| 43 | Close-Out, as-builts, post installation submittals | 3 wks | Tue 12/1/15 | Mon 12/21/15 |
| 44 | Project Acceptance | 1 wk | Tue 12/22/15 | Mon 12/28/15 |
| 45 | Project Completion | 2 days | Tue 12/29/15 | Wed 12/30/15 |
| 46 | Start of Performance Period | 1 day | Thu 12/31/15 | Thu 12/31/15 |
| 47 | **Renewable Energy Systems (Biomass Boiler)** | **308 days** | **Wed 12/3/14** | **Fri 2/5/16** |
| 48 | Notice to Proceed to vendor | 1 day | Wed 12/3/14 | Wed 12/3/14 |
| 49 | Signed Contract or P.O. | 5 days | Thu 12/4/14 | Wed 12/10/14 |
| 50 | Obtain Air Permit | 4 mons | Thu 12/4/14 | Wed 3/25/15 |
| 51 | 50% Design Specifications/ Mech-Elec-Civil Eng Drawings | 46 days | Thu 12/4/14 | Thu 2/5/15 |




Project: NH State Buildings Constructi
Date: Wed 11/5/14

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

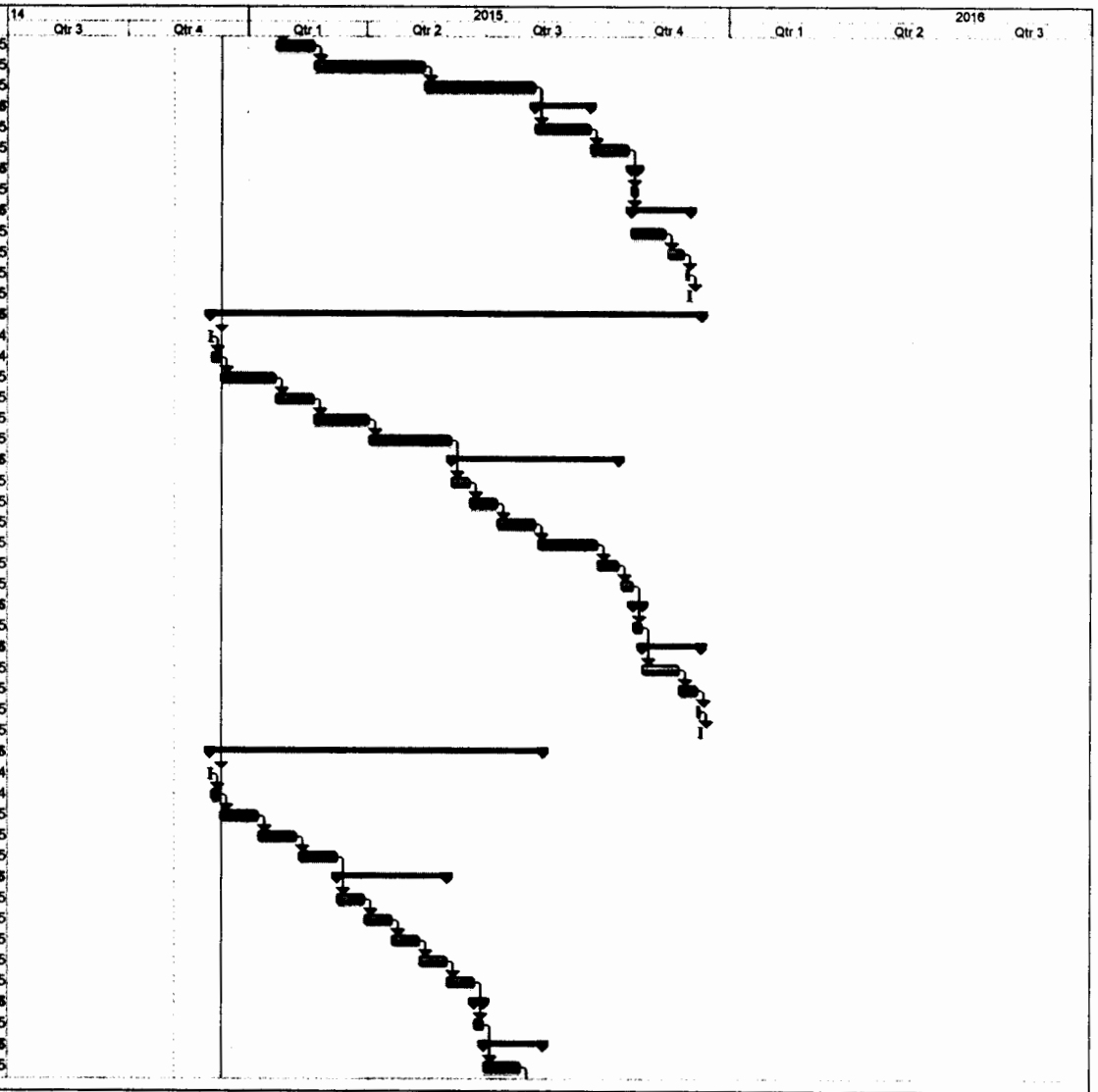
| ID | Task Name | Duration | Start | Finish |
|---|---|---|---|---|
| 52 | Submittal Review | 21 days | Fri 2/6/15 | Fri 3/6/15 |
| 53 | 100% Design Specifications/ Mech-Elec-Civil Eng Drawing | 10 days | Mon 3/9/15 | Fri 3/20/15 |
| 54 | Submittal Review | 10 days | Mon 3/23/15 | Fri 4/3/15 |
| 55 | Obtain All Required Permits and Approvals | 100 days | Mon 4/6/15 | Fri 8/21/15 |
| 56 | Procurement | 6 mons | Mon 8/24/15 | Fri 2/5/16 |
| 57 | **Implementation** | **148 days** | **Mon 4/6/15** | **Wed 10/28/15** |
| 58 | Building Excavation & Backfill | 72 days | Mon 4/6/15 | Tue 7/14/15 |
| 59 | Concrete foundation | 60 days | Wed 4/15/15 | Tue 7/7/15 |
| 60 | Messersmith Set Major Equipment | 4 days | Wed 7/15/15 | Mon 7/20/15 |
| 61 | Erect Building | 28 days | Tue 7/21/15 | Thu 8/27/15 |
| 62 | Piping & Electrical in Building 29 | 60 days | Wed 5/27/15 | Tue 8/18/15 |
| 63 | UG Piping/Electrical | 20 days | Tue 7/21/15 | Mon 8/17/15 |
| 64 | Biomass Piping/Electrical | 44 days | Fri 8/28/15 | Wed 10/28/15 |
| 65 | Messersmith | 12 days | Tue 8/18/15 | Wed 9/2/15 |
| 66 | Fire Protection | 14 days | Wed 8/19/15 | Mon 9/7/15 |
| 67 | Paving/Site Restoration | 52 days | Tue 8/18/15 | Wed 10/28/15 |
| 68 | Substantial Completion | 20 days | Thu 10/29/15 | Wed 11/25/15 |
| 69 | **Commissioning of Equipment and Systems** | **11 days** | **Tue 12/1/15** | **Tue 12/15/15** |
| 70 | Startup | 11 days | Tue 12/1/15 | Tue 12/15/15 |
| 71 | **Completion of Construction and Training** | **33 days** | **Mon 12/7/15** | **Wed 1/20/16** |
| 72 | Close-Out, as-builts, post installation submittals | 4 wks | Mon 12/7/15 | Fri 1/1/16 |
| 73 | Project Acceptance | 2 wks | Mon 1/4/16 | Fri 1/15/16 |
| 74 | Project Completion | 2 days | Mon 1/18/16 | Tue 1/19/16 |
| 75 | Start of Performance Period | 1 day | Wed 1/20/16 | Wed 1/20/16 |
| 76 | **Building Controls & Monitoring** | **386 days** | **Wed 12/3/14** | **Wed 5/25/16** |
| 77 | Notice to Proceed to vendor | 1 day | Wed 12/3/14 | Wed 12/3/14 |
| 78 | Signed Contract or P.O. (CTI, DDMI) | 5 days | Thu 12/4/14 | Wed 12/10/14 |
| 79 | Design Specifications/ Mech-Elec Eng Drawings (CTI, DD | 30 days | Thu 12/11/14 | Wed 1/21/15 |
| 80 | Submittal Review | 21 days | Thu 1/22/15 | Thu 2/19/15 |
| 81 | Obtain All Required Permits and Approvals | 30 days | Fri 2/20/15 | Thu 4/2/15 |
| 82 | Procurement | 85 days | Fri 4/3/15 | Thu 7/2/15 |
| 83 | **Implementation** | **165 days** | **Fri 7/3/15** | **Thu 2/18/16** |
| 84 | DMV (CTI) | 30 days | Fri 7/3/15 | Thu 8/13/15 |
| 85 | Morton (CTI) | 30 days | Fri 8/14/15 | Thu 9/24/15 |
| 86 | 27 Hazen Dr. DoIT (CTI) | 30 days | Fri 9/25/15 | Thu 11/5/15 |
| 87 | 29 Hazen Dr. HHS (CTI) | 45 days | Fri 11/6/15 | Thu 1/7/16 |
| 88 | 29 Hazen Dr. Labs (CTI, Eckhardt & Johnson) | 45 days | Fri 11/6/15 | Thu 1/7/16 |
| 89 | Dept of Safety (CTI) | 30 days | Fri 1/8/16 | Thu 2/18/16 |
| 90 | Substantial Completion | 21 days | Fri 2/19/16 | Fri 3/18/16 |
| 91 | **Commissioning of Equipment and Systems** | **15 days** | **Thu 3/24/16** | **Wed 4/13/16** |
| 92 | Startup | 15 days | Thu 3/24/16 | Wed 4/13/16 |
| 93 | **Completion of Construction and Training** | **41 days** | **Wed 3/30/16** | **Wed 5/25/16** |
| 94 | Close-Out, as-builts, post installation submittals | 4 wks | Wed 3/30/16 | Tue 4/26/16 |
| 95 | Project Acceptance | 2 wks | Wed 4/27/16 | Tue 5/10/16 |
| 96 | Project Completion | 10 days | Wed 5/11/16 | Tue 5/24/16 |
| 97 | Start of Performance Period | 1 day | Wed 5/25/16 | Wed 5/25/16 |
| 98 | **Motors and Variable Frequency Drives** | **261 days** | **Wed 12/3/14** | **Wed 12/2/15** |
| 99 | Notice to Proceed to vendor | 1 day | Wed 12/3/14 | Wed 12/3/14 |
| 100 | Signed Contract or P.O. | 5 days | Thu 12/4/14 | Wed 12/10/14 |
| 101 | Design Specifications/ Mech-Elec Eng Drawings (CTI) | 30 days | Thu 12/11/14 | Wed 1/21/15 |




Project: NH State Buildings Construct
Date: Wed 11/5/14

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

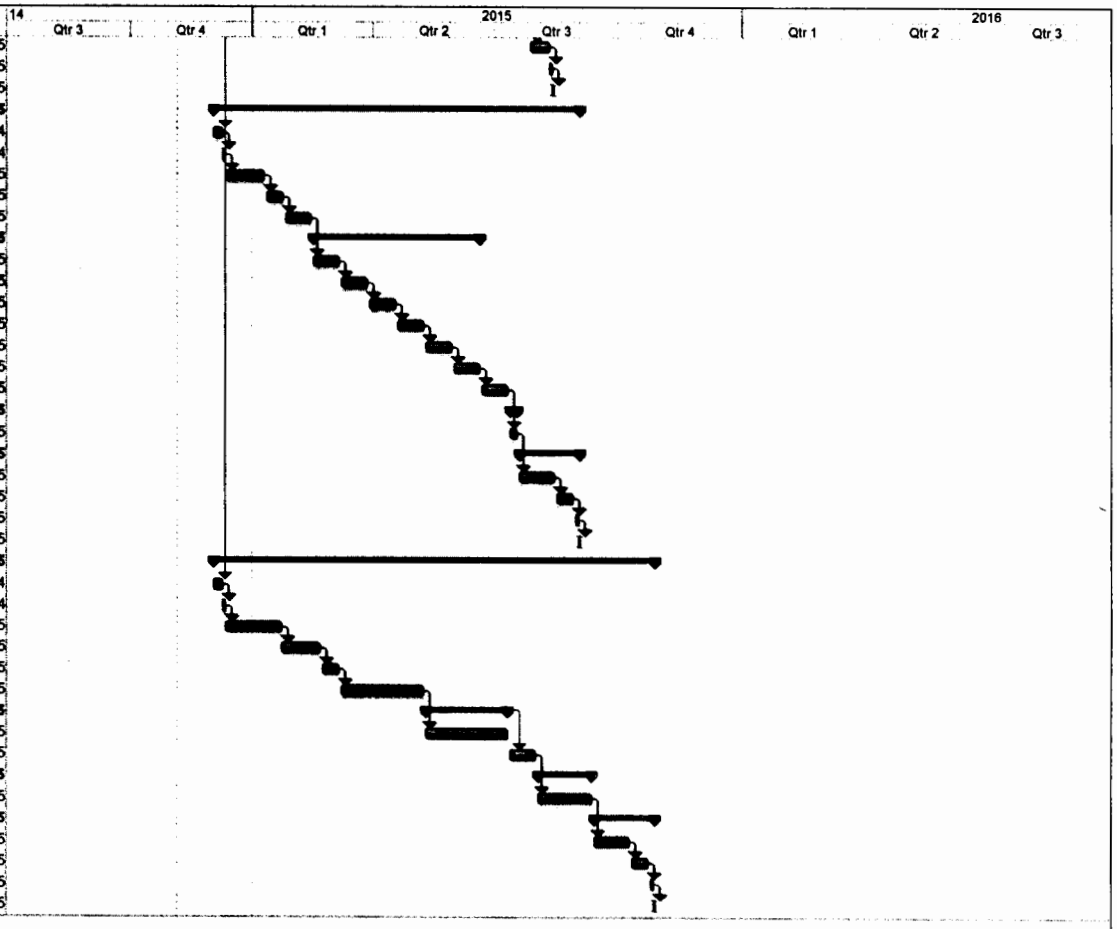
| ID | Task Name | Duration | Start | Finish |
|---|---|---|---|---|
| 102 | Submittal Review | 21 days | Thu 1/22/15 | Thu 2/19/15 |
| 103 | Obtain All Required Permits and Approvals | 60 days | Fri 2/20/15 | Thu 5/14/15 |
| 104 | Procurement | 60 days | Fri 5/15/15 | Thu 8/6/15 |
| 105 | **Implementation** | **30 days** | **Fri 8/7/15** | **Thu 9/17/15** |
| 106 | 29 Hazen Dr. Labs (CTI, DAC, Enpro) | 30 days | Fri 8/7/15 | Thu 9/17/15 |
| 107 | Substantial Completion | 21 days | Fri 9/18/15 | Fri 10/16/15 |
| 108 | **Commissioning of Equipment and Systems** | **5 days** | **Mon 10/19/15** | **Fri 10/23/15** |
| 109 | Startup | 5 days | Mon 10/19/15 | Fri 10/23/15 |
| 110 | **Completion of Construction and Training** | **33 days** | **Mon 10/19/15** | **Wed 12/2/15** |
| 111 | Close-Out, as-builts, post installation submittals | 4 wks | Mon 10/19/15 | Fri 11/13/15 |
| 112 | Project Acceptance | 2 wks | Mon 11/16/15 | Fri 11/27/15 |
| 113 | Project Completion | 2 days | Mon 11/30/15 | Tue 12/1/15 |
| 114 | Start of Performance Period | 1 day | Wed 12/2/15 | Wed 12/2/15 |
| 115 | **Additional Measures (Electrical Transformers & Power Fac** | **268 days** | **Wed 12/3/14** | **Fri 12/11/15** |
| 116 | Notice to Proceed to vendor | 1 day | Wed 12/3/14 | Wed 12/3/14 |
| 117 | Signed Contract or P.O. | 5 days | Thu 12/4/14 | Wed 12/10/14 |
| 118 | Design Specifications (Complete Energy) | 30 days | Thu 12/11/14 | Wed 1/21/15 |
| 119 | Submittal Review | 21 days | Thu 1/22/15 | Thu 2/19/15 |
| 120 | Obtain All Required Permits and Approvals | 30 days | Fri 2/20/15 | Thu 4/2/15 |
| 121 | Procurement | 45 days | Fri 4/3/15 | Thu 6/4/15 |
| 122 | **Implementation** | **91 days** | **Fri 6/5/15** | **Fri 10/9/15** |
| 123 | DMV (Complete Energy) | 10 days | Fri 6/5/15 | Thu 6/18/15 |
| 124 | Morton (Complete Energy) | 15 days | Fri 6/19/15 | Thu 7/9/15 |
| 125 | 27 Hazen Dr. DoIT (Complete Energy) | 21 days | Fri 7/10/15 | Fri 8/7/15 |
| 126 | 29 Hazen Dr. HHS (Complete Energy) | 33 days | Mon 8/10/15 | Wed 9/23/15 |
| 127 | Dept of Safety (Complete Energy) | 12 days | Thu 9/24/15 | Fri 10/9/15 |
| 128 | Substantial Completion | 7 days | Mon 10/12/15 | Tue 10/20/15 |
| 129 | **Commissioning of Equipment and Systems** | **5 days** | **Wed 10/21/15** | **Tue 10/27/15** |
| 130 | Startup | 5 days | Wed 10/21/15 | Tue 10/27/15 |
| 131 | **Completion of Construction and Training** | **33 days** | **Wed 10/28/15** | **Fri 12/11/15** |
| 132 | Close-Out, as-builts, post installation submittals | 4 wks | Wed 10/28/15 | Tue 11/24/15 |
| 133 | Project Acceptance | 2 wks | Wed 11/25/15 | Tue 12/8/15 |
| 134 | Project Completion | 2 days | Wed 12/9/15 | Thu 12/10/15 |
| 135 | Start of Performance Period | 1 day | Fri 12/11/15 | Fri 12/11/15 |
| 136 | **Additional Measures (Install low flow water fixtures)** | **182 days** | **Wed 12/3/14** | **Thu 8/13/15** |
| 137 | Notice to Proceed to vendor | 1 day | Wed 12/3/14 | Wed 12/3/14 |
| 138 | Signed Contract or P.O. | 5 days | Thu 12/4/14 | Wed 12/10/14 |
| 139 | Submittal Review (Conservation Solutions) | 21 days | Thu 12/11/14 | Thu 1/8/15 |
| 140 | Obtain All Required Permits and Approvals | 21 days | Fri 1/9/15 | Fri 2/6/15 |
| 141 | Procurement | 21 days | Mon 2/9/15 | Mon 3/9/15 |
| 142 | **Implementation** | **60 days** | **Tue 3/10/15** | **Mon 6/1/15** |
| 143 | DMV (Conservation Solutions) | 15 days | Tue 3/10/15 | Mon 3/30/15 |
| 144 | Morton (Conservation Solutions) | 15 days | Tue 3/31/15 | Mon 4/20/15 |
| 145 | 29 Hazen Dr. HHS (Conservation Solutions) | 15 days | Tue 4/21/15 | Mon 5/11/15 |
| 146 | Dept of Safety (Conservation Solutions) | 15 days | Tue 5/12/15 | Mon 6/1/15 |
| 147 | Substantial Completion | 15 days | Tue 6/2/15 | Mon 6/22/15 |
| 148 | **Commissioning of Equipment and Systems** | **5 days** | **Tue 6/23/15** | **Mon 6/29/15** |
| 149 | Startup | 5 days | Tue 6/23/15 | Mon 6/29/15 |
| 150 | **Completion of Construction and Training** | **33 days** | **Tue 6/30/15** | **Thu 8/13/15** |
| 151 | Close-Out, as-builts, post installation submittals | 4 wks | Tue 6/30/15 | Mon 7/27/15 |




Project: NH State Buildings Constructi
Date: Wed 11/5/14

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

| ID | Task Name | Duration | Start | Finish |
|---|---|---|---|---|
| 152 | Project Acceptance | 2 wks | Tue 7/28/15 | Mon 8/10/15 |
| 153 | Project Completion | 2 days | Tue 8/11/15 | Wed 8/12/15 |
| 154 | Start of Performance Period | 1 day | Thu 8/13/15 | Thu 8/13/15 |
| 155 | **Building Envelope** | **196 days** | **Wed 12/3/14** | **Wed 9/2/15** |
| 156 | Notice to Proceed to vendor | 5 days | Wed 12/3/14 | Tue 12/9/14 |
| 157 | Signed Contract or P.O. | 2 days | Wed 12/10/14 | Thu 12/11/14 |
| 158 | Submittal Review (Anchor Insulation) | 21 days | Fri 12/12/14 | Fri 1/9/15 |
| 159 | Obtain All Required Permits and Approvals | 10 days | Mon 1/12/15 | Fri 1/23/15 |
| 160 | Procurement | 15 days | Mon 1/26/15 | Fri 2/13/15 |
| 161 | **Implementation** | **90 days** | **Mon 2/16/15** | **Fri 6/19/15** |
| 162 | DMV (Anchor Insulation) | 15 days | Mon 2/16/15 | Fri 3/6/15 |
| 163 | Morton (Anchor Insulation) | 15 days | Mon 3/9/15 | Fri 3/27/15 |
| 164 | 29 Hazen Dr. HHS (Anchor Insulation) | 15 days | Mon 3/30/15 | Fri 4/17/15 |
| 165 | 29 Hazen Dr. Labs (Anchor Insulation) | 15 days | Mon 4/20/15 | Fri 5/8/15 |
| 166 | 27 Hazen Dr. DoIT (Anchor Insulation) | 15 days | Mon 5/11/15 | Fri 5/29/15 |
| 167 | Dept of Safety (Anchor Insulation) | 15 days | Mon 6/1/15 | Fri 6/19/15 |
| 168 | Substantial Completion | 15 days | Mon 6/22/15 | Fri 7/10/15 |
| 169 | **Commissioning of Equipment and Systems** | **5 days** | **Mon 7/13/15** | **Fri 7/17/15** |
| 170 | Startup | 5 days | Mon 7/13/15 | Fri 7/17/15 |
| 171 | **Completion of Construction and Training** | **33 days** | **Mon 7/20/15** | **Wed 9/2/15** |
| 172 | Close-Out, as-builts, post installation submittals | 4 wks | Mon 7/20/15 | Fri 8/14/15 |
| 173 | Project Acceptance | 2 wks | Mon 8/17/15 | Fri 8/28/15 |
| 174 | Project Completion | 2 days | Mon 8/31/15 | Tue 9/1/15 |
| 175 | Start of Performance Period | 1 day | Wed 9/2/15 | Wed 9/2/15 |
| 176 | **Renewable Energy Systems (Solar PV)** | **235 days** | **Wed 12/3/14** | **Wed 10/28/15** |
| 177 | Notice to Proceed to vendor | 5 days | Wed 12/3/14 | Tue 12/9/14 |
| 178 | Signed Contract or P.O. | 2 days | Wed 12/10/14 | Thu 12/11/14 |
| 179 | Design Specifications/ Mech-Elec-Structural Eng Drawings | 30 days | Fri 12/12/14 | Thu 1/22/15 |
| 180 | Submittal Review | 21 days | Fri 1/23/15 | Fri 2/20/15 |
| 181 | Obtain All Required Permits and Approvals | 10 days | Mon 2/23/15 | Fri 3/6/15 |
| 182 | Procurement | 45 days | Mon 3/9/15 | Fri 5/8/15 |
| 183 | **Implementation** | **45 days** | **Mon 5/11/15** | **Fri 7/10/15** |
| 184 | Morton | 45 days | Mon 5/11/15 | Fri 7/10/15 |
| 185 | Substantial Completion | 15 days | Mon 7/13/15 | Fri 7/31/15 |
| 186 | **Commissioning of Equipment and Systems** | **30 days** | **Mon 8/3/15** | **Fri 9/11/15** |
| 187 | Startup | 30 days | Mon 8/3/15 | Fri 9/11/15 |
| 188 | **Completion of Construction and Training** | **33 days** | **Mon 9/14/15** | **Wed 10/28/15** |
| 189 | Close-Out, as-builts, post installation submittals | 4 wks | Mon 9/14/15 | Fri 10/9/15 |
| 190 | Project Acceptance | 2 wks | Mon 10/12/15 | Fri 10/23/15 |
| 191 | Project Completion | 2 days | Mon 10/26/15 | Tue 10/27/15 |
| 192 | Start of Performance Period | 1 day | Wed 10/28/15 | Wed 10/28/15 |




Project: NH State Buildings Constructi
Date: Wed 11/5/14

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

# Exhibit 6

## Standards of Service and Comfort

1. In conditioned areas, space temperatures shall be maintained between 68°F dry bulb (heating) and 76°F dry bulb (cooling) during scheduled occupied periods as controlled by the space thermostats or room sensors. In no instance shall the lowest zone temperature in the building, as defined in paragraph 5., below, fall below 68°F during occupied periods. These temperature requirements shall also apply to buildings that have central cooling systems. In buildings with ventilation systems, outside air cannot be reduced below the quantities found in ASHRAE standard 62-89, "Ventilation for Acceptable Indoor Air Quality."

**STANDARD HOURS OF OPERATION**

| BUILDING | ADDRESS | AREA | BASE HOURS OF OPERATION |
|---|---|---|---|
| MORTON | 7 Hazen Drive | Office | M-F 6:30a-5:30p |
| | | Computer Room | 24x 7x 365 |
| DMV | 23 Hazen Drive | Office | *Nov-Mar* |
| | | | M,W,Th,F 7a-6p |
| | | | Tu 7a-7:30p |
| | | | Sa 9a-1p |
| | | | |
| | | | *April-Oct* |
| | | | Fri 7a-9p |
| | | | Sa, Su 8a-5p |
| | | Computer Rooms | 24x 7x 365 |
| DoIT | 27 Hazen Drive | Offices | M-Su 7a-5p |
| | | Computer Room | 24x 7x 365 |
| HHS | 29 Hazen Drive | Laboratories | M-F 7a-6p |
| | | | Sa 8a-4:30p |
| | | | Su No Operations |
| | | | Hol 8a-4:30p |
| HHS | 29 Hazen Drive | Offices | M-F 8a-6p |
| | | Computer Room | 24x 7x 365 |
| SAFETY | 33 Hazen Drive | All Except Gun Line | M-F 6a-5:30p |
| | | Gun Line Area | M-Su 9a-10p |
| | | Computer Rooms | 24x 7x 365 |

2. During unoccupied periods, the heating and/or cooling systems may be turned off. However, the systems must be so designed that before any high or low temperatures or humidity conditions that could damage equipment in the spaces can occur, the heating and/or cooling system will restart and control the

temperature or humidity as required. In any case, temperatures must be restored to the 68°F - 76°F range by the start of the next occupied period.

3. Minimum lighting levels shall be in accordance with applicable Illumination Engineering Society (IES) standards for each type of space and activity as of the time of the Measure installation. It is recommended a sampling of light level readings be taken at various locations before considering lighting upgrade options. This will assure post-retrofit light levels will be adequate and that lighting upgrades will not be based on existing light levels which may be below or above IES standards.

4. The setpoints agreed to above (68F heating and 76F cooling) shall be programmed into Energy Management Control System as the center point of the temperature control band, which, like all control devices typically has a +-1 to +-2F swing during equipment cycles. Zone space temperature will be reported by a single zone space sensor, and depending on the time of day and location within the zone it serves, actual space temperatures throughout the zone will be higher or lower than indicated by the zone sensor. Employees seated close to windows, for example, can experience temperatures lower than the zone sensor on a windy, cold day, and higher than the sensor on a sunny, hot day. As in all control systems, periodic recalibration of space sensors will be required to maintain their accuracy and to adjust for localized effects such as described above. Agreed-upon setpoints shall represent the space temperatures averaged throughout the zone and over a typical equipment heating/cooling operating cycle.

# Appendix A
# Specifications

## Hazen Drive Performance Contract
## Biomass Facility
## Minimum Standards

1. Design in accordance with the following:
   a. NH State Building Code and Amendments
      http://www.nh.gov/safety/divisions/firesafety/index.html
   b. NH State Fire Code and Amendments:
      http://www.nh.gov/safety/divisions/firesafety/index.html
   c. NH High Performance Design Standard (linked at):
      https://admin.state.nh.us/purchasing/publicworks/PWdocuments.asp
   d. Alteration of Terrain (AOT) permit:
      http://des.nh.gov/organization/divisions/water/aot/permit_aot.htm
   e. Stormwater Pollution Prevention Plan (SWPPP)
      http://des.nh.gov/organization/divisions/water/stormwater/index.htm
   f. NH Governor's Commission on Disability, Architectural Barrier Free-Design Committee:
      http://www.nh.gov/disability/about/abcommittee.htm
   j. NH Clean Air in State Buildings, RSA 10-B, ENV-A 2200:
      http://des.nh.gov/organization/commissioner/legal/rules/documents/env-a2200.pdf
   k. New Hampshire Outdoor Lighting Efficiency and Dark Sky Policy, RSA 9-E:
      http://nhrsa.org/law/chapter/9-e/
   i. NHDOT Standard Specification for Road and Bridge Construction, latest edition.
      http://www.nh.gov/dot/org/projectdevelopment/planning/documents/QA-QCMaterialStanards-2010.pdf
   j. FAA permits

2. Comply with the "Underground Utility Damage Prevention System" per NH RSA 374 Sections 48 through 56 by notification to DIG-SAFE SYSTEM, Inc.

3. Steel door frames are required to be shop fabricated welded units. Welded units are required to be die cut mitered and continuously welded. Specify complete description for "fully welded" metal door frames. All windows to have a ¼ glass wire glazing.

   Frames for level 2 steel doors: 0.053 inch thick steel sheet (16 gage); frames for openings 48 inches wide or greater: 0.067 inch thick (14 gage) steel sheet. Frames for level 3 steel doors: 0.053 (16 gage) steel sheet; openings 48 inches wide or greater 0.067 inch thick (14 gage) steel sheet.

4. Steel door faces are required to be full flush with each door face formed from a single sheet of steel with no visible seams on the surface of the faces. A full height vertical seam, continuously welded, is permitted on door edges with the seam dressed smooth.

Steel door tops are required to be flush and door bottoms are inverted channels. Specify door vision lite units to be installed on the secure side if screw applied.

Comply with ANSI/SDI A250.8. Thermal rated (insulated doors: R-value not less than 12.3 deg F x h x sq. ft/ btu when tested according the ASTM C 1363. Vertical edges for single acting doors: beveled edge: 1/8" in 2 inches. Top and bottom edges closed with flush or inverted 0.042-inch thick end closures, or channels of same material as face sheets. Exterior doors: Face sheets fabricated from metallic coated steel sheet. Comply with ANS/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level; Level 3 and physical performance level A (Extra Heavy Duty), Model 2 (seamless). Interior doors: Face sheet fabricated from cold rolled steel sheet. Provide doors complying with ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level: Level 2 and physical performance Level B (heavy duty) model 2 (seamless). Hardware reinforcement ANSI/SDI A250.0. Fabricate reinforcement places of sufficient strength from same material as door face sheets to support hardware without through bolting.

5. Metal window frames are required to be thermally broken. Sills shall be factory complete with exterior baffled weep holes, with no obstructions. Specify total system warranty on all exterior window units that are furnished glazed. Specify maximum available warranty; overall unit minimum is five years and glass only at 10 years. Minimum U value of 0.65.

6. Coordinate hardware with Using Agency. Maintain uniformity of base metal and finish throughout project system. Specify best level of quality products for the longest life. Confirm compatibility of new specified hardware with existing hardware systems that are retained.

7. For punch list and/or corrective work, require that all "touch-up painting" be from corner to corner and floor to ceiling.

8. Provide penetration firestopping in fire resistance rated walls, horizontal assemblies, and smoke barriers in accordance with building and fire code requirements. Firestop systems will be UL Classified to ASTM E814 (UL1479).

9. Dry automatic sprinkler systems shall be designed to utilize galvanized pipe and fittings. Galvanized pipe shall be in accordance with ANSI/ASTM A53 Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; ANSI/ASTM A795 Specification for Black and Hot-Dipped, Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe for Fire Protection Use.

10. Provisions shall be made to properly drain all part of the sprinkler system.

11. Sprinkler pipe sizing shall be specified as follows:

| Pipe Line | Wet Mains | Wet Branchlines | Dry Mains | Dry Branchlines |
|---|---|---|---|---|
| **Sizes** | 2" and larger | 2" and Smaller | 2" and Larger | 2" and Smaller |
| **Type** | Black Steel | Black Steel | Galvanized Steel | Galvanized Steel |
| **Schedule** | Schedule 10 | Schedule 40 | Schedule 10 | Schedule 40 |
| **Joints** | Grooved | Threaded | Grooved | Threaded |
| **Fitting** | Grv Weld & Hole Cut | Black Cast Iron | Grv Weld & Hole Cut | Galvanized Mall Iron |

12. All electrical systems shall be in rigid galvanized conduit to within two feet of the roof deck. Panelboards shall be dead front with bolt on thermal magnetic circuit breakers with copper busses. Panelboard trims shall have front hinged to box. All devices shall be heavy-duty industrial grade.

13. All outlet boxes, device boxes and supports shall be steel or cast aluminum.

14. Grounding systems in all shall include the main water services, grounding electrodes, building steel and concrete encased electrode. A separate equipment grounding conductor shall be pulled in all feeder and branch circuit conduits. Provide a comprehensive diagram of the grounding system.

15. Nameplates are required on above ceiling junction boxes, raceways, and cabinets. Nameplate will have voltage, panel board designation and circuit numbers annotated on the outside cover. Circuit wiring contained inside will have alpha/ numeric labels on each wire connection or pass through. Nameplate for above ceiling work done in Clearly Legible writing using permanent marker is acceptable.

16. Special inspections required by Chapter 17 of IBC to be completed and paid for by contractor.

17. Provide sequence of operations for the biomass boiler for review and coordination with Using Agency and State's Engineer prior to final approval. Boiler control panel to accept automatic phone dialer and "Ethernet connection capability" is a required component of the wood chip system to report the condition of the wood chip system. Land line will be supplied to the boiler control panel by State. Provide spare conduit from biomass building to 29 Hazen Drive for phone line to be provided by State.

    Controls integration: Boiler Controls will be open protocol, BacNet compatible and able to integrate with existing Invensys Controls technology (Lon works).

18. Subject to compliance with requirements, electric motors will carry UL, CSA listing, Certificate of Origin will Specify North American, European or Japanese manufacture due to quality concerns of materials and design from Emerging Markets. Larger motors shall be premium efficiency.

19. Boiler feedwater pumps shall to be premium efficiency high temperature pumps and be provided with high temperature seals.

20. Performance specifications are required for the boiler for meeting DES emission requirements.

21. Adequate training for biomass boiler, controls, economizer, ESP and building systems shall be provided by Contractor.

22. Outside site lighting, including emergency lighting outside the building to the public way is required.

23. Fire alarm system design and specification needs to be defined as same manufacturer as the 29 Hazen Drive. Addressable, with sub-panel or additional annunciator to be provided at new facility, if possible. Additionally, Fire Extinguishers are required to be electronically monitored in accordance with Saf-C 6008.03 (d) (Section 13.6.2 of NFPA 1). They shall be programmed as supervisory alarms. (Note: heat detectors are not required to be provided, since the building is protected throughout by a complete automatic sprinkler system).

24. Excavation tax; RSA 72-B and RSA 155-E for removal of material off site.

25. City of Concord regulations shall be followed regarding sanitary sewerage; storm drainage; domestic and fire protection; etc. Additionally, all permitting is required to be completed for all work.

26. Welders shall be certified in compliance with the applicable sections of the ASME Boiler and Pressure Vessel and Power Codes. All certificates shall be current and available for review by the Owner or Engineer upon request. Additionally, the responsibility for factory start-up, boil-out of the boiler, hydrostatic testing of the boiler, manufacturer's documentation and reports for the boiler, and all inspection reports shall be the responsibility of the contractor. And finally, there are special ASME inspections required by the Department of Labor for high pressure boilers and the construction and installation. The components must be certified prior to installation by a team of special inspectors prior to installation, and then after installation. The materials must be certified prior to installation or they will have to be removed and new materials installed. The materials that must be certified are "within the boundary" of the boiler. These components must be installed by ASME welders. This team will also need to witness the hydrostatic test, along with the State Inspector.

27. All new steam lines shall be properly flushed/cleaned using air pressure at 125 psi blown through the lines for the entire length for at least 15 seconds prior to connection to the main steam line. The end of the steam line will have a standard target placed at the discharge end to record the number of impacts on the target. This procedure will be repeated until there are only a few impacts on the target. This process shall be witnessed by a State of New Hampshire Professional mechanical engineer and approved when the appropriate results have been achieved.

28. Overhead coiling doors shall withstand the wind loads, the effects of gravity loads, and loads and stresses within limits and under conditions indicated according to SEI/ASCE 7.
    a. Outdoor Push Button station to operate chip ovhd doors requiring a keypad for coded operation

b. Wind loads: Uniform pressure (velocity pressure) of 20 lbf/sq.ft. acting inward and outward.
c. Basic wind speed: 90 mph.
d. Deflection limits: design overhead coiling doors to withstand design wind load without evidencing permanent deformation or disengagement of door components.
e. Design overhead coiling doors to remain operable under uniform pressure (velocity pressure) of 20 lbf/sq. ft. wind load, acting inward and outward.
f. Provide overhead coiling door components and operators capable of operating for not less than 50,000 cycles. One operation cycle is complete when a door is opened from the closed position to the fully opened position and returned to the closed position.
g. Obtain overhead coiling doors, operators and controls from a single door manufacturer.
h. Door curtain Materials and Construction:
    i. Fabricate overhead coiling door curtain of interlocking metal slats (3 ¼" center to center height), designed to withstand wind loading indicating, in a continuous length for width of door without splices.
    ii. Steel door curtain slats-zinc coated, cold-rolled structural steel sheet, complying with ASTM A 653/A 653M, with G90 zinc coating; nominal sheet thickness (coated) of 0.028 inch and as required to meet requirements.
    iii. Fill slats for insulated doors with manufacturer's standard thermal insulation (13/16" rigid insulation) complying with maximum flame spread and smoke developed indexes of 75 and 450, respectively, according to ASTM E84. Enclose insulation completely within slat faces.
    iv. Metal Interior curtain slat facing to match metal of exterior curtain slat face.
    v. Provide insulated slats with manufacturer's standard interior-to-exterior thermal break or with continuous gaskets between slats.

Windlocks of malleable-iron casing galvanized after fabrication, secured to curtain slats with galvanized rivets. Provide locks on not less than alternate curtain slats for curtain alignment and resistance to lateral movement.

    vi. Bottom bar for service doors consisting of two angles, each no less than 1 ½" by 1 1/2" by 1/8" thick; fabricated from manufacturer's standard hot-dip galvanized steel, stainless steel, or aluminum extrusions to match curtain slats and finish.
    vii. Curtain jamb guides to be manufacturer's standard angles or channels and angles or same material and finish as curtain slats, with sufficient depth and strength to retain curtain, to allow curtain to operate smoothly, and to withstand loading. Slot bolt holes for guide adjustment. Provide removable stops on guides to prevent overtravel of curtain and a continuous bar for holding windlocks.
i. Form sheet metal hood to entirely enclose coiled curtain and operating mechanism at opening head. Contour to fit end brackets to which hood is attached. Roll and reinforce top and bottom edges for stiffness. Form closed ends for surface-mounted hoods and fascia for any portion of between-jamb

mounting that projects beyond wall face. Equip hood with intermediate support brackets as required to prevent sagging

j. Fabricate with cylinder lock, spring loaded dead bolt, operating handle, cam plate, and adjustable locking bars to engage through slots in track. Chain lock keeper, suitable for padlock. Equip power-operated door with safety switch to disengage power supply when door is locked.
k. Equip each exterior door with weather-stripping gaskets fitted to entire perimeter of door for a weather tight installation, unless otherwise indicated.
l. Equip each push up operated door with lifting handles on each side of door, finished to match door.
m. Counterbalance doors by means of manufacturer's standard mechanism with an adjustable-tension, steel helical torsion spring mounted around a steel shaft and contained in a spring barrel connected to top of curtain with barrel rings. Use grease-sealed bearings or self-lubricating graphite bearings for rotating members.
n. Equip door with manufacturer's recommended manual door operator unless another type of door operator is indicated. Chain-Hoisted Operator consisting of endless steel hand chain, chain pocket wheel and guard and gear reduction unit with a maximum 25 lbf force for door operation. Provide alloy-steel hand chain with chain holder secured to operator guide.
o. Electric door operator assembly of size and capacity recommended and provided by door manufacturer for door and operation-cycles requirement specified, with electric motor and factory prewired motor controls, started, gear reduction unit, solenoid-operated brake, clutch, remote stations, control devices, integral gearing for locking door and accessories required for proper operation.

29. Expansion fittings and loops-
    a. Products to absorb 200 percent of maximum axial movement between anchors. Welding qualifications and quality procedures per AWS D1.1/D1.1M, Structural Welding Code and ASME Boiler and Pressure Vessel Code.
    b. Standards; ASTM F1120 and EJMA's Standards of the Expansion Joint Manufacturers Association, Inc. Type: Circular, corrugated bellows with external tie rods. Minimum pressure rating: 300 psig unless otherwise indicated.

30. General duty valves for HVAC Piping
    a. ASME B16.10 and ASME B16.34 for ferrous valve dimensions and design criteria.
    b. ASME B31.1 for power piping valves.
    c. ASME B31.9 for building services piping valves.
    d. Prepare valves for shipping; protect internal parts against rust and corrosion; protect threads, flange faces, grooves, and weld ends; sent angle, gate and globe valves closed to prevent rattling; set ball and plug valves open to minimize exposure to functional surfaces; set butterfly valves closed or slightly open; block check valves in either closed or open position.
    e. Valve actuator types
        i. Gear actuator-for quarter turn valves NPS 8 and larger.
        ii. Hand wheel: for valves other than quarter turn types.
        iii. Handlevel: for quarter turn valves NPS 6 and smaller except plug valves.
        iv. Wrench: for plug valves with square heads, Furnish owner with 1 wrench for every 10 plug valves for each size square plug valve head.
        v. Chainwheel: Device for attachment to valve handwheel, stem or other actuator of size and with chain for mounting height, as indicated in the Valve Installation article.

f. Valves in Insulated Piping- with 2-inch stem extensions and the following features
   i. Gate valves: with rising stem.
   ii. Ball valves: with extended operating handle of non-thermal conductive material, and protective sleeve that allows operation of valve without breaking the vapor seal or disturbing insulation.
   iii. Cast Steel Valves, HP Steam & HP Hot water Applications
      1. Class 300, Cast Steel Gate Valves; ASTM A216, WCB, Cast Steel.
      2. Cast Steel Globe Valves, Class 300; MSS SP-Type; ASTM WCB Cast Steel.
      3. Class 300 Cast Steel Check valves, ASTM A216, WCB cast steel.
      4. Class 300 forged steel valves, gate, globes and check; MSS SP-Type; ASTM A105/105M, WCB, Forged steel.

      5. Brass Ball Valves:
         a. One-piece, reduced port, brass ball valves with brass trim, MSS SP-110; CWP rating-400 psig.
         b. Two piece, full port, brass ball valves with brass trim; SWP rating 150 psig; CWP rating 600 psig; MSS SP-110.
         c. Two piece, full port, brass ball valves with stainless steel trim per MSS SP-110; SWP rating-150 psig; CWP rating-600 psig.
         d. Two piece, regular port, brass ball valves with brass trim; MSS SP-110; SWP rating-150 psig; CWP-600 psig.
         e. Two piece, regular port, brass ball valves with stainless steel trim; MSS-SP-110; SWP-150 psig; CWP rating-600 psig.
         f. Three piece, full port, brass bass valves with brass trim; MSS SP 110; SWP-150 psig; CWP 600 psig;
         g. Three piece, full port, brass ball valves with stainless steel trim; MSS-SP-110; SWP-150 psig; CWP 600 psig.
      6. Bronze Ball Valves:
         a. One-piece, reduced port, bronze ball valves with bronze trim; MSS-SP 110; CWP rating 400 psig.
         b. One-piece, reduced port, bronze ball valves with stainless steel trim; MSS SP-110; CWP 600 psig.
         c. Two-piece, full port, bronze ball valves with bronze trim; MSS SP 110; SWP rating 150 psig; CWP rating 600 psig.
         d. Two-piece, full port, bronze ball valves with stainless steel trim; MSS SP 110; SWP rating 150 psig; CWP rating 600 psig.
         e. Two-piece, regular port, bronze ball valves with bronze trim; MSS SP 110; SWP rating 150 psig; CWP rating 600 psig.
         f. Two-piece, regular port, bronze ball valves with stainless steel trim; MSS SP 110; SWP rating 150 psig; CWP rating 600 psig.
         g. Three-piece, full port, bronze ball valves with bronze trim; MSS SP 110; SWP rating 150 psig; CWP rating 600 psig.
         h. Three-piece, full port, bronze ball valves with stainless steel trim; MSS SP 110; SWP rating 150 psig; CWP rating 600 psig.
      7. Iron Ball valves: Class 125 Iron ball valves; MSS SP 72; ASTM A 126; MSS SP-67, Type I; CWP rating 150 psig.
      8. Bronze Lift Check Valves:

a. Class 125, Lift Check Valves with Bronze Disc; MSS SP 80, Type I; CWP rating 200 psig; ASTM B61 or ASTM B62.
b. Class 125, Lift Check Valves with nonmetallic discs; MSS SP 80; CWP rating 200 psig; ASTM B61 or ASTM B62.

9. Bronze Swing Check Valve
   a. Bronze Swing check valves with bronze discs; Class 125, MSS SP 80, type 3; CWP rating, 200 psig; ASTM B62;
   b. Class 125 bronze swing check valves with nonmetallic disc; MSS SP80; type 4; CWP rating 200 psig; ASTM B62;
   c. Class 150, bronze swing check valves with bronze disc; MSS SP 80, type 3; CWP 300 psig; ASTM B62.
   d. Class 150 bronze swing check valves with nonmetallic disc; MSS SP80, type 4; CWP rating, 300 psig;
10. Iron swing check valves
   a. Class 125, iron swing check valves with metal seats, MSS SP 71, type 1; ASTM A 126. CWP rating 200 psig for NPS 2 ½ to NPS 12; CWP rating 150 psig for NPS 14 to NPS 24.
   b. Class 125 iron swing check valves with nonmetallic to metal seats; MSS SP 71; NPS 2 ½-NPS 12 CWP rating 200 psig; NPS 14 to NPS 24 CWP rating 150 psig; ASTM A 126.
   c. Class 250; iron swing check valves with metal seats; MSS SP 71, type 1; NPS 2 ½-NPS 12 CWP 500 psig; NPS 14 to NPS 24 CWP 300 psig.
11. Iron swing check valves with closure control
   a. Class 125, iron swing check valves with level and spring closure control; MSS SP 71, Type I; NPS 2 ½ to NPS 12 CWP rating 200 psig; NPS 14 to NPS 24 CWP rating 150 psig; ASTM A 126.
   b. Class 125, Iron swing check valves with level and weight closure control; MSS SP 71, Type I; ; NPS 2 ½ to NPS 12 CWP rating 200 psig; NPS 14 to NPS 24 CWP rating 150 psig; ASTM A 126.
12. Iron grooved end swing check valves; 300 CWP iron, grooved end, swing check valves; ASTM A536.
13. Iron center grounded check valves;
   a. Class 125 Iron Check and Globe Valves; MSS SP-125; ; NPS 2 ½ to NPS 12 CWP rating 200 psig; NPS 14 to NPS 24 CWP rating 150 psig; ASTM A 126.
   b. Class 150 Iron check and Globe valves; MSS SP 125; ASTM A 395/A 395 M or ASTM A 536; NPS 2 ½ to NPS 12 CWP rating 300 psig; NPS 14 to NPS 24 CWP rating 250 psig.
   c. Class 250 Iron check and Globe valves; MSS SP 125; NPS 2 ½ to NPS 12 CWP rating 400 psig; NPS 14 to NPS 24 CWP rating 300 psig; ASTM A 126.
   d. Class 300 Iron check and Globe valves; MSS SP 125; ASTM A 395/A 395 M or ASTM A 536; NPS 2 ½ to NPS 12 CWP rating 500 psig; NPS 14 to NPS 24 CWP rating 400 psig.
14. Iron Plate type check valves;
   a. Class 125; API 594; NPS 2 ½ to NPS 12 CWP rating 200 psig; NPS 14 to NPS 24 CWP rating 150 psig; ASTM A 126

b. Class 150; API 594; NPS 2 ½ to NPS 12 CWP rating 300 psig; NPS 14 to NPS 24 CWP rating 250 psig; ASTM A 126.
c. Class 300, API 594; NPS 2 ½ to NPS 12 CWP rating 500 psig; NPS 14 to NPS 24 CWP rating 400 psig; ASTM A 395/A 395 M or ASTM A 536.

31. Install valves with unions or flanges at each piece of equipment arranged to allow service, maintenance and equipment removal without system shutdown. Locate valves for easy access and provide separate support where necessary. Install valves in horizontal piping with stem at or above center of pipe. Install valves in position to allow full stem movement.

32. Insulate HVAC equipment and piping, including over fittings, valves, strainers, flanges, unions, and other specialties with continuous thermal and vapor retarder integrity. Insulate pipe elbows using preformed fitting insulations or mitered fittings made from material and density as adjacent pipe insulation. Install field applied jackets (per ASTM C921 type 1, PVC jacket, ASTM D1784; metal jacket per ASTM B209, Alloy 3003, 3005, 3105 or 5005, temper H-14); underground direct buried jacket (125 mil.).

33. Steam and Condensate Piping:
    a. Condensate piping above grade:
        i. NPS2 and smaller; schedule 80; Type S, Grade B, steel pipe; Class 125 cast-iron fittings; and threaded joints.
        ii. NPS 2 ½ through NPS 12; schedule 80, Type E, Grade B, steel pipe; Class 150 wrought steel fitting, flanges, and flange fittings; and welded and flanged joints.
    b. Condensate piping below grade:
        i. NPS2 and smaller; schedule 80; Type S, Grade B, steel pipe; Class 125 cast-iron fittings; and threaded joints.
        ii. NPS 2 ½ through NPS 12; schedule 80, Type E, Grade B, steel pipe; Class 150 wrought steel fitting, flanges, and flange fittings; and welded and flanged joints.
    c. Low Pressure Steam Piping (15 psi and lower):
        i. NPS2 and smaller; schedule 40; Type S, Grade B, steel pipe; Class 125 cast-iron fittings; and threaded joints.
        ii. NPS 2 ½ through NPS 12; schedule 40, Type E, Grade B, steel pipe; Class 150 wrought steel fitting, flanges, and flange fittings; and welded and flanged joints.
        iii. NPS 14 through NPS 18; schedule 30, Type E, Grade B, steel pipe; Class 150 wrought steel fitting, flanges, and flange fittings; and welded and flanged joints.
        iv. NPS 20 and larger; schedule 20, Type E, Grade B, steel pipe; Class 150 wrought steel fitting, flanges, and flange fittings; and welded and flanged joints.
    d. High Pressure Steam Piping:
        i. NPS2 and smaller; schedule 40; Type S, Grade B, steel pipe; Class 300 forged steel fittings; socket welded or threaded joints.
        ii. NPS 2 ½ through NPS 12; schedule 40, Type E, Grade B, steel pipe; Class 300 cast steel fitting, flanges and flange fittings; butt welded ends and flanged joints.
    e. Install sleeves for piping penetrations of walls, roof penetrations and floors.

f. Install drip legs at low points and natural drainage points such as ends of mains, bottoms of risers, and ahead of pressure regulators, and control valves.
g. Install strainers on supply side of control valves, pressure reducing valves, traps. Install NPS ¾ nipple and gate valve in nipple and gate valve in blowdown connection of strainers NPS 2 and larger. Match size of strainer blowoff connection for strainers smaller than NPS 2.
h. Prepare steam and condensate piping according to ASME B31.1, Power Piping.

34. Provide automatic liquid chemical feed equipment for steam boiler. System shall be fully automated. The system shall automatically take readings of the boiler conductivity, automate the blowdown, and calculate the appropriate amounts of the chemistry to inject into the boiler for system protection. Owner shall be provided with test kits.

35. Biomass Wood Chip Boiler
    a. Provide 8.3 MMBtu /hr. output biomass boiler, including larger foundation, ESP, and stack.
    b. All wiring shall be in rigid galvanized conduit to within 2 feet of the roof deck.
    c. Sequence of Operations to be discussed and reviewed with Owner prior to final approval.
    d. Wood chip system particulate emission shall be in accordance with proposed revised DES rules.
    e. Add visual alarm on system for conveyor movement (OSHA requirement).
    f. Provide and install drum heater.
    g. Single Conveyor shall be provided with double carbide teeth (6 not 3).
    h. Spare parts shall be provided to the Owner.
    i. Boiler manufacturer shall be responsible for boiler boil out and clean out of the boiler.
    j. Boiler fire suppression system shall be tied into fire alarm system at Biomass Building and 29 Hazen Drive as supervisory signal.

36. Interior lighting:
    a. Luminaries will comply with UL standard 1598.
    b. Exit signage- Comply with UL924 for sign colors, visibility, luminance and lettering size, comply with authorities having jurisdiction. Internally illuminated signs-lamps for AC operation: LEDs, 50,000 hours minimum rated lamp life. Self-powered exit signs (battery type); integral automatic battery charger in a self-contained power pack.
    c. Ballasts for compact fluorescent lamps: electronic programmed rapid start type, high performance T8 complying with UL935 and with ANSI C82.11, designed for type and quantity of lamps indicated. Ballast shall be designed for full light output unless dimmer or bi-level control is indicated.
        i. Lamp end of life detection and shutdown circuit.
        ii. Automatic lamp starting after lamp replacement.
        iii. Sound rating: Class A.
        iv. Total Harmonic Distortion Rating, Less than 20 percent.
        v. Transient voltage protection: IEEE C62.41.1 and IEEE C62.41.2, Category A or better.
        vi. Operating Frequency: 20 KHz or higher.
        vii. Lamp Current Crest Factor: 1.7 or less.
        viii. BF: 0.95 or higher unless otherwise indicated.

ix. Interference: Comply with 47CFR 18, Ch. 1, Subpart C, for limitations on electromagnetic and radio-frequency interference for nonconsumer electronics.

d. Ballasts for Linear Fluorescent Lamps: General requirements for electronic ballasts:
   i. Comply with UL 935 and with ANSI C82.11.
   ii. Designed for type and quantity of lamps served.
   iii. Ballasts shall be designed for full light output unless another BF, dimmer, or bi-level control is indicated.
   iv. System efficiency greater than 88 MLPW for programmed rapid start.
   v. Sound Rating: Class A.
   vi. Total Harmonic Distortion rating: less than 10 percent.
   vii. Transient voltage protection: IEEE C62.41.1 and IEEE C62.41.2, Category A or better.
   viii. Operating Frequency: 42 KHz or higher.
   ix. Lamp Current Crest Factor: 1.7 or less.
   x. BF: 1.15 or higher.
   xi. Parallel lamp circuits: multiple lamp ballasts shall comply with ANSI C82.11 and shall be connected to maintain full light output on surviving lamps if one or more lamps fail.

e. Emergency lighting units- General requirements for emergency lighting units-self-contained units complying with UL 924.
   i. Battery: Sealed, maintenance free, lead acid type.
   ii. Charger: fully automatic, solid-state type with sealed transfer relay.
   iii. Operation: Relay automatically turns lamp on when power supply circuit voltage drops to 80 percent of nominal voltage or below. Lamp automatically disconnects from battery when voltage approaches deep discharge level. When normal voltage is restored, relay disconnects lamps from battery, and battery is automatically recharged and floated on charger.
   iv. Test Push Button: Push-to-Test type, in unit housing, simulates loss of normal power and demonstrates unit operability.
   v. LED indicator light: Indicates normal power on. Normal glow indicates trickle charge; bright glow indicates charging at end of discharge cycle.
   vi. Integral Time-Delay Relay: Holds unit on for fixed interval of 15 minutes when power is restored after an outage.
   vii. Remote test: Switch in hand held remote device aimed in direction of tested unit initiates coded infrared signal. Signal reception by factory installed infrared receiver in tested unit triggers simulation of loss of its normal power supply, providing visual confirmation of either proper or failed emergency response.
   viii. Integra Self-Test: Factory installed electronic drive automatically initiates code required test of unit emergency operation at required intervals. Test failure is annunciated by an integral audible alarm and a flashing red LED.

f. Fluorescent Lamps:
   i. High performance T8 lighting systems with mean system efficacy 88 MLPW for rapid start lamps and ballast, rated 25 W maximum, nominal length of 48 inches, 2950 initial lumens (minimum) (95% lumens maintenance), CRI 82 (minimum), color temperature 3500 K, and average rated life 30,000 hours unless otherwise indicated.
   ii. High performance T8 lighting systems with mean system efficacy 88 MLPW for rapid start lamps and ballast, rated 17 W maximum, nominal length of

24 inches, 1400 initial lumens (minimum) (95% lumen maintenance), CRI 85 (minimum), color temperature 3500 K, and average rated life 30,000 hours unless otherwise indicated.

iii. Compact Fluorescent Lamps: 4-pin, CRI 82 (minimum), color temperature 3500 K, and average rated life 12,000 hours at three hours operation per start and 16,000 hours based on 12 hour start, and suitable for use with dimming ballasts, unless otherwise indicated.

iv. 26W:-4 pin double or triple Twin tube, 1800 initial lumens (minimum).
18W: 4-pin double or triple Twin tube, 1250 initial lumens (minimum).
13W: 4-pin: double or triple Twin tube, 900 initial lumens (minimum).
Fluorescent lamp mercury level not to exceed 1.7 mg.
4 pin compact fluorescent lamp mercury level not to exceed 1.4 mg.

g. LED Interior and Exterior Lighting Products:
   i. Basis of design products: subject to compliance with requirements, LED fixtures will be UL, CSA listed. Specify North American, European or Japanese Certificate of Origin. Manufacturer's subject to compliance with requirements, provide comparable products by one of the following;
      1. CREE Lighting
      2. GE Lighting
      3. Barron Lighting Group
      4. Phillips Lighting
      5. Sylvania/Osram Lighting

37. Electrical panel in boiler building to be designed for 120% capacity, allowing for future expansion if necessary of 20% if necessary.

38. Air compressor for boiler tube cleaning to be of sufficient storage, pressure and capacity to allow the operation of the sootblowers sequenced.

39. Biomass building shell to be as indicated below:
    a. Building walls;
       i. Front (chip bin area side) will be block with brick facing
       ii. Sides and back will be split face block.
       iii. Interior of block will be unpainted
       iv. Exterior wall assembly shall be insulated to comply with the 2009 International Energy Code and ASHRAE 90.1 (exterior wall assembly minimum R-2.63).
       v. Masonry for windows, overhead doors, and louvers will be supported with galvanized lintels.
       vi. Two personnel doors shall be provided for egress at the lower level on the rear side of the building, including concrete pads outside each door.
       vii. An additional personnel door, with concrete pad shall be provided at the upper level at the front of the building to provide access to an enlarged platform with a stairway down to the main floor level. There will be a window provided in the chip bin wall to allow operators to monitor chip levels and flow issues within the chip bin. There will be an asphalt walkway to the personnel door, interior exit signage, emergency lighting inside and outside of the building, and additional lighting provided under the platform.
    b. Building roof:
       i. Steel truss with metal roof decking.
       ii. Roof membrane with insulation over metal decking.

iii. Insulation shall comply with the 2009 International Energy Conservation Code and ASHRAE 90.1 (minimum R-10 continuous insulation).
iv. 4 each roof drains.
v. Roof hatch with ladder.

40. Concrete shall contain no fly ash, and shall comply with NH Dot Standard Specifications for Road and Bridge Construction, latest edition, as well as the 2009 edition of the International Building Code. Rub smooth exposed walls, fill void and honeycomb areas.

41. Building shall include a permanent OSHA compliant emergency shower and eye wash station.

42. Provide sufficient clearance within the building to allow forklift access to the induced draft fan/motor and electrostatic precipitator for maintenance/replacement needs.

43. Building to be provided with a minimum of two cameras and a DVR system inside the chip pit area to record chip deliveries.

44. Overhead doors provided at the chip storage areas to be provided with keypad controls. Keypad controls shall weather resistant and be protected from inclement weather. Additionally, 8" bollards shall be provided on both sides of all overhead doors.

45. Combustion air louvers shall be provided with drainable blades and insect screens. Additional ventilation fan(s) and larger louvers to achieve 500 cfm total exhaust from main boiler room to chip storage pit. Include sufficient louvers for outdoor air intake into main boiler room and hot air exhaust from chip storage pit to outdoors.

46. Install Knox Box per City of Concord Fire Department requirements.

47. Power to biomass building shall be a separate feeder pulled from 29 Hazen Drive in accordance with Section 225.30 of Article 225 since it is a separate building.

48. A chemical test sink shall be provided in the facility. This shall include all necessary piping, valves and heat exchangers to test the steam, condensate and feedwater points. This also includes condensate cooling system, flow controls, stainless steel sample and cold water piping throughout.

49. Asphalt paving complying with DOT specifications, shall extend to the rear of the building as indicated on the drawings.

50. The building shall be provided with a sign indicating "Biomass Boiler Facility".

51. Safety tie-off points located throughout building to provide access to equipment for maintenance and repair. Assume engineering, 15 tie-off points, 3 cables e/w, 3 cables n/s, lanyard and safety harness.

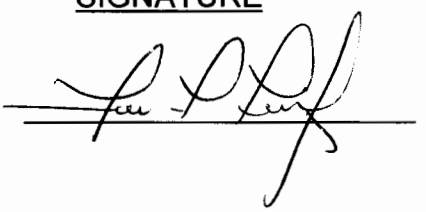
52. The wood chip storage bin shall be provided with a ladder with a locking gate.

CONSOLIDATED EDISON SOLUTIONS, INC.

SECRETARY'S CERTIFICATE

I, Paul F. Mapelli, do hereby certify that I am the Secretary of Consolidated Edison Solutions, Inc. ("Company"), and that I am authorized to provide this certificate.

I further certify that the undersigned officer has been at all times since a date prior to the date of this certificate duly elected or appointed to the office set forth opposite his name, that the signature of such officer shown below is his true and correct signature, and that he is authorized to execute energy services contracts in amounts not to exceed $15,000,000 in the name of and on behalf of the Company, including, but not limited to, the Guaranteed Energy Performance Contract between the Company and the State of New Hampshire Department of Administrative Services.

| NAME | TITLE | SIGNATURE |
|---|---|---|
| Jorge J. Lopez | President and Chief Executive Officer |  |

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of the Company this 13th day of November, 2014.

Paul F. Mapelli

Paul F. Mapelli
Secretary

# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 11/12/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

**PRODUCER**
Marsh USA, Inc.
1166 Avenue of the Americas
New York, NY 10036

104247-CESI-PL$1M-14-15

**CONTACT NAME:**
**PHONE (A/C, No, Ext):** **FAX (A/C, No):**
**E-MAIL ADDRESS:**

| INSURER(S) AFFORDING COVERAGE | | NAIC # |
|---|---|---|
| INSURER A : | First Liberty Insurance Corp. | 33588 |
| INSURER B : | N/A | N/A |
| INSURER C : | N/A | N/A |
| INSURER D : | Associated Electric & Gas Ins Services Ltd | 3190004 |
| INSURER E : | | |
| INSURER F : | | |

**INSURED**
Consolidated Edison Solutions, Inc.
100 Summit Lake Drive
Suite 410
Valhalla, NY 10595

**COVERAGES** **CERTIFICATE NUMBER:** NYC-006963112-01 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSR | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS | |
|---|---|---|---|---|---|---|---|---|
| A | **GENERAL LIABILITY** | | | TB6-691-544681-064 | 09/01/2014 | 09/01/2015 | EACH OCCURRENCE | $ 1,000,000 |
| | X COMMERCIAL GENERAL LIABILITY | | | | | | DAMAGE TO RENTED PREMISES (Ea occurrence) | $ 100,000 |
| | CLAIMS-MADE X OCCUR | | | | | | MED EXP (Any one person) | $ 10,000 |
| | | | | | | | PERSONAL & ADV INJURY | $ 1,000,000 |
| | | | | | | | GENERAL AGGREGATE | $ 10,000,000 |
| | GEN'L AGGREGATE LIMIT APPLIES PER: | | | | | | PRODUCTS - COMP/OP AGG | $ 10,000,000 |
| | X POLICY PRO-JECT LOC | | | | | | | $ |
| A | **AUTOMOBILE LIABILITY** | | | AS6-691-544681-054 | 09/01/2014 | 09/01/2015 | COMBINED SINGLE LIMIT (Ea accident) | $ 1,000,000 |
| | X ANY AUTO | | | | | | BODILY INJURY (Per person) | $ |
| | ALL OWNED AUTOS / SCHEDULED AUTOS | | | | | | BODILY INJURY (Per accident) | $ |
| | HIRED AUTOS / NON-OWNED AUTOS | | | | | | PROPERTY DAMAGE (Per accident) | $ |
| | | | | | | | | $ |
| | **UMBRELLA LIAB** OCCUR | | | | | | EACH OCCURRENCE | $ |
| | **EXCESS LIAB** CLAIMS-MADE | | | | | | AGGREGATE | $ |
| | DED RETENTION $ | | | | | | | $ |
| A | **WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N | | | WC6-691-544681-074 | 09/01/2014 | 09/01/2015 | X WC STATU-TORY LIMITS OTH-ER | |
| | ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N | N / A | | | | | E.L. EACH ACCIDENT | $ 1,000,000 |
| | **(Mandatory in NH)** | | | | | | E.L. DISEASE - EA EMPLOYEE | $ 1,000,000 |
| | If yes, describe under DESCRIPTION OF OPERATIONS below | | | | | | E.L. DISEASE - POLICY LIMIT | $ 1,000,000 |
| D | PROFESSIONAL LIABILITY | | | EO5086103P | 04/28/2014 | 04/28/2015 | POLICY LIMIT: | 2,000,000 |
| | | | | | | | SIR: | $1,000,000 |

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)**
New Hampshire Department of Administrative Services is included as additional insured where required by written contract with respect to general liability.

**CERTIFICATE HOLDER**

New Hampshire Department
of Administrative Services
c/o Mike Connor
25 Capitol Street, Room 429
Concord, NH 03301

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

**AUTHORIZED REPRESENTATIVE**
of Marsh USA Inc.

A. R. Cooke

# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 11/19/2014

**THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.**

**IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).**

| | |
|---|---|
| **PRODUCER**<br>Marsh USA, Inc.<br>1166 Avenue of the Americas<br>New York, NY 10036<br><br>104247-All-Inst-14-15 | CONTACT NAME:<br>PHONE (A/C, No, Ext):<br>FAX (A/C, No):<br>E-MAIL ADDRESS: |
| **INSURED**<br>Consolidated Edison Solutions, Inc.<br>100 Summit Lake Drive<br>Suite 410<br>Valhalla, NY 10595 | INSURER(S) AFFORDING COVERAGE / NAIC #<br>INSURER A : Federal Insurance Company / 20281<br>INSURER B :<br>INSURER C :<br>INSURER D :<br>INSURER E :<br>INSURER F : |

**COVERAGES** **CERTIFICATE NUMBER:** NYC-006965723-03 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSR | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS | |
|---|---|---|---|---|---|---|---|---|
| | **GENERAL LIABILITY** | | | | | | EACH OCCURRENCE | $ |
| | ☐ COMMERCIAL GENERAL LIABILITY | | | | | | DAMAGE TO RENTED PREMISES (Ea occurrence) | $ |
| | ☐ CLAIMS-MADE ☐ OCCUR | | | | | | MED EXP (Any one person) | $ |
| | | | | | | | PERSONAL & ADV INJURY | $ |
| | | | | | | | GENERAL AGGREGATE | $ |
| | GEN'L AGGREGATE LIMIT APPLIES PER: | | | | | | PRODUCTS - COMP/OP AGG | $ |
| | ☐ POLICY ☐ PRO-JECT ☐ LOC | | | | | | | $ |
| | **AUTOMOBILE LIABILITY** | | | | | | COMBINED SINGLE LIMIT (Ea accident) | $ |
| | ☐ ANY AUTO | | | | | | BODILY INJURY (Per person) | $ |
| | ☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS | | | | | | BODILY INJURY (Per accident) | $ |
| | ☐ HIRED AUTOS ☐ NON-OWNED AUTOS | | | | | | PROPERTY DAMAGE (Per accident) | $ |
| | | | | | | | | $ |
| | ☐ **UMBRELLA LIAB** ☐ OCCUR | | | | | | EACH OCCURRENCE | $ |
| | ☐ **EXCESS LIAB** ☐ CLAIMS-MADE | | | | | | AGGREGATE | $ |
| | ☐ DED ☐ RETENTION $ | | | | | | | $ |
| | **WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N | | | | | | ☐ WC STATU-TORY LIMITS ☐ OTH-ER | |
| | ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? **(Mandatory in NH)** [N] N / A | | | | | | E.L. EACH ACCIDENT | $ |
| | If yes, describe under DESCRIPTION OF OPERATIONS below | | | | | | E.L. DISEASE - EA EMPLOYEE | $ |
| | | | | | | | E.L. DISEASE - POLICY LIMIT | $ |
| A | INSTALLATION FLOATER | | | 6684746 | 05/19/2014 | 05/19/2015 | Deductible as Attached/ Limit: | 13,663,273 |

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)**

Contract: DAS RFP #2013-157 Performance
Contract for Buildings on Hazen Drive

**CERTIFICATE HOLDER**

New Hampshire Department of
Administrative Services
c/o Mike Connor
25 Capitol Street, Room 429
Concord, NH 03301

**CANCELLATION**

**SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.**

**AUTHORIZED REPRESENTATIVE of Marsh USA Inc.**

A. R. Cooke

AGENCY CUSTOMER ID: 104247
LOC #: New York

# ADDITIONAL REMARKS SCHEDULE



| AGENCY | NAMED INSURED |
|---|---|
| Marsh USA, Inc. | Consolidated Edison Solutions, Inc.<br>100 Summit Lake Drive<br>Suite 410<br>Valhalla, NY 10595 |
| POLICY NUMBER | |
| CARRIER / NAIC CODE | EFFECTIVE DATE: |

**ADDITIONAL REMARKS**

**THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,**
**FORM NUMBER:** 25 **FORM TITLE:** Certificate of Liability Insurance

Deductible
$10,000. per occurrence
$25,000. for flood
$25,000 except, 5% of values subject to a minimum of $100,000 & 96 hours waiting period as respects Earthquake in California
5% (minimum- $25,000): For Wind in Florida and all Tier 1 Counties in Alabama, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Texas
$ 1,000: tools of the Insured

Other deductibles may apply as per policy terms and conditions.

# State of New Hampshire
## Department of State

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that CONSOLIDATED EDISON SOLUTIONS, INC. a(n) New York corporation, is authorized to transact business in New Hampshire and qualified on February 6, 2003. I further certify that all fees and annual reports required by the Secretary of State's office have been received.


In TESTIMONY WHEREOF, I hereto set my hand and cause to be affixed the Seal of the State of New Hampshire, this 18th day of November, A.D. 2014

William M. Gardner
Secretary of State

# PERFORMANCE BOND

**TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA**
Hartford, Connecticut 06183

Bond No.: 106092415

Three (3) Executed Originals

**CONTRACTOR:**
*(Name, legal status and address)*
Consolidated Edison Solutions, Inc. of 100 Summit Lake Drive, Valhalla, NY 10595

**SURETY:**
*(Name, legal status and principal place of business)*
Travelers Casualty and Surety Company of America, One Tower Square, Hartford, CT 06183

**OWNER:**
*(Name, legal status and address)*
State of New Hampshire Acting through The Department of Administrative Services, Bureau of General Services, 25 Capital Street, Rm. 408 Concord, NH 03301

**CONSTRUCTION CONTRACT**
Date:
Amount: $ 13,663,273.00
Description:
*(Name and location)*
Construction Work for Energy Savings Performance Contracting Services at The Health and Welfare Building, 27/29 Hazen Drive, The Safety Building, 33 Hazen Drive, The Morton Building, 7 Hazen Drive, The Division of Motor Vehicles, 23 Hazen Drive.

**BOND**
Date: November 14, 2014
*(Not earlier than Construction Contract Date)*

Amount: $13,663,273.00
Modifications to this Bond: ☐ None ☐ See Section 16

**CONTRACTOR AS PRINCIPAL**
Company: *Consolidated Edison Solutions, Inc.*
*(Corporate Seal)*

Signature: Mark Gluecksman
Name and Title: MARK GLUECKSMAN VICE PRESIDENT

**SURETY**
Company: *Travelers Casualty and Surety Company of America*
*(Corporate Seal)*

Signature:
Name and Title: Raymond C. Carman, Attorney-in-Fact

*(Any additional signatures appear on the last page of this Performance Bond.)*

*(FOR INFORMATION ONLY — Name, address and telephone)*
**AGENT** or **BROKER:**

USI Insurance Services, LLC of 333 Earle Ovington Blvd., Uniondale, NY 11553 (516) 419-4023

**OWNER'S REPRESENTATIVE:**
*(Architect, Engineer or other party:)*

**§ 1** The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

**§ 2** If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

**§ 3** If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

.1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

.2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

.3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

**§ 4** Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

**§ 5** When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

**§ 5.1** Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

**§ 5.2** Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

**§ 5.3** Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

**§ 5.4** Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

**§ 6** If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

**§ 7** If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

.2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and

.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

**§ 8** If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

**§ 9** The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

**§ 10** The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

**§ 11** Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

**§ 12** Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

**§ 13** When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

**§ 14 Definitions**

**§ 14.1 Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

**§ 14.2 Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

**§ 14.3 Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

**§ 14.4 Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

**§ 14.5 Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

**§ 15** If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

**§ 16** Modifications to this bond are as follows:

*(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)*

| **CONTRACTOR AS PRINCIPAL** | | **SURETY** | |
|---|---|---|---|
| Company: | *(Corporate Seal)* | Company: | *(Corporate Seal)* |
| Signature: | | Signature: | |
| Name and Title: | | Name and Title: | |
| Address: | | Address: | |

**Individual Acknowledgment**

State of _____

County of_____

On this _____day of_____, 20____, before me personally came _____to me known, and known to me to be the individual in and who executed the foregoing instrument, and acknowledged to me that he/she executed the same.

My commission expires_____ _____

Notary Public

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**Corporation Acknowledgment**

State of New York

County of Westchester

On the 13th day of November, 2014 before me personally came _____ Mark Gluckman to me known; who being by me duly sworn, did depose and say that he/she/they reside(s) in White Plains, New York that he/she/they is (are) the Vice President of the Consolidated Edison Solutions, Inc., the corporation described in and which executed the above instrument; that he/she/they know(s) the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the board of directors of said corporation, and that he/she/they signed his/her/their name(s) thereto by like authority.

PAUL FARRELL MAPELLI
Notary Public, State of New York
No. 02MA4967056
Qualified in Rockland County
Commission Expires May 21, 2018

My commission expires _____ Paul Farrell Mapelli

Notary Public

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**Surety Acknowledgment**

State of **New York**

County of **Nassau**

On the 14 day of **November, 2014** personally came Raymond C. Carman to me known , who being by me duly sworn did depose and say that he/she is an Attorney-in-Fact of **Travelers Casualty and Surety Company of America** in and which executed the above Instrument know(s) the corporate seal of said corporation; that the seal affixed to the within instrument is such corporate seal, and that he/she/they signed the said instrument and affixed the said seal as Attorney-in-fact by authority of the Board of Directors of said corporation and by authority of this office under the standing resolution thereof.

My commission expires _____ _____

Notary Public

THERESA A. LANFRANCO
Notary Public, State of New York
No. 01LA6110977
Qualified in Suffolk County
Certified in Nassau County
Commission Expires June 1, 2018

TRAVELERS

# POWER OF ATTORNEY

**Farmington Casualty Company**
**Fidelity and Guaranty Insurance Company**
**Fidelity and Guaranty Insurance Underwriters, Inc.**
**St. Paul Fire and Marine Insurance Company**
**St. Paul Guardian Insurance Company**
**St. Paul Mercury Insurance Company**
**Travelers Casualty and Surety Company**
**Travelers Casualty and Surety Company of America**
**United States Fidelity and Guaranty Company**

**Attorney-In Fact No.** 226649 **Certificate No.** 005893166

**KNOW ALL MEN BY THESE PRESENTS**: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Kim A. Spinello, Philip G. Samuels, Frank Abbatiello, Louis J. Spina, Denese Thompson, Tara Laverdiere, Marnie Ginsburg, Dominick J. Scotto, Raymond C. Carman, and Theresa A. Lanfranco

of the City of Uniondale, State of New York, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.



**IN WITNESS WHEREOF**, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 2nd day of May, 2014.

**Farmington Casualty Company**
**Fidelity and Guaranty Insurance Company**
**Fidelity and Guaranty Insurance Underwriters, Inc.**
**St. Paul Fire and Marine Insurance Company**
**St. Paul Guardian Insurance Company**
**St. Paul Mercury Insurance Company**
**Travelers Casualty and Surety Company**
**Travelers Casualty and Surety Company of America**
**United States Fidelity and Guaranty Company**

State of Connecticut
City of Hartford ss.

By: _____
Robert L. Raney, Senior Vice President

On this the 2nd day of May, 2014, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

**In Witness Whereof,** I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2016.

MARIE C. TETREAULT NOTARY PUBLIC CONNECTICUT

Marie C. Tetreault
Marie C. Tetreault, Notary Public

58440-8-12 Printed in U.S.A.

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.



**IN TESTIMONY WHEREOF**, I have hereunto set my hand and affixed the seals of said Companies this 14th day of November, 2014.

Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

HARTFORD, CONNECTICUT 06183

FINANCIAL STATEMENT AS OF DECEMBER 31, 2013

AS FILED IN THE STATE OF NEW YORK

CAPITAL STOCK $ 6,480,000

| ASSETS | | LIABILITIES & SURPLUS | |
|---|---|---|---|
| CASH AND INVESTED CASH | $ 67,799,624 | UNEARNED PREMIUMS | $ 803,717,671 |
| BONDS | 3,452,214,898 | LOSSES | 809,663,176 |
| INVESTMENT INCOME DUE AND ACCRUED | 47,758,502 | LOSS ADJUSTMENT EXPENSES | 460,670,453 |
| OTHER INVESTED ASSETS | 265,099,610 | COMMISSIONS | 31,781,136 |
| PREMIUM BALANCES | 190,836,462 | TAXES, LICENSES AND FEES | 12,482,322 |
| NET DEFERRED TAX ASSET | 61,575,098 | OTHER EXPENSES | 38,437,893 |
| REINSURANCE RECOVERABLE | 11,351,414 | FUNDS HELD UNDER REINSURANCE TREATIES | 94,401,464 |
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| | | TOTAL SURPLUS TO POLICYHOLDERS | $ 1,881,720,088 |
| TOTAL ASSETS | $ 4,147,460,454 | TOTAL LIABILITIES & SURPLUS | $ 4,147,460,454 |

STATE OF CONNECTICUT )

COUNTY OF HARTFORD ) SS.

CITY OF HARTFORD )

MICHAEL J. DOODY, BEING DULY SWORN, SAYS THAT HE IS SECOND VICE PRESIDENT, OF TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA, AND THAT TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT STATEMENT OF THE FINANCIAL CONDITION OF SAID COMPANY AS OF THE 31ST DAY OF DECEMBER, 2013.

SECOND VICE PRESIDENT

SUBSCRIBED AND SWORN TO BEFORE ME THIS
19TH DAY OF MARCH, 2014

NOTARY PUBLIC

SUSAN M. WEISSLEDER
*Notary Public*
*My Commission Expires November 30, 2017*

SUSAN M. WEISSLEDER NOTARY PUBLIC CONNECTICUT

# PAYMENT BOND

**TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA**
Hartford, Connecticut 06183

Bond No.: 106092415 — Three (3) Executed Originals

**CONTRACTOR:**
*(Name, legal status and address)*
Consolidated Edison Solutions, Inc. of 100 Summit Lake Drive, Valhalla, NY 10595

**SURETY:**
*(Name, legal status and principal place of business)*
Travelers Casualty and Surety Company of America, One Tower Square, Hartford, CT 06183

**OWNER:**
*(Name, legal status and address)*
State of New Hampshire Acting through The Department of Administrative Services, Bureau of General Services, 25 Capital Street, Rm. 408 Concord, NH 03301

**CONSTRUCTION CONTRACT**
Date:
Amount: $13,663,273.00
Description:
*(Name and location)*
Construction Work for Energy Savings Performance Contracting Services at The Health and Welfare Building, 27/29 Hazen Drive, The Safety Building, 33 Hazen Drive, The Morton Building, 7 Hazen Drive, The Division of Motor Vehicles, 23 Hazen Drive.

**BOND**
Date:
*(Not earlier than Construction Contract Date)*
November 14, 2014
Amount: $13,663,273.00
Modifications to this Bond: [X] [ ] See Section 18

**CONTRACTOR AS PRINCIPAL**
Company: *Consolidated Edison Solutions, Inc. (Corporate Seal)*
Signature:
Name and Title: MARK GLUCKSMAN VICE PRESIDENT

**SURETY**
Company: *Travelers Casualty and Surety Company of America (Corporate Seal)*
Signature:
Name and Title: Raymond C. Carman, Attorney-in-Fact

*(Any additional signatures appear on the last page of this Payment Bond.)*

*(FOR INFORMATION ONLY — Name, address and telephone)*
**AGENT** or **BROKER:**
USI Insurance Services, LLC of 333 Earle Ovington Blvd. Uniondale, NY 11553 (516)419-4023

**OWNER'S REPRESENTATIVE:**
*(Architect, Engineer or other party:)*

**§.1** The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

**§ 2** If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

**§ 3** If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

**§ 4** When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

**§ 5** The Surety's obligations to a Claimant under this Bond shall arise after the following:

**§ 5.1** Claimants, who do not have a direct contract with the Contractor,

- **.1** have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- **.2** have sent a Claim to the Surety (at the address described in Section 13).

**§ 5.2** Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

**§ 6** If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

**§ 7** When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

**§ 7.1** Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

**§ 7.2** Pay or arrange for payment of any undisputed amounts.

**§ 7.3** The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

**§ 8** The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

**§ 9** Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

**§ 10** The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond,

and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

**§ 11** The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

**§ 12** No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

**§ 13** Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

**§ 14** When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

**§ 15** Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

**§ 16 Definitions**

**§ 16.1 Claim.** A written statement by the Claimant including at a minimum:

- **.1** the name of the Claimant;
- **.2** the name of the person for whom the labor was done, or materials or equipment furnished;
- **.3** a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- **.4** a brief description of the labor, materials or equipment furnished;
- **.5** the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- **.6** the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- **.7** the total amount of previous payments received by the Claimant; and
- **.8** the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

**§ 16.2 Claimant.** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

**§ 16.3 Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

**§ 16.4 Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

**§ 16.5 Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

**§ 17** If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

**§ 18** Modifications to this bond are as follows:

*(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)*

| **CONTRACTOR AS PRINCIPAL** | | **SURETY** | |
|---|---|---|---|
| Company: | *(Corporate Seal)* | Company: | *(Corporate Seal)* |
| Signature: | | Signature: | |
| Name and Title: | | Name and Title: | |
| Address: | | Address: | |

**Individual Acknowledgment**

State of _____

County of_____

On this _____day of_____, 20____, before me personally came _____to me known, and known to me to be the individual in and who executed the foregoing instrument, and acknowledged to me that he/she executed the same.

My commission expires_____ _____
Notary Public

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**Corporation Acknowledgment**

State of New York

County of Westchester

On the 13th day of November, 2014 before me personally came _____ Mark Gluckman to me known; who being by me duly sworn, did depose and say that he/she/they reside(s) in White Plains, New York that he/she/they is (are) the Vice President of the Consolidated Edison Solutions, Inc , the corporation described in and which executed the above instrument; that he/she/they know(s) the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the board of directors of said corporation, and that he/she/they signed his/her/their name(s) thereto by like authority.

PAUL FARRELL MAPELLI
Notary Public, State of New York
No. 02MA4967056
Qualified in Rockland County
Commission Expires May 21, 2018

My commission expires _____ Paul Farrell Mapelli
Notary Public

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**Surety Acknowledgment**

State of **New York**

County of **Nassau**

On the 14 day of **November, 2014**personally came Raymond C. Carman to me known , who being by me duly sworn did depose and say that he/she is an Attorney-in-Fact of **Travelers Casualty and Surety Company of America** in and which executed the above Instrument know(s) the corporate seal of said corporation; that the seal affixed to the within instrument is such corporate seal, and that he/she/they signed the said instrument and affixed the said seal as Attorney-in-fact by authority of the Board of Directors of said corporation and by authority of this office under the standing resolution thereof.

My commission expires _____

Notary Public

THERESA A. LANFRANCO
Notary Public, State of New York
No. 01LA6110977
Qualified in Suffolk County
Certified in Nassau County
Commission Expires June 1, 2014

TRAVELERS

# POWER OF ATTORNEY

**Farmington Casualty Company**
**Fidelity and Guaranty Insurance Company**
**Fidelity and Guaranty Insurance Underwriters, Inc.**
**St. Paul Fire and Marine Insurance Company**
**St. Paul Guardian Insurance Company**
**St. Paul Mercury Insurance Company**
**Travelers Casualty and Surety Company**
**Travelers Casualty and Surety Company of America**
**United States Fidelity and Guaranty Company**

**Attorney-In Fact No.** 226649 **Certificate No.** 005893163

**KNOW ALL MEN BY THESE PRESENTS:** That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Kim A. Spinello, Philip G. Samuels, Frank Abbatiello, Louis J. Spina, Denese Thompson, Tara Laverdiere, Marnie Ginsburg, Dominick J. Scotto, Raymond C. Carman, and Theresa A. Lanfranco

of the City of Uniondale, State of New York, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.



**IN WITNESS WHEREOF,** the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 2nd day of May, 2014.

**Farmington Casualty Company**
**Fidelity and Guaranty Insurance Company**
**Fidelity and Guaranty Insurance Underwriters, Inc.**
**St. Paul Fire and Marine Insurance Company**
**St. Paul Guardian Insurance Company**
**St. Paul Mercury Insurance Company**
**Travelers Casualty and Surety Company**
**Travelers Casualty and Surety Company of America**
**United States Fidelity and Guaranty Company**

State of Connecticut
City of Hartford ss.

By: _____
Robert L. Raney, Senior Vice President

On this the 2nd day of May, 2014, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

**In Witness Whereof,** I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2016.

Marie C. Tetreault, Notary Public

58440-8-12 Printed in U.S.A.

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.



**IN TESTIMONY WHEREOF**, I have hereunto set my hand and affixed the seals of said Companies this 14th day of November, 2014.

Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

HARTFORD, CONNECTICUT 06183

FINANCIAL STATEMENT AS OF DECEMBER 31, 2013

AS FILED IN THE STATE OF NEW YORK

CAPITAL STOCK $ 6,480,000

| ASSETS | | LIABILITIES & SURPLUS | |
|---|---|---|---|
| CASH AND INVESTED CASH | $ 67,793,624 | UNEARNED PREMIUMS | $ 808,717,671 |
| BONDS | 3,452,214,898 | LOSSES | 809,863,176 |
| INVESTMENT INCOME DUE AND ACCRUED | 47,758,502 | LOSS ADJUSTMENT EXPENSES | 460,670,453 |
| OTHER INVESTED ASSETS | 265,099,610 | COMMISSIONS | 31,781,136 |
| PREMIUM BALANCES | 190,836,462 | TAXES, LICENSES AND FEES | 12,482,322 |
| NET DEFERRED TAX ASSET | 61,575,098 | OTHER EXPENSES | 39,437,693 |
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STATE OF CONNECTICUT )

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Michael J. Doody

SECOND VICE PRESIDENT

NOTARY PUBLIC

SUBSCRIBED AND SWORN TO BEFORE ME THIS
19TH DAY OF MARCH, 2014

SUSAN M. WEISSLEDER
*Notary Public*
*My Commission Expires November 30, 2017*

SUSAN M. WEISSLEDER NOTARY PUBLIC CONNECTICUT