FINANCE COMMITTEE

JUNE 19, 2019

ROLL CALL

PUBLIC COMMENT

COMMUNICATIONS

From: Dan Kookan, Purchasing Manager
Re: Approval for Donation of Surplus Equipment from Ultima Nashua Industrial Corp to the Nashua International Sculpture Symposium

From: Dan Kookan, Purchasing Manager
Re: Contract for Domestic Hot Water and HVAC System Upgrades (Value: $209,000) Department: 152 Fire Rescue; Fund: Bond; Capital Improvement; Building Trust Fund

From: Dan Kookan, Purchasing Manager
Re: Contract for Appraisal for Listed Utilities for Tax Years 2019-2024 (5 Year) (Value: Not-To-Exceed $39,000); Department: 132 Assessing; Fund: General Fund - Overlay

From: Dan Kookan, Purchasing Manager
Re: Purchase of Nashua River Fountains (Value $52,104); Department: 181 Community Development Fund: Escrow Funds

From: Dan Kookan, Purchasing Manager
Re: Contract for Pavement Management Support Service (Value: $28,900); Department: 160, Admin/Engineering; Fund: Bond

UNFINISHED BUSINESS – None

NEW BUSINESS - None

RECORD OF EXPENDITURES

GENERAL DISCUSSION

PUBLIC COMMENT

REMARKS BY THE ALDERMEN

POSSIBLE NON-PUBLIC SESSION

ADJOURNMENT
June 13, 2019

FROM: DAN KOOKEN – CITY OF NASHUA PURCHASING MANAGER

TO: FINANCE COMMITTEE

SUBJECT: APPROVAL FOR DONATION OF SURPLUS EQUIPMENT FROM ULTIMA NASHUA INDUSTRIAL CORP TO THE NASHUA INTERNATIONAL SCULPTURE SYMPOSIUM

The purpose of this communication is to inform you of and ask your approval for an equipment donation from the City owned Ultima Nashua Industrial Corp (also referred to as Nimco) to the Nashua International Sculpture Symposium. Nashua is the only city in the United States with an annual International Sculpture Symposium. Equipment donated will be used to support the creation of large-scale sculpture pieces in the future.

§ 5-88. Surplus stock.

All using agencies shall submit to the Purchasing Manager, at such times and in such form as he shall prescribe, reports showing stocks of all supplies which are no longer used or which have become obsolete, worn out or scrapped.

The Manager shall have the authority to transfer surplus stock to other using agencies. The Manager shall have the authority to sell, by sealed bid or online auction, all supplies which have become unsuitable for public use, or to exchange the same for, or trade in the same on, new supplies.

[Amended 10-9-2012 by Ord. No. O-12-022]

With approval of the Finance Committee, the Purchasing Manager may donate, barter, gift or otherwise dispose of surplus material, stock or equipment which has failed to be sold, exchanged or traded pursuant to Subsection B.

The Mayor and the Purchasing Department recommend this donation to the Nashua International Sculpture Symposium.

Respectfully,

Dan Kooken
Purchasing Manager

Cc: J Donchess K Kleiner
May 23, 2019

Nashua Sculpture Symposium
Attn: Jim Larson and John Weidman
3 Pine Street
Nashua, NH 03060

RE: Sculpture Symposium

Dear Jim and John,

This letter is to inform you that the City of Nashua will donate items from the Nimco building to the Nashua Sculpture Symposium.

Various machinery will be donated to the Nashua Sculpture Symposium, as documented by the City of Nashua Purchasing Department.

Thank you for representing the Sculpture Symposium in coordinating this donation between the symposium and the city.

Sincerely,

Jim Donchess, Mayor
City of Nashua
<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>Heavy Duty Casters</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>#194 Devine Belt Sander Model MM4635 S/N DBYLOW</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>#100 DOALL ML16 Vertical Band Saw S/N 5014567</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>Welding Table</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>#84 Greenlee Hydraulic Arbor Press S/N K1216</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>#88 Cincinnati H-D. drill S/N 11132</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>#88 Manual Arbor Press Atlas Mandrel Press No. 341</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>#136 Bridgeport Vertical Mill 2 Horsepower S/N 2620981 EZ Trax SX Controller</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>#16 Mori Seiki Model MR1500G, 30&quot; x 5&quot; Cap Lathe S/N 4325 w/ 2 Axis D.R.O.</td>
</tr>
<tr>
<td>25</td>
<td>1</td>
<td>Lot fixtures and accessories for equipment listed above</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>Lot scrap stainless steel stock</td>
</tr>
</tbody>
</table>
Sent from my iPhone
Sent from my iPhone

Subject:

To:

Sent:

From:

Kooken, Daniel

Nimco #100

Tuesday, May 28, 2019 11:49 AM

Kooken, Daniel
June 13, 2019
Memo #19-159

TO: MAYOR DONCHESS
FINANCE COMMITTEE

SUBJECT: CONTRACT FOR DOMESTIC HOT WATER AND HVAC SYSTEM UPGRADES
(VALUE: $209,000)
DEPARTMENT: 152 FIRE RESCUE; FUND: BOND; CAPITAL IMPROVEMENT; BUILDING TRUST FUND

Please see the attached communication from George A. Walker, Assistant Chief to the Finance Committee dated June 7, 2019 for information related to this purchase.

Pursuant to § 5-78 Major purchases (greater than $10,000) A. All supplies and contractual services, except as otherwise provided herein, when the estimated cost thereof shall exceed $10,000 shall be purchased by formal, written contract from the lowest responsible bidder, after due notice inviting bids.

Nashua Fire Rescue and the Purchasing Department recommend the award of this contract to Palmer & Sicard of Exeter, NH in the amount of $209,000.

Respectfully,

[Signature]
Dan Kookcn
Purchasing Manager

Cc: G. Walker B. Rhodes J. Graziano
To: Finance Committee
From: Assistant Chief George Walker
Date: June 7, 2019
RE: 177 Lake St. HVAC/Domestic Hot Water System Upgrades

Nashua Fire and Rescue went out to bid on April 30, 2019 under IFB0292-052919 for Domestic Hot Water and HVAC System Upgrades for Nashua Fire Station 2 at 177 Lake Street. Bids were opened on May 29, 2019.

We had previously engaged Yeaton Associates to develop the mechanical systems and scope of work documentation for the proposed HVAC renovation. We received the following bids:

<table>
<thead>
<tr>
<th>Name of Vendor</th>
<th>Bid amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palmer and Sicard Inc. Accepted bid</td>
<td>$209,000.00 ($194,000.00 substitute John Controllers).</td>
</tr>
<tr>
<td>($209,000.00)</td>
<td></td>
</tr>
<tr>
<td>RTH Mechanical Contractors INC.</td>
<td>$177,493.00 (this bid was disqualified)</td>
</tr>
<tr>
<td>(disqualified)</td>
<td></td>
</tr>
<tr>
<td>Berkeley Building Co,</td>
<td>$351,422.00</td>
</tr>
<tr>
<td>Alliance Mechanical</td>
<td>$364,760.00</td>
</tr>
</tbody>
</table>

Based upon review of all bids, Palmer & Sicard was determined to be the successful bidder based upon qualifying bid. They quoted 2 prices, one based on scope of work with specified equipment, and the second with substitutions of Johnson Controllers.

Accordingly, we are requesting approval to contract with Palmer & Sicard in the amount of $209,000.00 for the upgrade of Domestic Hot Water and HVAC System Upgrades for the Lake Street Fire Station.

This work will be performed in the September timeframe.

Sincerely,

George A. Walker
Palmer and Sicard is pleased to provide pricing for the Nashua Fire and Rescue Domestic Hot Water and HVAC Upgrades as described in the enclosed Yeaton Associates “Proposed Mechanical” Scope and City of Nashua Invitation to Bid.

Bid 1 - Daikin
For the total sum of:
$209,000.00 (two hundred nine thousand)

Alternate Bid – Same as Bid 1 with an approved Johnson Control equipment substitution
For the Sum of:
$194,000.00 (one hundred ninety four thousand)

- Removal and proper disposal of existing Air Handlers, condensers, boiler, and storage tanks
- Provide and Install Boiler, two storage tanks, two condensers, two air handlers as specified by Yeaton Associates
- Furnish and install of new copper DHW piping, Boiler piping, flue piping balance valves, isolation ball valves as scheduled
- Furnish and install of new gas piping
- Furnish and install of new fittings and valves as necessary for all piping
- Insulation duct, HWS and HWR piping

Provide Sub-Contractors for:
Ripping, Electrical, Controls, Balancing, and General Contractor (for drywall repairs, painting, concrete and perimeter air leaks)

Close Out
- Drawing as-builts
- Customer Training

Additional specifications and provisions:
Notes: All work to be performed during normal business hours. Scope of work is as described above. Any and all abatement deemed necessary is not included in this proposal. Unforeseen circumstances may result in change of price and/or scope.

Required Insurance and Bonds to be provided if awarded project.

Thank you for the opportunity,
Terry Proctor
tproctor@palmerandsicard.com
Cell: 603-231-2572

Energy Services Division
140 Epping Road
Exeter, New Hampshire 03833
Office: (603) 929-0910
Fax: (603) 929-0973
Scope of Work

Domestic Hot Water System

- Replacement of the entire domestic hot water system. The current age of the system, its efficiency and difficulty in obtaining replacement parts are factors in seeking replacement.

- Provide mechanical labor, equipment, insulation, piping and electrical for a complete replacement working system.

- Provide and install a high efficiency condensing boiler, controls and new boiler pump all with an 8+ year warranty.

- Provide and install two (2) 120 gallon glass lined storage tanks, mixing valves and expansion tank.

- Provide startup and training on the new system.

- Removal of old system.

HVAC System

- The current HVAC System is nearing the end of life and the coils are not producing the tonnage they were designed for.

- The existing air handlers HVAC-1 and HVAC-2 shall be broken down and completely refurbished including replacement of the fan motor with new premium high efficiency motor, all fan belts and pulleys, filters and filter racks, heating coils, DX coils, fan shafts, fan housings and all spring isolators. The interior of both air handlers shall be cleaned and the airflow rebalanced to meet the airflows specified on the as-built documents. Refurbishment shall include manufacturer inspection and start up.

- The existing exterior condensing units ACCU-1 and ACCU-2, their associated DX coils and piping shall be replaced with new units utilizing R-41-A as the refrigerant. ACCU-1 and ACCU-2 shall be replaced with a new condensing unit and provided with a new disconnect, power and controls. Both new ACCU’s shall be 208 Volt, 3 Phase, 60 Hz. A new DX coil is to be provided in each unit. All piping is to be insulated as per specifications.

- Provide and install new piping and new insulation and electrical as needed.

- Provide and install new controls, sheet metal and balancing of the system.

- Provide startup and training of the new system.

- Removal of all old equipment.
Executive Summary

Yeaton Associates, Inc. was engaged by the City of Nashua to develop the mechanical systems for the proposed HVAC renovation at the Lake Street Fire Station in Nashua, NH. The two existing air handler units located in the basement along with their associated condensing units are reaching end of life and require replacement. The existing domestic water plant is also nearing end of life and shall be replaced. Lastly the existing DDC BMS system shall be upgraded to meet current requirements. The goal is to install a cost-effective MEP/FP system while meeting or exceeding the code and operational requirements of the project.

This narrative presents the mechanical systems for the Lake Street Fire Station.

All new construction elements and systems will conform to the following:

- The New Hampshire State Building Code
- NH State Fire Code
- IBC 2009 (International Building Code)
- IECC 2009 (International Energy Conservation Code)
- IMC 2009 (International Mechanical Code)
- IPC 2009 (International Plumbing Code)
- NEC 2017 (National Electrical Code)
- NFPA Standards (Current Editions)
- ASHRAE Standards (Current Editions)
- Local Authorities Having Jurisdiction (AHJ)
- All Other Applicable Codes and Standards
Existing Conditions

- **Heating, Cooling, and Ventilation Systems**

  The areas of the building excluding the apparatus bay are served by air handling units HVAC-1 and HVAC-2. HVAC-1 has a capacity of 5,545 CFM with a hydronic heating coil rated for 162 MBH at 8.1 GPM flow rate with a ΔT of 40°F and a DX coil rated for 154.5 MBH Total Cooling Capacity and 94.4 MBH Sensible Cooling Capacity served by the exterior condensing unit CU-1. HVAC-2 has a capacity of 4,805 CFM with a hydronic heating coil rated for 333.5 MBH at 16.6 GPM flow rate with a ΔT of 40°F and a DX coil rated for 125.9 MBH Total Cooling Capacity and 113.2 MBH Sensible Cooling Capacity served by the exterior condensing unit CU-2. Both units are 208 Volt, 3 Phase, and 60 Hz.

  The existing condensing units CU-1 and CU-2 are located on grade at the rear of the building. Both units are 208V, 3 Phase, 60 Hz. The piping is run within a PVC pipe down below grade and extends into the mechanical room to connect to the DX coil in the air handling units.

  The system is reaching end of life and while functional its cooling capacity has been declining and is currently not sufficient for cooling the building.

- **Automatic Temperature Control (ATC) System**

  The existing ATC system is a 1998 vintage JCI Metasys control system and is currently functional. The existing system utilizes MCM controllers which are no longer supported and the user interface and control points are not able to be revised or upgraded. The existing front-end controller will require replacement but the existing field controllers should be reusable with an upgraded front end.

- **Domestic Hot Water Plant**

  The existing domestic hot water plant currently consists of a Lochinvar CFN0500PM gas fired instantaneous water heater (500 MBH input, 515 GPH at 100°F rise) serving four 119-gallon hot water storage tanks of which only two are currently operational. The system at its current age is reaching its end of life and sourcing parts are becoming difficult.
Proposed Mechanical

❖ General

The bidding contractor shall put in writing and issue with the bid proposal any assumptions or exemptions above and beyond those outlined in the RFP pertaining to the project.

As this is a design build project the information provided in this narrative and attached specifications are supplied to aide the contractors in bidding the project and is not the only way the project can be completed. The contractor is allowed to propose alternate equipment or configurations in their proposal but must provide a description if what is priced differs from the possible solution outlined in the narrative to allow for review before acceptance of submitted bids.

❖ Heating, Cooling, and Ventilation Systems

The existing air handlers HVAC-1 and HVAC-2 shall be broken down and completely refurbished including replacement of the fan motor with new premium high efficiency motor, all fan belts and pulleys, filters and filter racks, heating coils, DX coils, fan shafts, fan housings and all spring isolators. The interior of both air handlers shall be cleaned and the airflow rebalanced to meet the airflows specified on the as-built documents. Refurbishment shall include manufacturer inspection and start up.

The existing exterior condensing units (ACCU-1 & ACCU-2), their associated DX coils (see attached selections from manufacturer), and piping shall be replaced with new units utilizing R-410A as the refrigerant. ACCU-1 shall be replaced with a new condensing unit and provided with a new disconnect, power and controls (refer to Daikin Applied equipment selections). ACCU-2 shall be replaced with a new condensing unit and provided with a new disconnect, power and controls (refer to Daikin Applied equipment selections). Both new ACCU’s shall be 208 Volt, 3 Phase, 60 Hz, refer to attached selections from manufacturer. A new DX coil is to be provided in each unit. All piping is to be insulated as per specifications.

The contact information for the Daikin Applied representative at HTS who is familiar in the project is as follows:

Derek Anneser
(603)702-3432
derek.anneser@hts.com

No piping shall be reused as the current piping and joints are not compatible with the new refrigerant. The new piping shall be brazed and in order to install the piping in the existing horizontal PVC conduit will require excavation and replacement of the joint with a long sweep elbow. In case there is a deficiency found in the PVC conduit provide a unit price per linear foot for running the refrigerant line along the exterior wall and above the ceiling down to the new DX coil. The size and configuration of the piping system shall be as per recommendation of equipment manufacturer. Piping shall be manufacturer provided insulated linesets.
Contractor shall provide and install 4" diameter flue and combustion air venting for the domestic water heater to terminate at the exterior of the building. Venting shall be installed as per manufacturer provided guidelines and material shall be as per manufacturer. Routing of vents shall be coordinated with and approved by the owner but it is assumed they could be run up in the flue chase adjacent to the break room above the mechanical room and then terminated at the sidewalk.

Contractor shall provide startup services and training on site for the new system.

Refer to attached specifications for equipment and materials information.

❖ **Automatic Temperature Control (ATC) System**

The existing JCI Metasys MCM controller (Panel C6) shall be removed and the field controllers are expected to remain in place for reuse. A new controller similar to JCI Facility Explorer or Distech Controls and is to be compatible with the existing controls shall be provided and installed as a new front end and reconnected to the existing field controllers.

The contractor is responsible to provide a new user interface integrating all the existing controls as well as the new point/controller for the proposed replacement domestic hot water plant. Provide a unit price for new field controllers in case an existing controller is found to be deficient. The contractor shall submit for review and approval control shop drawings indicating all points, wiring, and sequences to be utilized in the final ATC system.

Contractor shall provide startup services and training on site for the new system.

The contact for representative at Control Technologies Incorporated that is familiar with the project is as follows:

**Chris Clorite**

(603)626-6070

cclorite@controltechinc.com

❖ **Domestic Hot Water Plant**

The existing domestic water heater, storage tanks, thermostatic mixing valve, recirculation pump, expansion tank, thermometers, valves shall be removed in their entirety for replacement with a new domestic hot water plant. The existing domestic water system shall be removed from the check valve on the cold-water feed for the water heaters to the hot water discharge side of the thermostatic mixing valve. The new system shall be reconnected to the existing domestic water distribution system at the points noted above.

A new 600 MBH gas fired condensing instantaneous domestic water heater (Similar to the Aerco Inn 600) with 696 GPH output at 100°F rise shall be installed serving two new 119-gallon hot water storage tanks. The tanks shall be piped in a reverse return fashion and a circulation pump (12 GPM @ 20' TDH) shall be provided for maintaining temperature in the storage tanks. The water heater shall be suitable for use at a minimum gas pressure of 4" WC as only 4.5" WC is guaranteed after meter.
A new thermal expansion tank with an 8.9-gallon acceptance volume shall be provided (Similar to Amtrol ST-30VC) on the cold-water feed side of the boiler before the check valve. A new 2-inch discharge thermostatic mixing valve shall be installed rated for ASSE 1017.

A new self-sensing ECM hot water recirculation pump (Similar to the Taco 00e) shall be provided and installed to maintain hot water distribution temperature. The pump shall run whenever the hot water return line reaches a temperature of 105°F or lower.

Contractor to provide all required valves, safeties and associated appurtenances for a complete and operational system. Contractor shall provide startup services and training on site for the new system.

Refer to attached specifications for equipment and materials information.

❖ Envelope Work

The contractor shall be responsible to fill/patch any existing holes in the exterior envelope found allowing for infiltration to the return air plenum within the building. During survey of the return air plenum it was noted that daylight could be observed in a number of areas at the exterior wall. All such holes shall be closed to prevent cold air infiltration into the occupied spaces.

❖ Electrical Work

The prime contractor (mechanical contractor) is responsible for retaining a licensed electrical sub-contractor to perform power and wiring scope as per State Codes and the current edition of NEC.

E.C. shall provide all conduit, conductors, supports hangers, junction boxes, etc. for a complete installed electrical system for the following noted equipment. E.C. shall power ACCU-1 shall be feed from PPB-A located in the basement level. ACCU-2 shall be feed from PPB-B located in the basement level. E.C. shall field verify exact location of existing circuit breakers as required. Information noted was taken from electrical As-Built set from 1998 by Longchamps Electric.

Provide the following:

ACCU-1 - (1) 80A/3P CB with 3#3,1#8G-1°C from unit to PPB-A.

ACCU-2 - (1) 110A/3P CB with 3#1,1#8G-1 1/4°C from unit to PPB-B.

Provide all required demolition of existing conductors, conduit, disconnect switches are required for removal of existing units. E.C. may use existing conduit if sized properly for new equipment. E.C. shall field coordinate manufacturer type for circuit breaker compatibility. Mechanical units CRAC-1A and CRAC-1B shall be interlocked so that only one can operate at a time.

The E.C. shall disconnect and make safe, units HVAC-1 and HVAC-2 prior to HVAC contractor starting refurbishing work noted above. Once refurbish work is complete, E.C. shall reconnect units as required. E.C. shall coordinate all associated work with HVAC contractor prior to start of work.
<table>
<thead>
<tr>
<th>Table of Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Data Sheet for HVAC-1 Replacement #1</td>
<td>3</td>
</tr>
<tr>
<td>Drawing for HVAC-1 Replacement #1</td>
<td>6</td>
</tr>
<tr>
<td>Technical Data Sheet for HVAC-1 Replacement #2</td>
<td>10</td>
</tr>
<tr>
<td>Drawing for HVAC-1 Replacement #2</td>
<td>13</td>
</tr>
</tbody>
</table>
**Technical Data Sheet for HVAC-1 Replacement #1**

**Job Information**
- **Job Name**: 21900368 Nashua Fire Station - Lake Street
- **Date**: February 20 2019
- **Submitted By**: DA
- **Software Version**: 11.75
- **Unit Tag**: HVAC-1 Replacement #1

### Unit Overview

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Air Volume cfm</th>
<th>Static Pressure</th>
<th>External inWc</th>
<th>Total inWc</th>
<th>Height in</th>
<th>Width in</th>
<th>Length in</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAC010GBAM</td>
<td>4805</td>
<td>2.00</td>
<td>0.00</td>
<td>36&quot;</td>
<td>62&quot;</td>
<td>52</td>
<td></td>
</tr>
</tbody>
</table>

*Not including base rails, coil connectors, drain connectors and control boxes.

### Unit
- **Model Number**: CAC010GBAM
- **Approval**: ETL Listed / ETL Listed to Canadian Safety Standards (ETL Label / ETLc Label)
- **Outer Panel**: 24 gauge G90 Galvanized Steel (unpainted)
- **Liner**: 24 gauge Galvanized Steel (unless noted per section)
- **Insulation**: R-13 Injected Foam
- **Unit Configuration**: Inline horizontal
- **Base**: None
- **Altitude**: 0 ft
- **Drive (Handling) Location**: Right
- **Wall Thickness**: 2 in
- **Parts Warranty**: Standard One Year

### Mixing Box

<table>
<thead>
<tr>
<th>Portion</th>
<th>Component: 1</th>
<th>Length: 28 in</th>
<th>Shipping Section: 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (length x width) Overall Damper Location Type</td>
<td>Rated CFM Air Pressure Drop</td>
<td>Quantity</td>
<td></td>
</tr>
<tr>
<td>Outside Air 20 in x 58 in 16 in x 48 in End UltraSeal Low Leak 4805 cfm 0.06 insWg</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return Air 20 in x 58 in 16 in x 48 in Top UltraSeal Low Leak 4805 cfm</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Filter Data

<table>
<thead>
<tr>
<th>Type</th>
<th>Efficiency</th>
<th>Face Velocity</th>
<th>Face Area</th>
<th>Air Volume</th>
<th>Filter Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pleated</td>
<td>MERV 8</td>
<td>509 ft/min</td>
<td>9.4 ft²</td>
<td>4805 cfm</td>
<td>Side</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clean Air</th>
<th>Air Pressure Drop</th>
<th>Number of Filters</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.24 inWc</td>
<td>0.62 inWc</td>
<td>1.00 inWc</td>
<td>2</td>
<td>24 in</td>
<td>24 in</td>
</tr>
<tr>
<td>2 in</td>
<td>1</td>
<td>24 in</td>
<td>12 in</td>
<td>2 in</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Door Location</th>
<th>Width</th>
<th>Opening Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive side</td>
<td>24 in</td>
<td>Outward</td>
</tr>
</tbody>
</table>

---

Job Number: J4FO53
Job Name: 21900368 Nashua Fire Station - Lake Street
Page 3 of 18
Prepared Date: 2/20/2019
www.DaikinApplied.com
### Technical Data Sheet for HVAC-1 Replacement #1

**Combination Coil**

<table>
<thead>
<tr>
<th>Model</th>
<th>Total Capacity</th>
<th>Sensible Capacity</th>
<th>Number of Coils</th>
<th>Number of Rows</th>
<th>Fins per Inch</th>
<th>Tube Diameter</th>
<th>Tube Spacing (Face x Row)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEJ0806C</td>
<td>197017 Btu/hr</td>
<td>130883 Btu/hr</td>
<td>1</td>
<td>6</td>
<td>8</td>
<td>0.625 in</td>
<td>1.50 in x 1.299 in</td>
</tr>
<tr>
<td>Air Volume</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4805 cfm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>80.0°F</td>
<td>67.0°F</td>
<td>55.1°F</td>
<td>53.6°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fluid</td>
<td>Refrigerant</td>
<td>Sub-Cooled Refrigerant</td>
<td>Liquid Temp.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suction Temp.</td>
<td></td>
<td>44.0°F</td>
<td>R410a</td>
<td>110.0°F</td>
<td>8.0°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td></td>
<td></td>
<td></td>
<td>Location</td>
<td>Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OD Sweat</td>
<td></td>
<td>Liquid [Qty - Size]</td>
<td>Suction [Qty - Size]</td>
<td>Drive side</td>
<td>Copper tube</td>
<td>32.0°F</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.0-88 in</td>
<td>2.1-63 in</td>
<td></td>
<td></td>
<td>32.0°F</td>
<td></td>
</tr>
<tr>
<td>Fin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum .0075 in</td>
<td>Copper .020 in</td>
<td>Copper</td>
<td>Galv. steel</td>
<td>Stainless steel</td>
<td>Drive side</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Component performance shown is based on the component air volume shown. Static pressure shown is based on the component air volume shown.

### AHRI 410 Certification

Coil is NOT certified by AHRI

### Reheat Hot Water Coil

<table>
<thead>
<tr>
<th>Model</th>
<th>Total Capacity</th>
<th>Number of Coils</th>
<th>Number of Rows</th>
<th>Fins per Inch</th>
<th>Tube Diameter</th>
<th>Tube Spacing (Face x Row)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5WQ1401C</td>
<td>200744 Btu/hr</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>0.625 in</td>
<td>1.50 in x 1.299 in</td>
</tr>
<tr>
<td>Air Volume</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4805 cfm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>53.0°F</td>
<td>91.2°F</td>
<td>0.25 inWc</td>
<td>27 in</td>
<td>46 in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water</td>
<td>Flow Rate</td>
<td>Pressure Drop</td>
<td>Velocity</td>
<td>Volume</td>
</tr>
<tr>
<td>Entering</td>
<td></td>
<td>Leaking</td>
<td>180.0°F</td>
<td>138.7°F</td>
<td>2.00 ftHd</td>
<td>2.10 ft/s</td>
</tr>
<tr>
<td>Type</td>
<td></td>
<td></td>
<td>Size</td>
<td>Location</td>
<td>Material</td>
<td></td>
</tr>
<tr>
<td>Threaded</td>
<td></td>
<td></td>
<td>1.50 in</td>
<td>Drive side</td>
<td>Carbon steel</td>
<td>138.7°F</td>
</tr>
<tr>
<td>Fin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>138.7°F</td>
</tr>
<tr>
<td>Aluminum .0075 in</td>
<td>Copper .020 in</td>
<td>Copper</td>
<td>Galv. steel</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Component performance shown is based on the component air volume shown. Static pressure shown is based on the component air volume shown.

### AHRI 410 Certification

Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org

### Unit Sound Power (dB)

<table>
<thead>
<tr>
<th>Type</th>
<th>63 Hz</th>
<th>125 Hz</th>
<th>250 Hz</th>
<th>500 Hz</th>
<th>1000 Hz</th>
<th>2000 Hz</th>
<th>4000 Hz</th>
<th>8000 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiated</td>
<td>64</td>
<td>54</td>
<td>48</td>
<td>41</td>
<td>39</td>
<td>41</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Unit Discharge</td>
<td>64</td>
<td>54</td>
<td>48</td>
<td>41</td>
<td>39</td>
<td>41</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Unit Return</td>
<td>64</td>
<td>54</td>
<td>48</td>
<td>41</td>
<td>39</td>
<td>41</td>
<td>46</td>
<td>46</td>
</tr>
</tbody>
</table>

Job Number: J4FO53  
Job Name: 21900368 Nashua Fire Station -  
Page 4 of 18  
Prepared Date: 2/20/2019  
www.DaikinApplied.com
Technical Data Sheet for HVAC-1 Replacement #1

Shipping Section Details

<table>
<thead>
<tr>
<th>Section</th>
<th>Length (in)</th>
<th>Weight (lb)</th>
<th>Corner Weights (lb)</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>XX</th>
<th>YY</th>
<th>ZZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>52</td>
<td>732</td>
<td>157</td>
<td>144</td>
<td>209</td>
<td>222</td>
<td>31</td>
<td>30</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Entire Unit</td>
<td>52</td>
<td>732</td>
<td>157</td>
<td>144</td>
<td>209</td>
<td>222</td>
<td>31</td>
<td>30</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Special components aren't included in the corner weights and center of gravity data.

AHRI Certification

The air-handler is selected outside of the scope of AHRI 430

Notes

1. As a standalone component, unit meets or exceeds requirements of ASHRAE 90.1 - 2007. The approving authority is responsible for compliance of multi-component building systems.
Coil and Drain Connections

<table>
<thead>
<tr>
<th>Type</th>
<th>X</th>
<th>Y</th>
<th>Z</th>
<th>Diam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combination Coil</td>
<td>31.94</td>
<td>-2.90</td>
<td>3.83</td>
<td>1.25</td>
</tr>
<tr>
<td>Condensate drain conn.</td>
<td>46.84</td>
<td>-7.00</td>
<td>8.19</td>
<td>1.50</td>
</tr>
<tr>
<td>Hot water inlet</td>
<td>46.84</td>
<td>-7.00</td>
<td>29.81</td>
<td>1.50</td>
</tr>
<tr>
<td>Hot water outlet</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>DX suction</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>2.163</td>
</tr>
<tr>
<td>DX liquid conn.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>2.088</td>
</tr>
</tbody>
</table>

Note: Dimensions are measured from the origin point.
## Technical Data Sheet for HVAC-1 Replacement #2

### Job Information
- **Job Name:** 21900368 Nashua Fire Station - Lake Street
- **Date:** February 20 2019
- **Submitted By:** DA
- **Software Version:** 11.75
- **Unit Tag:** HVAC-1 Replacement #2

### Unit Overview
<table>
<thead>
<tr>
<th>Model Number</th>
<th>Air Volume cfm</th>
<th>Static Pressure</th>
<th>External inWC</th>
<th>Total inWC</th>
<th>Height in</th>
<th>Width in</th>
<th>Length in</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAC013GBAM</td>
<td>5545</td>
<td>2.00</td>
<td>0.00</td>
<td>42*</td>
<td>66*</td>
<td>52</td>
<td></td>
</tr>
</tbody>
</table>

*Not including base rails, coil connectors, drain connectors and control boxes.

### Unit
- **Model Number:** CAC013GBAM
- **Approval:** ETL Listed / ETL Listed to Canadian Safety Standards (ETL Label / ETLc Label)
- **Outer Panel:** 24 gauge G90 Galvanized Steel (unpainted)
- **Liner:** 24 gauge Galvanized Steel (unless noted per section)
- **Insulation:** R-13 Injected Foam
- **Unit Configuration:** Inline horizontal
- **Base:** None
- **Altitude:** 0 ft
- **Drive (Handling) Location:** Right
- **Wall Thickness:** 2 in
- **Parts Warranty:** Standard One Year

### Mixing Box
- **Component:** 1
- **Length:** 28 in
- **Shipping Section:** 1

<table>
<thead>
<tr>
<th>Portion</th>
<th>Size (length x width) Overall</th>
<th>Damper Location</th>
<th>Type</th>
<th>Rated CFM</th>
<th>Air Pressure Drop</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside Air</td>
<td>20 in x 62 in</td>
<td>End</td>
<td>UltraSeal Low Leak</td>
<td>5545 cfm</td>
<td>0.07 inWg</td>
<td>1</td>
</tr>
<tr>
<td>Return Air</td>
<td>20 in x 62 in</td>
<td>Top</td>
<td>UltraSeal Low Leak</td>
<td>5545 cfm</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

### Filter Data
- **Type:** Pleated
- **Efficiency:** MERV 8
- **Face Velocity:** 420 ft/min
- **Face Area:** 13.2 ft²
- **Air Volume:** 5545 cfm

<table>
<thead>
<tr>
<th>Clean Air</th>
<th>Efficiency</th>
<th>Air Pressure Drop</th>
<th>Number of Filters</th>
<th>Height in</th>
<th>Width in</th>
<th>Depth in</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.18 inWc</td>
<td>Mean Air</td>
<td>0.59 inWc</td>
<td>1</td>
<td>24 in</td>
<td>20 in</td>
<td>2 in</td>
</tr>
<tr>
<td></td>
<td>Dirty Air</td>
<td>1.00 inWc</td>
<td>2</td>
<td>12 in</td>
<td>24 in</td>
<td>2 in</td>
</tr>
</tbody>
</table>

### Door
- **Location:** Drive side
- **Width:** 24 in
- **Opening:** Outward
### Combination Coil

<table>
<thead>
<tr>
<th>Component</th>
<th>Length: 24 in</th>
<th>Shipping Section: 1</th>
</tr>
</thead>
</table>

#### Direct Expansion Coil

<table>
<thead>
<tr>
<th>Coil Model</th>
<th>Total Capacity</th>
<th>Sensible Capacity</th>
<th>Number of Coils</th>
<th>Number of Rows</th>
<th>Fins per Inch</th>
<th>Tube Diameter</th>
<th>Tube Spacing (Face x Row)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5EJO706C</td>
<td>228871 Btu/hr</td>
<td>150859 Btu/hr</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>0.625 in</td>
<td>1.50 in x 1.299 in</td>
</tr>
</tbody>
</table>

#### Air Volume

<table>
<thead>
<tr>
<th>Air Temperature</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Entering</td>
<td>Dry Bulb</td>
<td>80.0 °F</td>
</tr>
<tr>
<td></td>
<td>Wet Bulb</td>
<td>67.0 °F</td>
</tr>
<tr>
<td>Leaving</td>
<td>Dry Bulb</td>
<td>55.1 °F</td>
</tr>
<tr>
<td></td>
<td>Wet Bulb</td>
<td>53.5 °F</td>
</tr>
</tbody>
</table>

#### Suction Temp.

<table>
<thead>
<tr>
<th>Fluid</th>
<th>Refrigerant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R410a</td>
</tr>
<tr>
<td></td>
<td>110.0 °F</td>
</tr>
</tbody>
</table>

#### Sub-Cooled Refrigerant Liquid Temp.

|                | 44.0 °F    |

#### Connection [Data Per Coil]

|                | 110.0 °F |

#### Coil Air Pressure Drop

|                | 0.93 inWc |

#### Suction Temp. Superheat Temp. at Coil Outlet

|                | 33 in     |

#### Design Saturated Condensing Temp.

|                | 53 in     |

#### Total Refrigerant Weight

|                | 12.15 ft² |

#### Total Refrigerant Weight

|                | 457 ft/min |

#### Type

<table>
<thead>
<tr>
<th>OD Sweat</th>
<th>Liquid [Qty - Size]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Suction [Qty - Size]</td>
</tr>
<tr>
<td></td>
<td>Location</td>
</tr>
<tr>
<td></td>
<td>Material</td>
</tr>
</tbody>
</table>

#### Fin

|                | Aluminum .0075 in   |

#### Tube

|                | Copper .020 in      |

#### Header

|                | Copper              |

#### Case

|                | Galv. steel         |

Component performance shown is based on the component air volume shown.

Static pressure shown is based on the component air volume shown.

### AHRI 410 Certification

Coil is NOT certified by AHRI

### Reheat Hot Water Coil

<table>
<thead>
<tr>
<th>coil Model</th>
<th>Total Capacity</th>
<th>Number of Coils</th>
<th>Number of Rows</th>
<th>Fins per Inch</th>
<th>Tube Diameter</th>
<th>Tube Spacing (Face x Row)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5WQ1201C</td>
<td>227585 Btu/hr</td>
<td>1</td>
<td>1</td>
<td>12</td>
<td>0.625 in</td>
<td>1.50 in x 1.299 in</td>
</tr>
</tbody>
</table>

#### Air Volume

<table>
<thead>
<tr>
<th>Air Temperature</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Entering</td>
<td>Dry Bulb</td>
<td>53.0 °F</td>
</tr>
<tr>
<td></td>
<td>Leaving</td>
<td>90.5 °F</td>
</tr>
</tbody>
</table>

#### Water

<table>
<thead>
<tr>
<th>Flow Rate</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.18 inWc</td>
<td></td>
</tr>
</tbody>
</table>

#### Pressure Drop

<table>
<thead>
<tr>
<th>Pressure Drop</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>33 in</td>
<td></td>
</tr>
</tbody>
</table>

#### Velocity

<table>
<thead>
<tr>
<th>Velocity</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50 in</td>
<td></td>
</tr>
</tbody>
</table>

#### Face Area

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11.46 ft²</td>
</tr>
</tbody>
</table>

#### Face Velocity

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>484 ft/min</td>
</tr>
</tbody>
</table>

#### Entering

| Dry Bulb | 180.0 °F |

#### Leaving

| Wet Bulb | 139.4 °F |

#### Flow Rate

|                | 1.20 gpm |

#### Pressure Drop

|                | 2.10 ft/s |

#### Velocity

|                | 2.00 ft/s |

#### Volume

|                | 3.0 gal   |

#### Weight

|                | 26.00 lb  |

#### Type

<table>
<thead>
<tr>
<th>Size</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.50 in</td>
</tr>
</tbody>
</table>

#### Location

|                |        |
| Drive side     |        |

#### Material

|                |        |
| Carbon steel   |        |

#### Fin

|                | Aluminum .0075 in |

#### Tube

|                | Copper .020 in    |

#### Header

|                | Copper           |

#### Case

|                | Galv. steel      |

Component performance shown is based on the component air volume shown.

Static pressure shown is based on the component air volume shown.

### AHRI 410 Certification

Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org

### Unit Sound Power (dB)

<table>
<thead>
<tr>
<th>Type</th>
<th>63 Hz</th>
<th>125 Hz</th>
<th>250 Hz</th>
<th>500 Hz</th>
<th>1000 Hz</th>
<th>2000 Hz</th>
<th>4000 Hz</th>
<th>8000 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiated:</td>
<td>64</td>
<td>54</td>
<td>48</td>
<td>41</td>
<td>39</td>
<td>41</td>
<td>46</td>
<td>51</td>
</tr>
<tr>
<td>Unit Discharge:</td>
<td>64</td>
<td>54</td>
<td>48</td>
<td>41</td>
<td>39</td>
<td>41</td>
<td>46</td>
<td>51</td>
</tr>
<tr>
<td>Unit Return:</td>
<td>64</td>
<td>54</td>
<td>48</td>
<td>41</td>
<td>39</td>
<td>41</td>
<td>46</td>
<td>51</td>
</tr>
</tbody>
</table>

### Job Number: J4FO53

### Prepared Date: 2/20/2019

www.DaikinApplied.com
Technical Data Sheet for HVAC-1 Replacement 

<table>
<thead>
<tr>
<th>Shipping Section Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>Entire Unit</td>
</tr>
</tbody>
</table>

**NOTE:** Special components aren't included in the corner weights and center of gravity data.

**AHRI Certification**

The air-handler is selected outside of the scope of AHRI 430

**Notes**

1. As a standalone component, unit meets or exceeds requirements of ASHRAE 90.1 - 2007. The approving authority is responsible for compliance of multi-component building systems.
Component Key

<table>
<thead>
<tr>
<th>Type</th>
<th>X</th>
<th>Y</th>
<th>Z</th>
<th>Wid</th>
<th>Hgt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixing Box</td>
<td>0.00</td>
<td>7.00</td>
<td>12.00</td>
<td>52.00</td>
<td>16.00</td>
</tr>
<tr>
<td>Outside air damper</td>
<td>4.00</td>
<td>7.00</td>
<td>42.00</td>
<td>52.00</td>
<td>16.00</td>
</tr>
<tr>
<td>Return air damper</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combination Coil</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening</td>
<td>52.00</td>
<td>2.00</td>
<td>2.00</td>
<td>62.00</td>
<td>38.00</td>
</tr>
</tbody>
</table>

Note: Dimensions are measured from the origin point.
<table>
<thead>
<tr>
<th>Type</th>
<th>X</th>
<th>Y</th>
<th>Z</th>
<th>Diam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combination Coil</td>
<td>3</td>
<td>3.81</td>
<td>-8.42</td>
<td>1.50</td>
</tr>
<tr>
<td>Hot water inlet</td>
<td>8.59</td>
<td>-7.00</td>
<td>-8.42</td>
<td>1.50</td>
</tr>
<tr>
<td>Hot water outlet</td>
<td>8.59</td>
<td>-7.00</td>
<td>-8.42</td>
<td>1.50</td>
</tr>
<tr>
<td>DX liquid conn.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

Note: Dimensions are measured from the origin point.

---

**Drawing for HVAC-1 Replacement #2**

** Coil and Drain Connections **

** LEFT ELEVATION VIEW **

** RIGHT ELEVATION VIEW **

** Unit Tag: HVAC-1 Replacement #2 **

** Project Name: 21900368 Nashua Fire Station **

** Model: CAC0368AM **

** Prepared Date: 2/20/2019 **
**Technical Data Sheet for RCS Single Circuit**

### Unit Information

<table>
<thead>
<tr>
<th>Job Name</th>
<th>21900368 Nashua Fire Station - Lake Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>2/21/2019</td>
</tr>
<tr>
<td>Submitted By</td>
<td>Derek Anneser</td>
</tr>
<tr>
<td>Software Version</td>
<td>06.70</td>
</tr>
<tr>
<td>Unit Tag</td>
<td>RCS Single Circuit</td>
</tr>
</tbody>
</table>

### Unit Overview

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Voltage V/Hz/Phase</th>
<th>Refrigeration Effect Btu/hr</th>
<th>Unit Power kW</th>
<th>EER</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCS15F180C</td>
<td>208/60/3</td>
<td>186104</td>
<td>14.7</td>
<td>12.8</td>
</tr>
</tbody>
</table>

### Unit

- **Model Number:** RCS15F180C
- **Type:** Commercial
- **Approval:** UL - Canada
- **Refrigerant Type:** R410A
- **No. of Refrigerant Circuits:** 1
- **Refrigerant Weight:** 31.6 lb

### Condensing Section

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Altitude</th>
<th>Refrigeration Effect</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suction: 44.0 °F</td>
<td>Ambient: 95.0 °F</td>
<td>186104 Btu/hr</td>
<td>14.7 kW</td>
</tr>
</tbody>
</table>

- **Compressor**
  - **Quantity:** 2
  - **Type:** Scroll
  - **Capacity Control:** 2 steps
  - **Compressor Isolation:** Resilient
  - **Full Load Current:**
    - Compressor 1: 25.0 A
    - Compressor 2: 25.0 A

- **Condenser**
  - **Type:** Copper tube
  - **Number of Rows:** 4
  - **Fins per Inch:** 22
  - **Fans Condenser Fan Type:** Standard
  - **Quantity:** 3
  - **Fan Motors Full Load Current:** 2.40 A

### Physical

<table>
<thead>
<tr>
<th>Dimensions and Weight</th>
<th>Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length: 88.9 in</td>
<td>Suction Line Circuit: (1) 1.625 in.</td>
</tr>
<tr>
<td>Height: 44.6 in</td>
<td>Liquid Line Circuit: (1) 0.625 in.</td>
</tr>
<tr>
<td>Width: 38.4 in</td>
<td></td>
</tr>
<tr>
<td>Operating Weight: 746 lb</td>
<td></td>
</tr>
</tbody>
</table>
### Electrical

<table>
<thead>
<tr>
<th>Voltage</th>
<th>MROPD</th>
<th>Field Power Connection</th>
<th>iWCA</th>
<th>SCCR</th>
<th>Field Outlet Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>208/60/3 V/Hz/Phase</td>
<td>80 A</td>
<td>Single power block</td>
<td>64.0 A</td>
<td>5 kAIC</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

### Options

<table>
<thead>
<tr>
<th>Hot Gas Bypass:</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condenser Coil Options:</td>
<td>Aluminum fins</td>
</tr>
<tr>
<td>Field Connection:</td>
<td>Single power block</td>
</tr>
<tr>
<td>Wiring Options:</td>
<td>Sealtite conduit</td>
</tr>
<tr>
<td>GFI Receptacle:</td>
<td>None</td>
</tr>
</tbody>
</table>

### Unit Control

| Temperature Controls: | Terminal strip for YGR |
| Low Ambient Control: | 0 degree standard |

### Warranty

<table>
<thead>
<tr>
<th>Parts:</th>
<th>Standard one year parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressor:</td>
<td>Standard one year compressor</td>
</tr>
</tbody>
</table>

### AHRI Certification

All equipment is rated and certified in accordance with AHRI 365.

### Accessories

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RXAT-A01</td>
<td>Anti-Short Cycle</td>
</tr>
</tbody>
</table>
Technical Data Sheet for RCS single Circuit 02

<table>
<thead>
<tr>
<th>Job Information</th>
<th>Technical Data Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Name</td>
<td>21900368 Nashua Fire Station - Lake Street</td>
</tr>
<tr>
<td>Date</td>
<td>2/21/2019</td>
</tr>
<tr>
<td>Submitted By</td>
<td>Derek Anneser</td>
</tr>
<tr>
<td>Software Version</td>
<td>06.70</td>
</tr>
<tr>
<td>Unit Tag</td>
<td>RCS single Circuit 02</td>
</tr>
</tbody>
</table>

Unit Overview

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Voltage V/Hz/Phase</th>
<th>Refrigeration Effect Btu/hr</th>
<th>Unit Power kW</th>
<th>EER</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCS20F240C</td>
<td>208/60/3</td>
<td>255254</td>
<td>21.6</td>
<td>11.9</td>
</tr>
</tbody>
</table>

Unit

- Model Number: RCS20F240C
- Type: Commercial
- Approval: UL - Canada
- Refrigerant Type: R410A
- No. of Refrigerant Circuits: 1
- Refrigerant Weight: 40.9 lb

Condensing Section

<table>
<thead>
<tr>
<th>Suction Temperature</th>
<th>Ambient</th>
<th>Altitude</th>
<th>Refrigeration Effect</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>44.0 °F</td>
<td>95.0 °F</td>
<td>0 ft</td>
<td>255254 Btu/hr</td>
<td>21.6 kW</td>
</tr>
</tbody>
</table>

Compressor

- Quantity: 2
- Type: Scroll
- Capacity Control: 2 steps
- Compressor Isolation: Resilient
- Full Load Current:
  - Compressor 1: 33.3 A
  - Compressor 2: 33.3 A

Condenser

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of Rows</th>
<th>Fins per Inch</th>
<th>Fans Condenser Fan Type</th>
<th>Quantity</th>
<th>Full Load Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper tube</td>
<td>4</td>
<td>22</td>
<td>Standard</td>
<td>3</td>
<td>2.40 A</td>
</tr>
</tbody>
</table>

Physical

Dimensions and Weight

<table>
<thead>
<tr>
<th>Length</th>
<th>Height</th>
<th>Width</th>
<th>Operating Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>88.9 in</td>
<td>44.8 in</td>
<td>38.4 in</td>
<td>952 lb</td>
</tr>
</tbody>
</table>

Connections

<table>
<thead>
<tr>
<th>Connection</th>
<th>Connection Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suction Line Circuit</td>
<td>(1) 1.625 in.</td>
</tr>
<tr>
<td>Liquid Line Circuit</td>
<td>(1) 0.875 in.</td>
</tr>
</tbody>
</table>
# Technical Data Sheet for RCS single Circuit 02

## Electrical

<table>
<thead>
<tr>
<th>Voltage</th>
<th>kROPD</th>
<th>Field Power Connection</th>
<th>MCA</th>
<th>SCCR</th>
<th>Field Outlet Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>208/60/3 V/Hz/Phase</td>
<td>110 A</td>
<td>Single power block</td>
<td>83.0 A</td>
<td>5 kAIC</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** Use only copper supply wires with ampacity based on 75°C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

## Options

### Unit
- **Hot Gas Bypass:** None
- **Condenser Coil Options:** Aluminum fins

### Electrical
- **Field Connection:** Single power block
- **Wiring Options:** Sealtite conduit
- **GFI Receptacle:** None

### Unit Control
- **Temperature Controls:** Terminal strip for YGR
- **Low Ambient Control:** 0 degree standard

## Warranty
- **Parts:** Standard one year parts
- **Compressor:** Standard one year compressor

## AHRI Certification

All equipment is rated and certified in accordance with AHRI 365.
This letter is in response to the RFI letter dated 5/22/19.

Is it the intent to remove all water piping back to�inals in building and install all new? Special state critic system which we assume is all a wall piping this would involve dry wall painting and there are no specifications for this work. Then it states under flow water plant is only perimeter to each room.

The intent of the scope of work is to replace the domestic water plant. This includes the water heater, storage tanks, etc. back to the building side of the thermostatic closing valve. The building side of the recirculation pump will be removed and replaced with new equipment. Piping, pumps, valves, vents, and other associated apparatus are required for fall and complete operation. The domestic water distribution within the building shall remain as is.

Is it the intent to remove all Hydronic heat piping in building and install new or just as needed in mechanical room?

The only hydronic heat piping that would be in scope is the connection to the air handler at A101-1 and A101-2. It is required during their refurbishment or replacement. No other work will be undertaken on the hydronic heating system besides isolating the valves on the air handler.

All refrigerant shall be removed and replaced correctly.

All the refrigerant piping serving A101-1 and A101-2 from A101-1 and A101-2 shall be removed and replaced as it is currently subjected for R-22 service and is required to be brazed for R-410A service.

Are alternate control Contractors or manufacturers acceptable. From RCL Automated Logic?

Alternate control manufacturers are acceptable provided they are compatible with the existing field, control layout, etc., in order to minimize extents of the work required.

Are built-in equipment was originally Trane. Specifications indicate Daikin applied what is currently in place or not?

During construction McIntosh was improved in place of the brass of design. Trane units.

Will facility be occupied during construction?

Yes, the facility will be occupied and the contractor will coordinate with the owner to minimize the disruption to the occupants.

Are permit fees waived?

Permit fees will be waived.

Can work be done normal business hours 7 am - 5 pm?

Construction is permitted within normal business hours 7 am - 5 pm.
June 13, 2019
Memo #19-160

TO:      MAYOR DONCHESS
         FINANCE COMMITTEE

SUBJECT: CONTRACT FOR APPRAISAL FOR LISTED UTILITIES FOR TAX YEARS 2019-2024
        (5 YEAR) (VALUE: NOT-TO-EXCEED $39,000)
        DEPARTMENT: 132 ASSESSING; FUND: GENERAL FUND - OVERLAY

Please see the attached communication from Kim Kleiner, Administrative Services Director, dated June
12, 2019 for information related to this purchase.

Pursuant to NRO § 5-83 Professional Services (A) In the purchase of accounting, architectural, auditing,
engineering, legal, medical and ambulance services and purchases of independent professional
consultant services for personnel, data processing, actuarial, planning, management and other
comparable purchases competitive bidding shall not be required.

The Administrative Services Director and the Purchasing Department recommend the award of this
contract in an amount not-to-exceed $39,000 per year to George E. Sansoucy, PE, LLC of Portsmouth,
NH.

Respectfully,

Dan Kooker
Purchasing Manager

Cc:   J. Duhamel   J. Griffin
From: Kim Kleiner, Director
Date: June 12, 2019
Subject: Contract – George Sansoucy, P.E., LLC

The contract with George Sansoucy, P.E., LLC provides revaluation and valuation services for utilities within the city as of April 1, 2019-2024 and one revaluation as of April 1, 2023.

Per Legal, this falls under Chapter 5 of the city ordinance, paragraph 5-83 Professional Services.

I have included the contract proposal from George Sansoucy, the preferred appraiser for this project due to his expertise and prior experience with the city.

The Assessing Department requests approval of this contract with George Sansoucy, Portsmouth, NH. in an amount not-to exceed $39,000 per year for the years 2019-2024.
AGREEMENT

SUBJECT: A Contract to provide revaluation and valuation services and engineering consulting to the City of Nashua, New Hampshire to value, for ad valorem taxation purposes, the utility properties located in the City of Nashua as of April 1, 2019 – April 1, 2024. This contract includes five (5) updates for 2019, 2020, 2021, 2022, and 2024 and one (1) revaluation as of April 1, 2023.

CONTRACT ATTENTION: Should the New Hampshire Legislature create laws mandating certain methods of valuation of utility property, this contract will be subject to automatic reconsideration and/or renegotiation as required based on the collection of utility properties in the City of Nashua.

The City of Nashua, hereinafter called the City, and George E. Sansoucy, P.E., LLC, a Professional Engineer and Certified General Appraiser having a principal place of business at 7 Greenleaf Woods Drive, Unit 102, Portsmouth, New Hampshire 03801 in the County of Rockingham, State of New Hampshire, hereinafter called Sansoucy, hereby mutually agree as follows:

GENERAL PROVISIONS

1. IDENTIFICATION

1.1 Client: City of Nashua

1.1.1 Name: City of Nashua
229 Main Street
P. O. Box 2019
Nashua, NH 03061-2019

1.1.2 Contracting Official: The Honorable James Donchess, Mayor

1.1.3 Authorized Contact: Kimberly Kleiner, Dir. Of Administrative Services
Steve Bolton, Esq., City Counsel

1.2 Consultant: George E. Sansoucy, P.E., LLC

1.2.1 Name: George E. Sansoucy, P.E., LLC
Address: 279 Main Street, Lancaster, NH 03584
Tel: (603) 788-4000; Fax (603) 788-2798
E-mail: gsansoucy@sansoucy.com

Remittance Address: 89 Reed Road, Lancaster, NH 03584
2. GENERAL SERVICES TO BE PERFORMED BY SANSOUCY

2.1 Scope of Work:

We propose a six-year agreement, which includes five (5) updates for new additions and deletions for the years of 2019, 2020, 2021, 2022 and 2024 and one (1) revaluation for April 1, 2023 of the properties listed below, for *ad valorem* tax assessment purposes in the City of Nashua.

The utility and rights-of-way to be valued are listed below:

<table>
<thead>
<tr>
<th>Liberty Utilities (Energy North Natural Gas) Corp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pennichuck Water Works, Inc.</td>
</tr>
<tr>
<td>Public Service Company of New Hampshire d/b/a Eversource Energy</td>
</tr>
<tr>
<td>Comcast Corporation (Public Rights-of-Way only)</td>
</tr>
<tr>
<td>Consolidated Communications – Poles and Conduit</td>
</tr>
<tr>
<td>Electric and/or Gas Transmission and Distribution Easements/Rights-of-Way</td>
</tr>
<tr>
<td>Use of Public Rights-of-Way</td>
</tr>
</tbody>
</table>

The annual valuations and the 2023 cyclical state-required revaluation will be developed considering all three traditional approaches to value (cost, sales comparison, and income approaches). Land and land rights valuations, including easements and use of public rights-of-way, for the 2023 revaluation will be developed based, in part, on the 2023 City-wide mass appraisal land value schedules prepared by the City’s revaluation contractor, which will be provided to SANSOUCY by the City. The City will also provide SANSOUCY with the 2023 revaluation CAMA system values for any parcels owned in fee by the above listed owners in the City.

Land and land rights valuations, including easements and use of public rights-of-way for the 2019, 2020, 2021, 2022, and 2024 valuation updates, will be developed based, in part, on the most recent City-wide mass appraisal land value schedules prepared by the City’s revaluation contractor, which will be provided to SANSOUCY by the City. The City will also provide SANSOUCY with the current CAMA system values for any parcels owned in fee by the above listed owners in the City.

SANSOUCY will provide a USPAP-compliant annual valuation summary sheet and transmittal letter, in update years (2019-2022, and 2024), that includes improvement values, any estimated economic depreciation, equalized improvement values, land/site values, use of public rights-of-way values, and the total overall recommended assessment, including equalization. Work papers for all years will be retained in our files.
Sansoucy’s cyclical state-required revaluation results will be transmitted to the City via a USPAP-compliant appraisal report that summarizes all of the valuation assignment results and conclusions, including any extraordinary assumptions employed in the appraisal and the required appraisal certification.

2.1.1 Scope of the Work Products:

Sansoucy will provide a USPAP-compliant appraisal report of the listed properties for the revaluation year of 2023 and provide a copy of the report directly to the New Hampshire Department of Revenue Administration (DRA).

Additionally, Sansoucy will provide valuation update services for the properties listed above for the tax years of April 1, 2019, April 1, 2020, April 1, 2021, April 1, 2022, and April 1, 2024. The values will be provided in a USPAP-compliant format and will include our recommendation for equalization on the MS-1 form. This report will include summary facts, figures and calculations to support our recommendations.

2.1.2 Services to be Provided by the City:

The City will provide access to City records, tax maps, and information provided by the companies, and will request that the companies provide information directly to Sansoucy in electronic format, if possible.

The City will provide, where applicable, the following information to the best of its ability and updates to this information for each year of the contract:

- Each company’s 2018 tax cards, including cell tower host sites, and tax bills;
- Any company’s 2019 Inventory of Taxable Property Form PA-28;
- The 2018 MS-1;
- Copy of, or authorized access to, the most recent tax maps;
- Any recent building permits;
- Any current settlement agreements;
- Any PILOTS for the companies;
- Any leases for cell towers or cellular carriers;
- Any cell tower current use / land use change tax forms;
- Any municipal GIS mapping indicating utility location and data;
- Pole license / franchise agreements (cable/telephone/fiber optic/attachers); and
- Most recent land valuation schedules.
2.1.3 Services to be Provided by Sansoucy:

Sansoucy will provide valuation services as described in the Scope of Work for tax years 2019 - 2024.

2.2 Completion of Work:

All values to be provided to the City by September 1 of each year of the contract.

Sansoucy will not be responsible for consequential or compensatory damages arising from the late performance or non-performance of the agreement caused by circumstances which are either outside Sansoucy's scope of services, beyond Sansoucy's control, or as a result of non-performance of any other party, person, or entity affecting this contract.

2.3 Personnel:

All work will be overseen and reviewed by a DRA-certified Assessor or Assessor Supervisor.

All personnel and necessary field assistants employed by Sansoucy will be competent to perform the work they are called upon to do in a good and workmanlike manner and in accordance with all applicable laws and rules in effect at the time of the agreement.

All personnel performing ad valorem valuation tasks will be approved by the State of New Hampshire Department of Revenue Administration at an approval level commensurate with their level of appraisal involvement. The Appraisal Supervisors are George Sansoucy and Brian Fogg, and the manager of field listings and assessor assistant is Charella Lucas.

2.4 Public Relations:

The City and Sansoucy, during the progress of the work, will use their best efforts and that of their agents and employees to promote full cooperation and amiable relations with the utilities. All publicity and news releases, if any, will be sent out only by the City, or its authorized representative(s), and not Sansoucy.
2.5 Confidentiality:

Sansoucy agrees to not disclose to anyone except to the City, or its authorized representative(s) or a court of law or tribunal, any information discovered for any purpose, or to permit anyone to use or peruse any of the data on file in connection with the report, unless disclosure is specifically authorized by the City or under the New Hampshire freedom of information statutes.

2.6 Compensation and Terms:

The City of Nashua, in consideration of the services hereunder to be performed by Sansoucy, agrees to pay Sansoucy a fixed fee of $39,000 each year for the term of the Agreement (2019 - 2024).

As part of this contract, assistance will be provided during the local abatement process for any challenge of our recommended valuations for the years involved. A challenge before either the BTLA or Superior Court, or any settlement work after the local process, is beyond the scope of this proposal and will be defended on a time and material basis per the attached rate sheet.

2.7 Non-Appropriation

Notwithstanding any other provision of this Agreement, if the City does not appropriate sufficient funds to fund this Agreement in any given year, the City will notify Sansoucy in writing immediately of such non-appropriation.

3. INSURANCE

3.1 Sansoucy will maintain general liability insurance with an endorsement for hired and non-owned automobile liability.

3.1.1 The liability insurance will be in the form of commercial general liability with limits of $2,000,000 per occurrence/person for bodily injury, and $4,000,000 general aggregate for the life of the policy.

3.1.2 The hired and non-owned automobile liability endorsement will have a limit of $2,000,000 each accident.

3.2 Sansoucy will provide a certificate of insurance confirming the above insurance coverages. All insurance will be valid in the State of New Hampshire.
4. **ASSIGNMENT**

This Contract and the duties of Sansoucy hereunder will not be assigned.

5. **AMENDMENTS**

This Agreement will not be amended, waived or discharged, unless by mutual written consent of both parties.
In witness thereof, the City of Nashua has caused these presents to be signed by its Mayor, thereunto lawfully authorized and caused its corporate (if appropriate) seal to be affixed and George E. Sansoucy, P.E., LLC has caused the same to be signed by his lawfully authorized representative on the date and year first above written.

In the presence of: City of Nashua, New Hampshire

Witness by: The Honorable James Donchess, Mayor

In the presence of: George E. Sansoucy, P.E., LLC

Witness by: George E. Sansoucy, P.E.
2019

ENGINEERING AND APPRAISAL RATE SCHEDULE*

Principal engineers, senior appraisers, MBAs,
including court testimony and deposition attendance..........................$290.00/hour

Research engineers, associates, appraisers ...........................................$225.00/hour

Technical personnel ..............................................................................$175.00/hour

Clerical personnel ................................................................................$125.00/hour

* All rates are portal to portal from Lancaster, N.H. or Portsmouth, N.H. Rates
include general office expenses, such as: non-specific in-house copies, meals,
non-specific mileage, office supplies, non-specific postage, telecommunications
charges, and tolls.

Job-specific and identifiable expenses are billed at cost in addition to the rates
shown, including but not limited to: transportation (air fare, car rental, taxi fare,
specific parking, specific mileage, etc.), lodging, document printing and
reproduction, research materials such as publications, subscriptions, and
database purchases.
June 13, 2019
Memo #19-161

TO: MAYOR DONCHESS
    FINANCE COMMITTEE

SUBJECT: PURCHASE OF NASHUA RIVER FOUNTAINS (VALUE $52,104)
     DEPARTMENT: 181 COMMUNITY DEVELOPMENT; FUND: ESCROW FUNDS

Please see attached communication from Sarah Marchant, Community Development Division Director,
dated June 10, 2019 for information related to this contract award.

The Community Development Department and the Purchasing Department recommend this purchase
from Turf Products of Enfield, CT in an amount of $52,104.

Respectfully,

Dan Koochen
Purchasing Manager

Cc: S. Marchant J. Graziano
Date: June 10, 2019
To: John Griffin, CFO; Daniel Kookan, Purchasing Manager
From: Sarah Marchant, Community Development Division Director
Re: Sole Source Otterbine River Fountains

The Community Development Division in partnership with Public Works has been working to replace the now defunct fountain in the Nashua River with a new fountain and two additional fountains over the past couple of years. As part of the Downtown Riverfront Master Plan the City determined fountains with light would be an excellent way to help attract pedestrians and boaters to our riverfront and help highlight its role in our downtown.

The City put out two separate bids for electrical upgrades and river fountains (RFP0365-013018 and RFP0365-111918) in 2018. Neither bid resulted in acceptable responses. To move the project along Parks and Recreation hired Johnson Electric to install electrical upgrades on both sides of the river to support the new fountain and additional fountains proposed by the riverfront plan between the Cotton Mill and Main Street bridges.

In working with Lumen Studio, Inc the City’s Riverfront Lighting Designer and Halvorson Design Partnership the firm that supported the creation of the Downtown Riverfront Plan, the City is requesting to install up to three 5 HP Otterbine Fountains at a cost of $52,103.70. These fountains will have a 4-light LED set and wind control, and we hope to have them installed by early August.
## 5 HP OTTERBINE FOUNTAINS

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Description</th>
<th>Qty</th>
<th>U/M</th>
<th>Unit Price</th>
<th>Extended</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTT-01-0015-216</td>
<td>OTTERBINE MOTOR UNIT, 5HP 230V/1PH MOTOR</td>
<td>3</td>
<td>ea</td>
<td>$6,456.13</td>
<td>$19,368.39</td>
</tr>
<tr>
<td>OTT-18-0041</td>
<td>OTTERBINE PHOENIX SPRAY PATTERN</td>
<td>3</td>
<td>ea</td>
<td>$1,193.17</td>
<td>$3,579.51</td>
</tr>
<tr>
<td>OTT-34-0002</td>
<td>OTTERBINE 8/3 POWER CABLE WITH PLUG</td>
<td>25</td>
<td>ft</td>
<td>$4.38</td>
<td>$109.50</td>
</tr>
<tr>
<td>OTT-34-0002</td>
<td>OTTERBINE 8/3 POWER CABLE WITH PLUG</td>
<td>25</td>
<td>ft</td>
<td>$4.38</td>
<td>$109.50</td>
</tr>
<tr>
<td>OTT-34-0002</td>
<td>OTTERBINE 8/3POWER CABLE WITH PLUG</td>
<td>25</td>
<td>ft</td>
<td>$4.38</td>
<td>$109.50</td>
</tr>
<tr>
<td>TPC-1-207C</td>
<td>3M #82/A2 WATERPROOF SPICE KIT</td>
<td>3</td>
<td>ft</td>
<td>$58.51</td>
<td>$175.53</td>
</tr>
<tr>
<td>OTT178-017</td>
<td>OTTERBINE PLUG END PROTECTOR (FOR STORAGE)</td>
<td>3</td>
<td>ea</td>
<td>$21.23</td>
<td>$63.69</td>
</tr>
<tr>
<td>OTT-01-0004</td>
<td>WIND CONTROL FOR POWER CONTROL CENTER</td>
<td>3</td>
<td>ea</td>
<td>$2,207.61</td>
<td>$6,622.83</td>
</tr>
<tr>
<td>OTT-02-0040-004</td>
<td>OTTERBINE 4 LIGHT SET RGBW LED 40W 60Hz</td>
<td>3</td>
<td>ea</td>
<td>$5,883.25</td>
<td>$17,649.75</td>
</tr>
<tr>
<td>OTT-34-0019</td>
<td>12/5 LIGHT KIT UNDERWATER POWER CABLE</td>
<td>300</td>
<td>ft</td>
<td>$4.02</td>
<td>$1,206.00</td>
</tr>
<tr>
<td>OTT-34-0019</td>
<td>12/5 LIGHT KIT UNDERWATER POWER CABLE</td>
<td>275</td>
<td>ft</td>
<td>$4.02</td>
<td>$1,105.50</td>
</tr>
<tr>
<td>OTT-34-0019</td>
<td>12/5 LIGHT KIT UNDERWATER POWER CABLE</td>
<td>200</td>
<td>FT</td>
<td>$4.02</td>
<td>$804.00</td>
</tr>
</tbody>
</table>

SubTotal: $50,903.70

Estimated Shipping: $1,200.00

TOTAL PRICE $52,103.70

**Notes:**

- Each power cable will be 25' long and include plug end for Otterbine motor unit. Customer will supply remaining #8 underwater cable back to power control centers, which will require splicing to the supplied cable. Estimated total lengths from fountain to corresponding power control center, including water depth factor: 275' (furthest west of Main St bridge), 300' (closest west of Main St bridge), 200' (east of Main St bridge).

- Power Control Unit should be installed as close to the water edge as possible for maximum GFI protection.

- Pricing DOES NOT include any installation costs.
PHOENIX
AERATING FOUNTAIN

» Most energy efficient system in the industry.
» 5 year all-inclusive warranty.
» Operates in 30in or 75cm of water. (No additional depth needed when adding LED lights; additional 10in or 26cm required if adding high voltage lights.)
» Complete package includes assembled unit, power control center, and cable. (No PCC for 50HZ.)
» Power control center comes standard with surge arrestor, timer and GFCI (Exc: optional EPD for 460V.)
» Cable quick disconnect standard.
» Safety tested and listed with ETL & ETL-C, conforming to UL standards; and carries a 3rd party listing with CE.
» Effectively controls algae, aquatic weeds, and foul odors; while deterring insects and insect breeding.
» Published results from 3rd party testing verify highest oxygen transfer and pumping rates in the industry.

Product specifications and CADs can be found online through www.otterbine.com or www.caddetails.com.

We Guarantee that
You'll Love Your Pattern

PRODUCT ILLUSTRATION

1. High-tech thermal plastic pumping chambers are staged to allow for easy interchange.
2. Rugged low visibility closed cell foam filled float includes handles and protective pockets for lights when applicable.
3. Industrial strength thermal plastic screen helps keep debris out of the unit.
4. Electrical quick disconnect is part of the upper plate to prevent damage.
5. Mixed flow pumping system achieves maximum pumping capacities.
6. Oil cooled, efficient 3450/2875 RPM custom built motor incorporates a g-type seal to ensure dependability and long life.
7. Corrosion resistant, durable 18 gauge/316 grade stainless steel motor housing.

<table>
<thead>
<tr>
<th>60 Hz</th>
<th>1 HP</th>
<th>2 HP</th>
<th>3 HP</th>
<th>5 HP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spray Height (ft)</td>
<td>Upper 8</td>
<td>Lower 4</td>
<td>Upper 11</td>
<td>Lower 6</td>
</tr>
<tr>
<td>Spray Diam. (ft)</td>
<td>Upper 2</td>
<td>Lower 14</td>
<td>Upper 2</td>
<td>Lower 20</td>
</tr>
<tr>
<td>GPM</td>
<td>150</td>
<td>210</td>
<td>275</td>
<td>400</td>
</tr>
<tr>
<td>Vfd/Fly/Amp 3450/60hz</td>
<td>230/1/15</td>
<td>230/1/12.5</td>
<td>230/1/14</td>
<td>230/1/14</td>
</tr>
</tbody>
</table>
SAFETY INSTRUCTIONS

WARNING

PLEASE READ THIS MANUAL COMPLETELY BEFORE INSTALLING AND USING THIS PRODUCT. SAVE THIS MANUAL FOR FUTURE REFERENCE AND KEEP IN THE VICINITY OF THE PRODUCT.

ALL ELECTRICAL WORK MUST BE PERFORMED BY A QUALIFIED LICENSED ELECTRICIAN AND CONFORM WITH ALL APPLICABLE ELECTRICAL SAFETY CODES

Tous travaux électriques doivent être effectués par un électricien professionnel qualifié et conforme à tous les codes applicables sécurité électrique

ALWAYS SWITCH OFF/DISCONNECT ALL EQUIPMENT IN THE WATER BEFORE SERVICING OR PERFORMING ANY MAINTENANCE

Toujours éteindre l'équipement dans l'eau avant entretien ou de tout entretien

DO NOT OPERATE THE FOUNTAIN WHEN PEOPLE ARE IN THE WATER

Ne pas utiliser la fontaine quand les gens sont dans l'eau

CAUTION: KEEP HANDS CLEAR OF THE IMPELLER WHEN OPERATING!

ATTENTION: Garder les mains loin du turbine lors de l'utilisation!

WARNING

ELECTRICAL SHOCK HAZARD

Disconnect From Electrical Supply When Servicing This Equipment

Unplug Or Switch Off All Appliances In The Water Before Carrying Out Maintenance

This Product Must Be Properly Grounded

DANGER

STAY OUT OF WATER WHEN EQUIPMENT IS ENERGIZED

DANGER

SPINNING IMPELLER TURBINE ROTATIVE

KEEP HANDS CLEAR

HERE LES MAINS ÉLOIGNÉE

WARNINGS

• Before entering, wading in or swimming in the water in which Otterbine Aerators or Fountains are installed, make sure they are PHYSICALLY disconnected from their electrical power sources.

• Aerators located in or near garden ponds and similar locations must be equipped with Ground Fault Circuit Interrupter.

• The permissible temperature range for this equipment is -12° to 40° C/10° to 104° F.

• It is possible for the water to become slightly polluted in the rare case that an oil leak occurs.

• If the power cord is damaged, it must be replaced by a special cord or assembly available from Otterbine/ Barebo, Inc. or an authorized Otterbine/Barebo, Inc. sales and service center.

• Avant d’entrer, patougeant dans ou en nageant dans l’eau dans laquelle Aérateurs Otterbine ou fontaines sont installées, assurez-vous qu’ils sont physiquement déconnectés de leur source d’alimentation électrique.

• Aérateurs situés dans ou à proximité des bassins de jardin et des emplacements similaires doivent être équipés de disjoncteur.

• La plage de température admissible pour cet appareil est-12 à 40 oC/10 à 104 oF aux.

• Il est possible pour que l’eau devient légèrement polluées dans les rares cas où une fuite d’huile se produit.

• Si le cordon d’alimentation est endommagé, il doit être remplacé par un cordon spécial ou de montage disponible à partir Otterbine / Barebo, Inc ou une autorisation Otterbine / Barebo, les ventes Inc et centre de service.

www.otterbine.com

75-0073 Rev 08 60Hz Concept 3

1-800-AER8TER
INSPECT AERATOR EQUIPMENT

Immediately report any shipping damage to the carrier that delivered your aerator.

Inspect your aerator and verify the following:
Unit - Check the nameplate located on the housing of the aerator unit to make sure you have received the correct horsepower and voltage aerator.

Power Control Center - Verify the PCC is compatible with the aerator unit horsepower and voltage. Refer to the electrical specifications on the nameplate located inside on the door of the PCC.

Power Cable Assembly - Verify the correct cable gauge and length.

For proper warranty consideration return your Otterbine warranty registration card.

ELECTRICAL/PCC INSTALLATION

ELECTRICAL INSTALLATION MUST BE PERFORMED BY A QUALIFIED LICENSED ELECTRICIAN AND CONFORM TO ALL APPLICABLE LOCAL AND NATIONAL CODES

DISCONNECT EQUIPMENT FROM ELECTRICAL SUPPLY BEFORE SERVICING OR PERFORMING MAINTENANCE

Use Only OTTERBINE power cord. Do not splice or repair the cord, replacement is necessary if damage occurs.

The standard Power Control Center includes a fiberglass NEMA 4X enclosure with twenty-four hour timer control in the auto setting or manual control of the aerator unit, the required motor short circuit, ground fault and overcurrent protection, surge protection, and personnel GFCI protection (except 460V 60Hz. applications). On 460V units EPD (Equipment Protection Device) is an optional accessory to provide 5, 10 or 30 mA ground fault protection.

Caution: GFCI Protection is required. If GFCI protection is not used, serious or FATAL electrical shock may occur.
Attention: GFCI/RCD de protection est nécessaire. Graves ou mortelles choc électrique peut se produire s’il n’est pas utilisé.

A. Feeder
1. Proper feeder circuit protection in accordance with all applicable local and national codes must be provided to the power control center.
2. Be certain to properly size feeder conductors to allow for no more than 5% voltage drop for the entire circuit from the feeder source to the aerator unit. Failure to do so may damage the aerator and void product warranty.

<table>
<thead>
<tr>
<th>60Hz. Electrical Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

B. PCC Location
1. The power control center should be mounted where easily visible from the shoreline where the aerator is located.
Important: The power control center shall not be accessible from the water.
Important: Le Centre de Contrôle de la puissance ne doit pas être accessible à partir de l'eau.
C. PCC Mounting
1. To prevent damage to the enclosure mount the enclosure using all four (4) mounting holes.
2. Whenever possible do not mount the PCC in direct sun light.

D. PCC Cables & Connections
1. Only Otterbine Barebo, Inc. factory approved power cord is to be used from the PCC to the aeration unit with no junction boxes or splices. Only use power cord gauges and lengths specified by Otterbine at the time of cable purchase. (Contact your Otterbine Distributor for proper cable sizing)
2. It is recommended that all exposed cable between the PCC and the shoreline be installed in non-metallic conduit. It is important that aerator and lighting cables be installed in individual conduits to avoid induced interference between cables which causes random GFCI tripping.
3. Always use strain relief cord connectors to attach the Otterbine cable to the PCC.
4. Cables and conduits must only enter into the bottom of the PCC.
5. Factory connections may loosen during shipping. Verify tightness of all screw terminal connections before energizing.
6. Power input and output wiring connections are accessed from the bottom of the enclosure. The terminal blocks for the cable connections are located behind the hinged swing panel. Loosen the captive screw on the right center of the swing panel for access.

UNIT ASSEMBLY

READ THE INSTRUCTIONS: Improper assembly may result in damage to the unit.

NOTES:
*Genesis Pump Chamber; The Float MUST be mounted before the Genesis Throat Assembly (Shown on page 20). (The unit will be received with the pumping chamber already mounted)

*SHP "Open Throat" Units (Sunburst, Gemini, Saturn); If applicable, the Supplemental Float must be mounted to the Main Float before installing on Unit (See Below).

A. Supplemental Float Assembly
*If the Supplemental Float is already mounted to the Main Float, continue with main float assembly below.
1. Place Main Float top face down.
2. Place the Supplemental Float on the Main Float as shown in the photo below.
3. Ty-Rap the floats together in four places (1 in each pocket).
4. Continue mounting Main Float.

B. Main Float Assembly
1. Stand the unit upright and place the float onto it so the holes in the float line up with the holes in the mounting brackets.
2. Place a fender washer onto a hex bolt and insert into one of the four holes in the float making sure it also goes through the hole in the steel mounting bracket on the unit. Repeat this for the three remaining holes.
3. Place a flat washer and a nylon locknut onto each of the four hex bolts. Tighten each nylon locknut.

CAUTION: Do not over tighten lock nuts, damage may occur to the float and/or pump chamber.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>PART NUMBER</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Concept 3 Float</td>
<td>42-0018</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Float Mounting Hardware Kit (BELOW)</td>
<td>12-0071</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>M8x45 S/S Hex Bolt</td>
<td>22-0022</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>M8 Fender Washer</td>
<td>28-0008</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>M8 Flat Washer</td>
<td>28-0018</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>M8 Nylon Lock Nut</td>
<td>26-0007</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Nylon Tie (NOT SHOWN)</td>
<td>GP5008</td>
<td>3</td>
</tr>
</tbody>
</table>

Fasten supplemental Float w/ Ty-Raps
C. Mounting the Stabilizers (Comet Spray Pattern Only)
1. Mount each of the four stabilizer plates to the top side of a bracket using a hex bolt, a fender washer, and a nylon locknut as shown below.
2. Mount each of the four stabilizer plate assemblies from Step C1 to the top side of an outer hole in the float using an eyebolt, a fender washer, and a nylon locknut as shown. Do not overtighten. Damage may occur to the float.

<table>
<thead>
<tr>
<th>PARTS LIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>Comet Stabilizer Plates Kit</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
</tbody>
</table>

D. Screen Installation
Debris Screens help to prevent clogging of the aerator and are available for all Otterbine aerators.
1. Place the unit upside down on blocks so the pump chamber does not get damaged.
2. Pull screen over motor unit until it reaches the lip on the float.
3. Make sure the cable/s are running through the bushing in the screen.
4. Fasten the screen to the lip on the float with the washers and screws provided so they are evenly spaced around the diameter.

<table>
<thead>
<tr>
<th>PARTS LIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>1/4&quot; Screen Kit</td>
</tr>
<tr>
<td>1/2&quot; Screen Kit</td>
</tr>
<tr>
<td>C3 Screen</td>
</tr>
<tr>
<td>1/4&quot;</td>
</tr>
<tr>
<td>1/2&quot;</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>
**PHYSICAL INSTALLATION**

**WARNING: DISCONNECT POWER BEFORE INSTALLING, REMOVING, OR SERVICING UNIT**

Concept 3 Otterbine aerators require a minimum 30"/75cm (40"/100cm w/ lights) of water depth.

A. Attach your Otterbine power cable to the aerator.
1. Align the keyway on the cable pigtail connector to the key on the aerator bulkhead connector and plug together. Thread the nut onto the bulkhead, hand tighten only, do not use tools on the pigtail connector nut.

**Over tightening may cause the connector to fracture and possibly cause an electrical short circuit.**

2. 5HP, 230V, 1 Phase units have a 3 pin bulkhead connector and a 3 pin pigtail connector on the power cable. All other ratings use 4 pin connectors.

3. A small amount of silicon compound has been factory applied to the female end of the aerator connector. The compound is necessary to make a waterproof seal between the two connectors. **DO NOT REMOVE COMPOUND!** When servicing the aerator re-apply compound. (Otterbine P/N: 48-0001).

4. **Install the cable strain relief device.** Pass the wire hoop from the strain relief through one of the holes in the float or around the float bracket. Reattach wire hoop to strain relief (see above).

5. For additional protection fasten the power cable, after the strain relief, to a float hole using the cable ties provided.

B. Pre-Startup Checks (To be performed by a qualified technician)
1. Factory connections may loosen during shipping. Verify tightness of all screw terminal connections before energizing.

2. Apply power to the PCC. Verify the incoming voltage is correct at the input terminals and matches the nameplate rating of the aerator. For 115V & 230V Single Phase & Three Phase Units: The voltage between L1 on the input terminal block and the neutral terminal must measure a nominal 120V.

3. Allowing the main door to be open and the swing panel door closed follow GFCI instructions on page 10 to reset aerator GFCI. Turn on disconnect and proceed.

4. With the aerator unit on the shore check for correct motor rotation. Briefly "bump" the M-O-A switch (Shown on Page 10) to "MAN" while observing the motor shaft rotation (turn on only long enough to establish operation and proper direction of rotation). **Aerator Shaft rotation MUST BE CCW looking at the top/impeller end of the unit.**

**!TUNT OFF DISCONNECT BEFORE PROCEEDING!**

C. Fasten Mooring Lines and Launch
1. Mooring using stakes: Shore mounted stakes provides the easiest access to the aerator. Use stainless steel and/or brass hardware. Otterbine recommends using 1/4"(0.63cm) or 1/2"(1.25cm) polypropylene rope or stainless steel cable for mooring lines. At the mooring points use a wooden or metal stake or duck bill type earth anchors. Earth anchors allow the mooring lines to be hidden beneath the water surface. Drive the mooring stakes securely into the ground at the edge of the pond or place earth anchors close to the shore in the water. Fasten the mooring lines to opposite outer holes in the aerator float. Launch the aerator into the water, pull into the chosen location and fasten the lines to the stakes allowing slack for the aerator to twist up to 1/4 turn. The slack in the lines allows for movement during start up, fluctuations in the water level and wave action. Proceed to System Startup.

2. Mooring using Anchors: Use stainless steel and/or brass hardware. Otterbine recommends using 1/4"(0.63cm) or 1/2"(1.25cm) polypropylene rope or stainless steel cable for anchoring lines, use two 60 - 80 lb. (27 - 36 kilo) weights for anchors and a boat may be needed. Fasten the mooring lines to opposite outer holes in the float. Launch the aerator floating upside down (motor housing facing up). With the lines attached drop the anchors into the water at the predetermined locations. Adjust the lines to allow slack for the aerator up to 1/4 turn twist. The slack in the lines allows for movement during start up, fluctuations in the water level and wave action.

---

www.otterbine.com
1-800-AER8TER

75-0073 Rev 08 60Hz Concept 3 9
SYSTEM STARTUP

DO NOT ALLOW THE AERATOR TO OPERATE "DRY" OUT OF THE WATER

IMPORTANT: Otterbine aerators are designed to run in a Counterclockwise direction facing the top impeller end. Current unbalance for three phase systems shall not exceed 5%.

IMPORTANT: Aérateurs Otterbine sont conçus pour fonctionner dans le sens antihoraire regardant l'extrémité supérieure de la turbine. Courant de déséquilibre pour les trois systèmes de la phase ne doit pas dépasser 5%

A. User Control Functions
1. Disconnect Switch

   DISCONNECT OFF
   Removes Power to the Aerator for Maintenance/Servicing/Repair, Timers are not powered (Time of Day Needs to be Reset)

   DISCONNECT ON
   Power Applied, Mode of Operation Now Dependent on the Position of MOA Switch, Timers are Operating

   DISCONNECT TRIPPED
   Indicates a Ground Fault Motor/Wiring Short Circuit Or Motor Current Overload

2. MANUAL-OFF-AUTO switch.

   M-O-A IN OFF
   Aerotor & Lighting Will Not Function, Timers are Powered and Operating, GFCI's may be Reset

   M-O-A IN AUTO
   Allows Automatic Control of Aerotor & Lighting by Timers & Other Control Options

   M-O-A IN MANUAL
   Turns on Aerotor, Bypasses Timer & Non-Critical Control Functions

3. GFCI (Ground Fault Circuit Interrupter) operation.
   Enable Aerotor GFCI first:
   a. Power must first be applied to PCC.
   b. Turn M-O-A switch to the off (center) position.
   c. Press the RESET (ON) button, the green light will come on.
   d. Turn disconnect switch clockwise to on (vertical).

   CAUTION – UNIT WILL START IF M-O-A IS NOT SET TO OFF.

   Enable Lighting GFCI:
   a. With power to the PCC and the disconnect switch on. Press the reset button.

   When loss of power to the PCC occurs the aerotor will not re-start automatically when power is restored and the aerotor GFCI will need to be reset.

   Test all GFCI's every 6 months by pressing the TEST (OFF) button. When testing the aerotor GFCI the GREEN light should be on, press "TEST", the red light should turn on, the motor controller should trip and the disconnect handle should be off (horizontal at swing panel).
4. Timer operation.
   a. Start with all trip pins towards the center of the timer dial.
   b. Push out from the center all trip pins that are between the times the aerator or lighting is to operate.
   c. Turn the outer dial clockwise to align the time of day to the stationary arrow positioned at “2 o’clock”. Close the panel and turn the main disconnect on. When the main disconnect is off or in the case of power failure the timer/s will not operate and the time of day will need to be reset.
   d. Timer control of the unit and lighting is enabled when in AUTO.

B. Energizing the Unit (To be performed by a qualified technician)

1. Single Phase Units: Motor rotation is factory determined and not field adjustable.
2. Three Phase Units: Verify correct motor rotation (Counter Clockwise looking at the top/impeller end of the unit). Check current readings on each phase. Verify three phase operating currents are balanced within 5%.

To calculate the percent of current unbalance:

Determine the Average Current:
   a. Measure each of the three phase currents
   b. Add the three phase amperage values together.
   c. Divide the sum by three.
   d. This is the average current value.

Determine Current Unbalance:
   a. Select the phase current with the greatest difference from the average (calculated above).
   b. Determine the difference between this phase current and the average current value.
   c. Divide the difference by the average.
   d. Multiply the result by 100 to determine percent of unbalance.

3. Use connection diagram 1, 2 or 3 at right which results in the lowest current unbalance. Roll the motor cable leads on the aerator output terminal block in the same direction to avoid motor reversal.

If the current unbalance is not corrected by rolling leads, locate the source of the unbalance and correct it:
   a. If the phase farthest from the average stays on the same power lead after being moved the primary cause of unbalance is the power source.
   b. If the phase farthest from the average moves on each of the connections with a particular motor lead, then the primary cause of unbalance is the "motor side" of the circuit.

Consider: damaged cable, leaking splice, poor connection, or a faulty motor as possible causes.

4. Once the unit is operational record the operating voltage, amperage, power control center serial number, power cable length and cable gauge on the label inside the power control panel.

**MAINTENANCE**

For Warranty Consideration Work Must Be Performed By an Authorized Service Facility

A. Keep the pumping chamber components and screen free of debris. Damage can occur to a clogged aerator.
B. Once a year, disconnect the unit from the power source and physically inspect the aerator, float and electrical cable. Visible damage to the motor unit or cable should be repaired to avoid safety hazards and/or potential failure.
C. Every three years, an oil change using “Otterbine Oil” is recommended to keep your aerator operating smoothly.

When a unit is properly cared for, it will give you years of trouble free service.

For Service, Repairs or Parts, Contact Your Local Otterbine Distributor or Call Otterbine Directly at 1-800-237-8837.

**WINTERIZATION**

Damage caused to the motor due to freezing will not be covered under warranty

In locations with extended periods of freezing temperatures the aerator may become frozen into the water possibly causing damage. Otterbine recommends the following Concept 3 units be removed from the water during freezing temperatures: ROCKET, PHOENIX, TRI-STAR, CONSTELLATION, COMET, GENESIS, EQUINOX, and OMEGA. The GEMINI, SATURN, and SUNBURST pump higher volumes of water which helps to keep the water around the aerator from freezing. 24 hour a day operation will further decrease the opportunity for the unit to freeze in, although during periods of extremely cold temperatures this will not prevent the water from freezing.
June 13, 2019
Memo #19-162

TO: MAYOR DONCHESS
FINANCE COMMITTEE

SUBJECT: CONTRACT FOR PAVEMENT MANAGEMENT SUPPORT SERVICE (VALUE: $28,900)
DEPARTMENT: 160 ADMIN/ENGINEERING; FUND: BOND

Please see the attached communication from Stephen Dookran, P.E., City Engineer, dated March 28, 2019 for information related to this purchase.

§ 5-83. Professional services. In the purchase of accounting, architectural, auditing, engineering, legal, medical and ambulance services and purchases of independent professional consultant services for personnel, data processing, actuarial, planning, management and other comparable purchases competitive bidding shall not be required. Competitive bidding is required in the procurement of insurance agents and consultants.

The City Engineer, Board of Public Works (March 28, 2019 meeting) and the Purchasing Department recommend the award of this contract in an amount of $28,900 to Stantec Consulting Services, of Burlington, MA.

Respectfully,

Dan Kooker
Purchasing Manager

Cc: S Dookran L Fauteux
City of Nashua, Public Works Division

To: Board of Public Works

From: Stephen Dookran, P.E., City Engineer
      Engineering Department

Re: Pavement Management Support Service

E. Motion: To approve the engineering contract with Stantec Consulting Services, Inc. of Burlington, MA in an amount of $28,900. Department: 160 Admin/Engineering; Fund: Bond; Activity: Paving.

Attachment: 3-Year Optional Pavement Management Support Service Proposal

Discussion: The City has been using Stantec Consulting Services, Inc. since 2016 to provide assistance in evaluating the pavement condition of the 300 mile road network and to make recommendation on rehabilitation and preservation methods. Protecting the City’s Pavement Management system investment with providing system maintenance services to maintain the City’s pavement management database system. Using their expertise, Stantec has provided assistance in developing the necessary protocols for preventative maintenance, their costs and decision trees when selecting a prioritized list of roadways to pave.

In the Summer/Fall of 2017, the pavement condition of the southern road network of City of Nashua was surveyed and evaluated. In the Summer/Fall of 2018, the pavement condition of the northern road network was surveyed and evaluated. Stantec has recommended that one-third of the network needed to be updated every year.

Stantec will annually re-survey 33% of the City’s roadway network, approximately 101 centerlines miles each year to update the pavement surface condition (PCI) ratings using CarteGraph’s PAVEMENTview® Plus software.

This contract is for updating the road network in the first-third of the next three year proposal at a cost of $28,900.
February 22, 2019

Stephen Dookran, P.E.
City Engineer
9 Riverside Street
Nashua, NH 03062

Reference: 3-Year Optional Pavement Management Support Services Proposal

Dear Mr. Dookran:

Per your request, Stantec Consulting Services, Inc. has prepared the following Pavement Management Services Proposal to ensure and protect the City's municipal pavement management system investment with providing system maintenance services to maintain the City's pavement management database system.

We hereby propose to maintain the City's CarteGraph pavement management system (PMS) in CarteGraph's Navigator. Stantec will update work history, conduct pavement conditions surveys, and perform data modeling and analysis on behalf of the City. Stantec will maintain the City's pavement management database and provide exports compatible with your GIS.

Below are specific work tasks proposed to support Nashua in continuing their pro-active approach to managing its pavement assets. The intent of these tasks will be to update the City's pavement management database on an annual basis by utilizing ongoing asset facility distress surveys, conduct data analysis for future capital improvement planning and monitor system-wide metrics on Nashua's roadways.

**WORK TASKS:**

**Pavement Management System Update:**
Stantec will annually re-survey 33% of the City's roadway network, approximately 101 centerline miles each year to update the pavement surface condition (PCI) ratings using CarteGraph's PAVEMENTview® Plus software. No data will be collected on indices other than pavement condition. For each pavement segment, Stantec will capture a digital picture image and link to the database.

Stantec staff will enter and update new work history repair records for the past construction season, update distress inspection records, and conduct modeling and analysis of upcoming fiscal year roadway repair plan. This service includes attendance at one (1) meeting at Nashua DPW, a written annual summary describing Nashua's pavement condition network and financial needs, and GIS shapefile export.
SCHEDULE:

Stantec will initiate the proposed work tasks immediately upon receipt of an executed copy of this agreement/Notice to Proceed such that work tasks can be performed as soon as possible. This project is expected to require approximately six (6) months from start to completion of each annual update.

<table>
<thead>
<tr>
<th>Task</th>
<th>Expected Completion Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executed Contract Notice to Proceed</td>
<td>March 2019</td>
</tr>
<tr>
<td>2019 Pavement Management System 33% Update</td>
<td>October 2019</td>
</tr>
<tr>
<td>Optional 2020 Pavement Management System 33% Update</td>
<td>October 2020</td>
</tr>
<tr>
<td>Optional 2021 Pavement Management System 33% Update</td>
<td>October 2021</td>
</tr>
</tbody>
</table>

FEE:

Our not to exceed fee to complete the proposed scope of services as defined above is Twenty-Eight Thousand and Nine Hundred Dollars ($28,900). Should the scope of services be expanded, Stantec will discuss the additional fee to accomplish the additional scope and an amendment to this Agreement will be executed. The proposed scope of services as defined above is broken down as follows:

1. 2019 Pavement Network-Level Update Task: $28,900
2. Optional 2020 Pavement Network-Level Update Task: $30,100
3. Optional 2021 Pavement Network-Level Update Task: $31,600

INVOICES:

Stantec will invoice the City on a monthly basis during the performance of our services, the amount of each invoice will be based on the percentage completion for each work task at the time of work performance.

Enclosed are two (2) originals. Please indicate your acceptance of this proposal by signing and dating in the spaces provided and returning one signed copy to Stantec.

Regards,

STANTEC CONSULTING SERVICES INC.

[Signatures]

William P. Scarpati  
Senior Project Manager  
Phone: (781) 221-1165  
william.scarpati@stantec.com

William R. Moore, P.E.  
Senior Principal  
Phone: (603) 263-4654  
bill.moore@stantec.com
CONTRACT FOR PROFESSIONAL SERVICES

PAVEMENT MANAGEMENT SUPPORT SERVICE

A CONTRACT BETWEEN

THE CITY OF NASHUA, 229 MAIN STREET, CITY HALL, NASHUA, NH 03060
AND

Stantec Consulting Services, Inc.
and its successors, transferees and assignees (together "Professional Engineer")

NAME AND TITLE OF PROFESSIONAL ENGINEER

5 BURLINGTON WOODS DRIVE SUITE 210, BURLINGTON MA 01803-451
ADDRESS OF PROFESSIONAL ENGINEER

WHEREAS, the City of Nashua, a political subdivision of the State of New Hampshire, from time to
time requires the services of a Professional Engineer; and

WHEREAS, it is deemed that the services of a Professional Engineer herein specified are both
necessary and desirable and in the best interests of the City of Nashua; and

WHEREAS, Professional Engineer represents they are duly qualified, equipped, staffed, ready,
willing and able to perform and render the services hereinafter described;

NOW, THEREFORE, in consideration of the agreements herein made, the parties mutually agree as
follows:

1. DOCUMENTS INCORPORATED. The following exhibits are by this reference incorporated herein and are
made part of this contract:

   Exhibit A--General Conditions for Contracts

The Contract represents the entire and integrated agreement between the parties and supersedes prior
negotiations, proposals, representations or agreements, either written or oral. Any other documents which
are not listed in this Article are not part of the Contract.

In the event of a conflict between the terms of the Proposal and the terms of this Agreement, a written
change order and/or fully executed City of Nashua Purchase Order, the terms of this Agreement, the written
change order or the fully executed City of Nashua Purchase Order shall control over the terms of the
Proposal.

2. WORK TO BE PERFORMED Except as otherwise provided in this contract, Professional Engineer shall
furnish all services, equipment, and materials and shall perform all operations necessary and required to
carry out and perform in accordance with the terms and conditions of the contract the work described.
DESCRIPTION OF THE WORK:

Professional Engineer to maintain the City’s Pavement Management System (PMS) in Cartograph’s Navigator. Professional Engineer will update work history, conduct pavement conditions surveys, and perform data modeling and analysis on behalf of the City. Professional Engineer will maintain the City’s pavement management database and provide exports compatible with the City’s GIS. (the “WORK”)

3. PERIOD OF PERFORMANCE. Professional Engineer shall perform and complete all work by December 31, 2019 which date shall only be altered by mutually approved written agreement to extend the period of performance or by termination in accordance with the terms of the contract. Professional Engineer shall begin performance upon receipt of an Executed Contract and a valid Purchase Order issued from the City of Nashua.

4. COMPENSATION. Professional Engineer agrees to perform the work for a total cost not to exceed

TWENTY-EIGHT THOUSAND NINE HUNDRED DOLLARS

($28,900.00)

The Contract Sum shall include all items and services necessary for the proper execution and completion of the Work.

Unless Professional Engineer has received a written exemption from the City of Nashua, Professional Engineer shall submit monthly requests for payment for services performed under this agreement in accordance with the values stated in the Agreement. Such requests shall be supported by such data substantiating the Professional Engineer’s right to payment as the City of Nashua may reasonably require. Professional Engineer shall submit monthly requests for payment for services performed under this agreement shall be submitted as follows:

➢ Electronically via email to VendorAPInvoices@NashuaNH.gov

OR

➢ Paper Copies via US Mail to:

City of Nashua, City Hall
Accounts Payable
229 Main Street
Nashua, NH 03060

Please do not submit invoices both electronically and paper copy.

In addition, and to facilitate the proper and timely payment of applications, the City of Nashua requires that all submitted invoices contain a valid PURCHASE ORDER NUMBER.

Requests for payment shall be submitted no later than fifteen (15) days after the end of each month and must include a detailed summary of the expenditures reported in a form that supports the approved budget. Specifically, Professional Engineer agrees to provide the following with each request for payment:

1. Appropriate invoice forms. The forms shall include the project purchase order number, a listing of personnel hours and billing rates, and other expenditures for which payment is sought.

2. A progress report. The report shall include, for each monthly reporting period, a description of the work accomplished, problems experienced, upcoming work, any extra work carried out, and a
schedule showing actual expenditures billed for the period, cumulative total expenditures billed and paid to date under the contract, and a comparison of cumulative total expenditures billed and paid to the approved budget.

The City of Nashua will pay for work satisfactorily completed by Professional Engineer. The City of Nashua will pay Professional Engineer within 30 days of approval by the City of Nashua of the submitted invoice forms and progress reports. The City of Nashua will make no payments until the invoice forms and progress reports have been submitted and approved.

5. EFFECTIVE DATE OF CONTRACT. This contract shall not become effective until and unless approved by the City of Nashua.

6. NOTICES. All notices, requests, or approvals required or permitted to be given under this contract shall be in writing, shall be sent by hand delivery, overnight carrier, or by United States mail, postage prepaid, and registered or certified, and shall be addressed to:

CITY OF NASHUA REPRESENTATIVE:  PROFESSIONAL ENGINEER REPRESENTATIVE:
Division of Public Works, Engineering  Stantec Consulting Services, Inc.
9 Riverside Street  William Scarpati, Asset Management Specialist
Nashua, NH 03062  5 Burlington Woods Drive, Suite 210

Burlington, MA 01803-4511

Any notice required or permitted under this contract, if sent by United States mail, shall be deemed to be given to and received by the addressee thereof on the third business day after being deposited in the mail. The City of Nashua or Professional Engineer may change the address or representative by giving written notice to the other party.

IN WITNESS WHEREOF, the parties hereto have caused this contract to be signed and intend to be legally bound thereby.

City of Nashua, NH (signature)  (signature)

James W. Donchess, Mayor  (Printed Name and Title)
(Printed Name and Title)

Date

Date

AG 3 of 3
<table>
<thead>
<tr>
<th></th>
<th>EXHIBIT A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DEFINITIONS</td>
</tr>
<tr>
<td>2</td>
<td>PROFESSIONAL ENGINEER STATUS</td>
</tr>
<tr>
<td>3</td>
<td>STANDARD OF CARE</td>
</tr>
<tr>
<td>4</td>
<td>CITY OF NASHUA REPRESENTATIVE</td>
</tr>
<tr>
<td>5</td>
<td>CHANGES TO SCOPE OF WORK</td>
</tr>
<tr>
<td>6</td>
<td>CITY OF NASHUA COOPERATION</td>
</tr>
<tr>
<td>7</td>
<td>DISCOVERY OF CONFLICTS, ERRORS, OMISSIONS, AMBIGUITIES, OR DISCREPANCIES</td>
</tr>
<tr>
<td>8</td>
<td>TERMINATION OF CONTRACT</td>
</tr>
<tr>
<td>9</td>
<td>DISPUTE RESOLUTION</td>
</tr>
<tr>
<td>10</td>
<td>NO DAMAGES FOR DELAY</td>
</tr>
<tr>
<td>11</td>
<td>INSURANCE</td>
</tr>
<tr>
<td>12</td>
<td>INDEMNIFICATION</td>
</tr>
<tr>
<td>13</td>
<td>FISCAL CONTINGENCY</td>
</tr>
<tr>
<td>14</td>
<td>COMPENSATION</td>
</tr>
<tr>
<td>15</td>
<td>COMPLIANCE WITH APPLICABLE LAWS</td>
</tr>
<tr>
<td>16</td>
<td>NONDISCRIMINATION</td>
</tr>
<tr>
<td>17</td>
<td>ENDORSEMENT</td>
</tr>
<tr>
<td>18</td>
<td>ASSIGNMENTS, TRANSFER, DELEGATION, OR SUBCONTRACTING</td>
</tr>
<tr>
<td>19</td>
<td>CITY INSPECTION OF CONTRACT MATERIALS</td>
</tr>
<tr>
<td>20</td>
<td>DISPOSITION OF CONTRACT MATERIALS</td>
</tr>
<tr>
<td>21</td>
<td>PUBLIC RECORDS LAW, COPYRIGHTS, AND PATENTS</td>
</tr>
<tr>
<td>22</td>
<td>FINAL ACCEPTANCE</td>
</tr>
<tr>
<td>23</td>
<td>TAXES</td>
</tr>
<tr>
<td>24</td>
<td>NON-WAIVER OF TERMS AND CONDITIONS</td>
</tr>
<tr>
<td>25</td>
<td>RIGHTS AND REMEDIES</td>
</tr>
<tr>
<td>26</td>
<td>PROHIBITED INTERESTS</td>
</tr>
<tr>
<td>27</td>
<td>THIRD PARTY INTERESTS AND LIABILITIES</td>
</tr>
<tr>
<td>28</td>
<td>SURVIVAL OF RIGHTS AND OBLIGATIONS</td>
</tr>
<tr>
<td>29</td>
<td>SEVERABILITY</td>
</tr>
<tr>
<td>30</td>
<td>MODIFICATION OF CONTRACT AND ENTIRE AGREEMENT</td>
</tr>
<tr>
<td>31</td>
<td>CHOICE OF LAW AND VENUE</td>
</tr>
</tbody>
</table>

GC 1 of 11
General Terms and Conditions

1. **Definitions** Unless otherwise required by the context, "Professional Engineer", and its successors, transferees and assignees (together “Professional Engineer”) includes any of the Professional Engineer's consultants, sub consultants, contractors, and subcontractors

2. **Professional Engineer Status** The parties agree that Professional Engineer shall have the status of and shall perform all work under this contract as a Professional Engineer, maintaining control over all its consultants, sub consultants, contractors, or subcontractors. The only contractual relationship created by this contract is between the City of Nashua and Professional Engineer, and nothing in this contract shall create any contractual relationship between the City of Nashua and Professional Engineer's consultants, sub consultants, contractors, or subcontractors. The parties also agree that Professional Engineer is not a City of Nashua employee and that there shall be no:

   (1) Withholding of income taxes by the City of Nashua;
   (2) Industrial insurance coverage provided by the City of Nashua;
   (3) Participation in group insurance plans which may be available to employees of the City of Nashua;
   (4) Participation or contributions by either the Professional Engineer or the City of Nashua to the public employee’s retirement system;
   (5) Accumulation of vacation leave or sick leave provided by the City of Nashua;
   (6) Unemployment compensation coverage provided by the City of Nashua.

3. **Standard of Care** Professional Engineer shall be responsible for the professional quality, technical accuracy, timely completion, and coordination of all work performed under this contract. Professional Engineer warrants that all work shall be performed with the degree of professional skill, care, diligence, and sound practices and judgment that are normally exercised by recognized professional firms with respect to services of a similar nature. It shall be the duty of Professional Engineer to assure at its own expense that all work is technically sound and in conformance with all applicable federal, state, and local laws, statutes, regulations, ordinances, orders, or other requirements. In addition to all other rights which the City of Nashua may have, Professional Engineer shall, at its own expense and without additional compensation, re-perform work to correct or revise any deficiencies, omissions, or errors in the work or the product of the work or which result from Professional Engineer’s failure to perform in accordance with this standard of care. Any approval by the City of Nashua of any products or services furnished or used by Professional Engineer shall not in any way relieve Professional Engineer of the responsibility for professional and technical accuracy and adequacy of its work. City of Nashua review, approval, or acceptance of, or payment for any of Professional Engineer's work under this contract shall not operate as a waiver of any of the City of Nashua's rights or causes of action under this contract, and Professional Engineer shall be and remain liable in accordance with the terms of the contract and applicable law.

Professional Engineer shall furnish competent and skilled personnel to perform the work under this contract. The City of Nashua reserves the right to approve key personnel assigned by Professional Engineer to perform work under this contract. Approved key personnel shall not be taken off of the project by Professional Engineer without the prior written approval of the City of Nashua, except in the event of termination of employment. Professional Engineer shall, if requested to do so by the City of Nashua, remove from the job any personnel whom the City of Nashua determines to be incompetent, dishonest, or uncooperative.
4. **CITY OF NASHUA REPRESENTATIVE**  The City of Nashua may designate a City of Nashua representative for this contract. If designated, all notices, project materials, requests by Professional Engineer, and any other communication about the contract shall be addressed or be delivered to the City of Nashua Representative.

5. **CHANGES TO SCOPE OF WORK**  The City of Nashua may, at any time, by written order, make changes to the general scope, character, or cost of this contract and in the services or work to be performed, either increasing or decreasing the scope, character, or cost of Professional Engineer's performance under the contract. Professional Engineer shall provide to the City of Nashua within 10 calendar days, a written proposal for accomplishing the change. The proposal for a change shall provide enough detail, including personnel hours for each sub-task and cost breakdowns of tasks, for the City of Nashua to be able to adequately analyze the proposal. The City of Nashua will then determine in writing if Professional Engineer should proceed with any or all of the proposed change. If the change causes an increase or a decrease in Professional Engineer's cost or time required for performance of the contract as a whole, an equitable adjustment shall be made and the contract accordingly modified in writing. Any claim of Professional Engineer for adjustment under this clause shall be asserted in writing within 30 days of the date the City of Nashua notified Professional Engineer of the change.

When Professional Engineer seeks changes, Professional Engineer shall, before any work commences, estimate their effect on the cost of the contract and on its schedule and notify the City of Nashua in writing of the estimate. The proposal for a change shall provide enough detail, including personnel hours for each sub-task and cost breakdowns of tasks, for the City of Nashua to be able to adequately analyze the proposal. The City of Nashua will then determine in writing if Professional Engineer should proceed with any or all of the proposed change.

Except as provided in this paragraph, Professional Engineer shall implement no change unless the City of Nashua in writing approves the change. Unless otherwise agreed to in writing, the provisions of this contract shall apply to all changes. The City of Nashua may provide verbal approval of a change when the City of Nashua, in its sole discretion, determines that time is critical or public health and safety are of concern. Any verbal approval shall be confirmed in writing as soon as practicable. Any change undertaken without prior City of Nashua approval shall not be compensated and is, at the City of Nashua's election, sufficient reason for contract termination.

6. **CITY OF NASHUA COOPERATION**  The City of Nashua agrees that its personnel will cooperate with Professional Engineer in the performance of its work under this contract and that such personnel will be available to Professional Engineer for consultation at reasonable times and after being given sufficient advance notice that will prevent conflict with their other responsibilities. The City of Nashua also agrees to provide Professional Engineer with access to City of Nashua records in a reasonable time and manner and to schedule items that require action by the Board of Public Works and Finance Committee in a timely manner. The City of Nashua and Professional Engineer also agree to attend all meetings called by the City of Nashua or Professional Engineer to discuss the work under the Contract, and that Professional Engineer may elect to conduct and record such meetings and shall later distribute prepared minutes of the meeting to the City of Nashua.

7. **DISCOVERY OF CONFLICTS, ERRORS, OMISSIONS, AMBIGUITIES, OR DISCREPANCIES**  Professional Engineer warrants that it has examined all contract documents, has brought all conflicts, errors, discrepancies, and ambiguities to the attention of the City of Nashua in writing, and has concluded that the City of Nashua's resolution of each matter is satisfactory to Professional Engineer. All future questions Professional Engineer may have concerning interpretation or clarification of this contract shall be submitted in writing to the City of Nashua within 10 calendar days of their arising. The writing shall state clearly and in full detail the basis for Professional Engineer's question or position. The City of Nashua representative shall render a
decision within 15 calendar days. The City of Nashua’s decision on the matter is final. Any work affected by a conflict, error, omission, or discrepancy which has been performed by Professional Engineer prior to having received the City of Nashua’s resolution shall be at Professional Engineer’s risk and expense. At all times, Professional Engineer shall carry on the work under this contract and maintain and complete work in accordance with the requirements of the contract or determination of the City of Nashua. Professional Engineer is responsible for requesting clarification or interpretation and is solely liable for any cost or expense arising from its failure to do so.

8. TERMINATION OF CONTRACT

A. TERMINATION, ABANDONMENT, OR SUSPENSION AT WILL. The City of Nashua, in its sole discretion, shall have the right to terminate, abandon, or suspend all or part of the project and contract at will. If the City of Nashua chooses to terminate, abandon, or suspend all or part of the project, it shall provide Professional Engineer 10 day’s written notice of its intent to do so.

If all or part of the project is suspended for more than 90 days, the suspension shall be treated as a termination at will of all or part of the project and contract.

Upon receipt of notice of termination, abandonment, or suspension at will, Professional Engineer shall:

1. Immediately discontinue work on the date and to the extent specified in the notice.
2. Place no further orders or subcontracts for materials, services, or facilities, other than as may be necessary or required for completion of such portion of work under the contract that is not terminated.
3. Immediately make every reasonable effort to obtain cancellation upon terms satisfactory to the City of Nashua of all orders or subcontracts to the extent they relate to the performance of work terminated, abandoned, or suspended under the notice, assign to the City of Nashua any orders or subcontracts specified in the notice, and revoke agreements specified in the notice.
4. Not resume work after the effective date of a notice of suspension until receipt of a written notice from the City of Nashua to resume performance.

In the event of a termination, abandonment, or suspension at will, Professional Engineer shall receive all amounts due and not previously paid to Professional Engineer for work satisfactorily completed in accordance with the contract prior to the date of the notice and compensation for work thereafter completed as specified in the notice. No amount shall be allowed or paid for anticipated profit on unperformed services or other unperformed work.

B. TERMINATION FOR CAUSE This agreement may be terminated by the City of Nashua on 10 calendar day’s written notice to Professional Engineer in the event of a failure by Professional Engineer to adhere to any or all the terms and conditions of the contract or for failure to satisfactorily, in the sole opinion of the City of Nashua, to complete or make sufficient progress on the work in a timely and professional manner. Professional Engineer shall be given an opportunity for consultation with the City of Nashua prior to the effective date of the termination. Professional Engineer may terminate the contract on 10 calendar days written notice if, through no fault of Professional Engineer, the City of Nashua fails to pay Professional Engineer for 45 days after the date of approval by the City of Nashua of any Application for Payment.

Upon receipt of notice of termination for cause, Professional Engineer shall:

1. Immediately discontinue work on the date and to the extent specified in the notice.
2. Provide the City of Nashua with a list of all unperformed services.
3. Place no further orders or sub-contracts for materials, services, or facilities, other than as may be necessary or required for completion of such portion of work under the contract that is not terminated.

4. Immediately make every reasonable effort to obtain cancellation upon terms satisfactory to the City of Nashua of all orders or sub-contracts to the extent they relate to the performance of work terminated, abandoned, or suspended under the notice, assign to the City of Nashua any orders or sub-contracts specified in the notice, and revoke agreements specified in the notice.

5. Not resume work after the effective date of a notice of termination unless and until receipt of a written notice from the City of Nashua to resume performance.

In the event of a termination for cause, Professional Engineer shall receive all amounts due and not previously paid to Professional Engineer for work satisfactorily completed in accordance with the contract prior to the date of the notice, less all previous payments. No amount shall be allowed or paid for anticipated profit on unperformed services or other unperformed work. Any such payment may be adjusted to the extent of any additional costs occasioned to the City of Nashua by reasons of Professional Engineer's failure. Professional Engineer shall not be relieved of liability to the City of Nashua for damages sustained from the failure, and the City of Nashua may withhold any payment to the Professional Engineer until such time as the exact amount of damages due to the City of Nashua is determined. All claims for payment by the Professional Engineer must be submitted to the City of Nashua within 30 days of the effective date of the notice of termination.

If after termination for the failure of Professional Engineer to adhere to any of the terms and conditions of the contract or for failure to satisfactorily, in the sole opinion of the City of Nashua, to complete or make sufficient progress on the work in a timely and professional manner, it is determined that Professional Engineer had not so failed, the termination shall be deemed to have been a termination at will. In that event, the City of Nashua shall, if necessary, make an adjustment in the compensation paid to Professional Engineer such that Professional Engineer receives total compensation in the same amount as it would have received in the event of a termination-at-will.

C. GENERAL PROVISIONS FOR TERMINATION Upon termination of the contract, the City of Nashua may take over the work and prosecute it to completion by agreement with another party or otherwise. In the event Professional Engineer shall cease conducting business, the City of Nashua shall have the right to solicit applications for employment from any employee of the Professional Engineer assigned to the performance of the contract. Neither party shall be considered in default of the performance of its obligations hereunder to the extent that performance of such obligations is prevented or delayed by any cause, existing or future, which is beyond the reasonable control of such party. Delays arising from the actions or inactions of one or more of Professional Engineer's principals, officers, employees, agents, subcontractors, consultants, vendors, or suppliers are expressly recognized to be within Professional Engineer's control.

9. DISPUTE RESOLUTION The parties shall attempt to resolve any dispute related to this contract as follows. Either party shall provide to the other party, in writing and with full documentation to verify and substantiate its decision, its stated position concerning the dispute. No dispute shall be considered submitted and no dispute shall be valid under this provision unless and until the submitting party has delivered the written statement of its position and full documentation to the other party. The parties shall then attempt to resolve the dispute through good faith efforts and negotiation between the City of Nashua Representative and a Professional Engineer Representative. At all times, Professional Engineer shall carry on the work under this contract and maintain and complete work in accordance with the requirements of the contract or determination or direction of the City of Nashua. If the parties are unable to resolve their dispute
as described above within 30 days, if requested in writing by either the City of Nashua or the Professional Engineer within 14 days after the 30 days described above, the parties shall attempt to resolve the dispute by entering into structured non-binding negotiations with the assistance of a mediator on a without prejudice basis. The mediator shall be appointed by agreement of the parties, which agreement shall not be unreasonably withheld. If the parties cannot agree to a mediator within 30 days or the dispute cannot be settled within a period of thirty (30) days with the mediator, the parties’ reserve the right to pursue any available legal and/or equitable remedies for any breaches of this contract except as that right may be limited by the terms of this contract.

10. **NO DAMAGES FOR DELAY** Apart from a written extension of time, no payment, compensation, or adjustment of any kind shall be made to Professional Engineer for damages because of hindrances or delays in the progress of the work from any cause, and Professional Engineer agrees to accept in full satisfaction of such hindrances and delays any extension of time that the City of Nashua may provide.

11. **INSURANCE** Professional Engineer shall carry and maintain in effect during the performance of services under this contract:

- General Liability insurance in the amount of $1,000,000 per occurrence; $2,000,000 aggregate;
- $1,000,000 Combined Single Limit Automobile Liability;
  *Coverage must include all owned, non-owned and hired vehicles.*
- $1,000,000 Professional Liability;
- and Workers’ Compensation Coverage in compliance with the State of New Hampshire statutes, $100,000/$500,000/$100,000.

Professional Engineer shall maintain in effect at all times during the performance under this contract all specified insurance coverage with insurers. None of the requirements as to types and limits to be maintained by Professional Engineer are intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by Professional Engineer under this contract. The City of Nashua shall not maintain any insurance on behalf of Professional Engineer. Professional Engineer shall require Subcontractors to carry appropriate and lawful amounts of insurance for the services they are providing. Professional Engineer will ensure compliance with this section and shall receive valid certificates of insurance from all Subcontractors as proof that coverage is in place.

Professional Engineer will provide the City of Nashua with certificates of insurance for coverage as listed below and endorsements affecting coverage required by the contract within ten calendar days after the City of Nashua issues the notice of award. The City of Nashua requires thirty days written notice of cancellation or material change in coverage. The certificates and endorsements for each insurance policy must be signed by a person authorized by the insurer and who is licensed by the State of New Hampshire. **General Liability and Auto Liability policies must name the City of Nashua as an additional insured** and reflect on the certificate of insurance. Professional Engineer is responsible for filing updated certificates of insurance with the City of Nashua's Risk Management Department during the life of the contract.

- All deductibles and self-insured retentions shall be fully disclosed in the certificate(s) of insurance.
- If aggregate limits of less than $2,000,000 are imposed on bodily injury and property damage, Professional Engineer must maintain umbrella liability insurance of at least $1,000,000. All aggregates must be fully disclosed on the required certificate of insurance.
- The specified insurance requirements do not relieve Professional Engineer of its responsibilities or limit the amount of its liability to the City of Nashua or other
persons, and Professional Engineer is encouraged to purchase such additional insurance, as it deems necessary.

- The insurance provided herein is primary, and no insurance held or owned by the City of Nashua shall be called upon to contribute to a loss.
- Professional Engineer is responsible for and required to remedy all damage or loss to any property, including property of the City of Nashua, caused in whole or part by Professional Engineer or anyone employed, directed, or supervised by Professional Engineer.

12. INDEMNIFICATION Regardless of any coverage provided by any insurance, Professional Engineer agrees to indemnify and hold harmless the City of Nashua, its agents, officials, employees and authorized representatives and their employees from and against any and all suits, causes of action, legal or administrative proceedings, arbitrations, claims, demands, damages, liabilities, interest, attorney’s fees, costs and expenses of any kind or nature in any manner caused, occasioned, or contributed to in whole or in part by reason of any negligent act, omission, or fault or willful misconduct, whether active or passive, of Professional Engineer or of anyone acting under its direction or control or on its behalf in connection with or incidental to the performance of this contract. Professional Engineer’s indemnity and hold harmless obligations, or portions thereof, shall not apply to liability caused by the sole negligence or willful misconduct of the party indemnified or held harmless.

13. FISCAL CONTINGENCY All payments under this contract are contingent upon the availability to the City of Nashua of the necessary funds. This contract shall terminate and the City of Nashua's obligations under it shall be extinguished at the end of any fiscal year in which the City of Nashua fails to appropriate monies for the ensuing fiscal year sufficient for the performance of this contract.

Nothing in this contract shall be construed to provide Professional Engineer with a right of payment over any other entity. Any funds obligated by the City of Nashua under this contract that are not paid to Professional Engineer shall automatically revert to the City of Nashua's discretionary control upon the completion, termination, or cancellation of the agreement. The City of Nashua shall not have any obligation to re-award or to provide, in any manner, the unexpended funds to Professional Engineer. Professional Engineer shall have no claim of any sort to the unexpended funds.

14. COMPENSATION Review by the City of Nashua of Professional Engineer's submitted monthly invoice forms and progress reports for payment will be promptly accomplished by the City of Nashua. If there is insufficient information, the City of Nashua may require Professional Engineer to submit additional information. Unless the City of Nashua, in its sole discretion, decides otherwise, the City of Nashua shall pay Professional Engineer in full within 30 days of approval of the submitted monthly invoice forms and progress reports.

15. COMPLIANCE WITH APPLICABLE LAWS Professional Engineer, at all times, shall fully and completely comply with all applicable local, state and federal laws, statutes, regulations, ordinances, orders, or requirements of any sort in carrying out the obligations of this contract, including, but not limited to, all federal, state, and local accounting procedures and requirements, all immigration and naturalization laws, and the Americans With Disabilities Act. Professional Engineer shall, throughout the period services are to be performed under this contract, monitor for any changes to the applicable laws, statutes, regulations, ordinances, orders, or requirements, shall promptly notify the City of Nashua in writing of any changes to the same relating to or affecting this contract, and shall submit detailed documentation of any effect of the change in terms of both time and cost of performing the contract.
16. NONDISCRIMINATION If applicable or required under any federal or state law, statute, regulation, order, or other requirement, Professional Engineer agrees to the following terms. Professional Engineer will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. Professional Engineer agrees to take affirmative action to employ, advance in employment, or to otherwise treat qualified, handicapped individuals without discrimination based upon physical or mental handicap in all employment practices, including but not limited to the following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff, termination, rates of pay, or other forms of compensation and selection for training, including apprenticeship.

Without limitation of the foregoing, Professional Engineer's attention is directed to “Title 41”Public Contracts and Property Management” C.F.R. Subtitle B “Other Provisions Relating to Public Contracts” Section 60 “Office of Federal Contract Compliance Programs, Equal Employment, Department of Labor” which, by this reference, is incorporated in this contract.

Professional Engineer agrees to assist disadvantaged business enterprises in obtaining business opportunities by identifying and encouraging disadvantaged suppliers, consultants, and sub consultants to participate to the extent possible, consistent with their qualification, quality of work, and obligation of Professional Engineer under this contract.

In connection with the performance of work under this contract, Professional Engineer agrees not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, or sexual orientation. This agreement includes, but is not limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

Professional Engineer agrees, if applicable, to insert these provisions in all subcontracts, except for subcontracts for standard commercial supplies or raw materials. Any violation of any applicable provision by Professional Engineer shall constitute a material breach of the contract.

17. ENDORSEMENT Professional Engineer shall seal and/or stamp and sign professional documents including drawings, plans, maps, reports, specifications, and other instruments of service prepared by Professional Engineer or under its direction as required under the laws of the State of New Hampshire.

18. ASSIGNMENT, TRANSFER, DELEGATION, OR SUBCONTRACTING Professional Engineer shall not assign, transfer, delegate, or subcontract any rights, obligations, or duties under this contract without the prior written consent of the City of Nashua. Any such assignment, transfer, delegation, or subcontracting without the prior written consent of the City of Nashua is void. Any consent of the City of Nashua to any assignment, transfer, delegation, or subcontracting shall only apply to the incidents expressed and provided for in the written consent and shall not be deemed to be a consent to any subsequent assignment, transfer, delegation, or subcontracting. Any such assignment, transfer, delegation, or subcontract shall require compliance with or shall incorporate all terms and conditions set forth in this agreement, including all incorporated Exhibits and written amendments or modifications. Subject to the foregoing provisions, the contract inures to the benefit of, and is binding upon, the successors and assigns of the parties.

19. CITY INSPECTION OF CONTRACT MATERIALS The books, records, documents and accounting procedures and practices of Professional Engineer related to this contract shall be subject to
inspection, examination and audit by the City of Nashua, including, but not limited to, the contracting agency, the Board of Public Works, Corporation Counsel, and, if applicable, the Comptroller General of the United States, or any authorized representative of those entities.

20. **DISPOSITION OF CONTRACT MATERIALS** Any books, reports, studies, photographs, negatives or other documents, data, drawings or other materials, including but not limited to those contained in media of any sort (e.g., electronic, magnetic, digital) prepared by or supplied to Professional Engineer in the performance of its obligations under this contract shall be the exclusive property of the City of Nashua and all such materials shall be remitted and delivered, at Professional Engineer's expense, by Professional Engineer to the City of Nashua upon completion, termination, or cancellation of this contract. Alternatively, if the City of Nashua provides its written approval to Professional Engineer, any books, reports, studies, photographs, negatives or other documents, data, drawings or other materials including but not limited to those contained in media of any sort (e.g., electronic, magnetic, digital) prepared by or supplied to Professional Engineer in the performance of its obligations under this contract must be retained by Professional Engineer for a minimum of four years after final payment is made and all other pending matters are closed. If, at any time during the retention period, the City of Nashua, in writing, requests any or all of the materials, then Professional Engineer shall promptly remit and deliver the materials, at Professional Engineer's expense, to the City of Nashua. Professional Engineer shall not use, willingly allow or cause to have such materials used for any purpose other than the performance of Professional Engineer's obligations under this contract without the prior written consent of the City of Nashua.

21. **PUBLIC RECORDS LAW, COPYRIGHTS, AND PATENTS** Professional Engineer expressly agrees that all documents ever submitted, filed, or deposited with the City of Nashua by Professional Engineer (including those remitted to the City of Nashua by Professional Engineer pursuant to paragraph 20), unless designated as confidential by a specific statute of the State of New Hampshire, shall be treated as public records and shall be available for inspection and copying by any person, or any governmental entity.

No books, reports, studies, photographs, negatives or other documents, data, drawings or other materials including but not limited to those contained in media of any sort (e.g., electronic, magnetic, digital) prepared by or supplied to Professional Engineer in the performance of its obligations under this contract shall be the subject of any application for a copyright or patent by or on behalf of Professional Engineer. The City of Nashua shall have the right to reproduce any such materials.

Professional Engineer expressly and indefinitely waives all of its rights to bring, including but not limited to, by way of complaint, interpleader, intervention, or any third party practice, any claims, demands, suits, actions, judgments, or executions, for damages or any other relief, in any administrative or judicial forum, against the City of Nashua or any of its officers or employees, in either their official or individual capacity of the City of Nashua, for violations of or infringement of the copyright or patent laws of the United States or of any other nation. Professional Engineer agrees to indemnify, to defend, and to hold harmless the City of Nashua, its representatives, and employees from any claim or action seeking to impose liability, costs, and attorney fees incurred as a result of or in connection with any claim, whether rightful or otherwise, that any material prepared by or supplied to Professional Engineer infringes any copyright or that any equipment, material, or process (or any part thereof) specified by Professional Engineer infringes any patent.

Professional Engineer shall have the right, in order to avoid such claims or actions, to substitute at its expense non-infringing materials, concepts, products, or processes, or to modify such infringing materials, concepts, products, or processes so they become non-infringing, or to obtain the necessary licenses to use the infringing materials, concepts, products, or processes, provided
that such substituted or modified materials, concepts, products, or processes shall meet all the requirements and be subject to all the terms and conditions of this contract.

22. **FINAL ACCEPTANCE** Upon completion of all work under the contract, Professional Engineer shall notify the City of Nashua in writing of the date of the completion of the work and request confirmation of the completion from the City of Nashua. Upon receipt of the notice, the City of Nashua shall confirm to Professional Engineer in writing that the whole of the work was completed on the date indicated in the notice or provide Professional Engineer with a written list of work not completed. With respect to work listed by the City of Nashua as incomplete, Professional Engineer shall promptly complete the work and the final acceptance procedure shall be repeated. The date of final acceptance of a project by the City of Nashua shall be the date upon which the Board of Public Works or other designated official accepts and approves the notice of completion.

23. **TAXES** Professional Engineer shall pay all taxes, levies, duties, and assessments of every nature due in connection with any work performed under the contract and make any and all payroll deductions required by law. The contract sum and agreed variations to it shall include all taxes imposed by law. Professional Engineer hereby indemnifies and holds harmless the City of Nashua from any liability on account of any and all such taxes, levies, duties, assessments, and deductions.

24. **NON-WAIVER OF TERMS AND CONDITIONS** None of the terms and conditions of this contract shall be considered waived by the City of Nashua. There shall be no waiver of any past or future default, breach, or modification of any of the terms and conditions of the contract unless expressly stipulated to by the City of Nashua in a written waiver.

25. **RIGHTS AND REMEDIES** The duties and obligations imposed by the contract and the rights and remedies available under the contract shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.

26. **PROHIBITED INTERESTS** Professional Engineer shall not allow any officer or employee of the City of Nashua to have any indirect or direct interest in this contract or the proceeds of this contract. Professional Engineer warrants that no officer or employee of the City of Nashua has any direct or indirect interest, whether contractual, noncontractual, financial or otherwise, in this contract or in the business of Professional Engineer. If any such interest comes to the attention of Professional Engineer at any time, a full and complete disclosure of the interest shall be immediately made in writing to the City of Nashua. Professional Engineer also warrants that it presently has no interest and that it will not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this contract. Professional Engineer further warrants that no person having such an interest shall be employed in the performance of this contract. If City of Nashua determines that a conflict exists and was not disclosed to the City of Nashua, it may terminate the contract at will or for cause in accordance with paragraph 8.

In the event Professional Engineer (or any of its officers, partners, principals, or employees acting with its authority) is convicted of a crime involving a public official arising out or in connection with the procurement of work to be done or payments to be made under this contract, City of Nashua may terminate the contract at will or for cause in accordance with paragraph 8. Upon termination, Professional Engineer shall refund to the City of Nashua any profits realized under this contract, and Professional Engineer shall be liable to the City of Nashua for any costs incurred by the City of Nashua in completing the work described in this contract. At the discretion of the City of Nashua, these sanctions shall also be applicable to any such conviction obtained after the expiration or completion of the contract.
Professional Engineer warrants that no gratuities (including, but not limited to, entertainment or gifts) were offered or given by Professional Engineer to any officer or employee of the City of Nashua with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending or making of any determinations with respect to the performance of this contract. If City of Nashua determines that such gratuities were or offered or given, it may terminate the contract at will or for cause in accordance with paragraph 8.

The rights and remedies of this section shall in no way be considered for be construed as a waiver of any other rights or remedies available to the City of Nashua under this contract or at law.

27. **THIRD PARTY INTERESTS AND LIABILITIES** The City of Nashua and Professional Engineer, including any of their respective agents or employees, shall not be liable to third parties for any act or omission of the other party. This contract is not intended to create any rights, powers, or interest in any third party and this agreement is entered into for the exclusive benefit of the City of Nashua and Professional Engineer.

28. **SURVIVAL OF RIGHTS AND OBLIGATIONS** The rights and obligations of the parties that by their nature survive termination or completion of this contract shall remain in full force and effect.

29. **SEVERABILITY** In the event that any provision of this contract is rendered invalid or unenforceable by any valid act of Congress or of the New Hampshire legislature or any court of competent jurisdiction, or is found to be in violation of state statutes or regulations, the invalidity or unenforceability of any particular provision of this contract shall not affect any other provision, the contract shall be construed as if such invalid or unenforceable provisions were omitted, and the parties may renegotiate the invalid or unenforceable provisions for sole purpose of rectifying the invalidity or unenforceability.

30. **MODIFICATION OF CONTRACT AND ENTIRE AGREEMENT** This contract constitutes the entire contract between the City of Nashua and Professional Engineer. The parties shall not be bound by or be liable for any statement, representation, promise, inducement, or understanding of any kind or nature not set forth in this contract. No changes, amendments, or modifications of any terms or conditions of the contract shall be valid unless reduced to writing and signed by both parties.

31. **CHOICE OF LAW AND VENUE** This contract shall be governed exclusively by the laws of the State of New Hampshire and any claim or action brought relating to this contract, the work performed or contracted to be performed thereunder, or referable in any way thereto shall be brought in Hillsborough County (New Hampshire) Superior Court Southern Judicial District or in the New Hampshire 9th Circuit Court—Nashua and not elsewhere.
June 13, 2019
Memo #19-158

TO: MAYOR DONCHESS
FINANCE COMMITTEE

SUBJECT: PURCHASE OF ROBY PARK SHADE (VALUE: $58,759)
DEPARTMENT: 177 PARKS & RECREATION; FUND: GRANT

Please see the attached communication from Nicholas Caggiano, Superintendent of Parks and Recreation Department, dated May 23, 2019 for information related to this purchase.

Pursuant to § 5-84 Special purchase procedures A. (3) Purchases which can be procured through cooperative intergovernmental purchase agreements with other governmental jurisdictions.

The Superintendent of Parks and Recreation Department, Board of Public Works (May 23, 2019 meeting) and the Purchasing Department recommend this purchase in an amount of $58,759 from Superior Recreational Products of Carrollton, GA.

Respectfully,

Dan Koken
Purchasing Manager

Cc: N Caggiano L Fauteux
City of Nashua, Public Works Division

To: Board of Public Works
From: Nicholas Caggiano - Superintendent
Parks and Recreation Department
Re: Purchase of Shade Canopies for the Jeff Morin Fields at Roby Park Playground.

A. Motion: To approve the purchase of shade canopies for the Jeff Morin Fields at Roby Park Playground from Superior Recreational Products of Carrollton, Georgia through the Buy Board Cooperative Purchasing Group for $58,759. Funding will be through Department: 177 Park and Recreation; Fund: Grant; Account Classification: 55 Other Services.

Attachments: Concept drawing

Discussion: The popular Roby Park Playground was installed in 2002. Over the past 6 years or so we have received a large number of resident concerns about the lack of shade at the playground. We have looked into options to create shade, but have been unable to secure funding for the project. Through discussions with the Morin family over the past 6 months, they have agreed to fund the project through the Jeff Morin Foundation. We received a check for $60,000 on May 10th and the funds are going through the grant acceptance protocol with the Board of Alderman. The purchase will be contingent on the City accepting the grant.

We have been working with the Morin family since 2011 when they met with us and explained what they wanted to do in memory of their son Jeff who had passed away. The two fields at the park were named after Jeff. The Foundation has supported the Parks Department ever since with program scholarships, funding for uniforms for the Biddy Basketball and Summer Camp Programs and funding to produce the 4th of July Field Day event and the Special Olympics Field Day Picnic. They also help fund improvements to the park.

Based on the acceptance of the grant, it is the recommendation of the Park & Recreation Department to award the purchase to Superior Recreational Products of Carrollton, Georgia through the Buy Board Cooperative Purchasing Group for the amount of $58,759.
### QUO0177781

**PROJECT NAME**
Roby Park Option 1 (Rev QUO0169474)

**NOTES**
Roby Park Option 1 (Rev QUO0169474)

**BILL TO**
Accounts Payable  
City of Nashua  
229 Main Street  
Nashua NH 03060

**SHIP TO**

**TERMS**
Net 30

<table>
<thead>
<tr>
<th>QTY</th>
<th>ITEM</th>
<th>UNIT PRICE</th>
<th>EXTENDED PRICE</th>
</tr>
</thead>
</table>
| 1   | Custom Shade Design - COLUMNS FOR CUSTOM SAIL SHADE: 2-5 YEAR OLD PLAYGROUND OPTION 1  
(2) COLUMNS: 6" SCH 40 @ 14' HT + 6" RECESS TO BASE PLATE.  
(2) COLUMNS: 8" SCH 40 @ 14' HT + 6" RECESS TO BASE PLATE.  
(1) COLUMN: 10' SCH 40 @ 14' HT + 6" RECESS TO BASE PLATE.  
FRAME COLOR: TBD  
SHIPPING WEIGHT: 2,783 LBS | $12,233.00 | $12,233.00 |

---

Thank you for the opportunity to quote your upcoming project! If you have any questions, please contact our Customer Service Department at 1.800.327.8774. Quotes do not include installation or safety surfacing unless otherwise noted. In the event of any inconsistencies in regards to terms, the terms stated on this quote shall control.

PREPARED BY: Hattie M Martin
Page 1 of 4
<table>
<thead>
<tr>
<th>QTY</th>
<th>ITEM</th>
<th>UNIT PRICE</th>
<th>EXTENDED PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Custom Shade Design</strong> - CANOPIES FOR CUSTOM SAIL SHADE: 2-5 YEAR OLD PLAYGROUND OPTION 1</td>
<td>$3,805.67</td>
<td>$3,805.67</td>
</tr>
<tr>
<td></td>
<td>(2) TRIANGULAR CANOPIES EACH FITTING AN OPENING APPROXIMATELY 11' X 25' X 27' WITH QUICK TENSION AND RELEASE MECHANISMS, CABLES, &amp; CLAMPS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1) TRIANGULAR CANOPY TO FIT AN OPENING APPROXIMATELY 22' X 27' X 27' WITH QUICK TENSION AND RELEASE MECHANISMS, CABLES, &amp; CLAMPS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FABRIC COLOR: TBD</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SHIPPING WEIGHT: 104 LBS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NOTE: COLUMNS / WALL BRACKETS MUST BE INSTALLED BEFORE FABRIC MEASUREMENTS ARE TAKEN TO ASSURE PROPER FIT.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td><strong>Custom Shade Design</strong> - COLUMNS FOR CUSTOM SAIL SHADE: 5-12 YEAR OLD PLAYGROUND OPTION 1</td>
<td>$31,411.00</td>
<td>$31,411.00</td>
</tr>
<tr>
<td></td>
<td>(2) COLUMNS: 8' SCH 40 @ 14' HT + 6&quot; RECESS TO BASE PLATE.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2) COLUMNS: 12' SCH 40 @ 16' HT + 6&quot; RECESS TO BASE PLATE.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3) COLUMN: 14' SCH 40 @ 16' HT + 6&quot; RECESS TO BASE PLATE.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FRAME COLOR: TBD</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SHIPPING WEIGHT: 6,814 LBS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you for the opportunity to quote your upcoming project! If you have any questions, please contact our Customer Service Department at 1.800.327.8774. Quotes do not include installation or safety surfacing unless otherwise noted. In the event of any inconsistencies in regards to terms, the terms stated on this quote shall control.

PREPARED BY: Hattie M Martin
Page 2 of 4
<table>
<thead>
<tr>
<th>QTY</th>
<th>ITEM</th>
<th>UNIT PRICE</th>
<th>EXTENDED PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Custom Shade Design - CANOPIES FOR CUSTOM SAIL SHADE: 5-12 YEAR OLD PLAYGROUND OPTION 1</td>
<td>$13,367.00</td>
<td>$13,367.00</td>
</tr>
<tr>
<td></td>
<td>(1) TRIANGULAR CANOPY TO FIT AN OPENING APPROXIMATELY 22' X 27' X 40' WITH QUICK TENSION AND RELEASE MECHANISMS, CABLES, &amp; CLAMPS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1) TRIANGULAR CANOPY TO FIT AN OPENING APPROXIMATELY 28' X 36' X 40' WITH QUICK TENSION AND RELEASE MECHANISMS, CABLES, &amp; CLAMPS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1) TRIANGULAR CANOPY TO FIT AN OPENING APPROXIMATELY 31' X 39' X 44' WITH QUICK TENSION AND RELEASE MECHANISMS, CABLES, &amp; CLAMPS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1) TRIANGULAR CANOPY TO FIT AN OPENING APPROXIMATELY 31' X 37' X 44' WITH QUICK TENSION AND RELEASE MECHANISMS, CABLES, &amp; CLAMPS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1) TRIANGULAR CANOPY TO FIT AN OPENING APPROXIMATELY 22' X 36' X 37' WITH QUICK TENSION AND RELEASE MECHANISMS, CABLES, &amp; CLAMPS.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FABRIC COLOR: TBD

SHIPPING WEIGHT: 286 LBS

NOTE: COLUMNS / WALL BRACKETS MUST BE INSTALLED BEFORE FABRIC MEASUREMENTS ARE TAKEN TO ASSURE PROPER FIT.

Subtotal.                                                                                      $60,816.67

SRP BuyBoard Discount - SRP BuyBoard 10% Discount                                                $-6,081.67

Subtotal.                                                                                      $54,735.00

1   | Freight: Freight Out Billable and Handling - Freight: Freight Out Billable and Handling COLUMNS ONLY OPTION 1 | $2,764.00  | $2,764.00      |
1   | Freight: Freight Out Billable and Handling - Freight: Freight Out Billable and Handling CANOPIES ONLY OPTION 1   | $1,260.00  | $1,260.00      |

Thank you for the opportunity to quote your upcoming project! If you have any questions, please contact our Customer Service Department at 1.800.327.8774. Quotes do not include installation or safety surfacing unless otherwise noted. In the event of any inconsistencies in regards to terms, the terms stated on this quote shall control.

PREPARED BY: Hattie M Martin
Page 3 of 4
**Item:** Engineering: Sealed Drawings & Fees - Engineering: Sealed Drawings & Fees

**Shade Special Discount** - Engineered drawings have been ordered separately from this quotation

**Comment** - NOTE: IF YOUR AREA IS SUBJECT TO A SNOW LOAD THE SHADE FABRIC MUST BE REMOVED DURING THE WINTER MONTHS.

<table>
<thead>
<tr>
<th>QTY</th>
<th>Item</th>
<th>Unit Price</th>
<th>Extended Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Engineering: Sealed Drawings &amp; Fees</td>
<td>$550.00</td>
<td>$1,100.00</td>
</tr>
<tr>
<td></td>
<td>Shade Special Discount</td>
<td>-$1,100.00</td>
<td></td>
</tr>
</tbody>
</table>

Subtotal $58,759.00

Tax (0%) $0.00

Net Total $58,759.00

---

Thank you for the opportunity to quote your upcoming project! If you have any questions, please contact our Customer Service Department at 1.800.327.8774. Quotes do not include installation or safety surfacing unless otherwise noted. In the event of any inconsistencies in regards to terms, the terms stated on this quote shall control.