



## AGENDA REPORT

**Meeting Date:** April 15, 2008  
**Item Number:** F-20  
**To:** Honorable Mayor & City Council  
**From:** Chad Lynn, Director of Parking Operations  
**Subject:** APPROVAL OF AN AGREEMENT BETWEEN THE CITY OF BEVERLY HILLS AND ENERGY INNOVATIONS GROUP, LLC TO PARTICIPATE IN THE MAP ENERGY SAVINGS PROGRAM TO RETROFIT CERTAIN OFF STREET CITY PARKING FACILITIES WITH ENERGY EFFICIENT VENTILATION SYSTEMS; AND  
  
AUTHORIZATION OF A PURCHASE ORDER WITH ENERGY INNOVATIONS GROUP, LLC IN THE AMOUNT OF \$126,600 FOR THE SERVICES.

**Attachments:**

1. Agreement
2. Exhibit "A" – Project Energy Analysis
3. Exhibit "B" – Commissioning Report for 461 N. Bedford Dr.

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### RECOMMENDATION

Staff recommends that the City Council approve the agreement between the City of Beverly Hills and Energy Innovations Group, LLC to participate in the MAP energy savings program to retrofit certain off-street City parking garages with energy efficient ventilation systems, and authorize issuance of a purchase order in the amount of \$126,600.

### INTRODUCTION

Staff is continuously searching for "green" programs in which to participate and promote efficient energy usage and/or reduce the City's ongoing energy costs.

In March of 2007, the City worked with Southern California Edison (SCE) representatives to evaluate potential energy saving opportunities in the City's parking garages. As part of this evaluation, the City was offered participation in the MAP Energy Efficiency Program, a direct-install program managed by Energy Innovations Group (EIG), which was specifically designed to provide attractive incentives for commercial customers interested in energy efficiency.

The City entered into a pilot program with the installation of one “Globalight” unit, a lighting power regulator, at the 461 N. Bedford Drive parking facility. Since the installation of this unit in May of 2007, the City has been realizing savings of approximately 62,000 kilowatt hours per year<sup>1</sup>, equating to approximately \$10,000 annually.

**DISCUSSION**

In September of 2007, based on the success of the Bedford parking facility, the City allowed EIG to provide a more thorough evaluation of energy saving opportunities for parking garages. This evaluation resulted in the following proposals:

- Conversion of high intensity discharge (HID) lighting in the parking facilities to T-8 fluorescent lighting at:
  - 321 S. La Cienega Boulevard (Tennis Center)
  - 345 N. Beverly Drive (William Sonoma)
  - 216 S. Beverly Drive
  
- Installation of a power regulator that will reduce energy consumption by 20% to 30% without affecting visible lighting quality at:
  - 440 N. Camden Drive
  - 455 N. Rexford Drive (Civic Center)
  - 221 N. Crescent Drive (Whole Foods)
  
- Retrofit of the parking facility ventilation systems with modernized sensors and install variable speed drive fan systems at:
  - 461 N. Bedford Drive
  - 333 N. Crescent Drive (Beverly Hills Market)
  - 221 N. Crescent Drive (Whole Foods)

Energy savings is estimated as follows:

Location/Project	Kilowatt Savings	% of Savings	Annual Savings
440 N. Camden Drive Lighting	35,226	30%	\$5,900
321 S. La Cienega Blvd. Lighting	66,706	20%	\$11,300
455 N. Rexford Drive Lighting	42,310	20%	\$6,300
345 N. Beverly Drive Lighting	157,444	20%	\$26,700
216 S. Beverly Drive Lighting	64,537	20%	\$10,971
221 N. Crescent Drive Lighting	135,390	20%	\$23,000
221 N. Crescent Drive Vent	244,962	90%	\$41,600
461 N. Bedford Drive Vent	303,403	90%	\$42,400
333 N. Crescent Drive Vent	92,252	93%	\$13,800
<b>Total</b>	<b>1,142,230</b>		<b>\$181,971</b>

Based on the competitive nature of this rebate program staff is bringing forward the ventilation system retrofits separately from the lighting system retrofits to ensure the

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<sup>1</sup> Verified by the commissioning report for this equipment dated May 31, 2007 attached as Exhibit “B”

beneficial use of these funds for the City of Beverly Hills. There is no added cost for execution of these agreements separately. Staff is currently working with EIG to finalize the engineering specifications for the lighting retrofit and will return with additional projects related to lighting retrofitting upon completion of those documents.

Pursuant to section 3-3-205 of the Beverly Hills Municipal Code, staff is requesting the City Council enter into the agreement with EIG for the products and services related to the MAP energy savings program without use of the competitive bidding process for the following reasons:

- SCE did a competitive RFP for products, services and management of the MAP program, and EIG was the prevailing direct-installation vendor.
- The City is guaranteed the full SCE rebate by EIG.
- Based on the guarantee of the full rebate, the City is entering into the agreement with EIG based on net cost of the products and services after deducting the rebate.
- Since the City is contracting with the SCE direct-installer and the agreement is based on the net cost after rebate, there is no risk to the City regarding the payment, collection or application of the rebate. EIG assumes the full responsibility for the application, submission, documentation, and compliance.

Although the details of this agreement have not been formally discussed before the City Council, general review of these energy savings proposals have been made by the Parking Committee at multiple meetings and with the City Council during the Formal meeting on November 18, 2007. The ongoing energy savings generated by this program have been considered in the deficit reduction measures related to the Parking Enterprise Fund and received consensus from the City Council at the Study Session on January 8, 2008.

Work will be completed with minimal disruption to customers, and in most cases will take place after-hours or during off-peak hours when feasible.

**FISCAL IMPACT**

The City shall contract for the net cost of products and services in the amount of \$126,600, which is calculated based on a total cost of \$200,700 and rebates in the amount of \$74,100. The payback for this project is approximately 17 months, at which time the City will continue to benefit from energy savings of over 640,000 kilowatt hours per year and a cost savings of over \$98,000 on an annual basis.

This project will be funded by the Parking Enterprise Fund through CIP project number 0786, titled Parking Facility Upgrades. These are funds allocated during the current budget year and do not create on-going impacts to the Parking Enterprise Fund deficit.

Based on previous consensus from the City Council the on-going savings generated by this project have been accounted for as part of the deficit reductions in future fiscal years. If this project is not approved those projects will need to be revised to reflect the current cost of energy within the City's parking facilities.

  
\_\_\_\_\_  
Scott Miller  
Finance Approval

  
\_\_\_\_\_  
David Gustavson  
Approved By

AGREEMENT BETWEEN THE CITY OF BEVERLY HILLS  
AND ENERGY INNOVATION GROUP, LLC TO  
PARTICIPATE IN THE MAP ENERGY SAVINGS PROGRAM  
TO RETROFIT CERTAIN OFF STREET CITY PARKING  
FACILITIES WITH ENERGY EFFICIENT VENTILATION  
SYSTEMS

NAME OF CONTRACTOR: Energy Innovation Group,  
LLC

RESPONSIBLE PRINCIPAL  
OF CONTRACTOR: Sidney Pelston

CONTRACTOR'S ADDRESS: 3916 Sepulveda Blvd, Suite 109  
Culver City, CA 90230

CITY'S ADDRESS: City of Beverly Hills  
455 N. Rexford Drive  
Beverly Hills, CA 90210  
Attention: Chad Lynn  
Director of Parking Operations

COMMENCEMENT DATE: April 2, 2008

TERMINATION DATE: September 30, 2008 unless extended  
pursuant to Section 2

CONSIDERATION: Fixed fee of \$126,600  
(includes all applicable sales tax);  
and more particularly described in  
Exhibit B

AGREEMENT BETWEEN THE CITY OF BEVERLY HILLS  
AND ENERGY INNOVATION GROUP, LLC TO  
PARTICIPATE IN THE MAP ENERGY SAVINGS PROGRAM  
TO RETROFIT CERTAIN OFF STREET CITY PARKING  
FACILITIES WITH ENERGY EFFICIENT VENTILATION  
SYSTEMS

THIS AGREEMENT is made by and between the City of Beverly Hills (hereinafter called "CITY"), and Energy Innovation Group, LLC (hereinafter called "CONTRACTOR").

RECITALS

A. CITY desires to participate in the MAP Energy Savings Program to retrofit certain CITY parking facilities with energy efficient HVAC Systems ("Project"). CONTRACTOR represents that it is qualified to perform such services (the "services") as described in Exhibit A attached hereto and incorporated herein.

B. CONTRACTOR represents that it is licensed, qualified and able to perform the services.

NOW, THEREFORE, the parties agree as follows:

Section 1. CONTRACTOR's Services. CONTRACTOR shall perform the services as described in Exhibit A to the full satisfaction of CITY.

Section 2. Time of Performance. CONTRACTOR shall perform the services on or by the Termination Date set forth above, unless extended in writing by the City Manager or his designee pursuant to the same terms and conditions of the Agreement.

Section 3. Compensation. CITY agrees to compensate CONTRACTOR, and CONTRACTOR agrees to accept in full satisfaction for the services required by this Agreement the Consideration set forth above. Said Consideration shall constitute reimbursement of CONTRACTOR's fee for the services as well as the actual cost of any equipment, materials, and supplies necessary to provide the services (including all labor, materials, delivery, tax, assembly, and installation, as applicable). CITY shall pay CONTRACTOR said Consideration in accordance with the schedule of payment set forth in Exhibit B, attached hereto and incorporated herein.

Section 4. Independent Contractor. CONTRACTOR is and shall at all times remain, as to CITY, a wholly independent contractor. Neither CITY nor any of its agents shall have control over the conduct of CONTRACTOR or any of CONTRACTOR's employees, except as herein set forth. CONTRACTOR shall not, at any time, or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of CITY.

Section 5. Assignment. CONTRACTOR shall not assign or attempt to assign any portion of this Agreement without the prior written approval of CITY.

Section 6. Responsible Principal (s)

(a) The Responsible Principal set forth above shall be principally responsible for CONTRACTOR's obligations under this Agreement and shall serve as principal liaison between CITY and CONTRACTOR. Designation of another Responsible Principal by CONTRACTOR shall not be made without the prior written consent of CITY.

(b) CITY's Responsible Principal shall be the City Manager or his designee set forth above who shall administer the terms of the Agreement on behalf of CITY.

Section 7. Personnel. CONTRACTOR represents that it has, or shall secure at its own expense, all personnel required to perform CONTRACTOR's services under this Agreement.

Section 8. Changes to the Scope of Services. CITY may by written notice initiate any change to the scope of services. A corresponding equitable change in the Consideration of this Agreement will be made for each change ordered as mutually agreed upon by the parties in writing.

Section 9. Interests of CONTRACTOR. CONTRACTOR affirms that it presently has no interest and shall not have any interest, direct or indirect, which would conflict in any manner with the performance of the services contemplated by this Agreement. No person having any such interest shall be employed by or be associated with CONTRACTOR.

Section 10. Insurance.

(a) CONTRACTOR shall at all times during the term of this Agreement carry, maintain, and keep in full force and effect, a policy or policies of Comprehensive General Liability Insurance, with minimum limits of Two Million Dollars (\$2,000,000) for each occurrence, combined single limit, against any personal injury, death, loss or damage resulting from the wrongful or negligent acts by CONTRACTOR.

(b) CONTRACTOR shall at all times during the term of this Agreement carry, maintain, and keep in full force and effect, a policy or policies of Comprehensive Vehicle Liability Insurance covering personal injury and property damage, with minimum limits of One Million Dollars (\$1,000,000) per occurrence combined single limit, covering any vehicle utilized by CONTRACTOR in performing the services required by this Agreement.

(c) CONTRACTOR agrees to maintain in force at all times during the performance of work under this Agreement workers' compensation insurance as required by law.

(d) CONTRACTOR shall require each of its sub-consultants or sub-contractors to maintain insurance coverage which meets all of the requirements of this Agreement.

(e) The policy or policies required by this Agreement shall be issued by an insurer admitted in the State of California and with a rating of at least a B+,VII in the latest edition of Best's Insurance Guide.

(f) CONTRACTOR agrees that if it does not keep the aforesaid insurance in full force and effect CITY may either immediately terminate this Agreement or, if insurance is available at a reasonable cost, CITY may take out the necessary insurance and pay, at CONTRACTOR's expense, the premium thereon.

(g) At all times during the term of this Agreement, CONTRACTOR shall maintain on file with the City Clerk a certificate or certificates of insurance on the form set forth in Exhibit C, attached hereto and incorporated herein, showing that the aforesaid policies are in effect in the required amounts. CONTRACTOR shall, prior to commencement of work under this Agreement, file with the City Clerk such certificate or certificates. The policies of insurance required by this Agreement shall contain an endorsement naming the CITY as an additional insured. All of the policies required under this Agreement shall contain an endorsement providing that the policies cannot be canceled or reduced except on thirty (30) days prior written notice to CITY, and specifically stating that the coverage contained in the policies affords insurance pursuant to the terms and conditions as set forth in this Agreement.

(h) The insurance provided by CONTRACTOR shall be primary to any coverage available to CITY. The policies of insurance required by this Agreement shall include provisions for waiver of subrogation.

(i) Any deductibles or self-insured retentions must be declared to and approved by CITY. At the option of CITY, CONTRACTOR shall either reduce or eliminate the deductibles or self-insured retentions with respect to CITY, or CONTRACTOR shall procure a bond guaranteeing payment of losses and expenses.

Section 11. Indemnification. CONTRACTOR agrees to indemnify, hold harmless and defend CITY, City Council and each member thereof, and every officer, employee and agent of CITY, from any claim, liability or financial loss (including, without limitation, attorneys fees and costs) arising from any intentional, reckless, negligent, or otherwise wrongful acts, errors or omissions of CONTRACTOR or any person employed by CONTRACTOR in the performance of this Agreement.

Section 12. Termination.

(a) CITY may cancel this Agreement at any time upon five (5) days written notice to CONTRACTOR. CONTRACTOR agrees to cease all work under this Agreement on or before the effective date of such notice.

(b) In the event of termination or cancellation of this Agreement by CITY, due to no fault or failure of performance by CONTRACTOR, CONTRACTOR shall be paid full compensation for all services performed by CONTRACTOR, in an amount to be determined as follows: For work done in accordance with all of the terms and provisions of this Agreement, CONTRACTOR shall be paid an amount equal to the amount of services performed prior to the effective date of termination or cancellation; provided, in no event shall the amount of money

paid under the foregoing provisions of this paragraph exceed the amount which would be paid CONTRACTOR for the full performance of the services required by this Agreement.

Section 13. Notice. Any notice required to be given to CONTRACTOR shall be deemed duly and properly given upon delivery, if sent to CONTRACTOR postage prepaid to the CONTRACTOR's address set forth above or personally delivered to CONTRACTOR at such address or other address specified to CITY in writing by CONTRACTOR.

Any notice required to be given to CITY shall be deemed duly and properly given upon delivery, if sent to CITY postage prepaid to CITY's address set forth above or personally delivered to CITY at such address or other address specified to CONTRACTOR in writing by CITY.

Section 14. Prevailing Wages. In accordance with the provisions of Sections 1770 *et seq.*, of the Labor Code, the Director of the Industrial Relations of the State of California has determined the general prevailing rate of wages applicable to the work to be done. CONTRACTOR will be required to pay to all persons employed on the project by the CONTRACTOR sums not less than the sums set forth in the documents entitled "General Prevailing Wage Determination made by the Director of Industrial Relations pursuant to California Labor Code, part 7, Chapter 1, Article 2, Sections 1770, 1773, 1773.1." These documents can be reviewed in the office of the City Clerk or may be obtained from the State of California.

Section 15. Affirmative Action in Contracting Policy. CITY is an equal opportunity employer. Qualified firms owned by women, minorities and disabled persons are encouraged to submit bids or proposals. CONTRACTOR expressly agrees to comply with the CITY's ordinances and regulations concerning Equal Opportunity Employment and Affirmative Action principles. CONTRACTOR and every supplier of materials and services shall be an "Equal Opportunity Employer" as defined by Section 2000(E) of Chapter 21 of Title 42 of the United States Code and Federal Executive Order #11375, and as such shall not discriminate against any person by reason of race, creed, color, religion, age, sex or physical handicap with respect to the application for employment, hiring, tenure, or terms or conditions of employment of any person.

Section 16. Standard Specifications. In connection with contracts to which it may apply, and except as otherwise provided below, all public works construction Work shall be done in accordance with the provisions of the most current edition of "Standard Specifications for Public Works Construction" (commonly known as "the Green Book") including Supplements, prepared and promulgated by the Southern California Chapter of the American Public Works Association and the Associated General Contractors of California, which specifications are hereinafter referred to as the "Standard Specifications." The provisions of these General Specifications shall apply and/or shall supersede, as the case may be, provisions of the above referenced Standard Specifications.

Section 17. Compliance with Labor Laws. CONTRACTOR shall comply with and adhere to all applicable labor laws, such as, but not limited to, alien labor, prevailing wages, etc. CONTRACTOR shall comply with the provisions of Sections 1770-1777.5 of the California

Labor Code, and Section 7-2 of the Standard Specifications, entitled "Labor." The California Department of Industrial Relations has ascertained the general prevailing rate of wages in the county in which the Work is to be done. A copy of the general prevailing rate of wages is on file with the City Clerk of CITY and is available for inspection and reference during regular business hours.

Section 18. Materials and Workmanship. CITY shall have the right to inspect any material used. Material furnished shall be new, complete, ready-for-use and of the latest model, shall not have been used in demonstration or other services and shall have all the usual equipment as shown by its manufacturer's current specifications and catalogs, unless otherwise specified. Equipment, supplies or services that fail to comply with the Agreement requirements regarding design, material or workmanship may be rejected at the option of CITY. Any materials rejected shall be removed from CITY premises at the CONTRACTOR's sole expense.

Section 19. Licenses and Permits. Except as provided herein below, CONTRACTOR shall obtain and pay for all permits and licenses required by federal, state or local law, rule or regulation. Costs for obtaining CITY permits required under this Agreement will be waived. All requirements for obtaining permits (including CITY permits) remain in effect and are not waived; only the costs of CITY permits are waived.

Section 20. Assignment of Unfair Business Practices. In entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, CONTRACTOR or its subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arises from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to CONTRACTOR, without further acknowledgment by the parties.

Section 21. Safety and Protection of Workers. Pursuant to Public Contract Code Section 7104, if any work under this Contract involves digging trenches or other excavations that extend deeper than four feet below the surface:

(a) CONTRACTOR shall promptly, and before the following conditions are disturbed, notify CITY, in writing, of any:

(i) Material that CONTRACTOR believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, II, or Class III disposal site in accordance with provisions of existing law.

(ii) Subsurface or latent physical conditions at the site differing from those indicated.

(iii) Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in the work of the character provided for in the Agreement.

(b) CITY shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the CONTRACTOR's cost of, or the time required for, performance of any part of the work shall be in the form of a written amendment to the Agreement.

(c) In the event that a dispute arises between the CITY and CONTRACTOR, whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in CONTRACTOR's cost of, or time required for, performance of any part of the work, CONTRACTOR shall not be excused from any scheduled completion date provided for by the Agreement, but shall proceed with all work to be performed under the Agreement. CONTRACTOR shall retain any and all rights provided either by the Agreement or by law which pertain to the resolution of disputes and protests between the contracting parties.

Section 22. Special Conditions.

(a) Hours of Work. All construction activity shall be performed only between the hours of 8:00 a.m. and 6:00 p.m., Monday through Friday. For any construction activity to be performed after these hours or on weekends, CONTRACTOR shall obtain the written approval of the CITY's representative.

(b) Conduct of the Work. Workmen shall behave, at all times, in a courteous, professional manner. While on site, or entering or exiting the site, there shall be no loud noise, shouting or other extraneous activity that might cause disruption to City Hall staff or patrons. The operations of City Hall will remain open throughout the construction period.

(c) Storage will be limited to the Project area.

(d) CONTRACTOR shall have a competent representative on the Project site at all times Work is in progress. Communication given to the representative shall be binding as if given to the CONTRACTOR. CONTRACTOR shall immediately replace any individual who ceases to perform his duties satisfactorily, in the opinion of the CITY's representative, with a qualified, competent replacement acceptable to the CITY's representative.

(e) CONTRACTOR shall submit schedule information to the CITY's representative for integration into the overall Project schedule. Activity information shall be of sufficient detail to ensure adequate coordination, planning and execution of the work within the Time of Performance required by the Agreement.

(f) Rubbish, debris, waste, dust or surplus materials, shall not be allowed to accumulate and shall be removed continuously and disposed of by the CONTRACTOR as the work progresses. The CITY may elect if required, upon written notice to the CONTRACTOR, to perform cleanup, the cost for which will be deducted from the Agreement amount.

Section 23. Attorney's Fees. In the event of litigation between the parties arising out of or connected with this Agreement, the prevailing party in such litigation shall be entitled to recover, in addition to any other amounts, reasonable attorney's fees and costs of such litigation.

Section 24. Entire Agreement. This Agreement represents the entire integrated agreement between CITY and CONTRACTOR, and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by a written instrument signed by both CITY and CONTRACTOR.

Section 25. Governing Law. The interpretation and implementation of this Agreement shall be governed by the domestic law of the State of California.

Section 26. Severability. Invalidation of any provision contained herein or the application thereof to any person or entity by judgment or court order shall in no way affect any of the other covenants, conditions, restrictions, or provisions hereof, or the application thereof to any other person or entity, and the same shall remain in full force and effect.

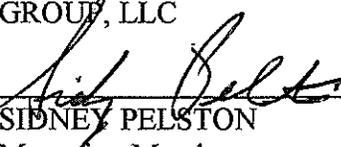
EXECUTED the \_\_\_\_ day of \_\_\_\_\_, 200\_\_, at Beverly Hills, California.

CITY OF BEVERLY HILLS  
A Municipal Corporation

\_\_\_\_\_  
BARRY BRUCKER  
Mayor of the City of  
Beverly Hills, California

ATTEST:

\_\_\_\_\_  
(SEAL)  
BYRON POPE  
City Clerk

CONTRACTOR: ENERGY INNOVATION  
GROUP, LLC  
  
\_\_\_\_\_  
SIDNEY PELSTON  
Managing Member

APPROVED AS TO FORM  
  
\_\_\_\_\_  
LAURENCE S. WIENER  
City Attorney

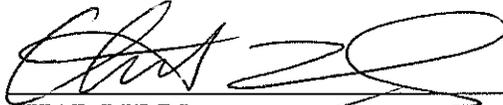
APPROVED AS TO CONTENT:  
\_\_\_\_\_  
RODERICK J. WOOD  
City Manager

[Signatures continue]



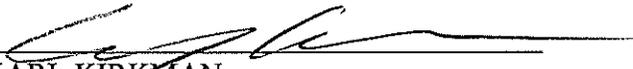
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DAVID D. GUSTAVSON  
Director of Public Works & Transportation



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CHAD LYNN  
Director of Parking Operations



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KARL KIRKMAN  
Risk Manager

EXHIBIT A  
SCOPE OF SERVICES – VENTILATION SYSTEMS

I. SCOPE OF WORK - CONTRACTOR RESPONSIBILITIES

The scope of the Project includes the removal and replacement of the ventilation systems and CO sensors with energy efficient equipment as more fully described below.

II. SCOPE OF SERVICES

A. CONTRACTOR shall be responsible for and perform the following services in connection with the Project to the full satisfaction of CITY:

1. Provide all labor, equipment and other costs that should arise that are necessary to comply with the scope as outlined herein.
2. Protect all electrical, lighting, elevator equipment and other areas as necessary.
3. Check-in with the CITY's representative immediately upon arriving at the parking facilities and prior to performing any work.
4. Provide all necessary construction permits. CONTRACTOR shall be responsible for all construction, electrical and other permits needed for the work described herein.
5. Comply with all federal, state, and local laws and requirements.
6. Provide all equipment, hardware, software, and license agreements and shall include programming, initial set-up, and training of CITY's staff.
7. Provide drawings, operating manuals, and maintenance manuals for all equipment purchased and/or installed.
8. Test and certify all equipment is in working order and in compliance with the energy saving minimums as stated herein.

B. CONTRACTOR shall hold the CITY harmless from any financial or other liability arising from rebates not paid by third parties for any reason or no reason.

C. CONTRACTOR shall warranty all new product installations shall be warranted against defect for a period of 1 year or the standard manufactures warranty period, whichever is greater.

III. CONTRACTOR shall perform ventilation system services as outlined below at the following CITY parking structures:

**A. 221 North Crescent**

**Replacement CO Sensor System To Interface With Existing Honeywell Control System**

**EIG Supplied Equipment**

- 21 TR2000-Lon, Electrochemical CO Sensors
- 1 AirTest CN8000 LonWorks® based control panel
- 1 high level horn
- 1 strobe to indicate sensor fault

The AirTest CN8000 Sensor controller will provide the following functionality:

- Take 21 CO Sensor inputs (Placement of sensors will be in approximately the same areas as are currently sampled).
- Provide 15 closed contact relay outputs based on the zone chart above (this is based on the chart that is on the door of the current Honeywell control system).
- Provide Horn alarm when a user adjustable threshold (default 100 ppm) is exceeded for a user adjustable time period (default 15 minutes).
- Provide display that will:
  - display reading for all sensors, or if sensor is in fault, or not communicating/connected.
  - A display of 15 zones and if the zone is in alarm (may be combined with sensor output display).
  - Interface to facilitate all adjustments detailed below.
- Universal adjustment that would apply to all relays:
  - Close relay for appropriate zone when sensor exceeds a user adjustable CO level (default is 35 ppm)
  - Have time delay that is user adjustable before relay trips (default 30 seconds, adjustable 0-300 seconds)
  - Have dead band that is user adjustable (default 25 ppm)

- Alarms:
  - The system is also designed to provide logic and a relay closure that activates a horn if levels are elevated for an extended period of time (e.g. 100 ppm for 15 minutes). Elevated levels in this range for this time period generally indicate that the ventilation system is not working properly.
  - The system is also designed to provide the logic and a relay closure to activate a strobe if there is a failure of one or more of the sensors.
- Control Panel Connections
  - 100 VAC power connection required for the controller. 110 VAC power must also be routed to strobe and horn connection in the panel
  - The control panel will provide 12-24VAC power to all 21 TR2000-Lon sensors.
  - Fifteen closed contact relays using with a single common terminal.
  - Relays for high level alarm and fault indication strobe.
- TR2000-Lon Sensor Wiring Guidelines.
  - Recommended LonWorks® Wire is W221P-1002 for single pair, non-plenum and W221P-2001b for single pair plenum rated or equivalent. This wire along with other components mentioned here are available from a company called Engenuity, that specializes in LonWorks® components. (<http://www.engenuity.com/>) Ph 480 782-5600.
  - Most systems will also require a terminator to reduce noise on the network wire. Your choice of terminators will be dependent on your choice of using BUS Topology (Daisy Chain) or Free Topology (Star or other network design). For garages free topology is most often used because runs usually encompass separate wiring runs from each floor or each riser.
  - In some cases it may be necessary to boost the signal of the very longest runs. For this we recommend use of a combined LonWorks® network repeater and terminator (Model 110A- datasheet attached —available from Engenuity — approx \$150). If needed it would be placed on the longest single run(s) in the installation where it connects to the rest of the network (e.g. At the star hub). The nice thing about this product is that it can be added to the network without having to program a Lon identity into the controller. This is not provided by AirTest and is the responsibility of the CONTRACTOR.
  - To a degree wiring Lon product is somewhat of an art and components like terminators and repeaters are generally added to as part of the startup and commissioning process if necessary.

- The control panel we will be providing does have the ability to identify communicating and non-communicating sensors and can be very useful in troubleshooting wiring issues.

Installer Scope Of Work Addendum of Equipment

- Install LonWorks® communicating TR2000-Lon CO sensors as indicated on floor plan layout below. Sensors should be in similar general vicinity to existing sample location in the garage. Sensors should be 5 ft off the ground. Sensors will be provided labeled for their installation location as indicated on the floorplans and on the chart below.

Sensor Placement

Level	Sensors
Whole Foods	S1, S2
G	S3, S4, S5
P2	S6, S7, S8, S9
P3	S10, S11, S12, S13
P4	S14, S15, S16
P5/6	S17, S18, S19, S20, S21

- Note that LonWorks® wiring requires the location of terminators for approximately every 1200 ft of wire. Different terminators are required depending if sensors will be daisy-chained, or use a free topology design. The CONTRACTOR should be knowledgeable about wiring this type of system. The CONTRACTOR is responsible for all components required for the system except that listed above (including LonWorks® Terminators). Given the size of the garage signal boosters may be necessary on the longest run.
- Use metal conduit for wiring as per local code. Where possible use existing open vertical opening between floors to run conduit.
- Provide 110 VAC power to the AirTest controller.
- Remove existing MSA CO sampling system and install AirTest control panel in same location. If possible use existing wiring between the MSA panel and the Honeywell control system to connect the AirTest panel.
- Install strobe fault indication in location designated by owner. (Strobe is 110 VAC and is initiated by a low voltage relay on the control panel)
- Install high level warning Horn in location designated by owner, connected to Control Panel (6 ft above floor) (110 VAC)
- Be present during sensor system commissioning.

- Provide all parts and components necessary for system installation that are not included in the supplied equipment list above. This includes any LonWorks® terminators or repeaters necessary to provide a functional sensor network.
- CONTRACTOR responsible for permits/approvals.

Contact Mike Schell at AirTest for any technical or application related questions 805 687-3175.  
mike.schell@airtesttechnologies.com

## **B. 333 North Crescent**

### Equipment

- 9 AirTest TR2000 LonWorks communicating electrochemical sensors. Located according to floor plan layout.
- 1 AirTest CN9000 Control Panel with display. Located in fan room unless otherwise directed by customer.
- 1 ABB 480V, 25 HP VFD, NEMA 12 Enclosures, eypass option included. Install in fan room unless otherwise directed by customer.
- 1 Horn for high level alarm 110 VAC. Located outside fan room unless otherwise directed by customer.
- 1 Strobe for equipment malfunction alert 110 VAc. Located outside fan room unless otherwise directed by customer.
- 1 Disconnect switch for VFD if required to be provided and installed by CONTRACTOR.

### Scope of Work

1. Install LonWorks communicating TR2000 CO sensors as indicated on floor plan layout. Sensors should be 5 ft off the ground. Note that LonWorks wiring requires the location of terminators for approximately every 1200 ft of wire, Different terminators are required depending if sensors will be daisy-chained, or use a free topology design. The CONTRACTOR should be knowledgeable about wiring this type of system. The CONTRACTOR is responsible for all components required for the system except that listed above (including Lon Works Terminators). Given the size of the garage signal boosters may be necessary on the longest run.
2. Use metal conduit for wiring as per local code.
3. Install 1 25 hp VFDs with bypass 25 hp fans in fan room. The VFD will require a 4 wire connection to the control panel( 2 wire initiation signal, 2 wire 4-20 mA signal)
4. If code required disconnects on the VFD are required, the CONTRACTOR shall provide and install components necessary for these disconnects.

5. Install CN8000 control panel in fan room. Note once installed the control panel will display the sensor readings and indicate if there are communication or sensor function problems which may be useful in troubleshooting any problems that may occur during installation.
6. Install Strobe fault indication outside the fan room or in location designated by the customer. (Strobe is 110 VAC and is initiated by a low voltage relay on the control panel).
7. Install high level warning Horn outside fan room connected to Control Panel (6 ft above floor) (110 VAC)

Be present during VFD Startup On VFD & Control System commissioning.

### **C. 461 North Bedford**

#### Equipment

- 12 AirTest TR2000 LonWorks Communicating electrochemical sensors
- 1 AirTest CN8000 Control Panel with display
- 1 ABB 480V, Z5 HP VFD with Load Reactor, NEMA 12 Enclosures For supply air fan 4. Install in storage area next to the MCC control panel.
- 3 ABB 480'~ 20 HP VFD with Load Reactors, NEMA 12 Enclosures for supply air fan 3 and Exhaust air fans 1 and 2. Install In storage area next to the MCC control panel.
- 1 Horn for high level alarm 110 VAC
- 1 Strobe for equipment malfunction alert 110 VAC
- 4 Disconnects to be provided and installed by CONTRACTOR if required by code.

#### Scope of Work

1. Install LonWorks communicating TR2000 CO sensors as indicated on floor plan layout. Sensors should be 5 ft off the ground. Note that LonWorks wiring requires the location of terminators for approximately every 1200 ft of wire. Different terminators are required depending if sensors will be daisy-chained, or use a free topology design. The CONTRACTOR should be knowledgeable about wiring this type of system. The CONTRACTOR is responsible for all components required for the system except that listed above (including LonWorks Terminators). Given the size of the garage signal boosters may be necessary on the longest run.
2. Use metal conduit for wiring as per local code.
3. Install VFDs with load reactor on exhaust and supply air fans. Install in storage area next to the MCC control panel fans are on upper floors. The VFDs will be connected to a CT8000 control panel installed in the same area. Each VFD will

require a 4 wire connection to the control panel( 2 wire initiation signal, 2 wire 0-by signal)

4. Install CN8000 control panel in storage area near MCC control Panel. (110 VAC required).
5. If code required disconnects on the VFD are required, the CONTRACTOR shall provide and install components necessary for these disconnects.
6. Install Strobe fault indication in location designated by owner. Likely location is outside the door of the storage room. (Strobe is 110 VAC and is Initiated by a low voltage relay on the control panel)
7. Install high level warning Horn in location designated by owner, connected to Control Panel (6 ft above floor) (110 VAC)

Be present during VFD Startup On VFD & Control System commissioning.

## EXHIBIT B

### CONSIDERATION AND SCHEDULE OF PAYMENT

CITY shall compensate CONTRACTOR for the satisfactory performance of the work described in this Agreement to not to exceed amount of One Hundred Twenty-Six Thousand Six Hundred Dollars (\$126,600.00).

CITY shall compensate CONTRACTOR for the satisfactory completion of all services in accordance with the following payment schedule:

20% of net cost due upon execution of contract  
40% of net cost due upon product delivery  
40% of net cost due upon Project completion

#### Ventilation System

333 N. Crescent Dr. - Net cost after MAP rebate of \$10,672.73 is \$27,755.92.

221 N. Crescent Dr. - Net cost after MAP rebate of \$28,337.26 is \$45,935.07.

461 N. Bedford Dr. - Net cost after MAP rebate of \$35,097.72 is \$52,857.43.

CONTRACTOR shall be eligible to submit invoices for reimbursement of the actual cost of approved purchases of ballasts and light bulbs. Re-ballasting and re-lamping labor will be provided at no cost to the CITY.

CONTRACTOR shall submit an itemized statement to CITY on a CITY approved form for CONTRACTOR's services performed, which shall include documentation setting forth in detail a description of the services rendered. CITY shall pay CONTRACTOR the amount of such billing within thirty (30) days of receipt of same.



**CERTIFICATE OF INSURANCE**

This is to certify that the following endorsement is part of the policy(ies) described below:

**NAMED INSURED**

**COMPANIES AFFORDING COVERAGE**

- A.
- B.
- C.

**ADDRESS**

COMPANY (A. B. C.)	COVERAGE	POLICY NUMBER	EXPIRATION DATE	B.I.	LIMITS	
					P.D.	AGGREGATE
	<input type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> GENERAL LIABILITY <input type="checkbox"/> PRODUCTS/COMPLETED OPERATIONS <input type="checkbox"/> BLANKET CONTRACTUAL <input type="checkbox"/> CONTRACTOR'S PROTECTIVE <input type="checkbox"/> PERSONAL INJURY <input type="checkbox"/> EXCESS LIABILITY <input type="checkbox"/> WORKERS' COMPENSATION <input type="checkbox"/>					

It is hereby understood and agreed that the **City of Beverly Hills**, its City Council and each member thereof and every officer and employee of the City shall be named as joint and several assureds with respect to claims arising out of the following project or agreement:

It is further agreed that the following indemnity agreement between the **City of Beverly Hills** and the named insured is covered under the policy: Contractor agrees to indemnify, hold harmless and defend City, its City Council and each member thereof and every officer and employee of City from any and all liability or financial loss resulting from any suits, claims, losses or actions brought against and from all costs and expenses of litigation brought against City, its City Council and each member thereof and any officer or employee of City which results directly or indirectly from the wrongful or negligent actions of contractor's officers, employees, agents or others employed by Contractor while engaged by Contractor in the (performance of this agreement) construction of this project.

It is further agreed that the inclusion of more than one assured shall not operate to increase the limit of the company's liability and that insurer waives any right of contribution with insurance which may be available to the **City of Beverly Hills**.

In the event of cancellation or material change in the above coverage, the company will give **30 days** written notice of cancellation or material change to the certificate holder.

Except to certify that the policy(ies) described above have the above endorsement attached, this certificate or verification of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies listed herein. Notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate or verification of insurance may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

DATE: \_\_\_\_\_

BY: \_\_\_\_\_  
Authorized Insurance Representative

TITLE: \_\_\_\_\_

AGENCY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

Energy Project Energy Analyses

Date: 3. March 2008  
 Customer: City of Beverly Hills  
 Site Address: Multiple

Utility Incentive per annual kWh reduced: \$ 0.1542  
 Sales Tax Rate: 6.25%

461 N Bedford

Fan Information			Fan Operation			Savings						
Description	Model	Existing kW	Annual Hours	Existing Annual kWh	kWh rate	Current Annual Cost	Annual kWh Savings	Annual Savings	Installed Cost*	Net MAP Rebate	Net Cost	Payback (months)
CO / VFD Sensing System	AirTest	63.3845	5319	337,115	\$0.140	\$47,196.10	303,403.49	\$ 42,476.49	\$87,955.15	\$ 35,097.72	\$52,857.43	14.93

\* We've been advised that the motors are extremely old. The city may need to replace the motors. Motor replacement cost is not included here.

333 Crescent

Fan Information			Fan Operation			Savings						
Description	Model	Existing kW	Annual Hours	Existing Annual kWh	kWh rate	Current Annual Cost	Annual kWh Savings	Annual Savings	Installed Cost	Net MAP Rebate	Net Cost	Payback (months)
CO / VFD Sensing System	AirTest	18.6425	5293	98,665	\$0.150	\$14,799.81	92,252.18	\$ 13,837.83	\$38,427.85	\$ 10,671.73	\$27,755.92	24.07

221/225 Crescent

Fan Information			Fan Operation			Savings						
Description	Model	Existing kW	Annual Hours	Existing Annual kWh	kWh rate	Current Annual Cost	Annual kWh Savings	Annual Savings	Installed Cost	Net MAP Rebate	Net Cost	Payback (months)
CO / VFD Sensing System	AirTest	74.57	3650	272,181	\$0.170	\$46,270.60	244,962.45	\$ 41,643.62	\$74,272.33	\$ 28,337.26	\$45,935.07	13.24

TOTAL: 156.6      707,960.9      108,266.6      640,618.1      97,957.9      \$ 200,655.13      \$ 74,106.70      \$ 126,548.43      15.50

EXHIBIT "A"



**GLOBALIGHT  
COMMISSIONING  
REPORT**  
Ver. 042007

Retain for future reference.

**This Report has been Prepared for:**

Mr. Terry Wagner  
City of Beverly Hills  
461 N. Bedford  
Beverly Hills  
California

**By:**

Chiara Poletti  
Questal Technologies Inc.  
# 647 - 2446 Bank St.  
Ottawa  
Ontario

May 31, 2007

## **Product Installation Location**

City of Beverly Hills Garage  
461 N. Bedford  
Beverly Hills  
California

Panel#: LA

## **Product Nameplate Information**

Product Part Number: MTT45K0/277-480  
Installed by: Steve Luther, Energy Management Systems  
Commissioned by: Jack Rosenthal, P. Eng.  
Commissioning Date: \_\_05\_\_ / \_\_30\_\_ / \_\_2007\_\_

## **Savings Verification**

### **Notes**

The 269 100W HPS lamps of the facility were considered in operation at the time of the by-pass measurements.

In power reduction mode and with Globalight MT set at Level 3, a total of 23 lamps were found to be off or dimmed or blinking throughout the facility, indicating old age and need of replacement.

One lamp was changed and it returned in operation, confirming old age and need of replacement.

Out of the 23 lamps having difficulties staying lit, 14 lamps remained off. Their power consumption was taken into account in the energy evaluations.

Phase A By-Pass	Phase A Regulator	Phase B By-Pass	Phase B Regulator	Phase C By-Pass	Phase C Regulator
Voltage: <b>278Vac</b> Current: <b>40A</b> Active Power Consumption: <b>9.8 KW</b>	Voltage: <b>280Vac</b> Current: <b>28A</b> Active Power Consumption: <b>6.8 KW</b>	Voltage: <b>279Vac</b> Current: <b>51A</b> Active Power Consumption: <b>12.8 KW</b>	Voltage: <b>281Vac</b> Current: <b>36A</b> Active Power Consumption: <b>8.2 KW</b>	Voltage: <b>280Vac</b> Current: <b>49A</b> Active Power Consumption: <b>12.5 KW</b>	Voltage: <b>281Vac</b> Current: <b>34A</b> Active Power Consumption: <b>8.1 KW</b>
	Adjustment to account for 14 lamps off <b>7.2KW</b> <b>Savings: 26%</b>		Adjustment to account for 14 lamps off <b>8.6KW</b> <b>Savings: 33%</b>		Adjustment to account for 14 lamps off <b>8.5KW</b> <b>Savings: 32%</b>

## Energy Savings

You are currently saving an average of **30%** active power consumption with MT Globalight set at Saving Setting 3.

Energy savings in Watts are estimated to be **10.733 kW** for 269 lamps. Based on your hours of operation of 18.5 hours per day, 6 days a week, 61,950 annual kWh savings are estimated.

## Conditions Noted and Adjustments during Commissioning

At the time of the commissioning, a string of lights was found to be off due to a tripping of the circuit breaker on the lighting panel. The cause of the breaker tripping appeared to be a loose wire that was arcing. The loose connection was repaired, the breaker was closed, and the lamps returned in operation.

The lamps/ballasts at the facility vary in age and generally they are replaced as they fail. HPS lamps typically show visible signs of aging only at the very end of their life span, when they start to cycle on and off. However, when they approach the end of their life span, but do not cycle on/off yet, they are particularly sensitive to voltage variations.

Voltage variations, including line voltage fluctuations, power regulation, or end-of-the-line condition may cause old HPS lamps to dim, cycle on/off, or shut off completely at the time of the voltage variation.

Depending on the age and conditions, the ballast and related starter may be affected by old age. The starter is a component that has a limited number of hours of operation. As the lamps age, it becomes more difficult for the starter to turn on the lamp: more impulses are needed for a longer period to start an old lamp, and this depletes the starter. In case of operation at less than the nominal voltage, a depleted starter is more prone to be unable to start up the lamp. In this case, it is necessary to change the ballast/starter in order to restore operation to the fixture.

In this garage application, the presence on the lighting system of some lamps having "age related" difficulties was known and described prior to installing the Globalight product. All the lamps that were visibly aged (cycling on/off or off) prior to the product being installed were replaced and are currently not experiencing any difficulties of operation in combination with the product. New lamps are experiencing longer life with Globalight in operation, in large part, due to the improved power quality.

However, old lamps that could not be identified as old, prior to setting the product in operation could be identified as such only at the time of the product commissioning and during its operation.

Usually, a fine tuning period is necessary to adjust the saving settings and/or perform any maintenance on the lighting system to optimize the lighting system operation in combination with the product and maximize energy savings.

At the time of installation completion, different saving settings were tried out. Originally, the saving setting was adjusted to Saving Setting 4. This produced over 35% savings, but approximately 50 old lamps were not able to sustain the power reduction.

The product was set at Saving Level 3, generating saving in the range of 30% to 35% with less than 20 lamps having difficulties staying lit or shutting off.

It appears that the lighting system is very sensitive to line voltage fluctuations and it is possible for the savings to increase automatically beyond Saving Level 3 if the line voltage fluctuates, thus causing the conditions of Saving Level 4 (approximately 50 lamps having difficulties staying lit).

Although it is possible to change the saving setting to Saving Level 2, hence reducing the sensitivity of the lamps to voltage variations, this would not be recommended since it would provide less of a saving. Maintenance on the lighting system would still be required relatively soon. In fact, the lamps that are showing signs of aging with the product in operation would soon reach the point of showing signs of aging without it.

Performing maintenance on the lighting system on the approximately 50 aged lamps and/or ballasts at this time, will enable maintaining the present energy savings, enhancing quality of illumination, extending lamp life of the new lamps, and possibly increasing energy saving possibilities to 35% in average, if desired.

It is possible to verify which lamps require maintenance by placing the product in operation and by tagging the lamps for replacement. Note that it is possible that not all the 50 lamps will go off when the product is placed in operation. This depends on the line voltage at the time of turn on. Going to a higher saving setting would clearly identify the near end-of-life lamps.

Instructions on the best method to perform maintenance and identification are being issued under a separate letter.

Thank you for choosing Globalight as your energy saving product solution. You will enjoy many years of significant energy savings.