City of Portland RFP 108812 – LED Modules for Traffic Signals
Sustainable Procurement Specifications Excerpt
May 13, 2008

See attached pages for technical requirements for LED Modules for Traffic Signals.

Certificate of Insurance
As evidence of the required insurance coverage, Contractor shall furnish acceptable insurance certificates to the City with the return of the signed Price Agreement. The certificates shall specify the City of Portland as additional insured and shall include a 30-day notice of cancellation clause.

3.0 INSPECTION, TESTING, AND CONTRACT ADMINISTRATION

3.1 INSPECTION OF GOODS

No equipment, supplies, and/or services received by an agency or jurisdiction pursuant to a Contract shall be deemed accepted until the agency has had reasonable opportunity to inspect said equipment, supplies, and/or services.

All equipment, supplies, and/or services which do not comply with the specifications and/or requirements or which are otherwise unacceptable or defective may be rejected. In addition, all equipment, supplies, and/or services which are discovered to be defective or which do not conform to any warranty of the Contractor upon inspection (or at any later time if the defects contained were not reasonably ascertainable upon the initial inspection) may be rejected.

3.2 ACCEPTANCE AND TESTING

The City may conduct testing on each piece of equipment/apparatus prior to acceptance and payment. The acceptance tests shall be in accordance with the Specifications for each item. Deviations from the City's specification will be not allowed unless addressed by a formal change order or by written Addendum. The City reserves the right to have Bidder submit written verification of any test (s) required of Bidder in these specifications.

3.3 REJECTION OF DELIVERED GOODS

The City's right to reject any unacceptable equipment, supplies, and/or services shall not exclude any other legal, equitable or Contractual remedies the City may have. The City reserves the right to return any such rejected shipment at the Contractor's expense for full credit or replacement and to specify a reasonable date by which replacements must be received.

SPECIAL CONDITIONS

Where special conditions are written in the specifications, these special conditions shall take precedence over any general conditions listed elsewhere in the bid solicitation in the event of a conflict. These "Terms and Conditions" are not to be construed as exclusive remedies or as a limitation upon rights or remedies that may be or may become available under ORS Chapter 71-83 (Universal Commercial Code).

VI. TECHNICAL REQUIREMENTS

1. GENERAL REQUIREMENTS

All specified equipment shall be new. This equipment will be used by the City of Portland or another government agency. All orders shall include an original packing list directly from the shipper.

2. SCOPE OF WORK

The successful Contractor shall provide LED Modules for Traffic Signals in accordance with the specifications and terms and conditions of this ITB, the prices bid, and the awarded Price Agreement.

3. SPECIFICATIONS

LED Modules for Traffic Signals – 8 inch and 12 inch

All LED Modules for Traffic Signals shall be fully compliant to the ITE VTCSH LED Circular Supplement specifications. Additionally, prior to award, the manufacturer shall submit to the City of Portland, reports from ETL/Intertek that certify full compliance of LED signal modules to these specifications across the temperature range of -40° centigrade to +74° centigrade. Typical or Nominal wattage not to exceed 6 watts for the 8" Red Ball, 7 watts for the 8" Yellow Ball and 8 watts for the 8" Green Ball. Typical or Nominal wattage not to exceed 8 watts for the 12" Red Ball, 12 watts for the 12" Yellow Ball and 9 watts for the 12" Green Ball. All traffic signal balls are to have a uniform, non-pixilated appearance.

Key Requirements:

- Modifications to Section 5.1.1 – Standard 18 AWG jacketed wires, 1 meter (39 in) in length shall be provided. The wires will be cut 8 inches from the module and terminated on the module side with a fully insulated male tab connector (T&B TNF18-250FD or approved equal). The module end of the remaining wire shall be terminated with a fully insulated male tab connector (T&B TNF18-250MD or approved equal). The termination end shall be terminated with quick connect terminals and spade tab adapters
- All Modules Must Meet ITE VTCSH LED Circular Supplement specifications Over the Full Temperature Range of -40°C to +74°C (Including Yellow Modules)
- ETL/Intertek Certified Testing Reports are Required To Verify Full compliance To The ITE VTCSH LED Circular

Supplement specifications Over the Full Temperature Range of -40°C to +74°C (Including Yellow Modules)

- Red and Green Modules Shall Meet Energy Star Power Limits
- Uniform Non-pixelated Illumination Meeting ITE Requirements (incandescent look)
- Transient Suppression must Meet or Exceed ITE Requirements
- Turn-on/Turn-off Time < 75 Milliseconds
- Hard-Coated Convex Lens Reduces Sun Reflections
- Conformally Coated Power Supply
- All Products shall be Traceable by Serial Number
- Written 60 month warranty
- A list of manufacturers standard part numbers and a list of manufacturers part numbers meeting City of Portland requirements shall be furnished with the bid submittal
- One Sample 12" Green Ball with green tinted lens module meeting all requirements shall be submitted for evaluation at least seven calendar days prior to bid opening for items not pre-qualified.

LED Ball Module Types:

1. 8" Red Ball w/tinted lens
2. 8" Yellow Ball w/tinted lens
3. 8" Green Ball w/tinted lens
4. 8" Green Ball w/clear lens
5. 12" Red Ball w/tinted lens
6. 12" Yellow Ball w/tinted lens
7. 12" Green Ball w/tinted lens
8. 12" Green Ball w/clear lens

LED Omni-Directional Arrows

All LED arrow signal modules shall be fully compliant to ITE VTCSH Part 3 LED Vehicle Arrow Traffic Signal Modules specifications. Additionally, prior to award, the manufacturer shall submit to the City of Portland, reports from ETL/Intertek that certify full compliance of LED signal modules to these specification across the temperature range of -40° centigrade to +74° centigrade. Typical or Nominal wattage shall not to exceed 7 watts for the 12" Red Arrow, 9 watts for the 12" Yellow Arrow and 7 watts for the 12" Green Arrow. Arrows shall have a uniform non-pixilated appearance.

Key Requirements:

- Modifications to Section 5.1.1 – Standard 18 AWG jacketed wires, 1 meter (39 in) in length shall be provided. The wires will be cut 8 inches from the module and terminated on the module side with a fully insulated male tab connector (T&B TNF18-250FD or approved equal). The module end of the remaining wire shall be terminated with a fully insulated male tab connector (T&B TNF18-250MD or approved equal). The termination end shall be terminated with quick connect terminals and spade tab adapters
- All Modules Must Meet The ITE VTCSH – LED Vehicle Arrow Traffic Signal Supplement Over the Full Temperature Range of -40°C to +74°C (Including Yellow Modules)
- All Modules Must Be Omni-directional As Defined In The ITE VTCSH – LED Vehicle Arrow Traffic Signal Supplement
- ETL/Intertek Certified Testing Reports are Required To Verify Full compliance To The ITE VTCSH – LED Vehicle Arrow Traffic Signal Supplement
- Red and Green Modules Shall Meet Energy Star Power Limits
- Uniform Non-pixelated Illumination Meeting ITE Requirements (incandescent look)
- Transient Suppression shall Meet or Exceed ITE Requirements
- Turn-on/Turn-off Time < 75 Milliseconds
- Hard-Coated Convex Lens Reduces Sun Reflections
- Conformally Coated Power Supply
- All Products shall be Traceable by Serial Number
- Written 60 month warranty
- A list of manufacturers standard part numbers and a list of manufacturers part numbers meeting City of Portland requirements shall be furnished with the bid submittal
- One Sample Green Arrow w/tinted lens module meeting all requirements shall be submitted for evaluation at least seven calendar days prior to bid opening for items not pre-qualified.

LED Omni Directional Arrow Types:

1. 12" Red Arrow w/tinted lens
2. 12" Yellow Arrow w/tinted lens
3. 12" Green Arrow w/tinted lens
4. 12" Green Arrow w/clear lens

LED BiModal Green/Yellow Arrows
Manufacturer will certify full compliance of LED PV signal modules to these specifications across the temperature range of -40° centigrade to +74° centigrade. Typical or Nominal wattage shall not exceed 7 watts for the Yellow and 6 watts for the Green.

Key Requirements
- Transient Suppression shall Meet or Exceed ITE Requirements
- Turn-on/Turn-off Time < 75 Milliseconds
- Failure of single LED results in loss of light from that LED only
- Meets FCC Title 47, Subpart B, Section 15 Regulations for electrical noise
- Conforms to MIL-STD-810F for blowing rain
- Total Harmonic Distortion <20%
- Power Factor greater > 0.9
- Fuse and Transient suppressor incorporated for line and load protection
- Turn-On/Turn-Off time = 75 msec max
- Operating Voltage Range 80VAC to 135VAC (120VAC nominal)
- Conformally Coated Power Supply
- All Products shall be Traceable by Serial Number
- Written 60 month warranty

BiModal Arrow Types:
1. BiModal Green Arrow/Yellow Arrow

LED Replacement Lamp Modules for Programmable Visibility (PV) Signals
All modules shall be Caltrans qualified and on current Caltrans QPL list. Manufacturer will certify full compliance of LED PV signal modules to these specifications across the temperature range of -40° centigrade to +74° centigrade. Typical or Nominal wattage shall not exceed 10 watts for the Red , 17 watts for the Yellow and 14 watts for the Green.
LED Programmable Visibility Types

Key Requirements
- Transient Suppression shall Meet or Exceed ITE Requirements
- Turn-on/Turn-off Time < 75 Milliseconds
- Failure of single LED results in loss of light from that LED only
- Meets FCC Title 47, Subpart B, Section 15 Regulations for electrical noise
- Conforms to MIL-STD-810F for blowing rain
- Total Harmonic Distortion <20%
- Power Factor greater > 0.9
- Fuse and Transient suppressor is incorporated for line and load protection
- Turn-On/Turn-Off time = 75 msec max
- Operating Voltage Range 80VAC to 135VAC (120VAC nominal)
- Conformally Coated Power Supply
- All Products shall be Traceable by Serial Number
- Written 60 month warranty

LED Replacement for Programmable Visibility (PV) Signals Types:
1. Red
2. Yellow
3. Green

LED White Balls
All modules shall be Caltrans qualified and on current Caltrans QPL list. Manufacturer will certify full compliance of white signal modules to these specifications across the temperature range of -40° centigrade to +74° centigrade. Typical or Nominal wattage shall not exceed 8 watts for the 8” Ball and 18 watts for 12”

Key Requirements
- Modifications to Section 5.1.1 – Standard 18 AWG jacketed wires, 1 meter (39 in) in length shall be provided. The wires will be cut 8 inches from the module and terminated on the module side with a fully insulated male tab connector (T&B TNF18-250FD or approved equal). The module end of the remaining wire shall be terminated with a fully insulated male tab connector (T&B TNF18-250MD or approved equal). The termination end shall terminated with quick connect terminals and spade tab adapters
- Transient Suppression Meets or Exceeds ITE Requirements

- Turn-on/Turn-off Time < 75 Milliseconds
- Failure of single LED results in loss of light from that LED only
- Meets FCC Title 47, Subpart B, Section 15 Regulations for electrical noise
- Conforms to MIL-STD-810F for blowing rain
- Total Harmonic Distortion <20%

LED White Ball Types

1. 8" White Ball
2. 12" White Ball

LED Pedestrian Modules- Hand/Man/Countdown

All LED pedestrian signal modules shall be fully compliant to the ITE PTCSI Part-2: LED Pedestrian Traffic Signal Modules specifications. Additionally, prior to bid award, the manufacturer shall submit to the City of Portland, reports from ETL/Intertek that certify full compliance of LED signal modules, to these specification across the temperature range of -40° centigrade to +74° centigrade. Typical or Nominal wattage not to exceed 8 watts for the Hand , 6 watts for the Man and 5 watts for the Countdown. Hand/Man/Countdown Pedestrian Signal must have a uniform non- pixilated appearance and conform to the City of Portland's specification's wiring and termination modification.

Key Requirements:

- Modifications to Section 5.1.1 – Standard 18 AWG jacketed wires, 1 meter (39 in) in length shall be provided. The wires will be cut 8 inches from the module and terminated on the module side with a fully insulated male tab connector (T&B TNF18-250FD or approved equal). The module end of the remaining wire shall be terminated with a fully insulated male tab connector (T&B TNF18-250MD or approved equal). The termination end shall be terminated with quick connect terminals and spade tab adapters
- Uniform Non-pixelated Illumination Meeting ITE Requirements (incandescent look)
- ETL/Intertek Certified Testing Reports are Required To Verify Full compliance To The ITE PTCSI Part-2: LED Pedestrian Traffic Signal Modules specifications
- ITE PTCSI – Part 2 Compliance Including Luminance Uniformity and Color Uniformity From -40° C Through +74° C
- Transient Suppression shall Meet or Exceed ITE Requirements
- Turn-on/Turn-off Time < 75 Milliseconds
- Textured Lens Reduces Sun Reflections
- Conformally Coated Power Supply
- All Products shall be Traceable by Serial Number
- Written 60 month warranty
- <u>A list of manufacturers standard part numbers and a list of manufacturers part numbers meeting City of Portland requirements shall be furnished with the bid submittal</u>
- <u>One Sample Countdown type module meeting all requirements shall be submitted for evaluation at least seven calendar days prior to bid opening for items not pre-qualified.</u>

LED Pedestrian Modules- Hand/Man/Countdown Types:

1. 16"x18" Countdown with Overlay Hand & Person

<u>All LED vehicle and pedestrian signal modules are to be produced by the same manufacturer, they shall be Uniform Non-pixelated Illumination Meeting ITE Requirements (incandescent look), and must meet the current ITE specification for that product line if applicable.</u>

Anticipated Purchases Year One will be approximately 17,000 modules due to city wide vehicle signal replacement project. Subsequent year's purchases will be approximately 1,600 modules for maintenance use.

The City has prequalified the following makes and models of LED Modules for Traffic Signals:

1. Dialight 8-inch Red: 433-1110-003XLP
2. Dialight 8-inch Yellow: 433-3130-001X LP
3. Dialight 8-inch Green: 433-2120-001X LP
4. Dialight 12-inch Red: 433-1210-003XLP
5. Dialight 12-inch Yellow: 433-3230-001XLP
6. Dialight 12-inch Green: 433-2220-001XLP

The City has prequalified the following makes and models of LED Omni-Directional Arrows Signal Modules:

1. Dialight 12-inch Red: 432-1314-001X ODP
2. Dialight 12-inch Yellow: 431-3334-001XODP
3. Dialight 12-inch Green: 432-2324-001XODP

The City has prequalified the following makes and models of countdown pedestrian signals:

1. Dialight - Countdown Pedestrian Signal (430-6479-001XP)

VII. ATTACHMENTS

A. REPRESENTATIONS, CERTIFICATIONS
B. NON-COLLUSION AFFIDAVIT
C. BID FORM
D. EQUAL BENEFITS COMPLIANCE DECLARATION/WORKSHEET

VIII. EXHIBIT

A Sample GOODS AND SERVICES PRICE AGREEMENT

APPENDIX A

CITY OF PORTLAND, OREGON
OFFICE OF MANAGEMENT & FINANCE
Tom Potter, Mayor
Kenneth L. Rust, Chief Administrative Officer

Bureau of Purchases
Jeffrey B. Baer, Director
1120 SW Fifth Ave Rm 750
Portland OR 97204
(503) 823-6855
www.portlandonline.com/omf/purchasing

May 2, 2008

ADDENDUM NO. 1

Invitation To Bid (ITB) No. 108812

LED Modules For Traffic Signals

Bids Due: May 13, 2008
By: 2:00 p.m. Pacific Time

This addendum makes changes to the specifications, clarifies that only one award will be made as a result of this solicitation, adds the Equal Benefits Worksheet, and provides a new Bid Form sheet for the above titled project. This addendum is hereby included in the ITB and, when awarding the Price Agreement, will be a part thereof. Any changes made by this addendum to said solicitation offset only those portions of the solicitation specifically mentioned herein; the balance of the solicitation remains in full force. It is the responsibility of all bidders to conform to this addendum.

1. Under BID EVALUATION AND AWARD, Page 3 of the ITB, add the following sentence: Only one award will be made to one bidder for all items listed on the Bid Form.

2. On Page 2 of the ITB, under PRODUCT IDENTIFICATION, in the first sentence, delete "...page 2 of...".

3. Under 3. SPECIFICATIONS, Key Requirements, Pages 10 – 13 of the ITB, the first bullet which starts "Modifications to Section 5.1.1....." is deleted in its entirety. This bullet is stated in 4 places on those 4 pages and it is deleted in all 4 places.

4. Under 3. SPECIFICATIONS, Key Requirements, Pages 11 and 13 of the ITB, in the second to the last bullet (underlined), delete the words " ...and a list of manufacturers part numbers meeting City of Portland requirements..." This underlined bullet is in 3 places on those 2 pages and those words are to be deleted in all 3 places. No special City of Portland part numbers are required.

5. At the top of Page 12, in the sentence which starts "Manufacturer will certify full compliance with LED PV....", delete "PV".

6. At the bottom of Page 12, in the paragraph under **LED White Balls,** delete the first sentence, and, in the second sentence delete the words "to these specifications".

7. For the 10 prequalified model numbers stated at the bottom of Page 13 and top of Page 14, the "P" at the end of each model number is deleted, for all 10 model numbers.

8. As a result of the change stated in 4 above, the City no longer requires a special City of Portland part Number. Therefore, a new Bid Form is provided which does not have the column for a City of Portland Part #; please use the Bid Form attached to this Addendum when bidding on this ITB.

9. The Equal Benefits Worksheet is attached and made a part of this ITB.

Please direct all questions and concerns to Jim Van Nest at (503) 823-5680, or jamesvannest@ci.portland.or.us.

End of Addendum

Jeffrey B. Baer
Director, Bureau of Purchases

ATTACHMENT C - BID FORM

Item	Standrd Part #	Nominal Watt'g	Unit Pricing (Each) Orders of 1-49	Unit Pricing (Each) Orders of 50 - 249	Unit Pricing (Each) Orders of 250+	Year One Anticipated Purchases	Years 2-5 Anticipated Annual Purchases	Total Year One Prices
#1 8" Red Ball w/tinted lens			$	$	$	3300	150	$
#2 8" Yellow Ball w/tinted lens			$	N/A	N/A	50	5	$
#3 8" Green Ball w/tinted lens			$	$	$	4620	200	$
#4 8" Green Ball w/clear lens			$	N/A	N/A	1	1	$
#5 12" Red Ball w/tinted lens			$	$	$	4020	200	$
#6 12" Yellow Ball w/tinted lens			$	N/A	N/A	25	5	$
#7 12" Green Ball w/tinted lens			$	$	$	2000	100	$
#8 12" Green Ball w/clear lens			$	N/A	N/A	1	1	$
#9 12" Red Arrow w/tinted lens			$	$	$	400	20	$
#10 12" Yellow Arrow w/tinted lens			$	N/A	N/A	50	20	$
#11 12" Green Arrow w/tinted lens			$	$	$	400	20	$
#12 12" Green Arrow w/clear lens			$	N/A	N/A	1	1	$
#13 PV Red			$	$	$	600	25	$
#14 PV Yellow			$	N/A	N/A	50	50	$
#15 PV Green			$	$	$	600	25	$
#16 BiModal Yellow Green/Arrow			$	N/A	N/A	10	10	$
#17 Countdown Ped Module			$	$	$	6000	100	$
#18 8" White Ball			$	N/A	N/A	10	10	$
#19 12" White Ball			$	N/A	N/A	10	10	$
Anticipated Purchase Qtys.						22148	953	
Total Year One Prices All Items								$

The Total Year One Prices shall be calculated by multiplying the unit price for the 250+ column by the Year One Anticipated Purchases quantity. If the 250+ column is N/A for a particular item use the unit price for the 1 – 49 order quantity. (The Years 2 – 5 Estimated Annual Purchases column is provided for information only.) Prices shall be provided for all cells which have a "$" sign.

<u>REQUIRED</u>: The Manufacturer for all Items Bid is: _____