



## ECONOMIC DEVELOPMENT COMMITTEE

### AGENDA

Tuesday, November 15, 2016

2:00 pm

City Council Chambers  
150 S. Palm Avenue

- I. CALL TO ORDER / ROLL CALL 2:00 PM
- II. REVIEW/MODIFICATIONS TO AGENDA
- III. PROJECT UPDATES:
  - A. Renaissance Marketplace – Project Update *(Gary Bauer – LHR)*
  - B. Grant Proposal - Rialto Technological Innovation Zone *(Luvina Beckley –MHM)*
  - C. Asset Transfer Agreement with Siemens Industry *(Robert Eisenbeisz)*
- IV. PROJECT UPDATES:
  - A. SANBAG Update *(Robert Eisenbeisz)*
- V. UPCOMING MEETINGS / OTHER DISCUSSION ITEMS
  - Next Scheduled EDC Meeting - December 21, 2016
- VI. ADJOURNMENT



## PUBLIC WORKS

# MEMO

**To:** EDC  
**From:** Robert G. Eisenbeisz, P.E., Public Works Director/City Engineer  
**Date:** November 15, 2016  
**Re:** Street Light Acquisition Asset Transfer/Cut Over and LED Conversion

On July 26, 2016, Council approved and received the Siemens Investment Grade Audit Report, and approved the Purchase and Sale Agreement and Lightpole License Agreement with Southern California Edison (SCE). SCE is currently preparing the agreements for California Public Utilities Commission (CPUC) approval.

The City of Rialto's filing with CPUC will be an advice letter filing since its value is below the \$5 Million threshold. SCE anticipates filing the acquisition agreement with the California Public Utility Commission by December 2016.

On September 13, 2016, City Council approved obtaining a loan of \$3,612,709 from Wells Fargo Advisers for the project. Additional information is included in the staff report attached.

The turnkey services for the street light conversion services was competitively bid and Siemens was awarded the contract for Phase I and II. Siemens is currently providing services under the Letter of Intent. After comparing the two options outlined above, Siemens can provide all of the services for the asset transfer and LED conversion at a very competitive price.

This memo outlines the advantages and disadvantages of moving forward with the street light acquisition and LED conversion utilizing Siemens versus going out to bid for a new contract. In addition, a potential timeline comparison for the two option has been included along with a cost comparison based upon current similar projects.

### Siemens Phase III & IV

Advantages	Disadvantages
Time savings	Lack of recent competitive bidding
Knowledge of current inventory	
Efficient process with cutover and LED	

conversion at same time – 1 step process instead of 2 steps	
Energy Cost Savings sooner of approximately \$8/per pole/month	

### Request for Bid/Energy Network

Advantages	Disadvantages
Potential conversion cost saving through competitive bid	Additional costs
Assistance with bid document preparation at no cost to the City	Potential lack of inventory knowledge
Pool of competitive priced contractors available for LED conversion	Additional contract will be required for cut-over/asset transfer
	Longer project completion schedule, 5-8 additional months
	May require coordination and management of 2 separate vendors
	Will likely require a two-step process for asset transfer and LED conversion
	Unrealized energy savings for 5-8 months delay of project completion estimated from \$152,240 to \$243,584

### Timeline:

A contract award with Siemens for the asset transfer and LED conversion has a project completion timeframe of 10 months. A release of bids alternative will require a total project completion of 19 months, including lead-time of approximately 5 months for the bidding process.

Siemens Phase III & IV	Release For Bids
<b>Total Project Duration Siemens = 42 weeks</b>	<b>Total Project Duration New Firm = 61-75 weeks (Estimate)</b>
	<b>Develop Bid Documents - 4-6 weeks</b>
	<b>Council Approval to release RFB - 3 weeks</b>
	<b>Release RFB - 4 weeks</b>
	<b>Review and Award RFB – 4 weeks</b>
<b>Project Development - 14 weeks</b> <ul style="list-style-type: none"> <li>• City scope finalization and approval</li> <li>• Pole tag design and procurement</li> <li>• SCE rebate approval</li> <li>• Fixture and photocell procurement</li> <li>• SCE cutover scheduling</li> </ul>	<b>Project Development – 18-24 weeks</b> <ul style="list-style-type: none"> <li>• Kick-Off meeting</li> <li>• City scope finalization and approval</li> <li>• Pole tag design and procurement</li> <li>• SCE rebate approval</li> <li>• Fixture and photocell procurement</li> </ul>

	<ul style="list-style-type: none"> <li>• SCE cutover scheduling</li> </ul>
<b>Project Implementation - 24 weeks</b> <ul style="list-style-type: none"> <li>• Asset transfer and pole tagging</li> <li>• LED conversion and material disposal</li> </ul>	<b>Project Implementation – 24-30 weeks</b> <ul style="list-style-type: none"> <li>• Asset transfer and pole tagging</li> <li>• LED conversion and material disposal</li> </ul>
<b>Project Completion - 4 Weeks</b> <ul style="list-style-type: none"> <li>• Punch list completion</li> <li>• SCE rebate submittal</li> <li>• GIS database delivered</li> </ul>	<b>Project Completion - 4 Weeks</b> <ul style="list-style-type: none"> <li>• Punch list completion</li> <li>• SCE rebate submittal</li> <li>• GIS database delivered</li> </ul>

**Cost Comparison:**

The table below shows the potential savings realized if the City moves forward with Siemens for Phase III and IV of the Street Light acquisition project. The City would see a potential savings of \$94,070.59 compared to the Energy Network bid, a potential savings of \$347,600.58 compared to the recent Santa Monica bid.

Entity	Cost/ Fixture	Acquired Units	LED Conversion Cost	Asset Transfer/ SCE Cutover	Payment for Siemens Phase 1 & 2	Total Contract	Cost Savings with Siemens
National Joint Powers Alliance (NJPA) - Energy Network Provider (eGordian)	\$ 336.18	3,806	\$ 1,279,501.08	\$ 150,000.00	\$ 84,800.00	\$ 1,514,301.08	\$ 94,070.59
Siemens Contract with Santa Monica	\$ 402.79	3,806	\$ 1,533,031.07	\$ 150,000.00	\$ 84,800.00	\$ 1,767,831.07	\$ 347,600.58
<b>Siemens for Rialto with Discount</b>	<b>\$ 373.16</b>	<b>3,806</b>	<b>\$ 1,420,230.49</b>			<b>\$ 1,420,230.49</b>	

# CITY OF RIALTO

## ECONOMIC DEVELOPMENT COMMITTEE AGENDA REPORT

For Meeting of November 15, 2016

TO:	Honorable Economic Development Committee Members
FROM:	Robert G. Eisenbeisz, P.E., Public Works Director/City Engineer
SUBJECT:	Approve the Agreement with Siemens Industry, Inc. for the Asset Transfer and LED Conversion of City of Rialto owned Street Lights in the amount of \$1,420,230.49.
DATE:	November 9, 2016

### **BACKGROUND:**

On January 28, 2014, City Council approved a Letter of Intent Agreement with Siemens Industry, Inc. (Siemens) to initiate a Citywide Street Light Acquisition with the possibility of entering into a proposed Energy Savings Performance Contract and Retrofit Project using Light Emitting Diode (LED) fixtures. To initiate the acquisition process, the City of Rialto paid Southern California Edison (SCE) the required payment of \$10,000 for an initial representative survey of 100 street lights within the City of Rialto.

On October 20, 2014, SCE and Siemens' staff conducted a physical inventory of facility types for a representative subset of streetlight facilities, completed a conditional assessment of lamps and fixtures, verified streetlight feed points, identified points of demarcation for the post sale electrical configuration of the system, and established a preliminary "Not To Exceed" value per light pole.

Following the initial valuation, SCE conducted an additional audit of approximately 10% of the City's street light system to complete a final determination of the "fair market value" for the sale of the assets to the City, subject to approval by the PUC.

The intent of the Street Light Project with Siemens was to acquire the streetlight assets from SCE, develop a draft Energy Savings Performance Contract (ESPC) to implement the Streetlight Conversion Project, and establish the terms and conditions of a turnkey capital improvement project that would replace the existing High Pressure Sodium Vapor (HPSV) light fixtures with Light Emitting Diode (LED) light fixtures.

Siemens successfully completed the Phase I tasks and is currently working on the Phase II tasks, as approved by the City Council on February 23, 2016.

To date, Siemens has completed the following Phase II tasks:

- Performed an independent in-depth audit of all eligible poles.
- Validated and optimized cutover costs from the SCE system.
- Developed a representative sample of types of poles to form the basis of the joint SCE/Siemens/Rialto full system Replacement Costs New Less Depreciation (RCNLD) study that minimizes redundant effort.
- Accompanied SCE during their final survey and study of the street light system to ensure that the agreed upon representative sample is used and that the parties (Rialto, Siemens and SCE) agree on the facts.
- Provided an initial financing overview and work with Rialto to identify alternative sources of funding.
- Identify over-lit areas of the City and make recommendations as to which lights could potentially be removed. A Siemens engineer is finished the over-lit identification task and provided the results to the City on September 16, 2016.

On July 26, 2016, Council approved and received the Siemens Investment Grade Audit Report, and approved the Purchase and Sale Agreement and Lightpole License Agreement with Southern California Edison. Both parties are currently executing the agreements.

The California Public Utility Commission (CPUC) regulates the transfer of assets in accordance with [Section 851 of the Public Utility Code](#). Dependent on the value of the transfer, the process can take two paths:

1. Greater than \$5 million - full CPUC filing and a formal CPUC proceeding and approval by the commission
2. Less than \$5 Million - an advice letter filing with the CPUC and review and approval by the Utilities and Industries Energy Group

The City of Rialto's filing will be an advice letter filing since it is below the \$5 Million threshold. SCE anticipates filing the acquisition agreement with the California Public Utility Commission by December, 2016.

On September 13, 2016, City Council approved obtaining a loan from Wells Fargo Advisers for the project.

**ANALYSIS/DISCUSSION:**

### **Street Light Maintenance**

In anticipation of assuming the operations and maintenance of 3,806 street lights, staff is currently preparing bid documents for a maintenance contract for all City-owned street lights. The expected timeline for the award is as follows:

Release of Bids:	November 9, 2016
Deadline for Questions:	November 23, 2016
Responses to Questions:	November 28, 2016
RFB Due Date:	December 8, 2016
Award of RFB:	January 10, 2016

The RFB Scope of Work is expected to cover maintenance for the City's existing inventory of City-owned lights as well as the maintenance of the proposed SCE acquired lights.

### **California Public Utilities Commission (CPUC)**

Once the Purchase and Sale Agreement and Lightpole License Agreement with SCE have been fully executed, the next step is approval by the CPUC. This approval process is expected to take from three to six months. With the help of Timothy Simon (former Commissioner with the CPUC), the City expects an expedited CPUC approval process. With this time frame in mind, it is important to have a plan in place to address the asset transfer and LED conversion to maximize the benefits of both processes as efficiently as possible.

Siemens and the City of Rialto have been working in close partnership throughout the asset buy-back process. Siemens was selected through a competitive RFP process to provide turnkey services for the street light acquisition and conversion to LED technology. The Siemens representative has been very responsive and knowledgeable during the acquisition process and assisted City staff as required, meeting the expectations of the Letter of Intent (LOI). Siemens ITS Energy Services team provided additional support above and beyond the contract requirements, such as assisting with the negotiations of the agreements with SCE.

Siemens has submitted a proposal to assist the City with both the asset transfer and the LED conversion - Phase 3 and 4 for a discounted rate not to exceed \$1,420,230.49. Siemens proposal is included as **Attachment 1**. The proposal covers street light asset cutover and LED retrofit. These tasks are highlighted below.

### **Phase III – Asset Transfer and LED Conversion**

#### **Asset Transfer**

After the street light acquisition is approved by the CPUC and the contract to purchase these assets is fully executed, Siemens will coordinate with the City and SCE on the transfer of ownership or "cutover" schedule of the assets to City ownership. The exact schedule of this cutover will depend on the final terms decided between SCE and the

City. It is Siemens' understanding that the cutover cost to SCE is included in the asset valuation costs, therefore no further costs from SCE are expected for this activity.

The estimated cutover rate is 1,000-1,500 street light assets per month, which translates to an estimated duration of about 3-4 months for the cutover of all 3,806 assets. The cutover process includes SCE staff, Siemens staff and City staff participation in confirming the exact assets that are acquired and determining the point of demarcation of ownership of the system.

Siemens has designed a prototype pole tag concept that can be affixed to all pole types throughout the City. The pole tag is a thin anodized aluminum utility tag that has a 3M industrial adhesive and can be configured with many different characters. Siemens will work with the City to determine the most appropriate numbering convention to implement for the newly acquired assets.

Siemens staff will enter the new asset ID numbers in the maintenance database and provide the necessary information to SCE to complete the reassignment of the SCE tariff rate from LS-1 to LS-2.

**LED Street Light Conversion**

Siemens will provide LED street light installation services and associated LED fixture materials in conjunction with the asset cutover. By coordinating the asset cutover and the LED conversion, the City will realize the energy cost savings as soon as possible and limit any maintenance issues with the incumbent technology. As indicated by the Investment Grade Audit, the following material schedule has been established for the conversion.

STYLE	LINE ITEM	CATALOG NUMBER	WATTAGE	QTY
COBRAHEAD	A	ERL1-0-03-B1-40-A-GRAY	25	2,098
	B	ERL1-0-04-B1-40-A-GRAY	32	1,349
	C	ERL1-0-07-C1-40-A-GRAY	67	199
	D	ERL1-0-10-C1-40-A-GRAY	90	66
	E	ERL1-H-0-13-C1-40-A-GRAY	125	3
	F	ERS2-0-19-C1-40-A-GRAY	162	1
	I	(ALREADY LED- WILL NOT CONVERT)	94	2
	J	(ALREADY LED- WILL NOT CONVERT)	103	1
	K	(ALREADY LED- WILL NOT CONVERT)	106	1
	L	(ALREADY LED- WILL NOT CONVERT)	189	4
DOUBLE COBRAHEAD	A	ERL1-0-03-B1-40-A-GRAY	25	4
GATEWAY	G	LES - 57W443 - 840 - HWD - XXXX - UNV - 1	57	38
POST TOP	H	LES - 37W333 - 840 - HWD - XXXX - UNV - 1	37	40
<b>GRAND TOTAL</b>				<b>3,806</b>

Throughout the implementation phase, GIS data will be recorded, in real time, through the use of mobile devices.

## **Phase IV – Project Completion**

### **Project Completion**

Following the completion of the implementation phase and City acceptance, Siemens will begin the fourth phase of the project, the Project Completion Phase. At this point, Siemens will provide a comprehensive summary of the project that includes (but is not limited to) the following:

- Final GIS Data
- Summary of inventory, including fixture quantities, wattages, and installation dates
- As-built documentation (as-needed)
- As-built schedule of the project and a comparison of the actual installation vs. the scheduled baseline.
- A summary of any scope changes that occurred
- A statement of Siemens warranty details with contacts and procedures
- A statement of manufacturers' warranties with contacts and procedures
- Final energy calculations
- Summary of rebates, incentives and rate changes
- Recommendations for maintenance and cleaning schedules

Siemens will prepare and submit the final rebate documentation to the utility. In addition, Siemens will verify that the billing rate change has been submitted and accepted, and that the utility billing is correct. As Siemens foresees this as an on-going process throughout the implementation phase, the project completion phase will consist of confirming prior implementation and finalizing the last installation phase.

Once the rebate is secured, the billing is verified before a final project closeout report will be generated. This will consist of a complete inventory database of the installed system with GIS locations and all attributes of the LED street light system. Furthermore, this report will also include the final results of the rebate allocation, the energy savings to date and the final estimated energy savings for future years, summarizing the final results of the project.

When the Audit and Conversion process has been completed, the city will receive a Geodatabase containing a complete Inventory of all the LS-1 and LS-3 City Owned Street lights within the City. This data will open many opportunities for integration into the city's existing GIS system. For example:

- Integration into a CMMS or other work order management system to track and issue work-orders or fix failures
- Assisting with City Planning related to lighting, such as identifying areas that may require lighting, report on various decorative issues using provided templates.

Assets will be added to existing enterprise GIS systems such as ArcServer or ArcGIS online webmap, or internal websites for ongoing asset management activities.

The proposed project schedule for asset transfer and the LED conversion Phase III and IV is as follows:

- |  |                     |
|--|---------------------|
| • Contract award                       | Project Start (TBD) |
| • Project Development                  | 14 Weeks            |
| ○ City scope finalization and approval |                     |
| ○ Pole tag design and procurement      |                     |
| ○ SCE rebate approval                  |                     |
| ○ Fixture and photocell procurement    |                     |
| ○ SCE cutover scheduling               |                     |
| • Project Implementation               | 24 Weeks            |
| ○ Asset transfer and pole tagging      |                     |
| ○ LED conversion and material disposal |                     |
| • Project Completion                   | 4 Weeks             |
| ○ Punch list completion                |                     |
| ○ SCE rebate submittal                 |                     |
| ○ GIS database delivered               |                     |
| • Total Project Duration               | 42 Weeks            |

According to the tentative schedule above, it could take up to eleven months to transfer the assets and convert to LED lights. Project development will take at least two months and it is expected to start now while the CPUC process is underway. The CPUC is expected to approve Rialto's purchase by as soon as February or at the latest May 2017. Engaging Siemens to complete the turnkey approach will position Rialto to implement the transition of the assets and takes full advantage of the cost savings predicted.

### **Alternative Option**

If the City chooses not to move forward with the Asset Transfer and LED Conversion Agreement with Siemens, the City would be required to:

1. Pay Siemens \$84,800 for the completed work from Phase 1 and Phase 2 of their original agreement.

2. Prepare RFP documents, release the RFP, and review and award the Agreement for asset transfer and LED conversion. This process will take approximately four to six months.
3. An additional two months will be required for implementation period using the new consultant/contractor based upon the IGA report, and the specifications of the desired fixtures.

By going out to competitive bid, the City could increase the length of time of the installation process and the City would not receive the benefit of the conversion as soon as possible. In addition, the City will incur the administrative costs of putting the RFP documents together, managing the projects and the loss of efficiencies from the standing relationship with Siemens on the acquisition project. The potential cost to award to another firm is unknown at this time.

The National Joint Powers Alliance (NJPA) is a public agency with legal authority to serve as a contracting agency for municipalities and other public agencies in all states. NJPA conducted an open, transparent and competitive bidding process in accordance with the California Government Code for contractors to work on Energy Network supported projects. Projects similar in size to that of Rialto have been awarded through this NJPA with the Energy Network. For a recent proposal included as **Attachment 2**, eGordian charged \$1,055,280.32 or \$336.18/fixture to convert 3,139 street lights to LED. This price did not include asset transfer nor does it account for the type of fixtures (GE Evolve series LED material) that is the current Rialto standard. The GE Evolve series LED material is more expensive than other products in the market; however, Rialto requires this specific fixture in the standard for the LED. This fixture was selected based upon reliability and the ability to take advantage of additional features in the future, such as automated controls.

Siemens was awarded a low bid LED conversion project for the City of Santa Monica on August 10<sup>th</sup> 2016. Santa Monica solicited competitive bids for the conversion included as **Attachment 3**. The scope of the contract is for the conversion of 1,272 cobrahead street lights to LED technology and will cost \$512,353 for the conversion services, which equates to \$402.79/fixture. The asset transfer value is \$73,433. This is based on the recommended pole tag material and the task being performed in conjunction with the LED conversion. If this task was to be performed separately, additional costs would be incurred. The anticipated amount, if this was incurred separately is \$150,000.

Siemens proposal to the City of Rialto for the asset transfer and conversion of 3,806 LED fixtures is \$1,420,230.49 or \$373.15/fixture, should the City decide to award the project prior to October 31<sup>st</sup> 2016. Siemens proposal to the City of Rialto is \$29.64/fixture less than the competitively bid Santa Monica project. These examples provide a fair market rate comparison in relation to Siemens proposal to the City of Rialto. The Siemens proposal is deemed by staff to be comparable with the current market pricing.

Siemens extended the same approach for Rialto as with Santa Monica. The most significant portion of the cost difference is due to differences in material costs. This is due to variances in:

- quantities included (1,200 in Santa Monica vs 3,800 in Rialto), the wattage of the fixtures (Santa Monica had higher wattage fixtures which incur higher cost),
- the manufacturer of the material (Cree is specified in Santa Monica and GE in Rialto) and
- the associated distribution channel (different distributors are used with different manufacturers).

In addition, labor rates and project mobilization are slightly different between projects. Rialto's project is a construction contract therefore, prevailing wage rates do apply. Siemens will be performing all of the work in house and will be paying prevailing wages, no subcontractors will be utilized. Finally, another factor is the inclusion of the costs associated with the Letter of Intent activities. The turnkey services for the street light conversion services was competitively bid and Siemens was awarded the contract. Siemens is currently providing services under the Letter of Intent, and have exclusive right to the project until January 28<sup>th</sup>, 2017. The Letter of Intent is included as **Attachment 4**.

**RECOMMENDATIONS:**

Staff requests the Economic Development Committee to recommend that the Rialto City Council:

- Approve the Agreement with Siemens Industry, Inc. for the Asset Transfer and LED Conversion of City of Rialto owned Street Lights included as **Attachment 5** in the amount of \$1,420,230.49, subject to the City Attorney's approval as to form.

Attachments:

1. Siemens Proposal
2. eGordian Proposal
3. Santa Monica bid
4. Siemens Letter of Intent
5. Siemens Phase III & IV Agreement



## Intelligent Traffic Systems

Mr. Robert Eisenbeisz  
Director of Public Works  
City of Rialto  
335 W. Rialto Avenue  
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(909) 820-2507

Steve Gitkin  
National Sales Director  
Intelligent Traffic Systems  
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Address: (512) 837-8300  
Telephone: (512) 421-6617  
Fax: [Steve.Gitkin@siemens.com](mailto:Steve.Gitkin@siemens.com)  
E-mail: August 25, 2016  
Date:

Mr. Robert Eisenbeisz;

Thank you for the opportunity to work with the City of Rialto on the IGA and submit our proposal for the Streetlight LED Retrofit. We have enjoyed our relationship with your city over the past three years and look forward to the completion of this project. At Siemens our goal is to provide the very best equipment, maintenance and support in the industry, while attempting to work within the confines of your budget to produce a project that comes in on time and with excellence.

The primary contact person for this proposal shall be:

Alex Valenti  
415-246-7257  
[Alex.Valenti@siemens.com](mailto:Alex.Valenti@siemens.com)

This response represents an accurate representation of Siemens and our capabilities to provide street light acquisition and LED street light conversion services for the City of Rialto. Siemens, Inc., Intelligent Traffic Systems presents our team as the most qualified to expeditiously and cost effectively provide the following services for your City:

- Street light asset cutover and ID tagging
- Street light LED conversion
- Recycling and/or disposal of waste materials
- Workmanship warranty
- Annual streetlight maintenance

Thank you once again for permitting us to provide these services.

With kind regards,

Steve Gitkin  
National Sales Director  
Siemens Industry, Inc. Intelligent Traffic Systems

# Rialto, CA Streetlight Cutover and LED Conversion Proposal

Submitted by:  
Siemens Industry, Inc.  
Intelligent Traffic Systems

October 26, 2016

**SIEMENS**  
*Ingenuity for life*

2200 West Oranewood Ave, Ste 210  
Orange, CA 92868



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## Project Overview

The City of Rialto has the opportunity to purchase approximately 3,806 street light assets from SCE. By purchasing the street light assets, converting them to LED technology and maintaining the system, the City can anticipate an annual cost savings of \$360,115.

The annual cost savings can then offset the costs of acquiring the system, including acquisition, LED conversion and reoccurring maintenance costs and provide the City with a positive project cash flow throughout the 20 year lifetime of the street light fixtures. Considering initial project costs and estimated maintenance costs, the City can anticipate over \$4.2 Million in LED program savings over the 20 year period.



	Energy (Kwh)	Energy Cost	Tariff Service Cost	Maintenance Cost	Operating Costs
Field Audit Savings	1,643	\$118	\$424	\$0	\$541
Asset Acquisition Savings	0	\$0	\$291,853	(\$45,608)	\$246,245
LED Conversion Savings	1,158,768	\$82,945	\$0	\$30,384	\$113,329
Total Annual Savings	1,160,411	\$83,063	\$292,277	(\$15,224)	\$360,115

Table 1: Street Light Acquisition and LED Conversion Annual Savings

Siemens and the City of Rialto have been working in close partnership throughout the asset buy-back process. Siemens was selected through a competitive RFP process to provide turn-key services for the street light acquisition and conversion to LED technology.

Siemens has worked with City staff and Southern California Edison staff facilitating the valuation, field auditing, and feasibility analysis of the program. The resulting Investment Grade Audit report highlights the program details and savings potential (see attachment A). The following proposal details Siemens' experience with street light conversion projects and street light maintenance and offers a detailed approach to our project implementation process.

## Executive Summary

Siemens has the experience, qualified and certified personnel, knowledge and understanding of the project and the critical relationships to successfully bring this project to completion on time and in budget to the satisfaction of the City of Rialto.



### Siemens has the experience

Siemens' ability to undertake this project is evidenced by our team's depth of experience working together to successfully complete LED streetlight retrofits. We have retrofit nearly 150,000 fixtures with LED technology in approximately 80 communities, many via performance contract. We are also the only ESCO to self-perform this quantity of retrofits with in-house staff, giving us particular insight as to the nature of the work and complete control over work schedule.

### Siemens has the personnel

At Siemens we employ only the finest Project Managers, Engineers, Field Technicians and Network Analysts. We pride ourselves on the high level on training, education and certification of all our team members. Customers expect their projects to be managed in an excellent, innovative and responsible way, and this applies to all of our projects from large multi-million dollar projects all the way to smaller turnkey projects. Our project management processes and certifications are models for project management around the globe. Professional project



management is a vital success factor for Siemens. We have been a project company since inception. Currently we have over 15,000 certified project managers world-wide.

As a large, multi-billion dollar company Siemens has a wealth of employees to draw from for our projects. We do not operate with a handful of employees, stretched thin to populate our projects, but rather we pride ourselves on our strong team structure.

### Siemens has the knowledge and understanding of the project.

Siemens and the City of Rialto have been working in close partnership throughout the asset buy-back process for the past three years. Siemens was selected through a competitive RFP process to provide turn-key services for the street light acquisition and conversion to LED technology.

Siemens has worked with City staff and Southern California Edison staff facilitating the valuation, field auditing, and feasibility analysis of the program. The resulting Investment Grade Audit report highlights the program details and savings potential (see attachment A). The

following proposal details Siemens' experience with street light conversion projects and street light maintenance and offers a detailed approach to our project implementation process.

Siemens has the relationships.

Through this work, our team has proven that we have the technical, financial, and contractual ability to assemble the right people and companies to implement these initiatives quickly and efficiently. Financially, our team is supported by a much larger global Siemens organization, a 170 year old company with annual revenue exceeding \$120 billion. All these factors combine to provide the City of Rialto the full confidence that the Siemens team is fully qualified to successfully perform this work.

## Qualifications

### Background

Siemens Industry, Inc, is a Delaware corporation, and began operations in November 1972. As a division of Siemens Industry, Inc, Siemens Intelligent Traffic Systems (ITS) has been providing traffic solutions since 1997. Siemens acquired Automatic Signal/Eagle Signal Corporation in 1997, Gardner Transportation Systems in 2000, and Republic ITS, a U.S. leader in traffic signal equipment installation, maintenance, and service in 2010 to enhance its presence in the intelligent traffic solutions (ITS) market in the USA. With these business acquisitions, along with our extensive dealer network, Siemens Intelligent Traffic Systems has the ability to provide a comprehensive portfolio of traffic software, hardware, and services expertise.

Siemens ITS areas of expertise are in the maintenance, testing, repair, upgrading and replacement of traffic signals, street lights, and exterior commercial lighting. Siemens ITS has a broad range of expertise and experienced personnel including: registered professional energy engineers, project managers, International Brotherhood Electrical Workers (IBEW), Journeymen Electricians/Technicians, International Municipal Signal Association (IMSA), and Certified Technicians.

**Who we are and what we do:**  
**Siemens Mobility- ITS Business Portfolio**

**SIEMENS**

Traffic Signal Controls | Traffic Signal Maintenance | Traffic Management | Congestion Mitigation | ITS Integration | Streetlight Conversions

Intersection Services | TACTICS Advanced Transportation Management System | SCOOT | ACISLITE | Sitraffic Concert | Energy Services

Engineering and Consulting Services | Repair Services | Installation and Commissioning | Maintenance | Project Management | Operations | Value-Added Services

Connected Vehicle and Connected Signal Technology

Siemens has been self performing street light energy contracts since 2010, utilizing our in-house staff of 135 certified and trained technicians. As an NAESCO certified Energy Service

Provider since 1996, Siemens is one of the only ESCO's in the US to self perform. The City of Rialto would reap many of the benefits of our experience as an ESCO. The benefit is not only our expertise and accreditation, but a single point of accountability for the customer.

**Siemens Experience, Expertise, and Approach**

As mentioned above, Siemens performs all installation work with Siemens employees. The benefit of this approach is there is one company who has full responsibility for the success of the project. Our employees are fully trained on all safety requirements before they are allowed to begin work in the field, they are provided the best equipment possible including new bucket trucks for all technicians, and take pride in being part of the Siemens team in delivering on time and on budget. As one of the only Prime Contractors to self-perform large conversion projects, Siemens has deep experience and knowledge of this kind of work, and complete control over the work schedule.

**Work History**

The Siemens ITS Energy Services team is a dedicated organization within Siemens ITS who works exclusively with local agencies to assist in the development of LED street light conversion projects. To date, Siemens ITS Energy Services team has completed over \$60 million in street light conversion projects. We specialize in maintenance, and therefore have a long term view in selecting a lighting solution that will meet the cities needs over many years. Nationally, Siemens has completed:

- LED conversion of over 150,000 street lights
- Over 500,000 traffic signal LED conversions
- Over 300 street and traffic light maintenance contracts with public agencies in the US. A snapshot of our projects with 2,000 fixtures or more follows:

<b>West Coast</b>		
City	State	No. of Lights
Merced	CA	7,000
Carlsbad	CA	6,700
San Mateo	CA	3,898
Manteca	CA	2,900
Novato	CA	2,104

<b>East Coast</b>		
City	State	No. of Lights
Providence	RI	16,780
CapeLight	MA	16,089
New Bedford	MA	10,051
Manchester	NH	9,000
Newton	MA	8,440

## Local Project References



City of Huntington Beach

Street light acquisition consulting and energy efficiency project implementation. Budget of \$1.6 Million.

Scope of work includes:

- street light acquisition and retrofit feasibility analysis and program design,
  - construction of new street light circuits and street light poles and fixtures along Olive Avenue, Walnut Avenue and 10th Street and
  - the installation of 264 LED street lights in the Shorebreak parking garage
  - Prime contractor with assistance from the following subcontractors- Northwest Edison and Horizon Underground
  - Winter 2013- Summer 2016
  - Bob Stachelski
  - 714-536-5523
  - bstachelski@surf-city-hb.org
  - Siemens key personnel:
    - Alex Valenti- Energy Engineer/Account Manager
    - Piron Vossoughi- Project Manager
    - Bryan Berlin- Project Manager
- 



City of San Mateo

LED conversion of 3,898 cobrahead and 1,038 decorative street lights. Budget of \$3 Million.

Scope of work includes:

- installation material and labor
  - utility incentive management
  - GIS database creation and management
  - Prime contractor with assistance from Evari GIS Consulting
  - Spring 2016- Fall 2016
  - Jay Yu
  - 650-522-7323
  - jyu@cityofsanmateo.org
  - Siemens key personnel:
    - Alex Valenti- Energy Engineer/Account Manager
    - Piron Vossoughi - Project Manager
    - Richard O'Hearn - Energy Engineer
- 



City of Ontario

Street light maintenance: budget of \$560,000.

Scope of work includes:

- Preventative maintenance for City owned street

- lights assets
    - Metal decorative and concrete marbelite pole types
    - High Pressure Sodium and LED fixtures
  - Prime contractor
  - 2012-2017
  - Pat Malloy
  - 909-395-2600
  - pmalloy@ci.ontario.ca.us
  - Siemens key personnel:
    - Mike Hutchens - Area Operations Manager
    - Candace Gallaher - Service Account Manager
    - Chris Franco - Lead Technician
- 



City of Rancho Cucamonga

Street light maintenance: budget of \$12,000.

Scope of work includes:

- Preventative maintenance for City owned street lights assets
  - Metal decorative and concrete marbelite pole types
  - High Pressure Sodium and LED fixtures
- Prime contractor
- 2012-2019
- Fred Lyn
- 909-477-2740 ext.4035
- Fred.lyn@cityofrc.us
- Siemens key personnel:
  - Mike Hutchens - Area Operations Manager
  - Candace Gallaher - Service Account Manager
  - Chris Franco - Lead Technician

## Key Staff

Siemens has assembled a world class team of internal personnel. Organizational charts are also provided, as well as resumes for the key personnel who will be involved in the project development, implementation, and completion phases in Appendix B – Resumes.

Alex Valenti, Account Manager and Sr. Energy Engineer. Alex will coordinate all project related communications with the public and provide a single point of contact for City staff. Alex has over 6 years in the energy efficiency field, developing energy efficiency lighting standards and assisting City's in developing street light projects throughout California and Arizona. Alex represents Siemens in the California Street Lights Association group which is the major advocacy group for municipalities in California. Alex is assisting many communities in Southern California to purchase utility owned street lights and develop turnkey LED conversions.

Alex will lead project relations team. He will provide the following functions:

- Provide public outreach throughout the project
- Attended City meetings
- Coordinate the development of the web based project tracking and FAQ's
- Lead team for project communications through social media, press, and print media with coordination from the City.

Piron Vossoughi, Project Manager - Mr. Vossoughi has extensive project management experience with leadership in managing successful projects from proposal development through multifaceted design, product and implementation development and qualification phases to multi-year production programs. He is experienced in managing multiple teams and subcontracts while responsible for budget, delivery and technical performance of the project. Mr. Vossoughi also excels in project risk mitigation and planning, and is currently managing the Huntington Beach street light circuit conversion.

Piron will be the head of the project management team. He will provide the following functions:

- Interface to the City for project implementation
- Daily oversight of the project – financial and implementation
- Reporting of status to city staff
- Change order management
- Ensure project schedule and budget via PM@Siemens processes
- Manages warehouse and material logistics

Michael Hutchens, Area Operations Manager - Mr. Hutchens has over 21 years of extensive experience in both the technical and construction-related aspects of the traffic signal and streetlight maintenance industry. He has served in many different capacities with increasing responsibility as he has shown himself thorough, professional and competent through the years

from field laborer to foreman, field supervisor, technical support for US Traffic Corporation, and estimating, operations management, project management, and service account management.

MR. Hutchens will provide the following functions:

- Management and scheduling of installation crews
- Coordinating installation with project manager and project plan
- Ensures EH&S standards are met

Richard O'Hearn Jr., Sr. Applications Energy Engineer and Certified Energy Manager (CEM), will lead the design team. He has a decade of roadway lighting design experience. Richard joined Siemens energy services team from Philips Lighting North America where he performed roadway lighting audits for the US Air Force and the US Department of Defense. He also designed a data collection tool that earned him a spot as a technical advisor for the US Dept. of Energy, assisting in the BEDES Beta program. Richard's extensive GIS auditing expertise was highlighted in the 2015 Street and Area Lighting Conference, where he presented information regarding GIS field auditing best practices.

Richard will be the lead technical expert for the lighting design team. He will provide the following functions:

- Energy efficient lighting design
- Energy savings and guarantees
- Utility rebate coordination
- Measurement & Verification reporting

## Project Approach

### Scope of Work Finalization



Siemens will review the Investment Grade Audit results with City staff and confirm the system design prior to beginning the LED conversion. Siemens will provide a detailed scope of work. This will incorporate the street light fixture replacement processes and all associated scope, including any optional scope identified by the City, such as Park and historic lighting. A scope of work document will be produced that contains the executable scope items, reporting documentation and a final project schedule, including implementation and completion phases.

Following the confirmation that all requirements will be met, Siemens will schedule a kickoff meeting to officially begin the phase two effort. This meeting will include Siemens' key personnel, the City of Rialto project staff, project personnel, key suppliers, and any stakeholders whose participation is required, and will promote partnering and collaboration throughout the project. The kick-off meeting will be conducted at the earliest opportunity to ensure that all parties understand the goals, objectives, time frames, contract stipulations, communications requirements and conditions involved in the implementation phase of the project.

Once all verifications have been made and the project implementation plan is agreed upon by all parties, Siemens will finalize the Utility rebate applications and initiate the procurement of the qualified luminaires.

Prior to the conversion of the street lights, Siemens will agree upon applicable traffic control requirements with the City, and obtain any necessary permits. In conjunction with this, Siemens will work closely with the City and the community to ensure that residents and businesses are aware of the work that is to be done, the schedule of work, and what the impact will be. Siemens will work closely with the City to identify areas that are impacted by tourism, schools, public gatherings, and other community activities to ensure any inconvenience to the public is minimal.

### Street Light Asset Cutover

After the street light acquisition has been approved by the CPUC and the contract to purchase these assets has been executed, Siemens will coordinate with the City and SCE on the transfer of ownership or "cutover" schedule of the assets to City ownership. The exact schedule of this cutover will depend on the final terms decided between SCE and the City. It is Siemens understanding that the cutover cost to SCE is included in the asset valuation cost, therefore no further cost from SCE shall be borne by the program.

The estimated cutover rate is 1,000-1,500 street light assets/month, which translates to duration of roughly 4 months for the cutover of the total 3,806 assets. The cutover process will consist of

SCE staff, Siemens staff and City staff participation in confirming the exact assets that are cutover and determining the point of demarcation of ownership of the system.

Siemens has designed a prototype pole tag concept that can be affixed to all pole types throughout the City. The pole tag is a thin anodized aluminum utility tag that has a 3M industrial adhesive and can be configured with many different characters. Siemens will work with the City to determine the most appropriate numbering convention to implement for the newly acquired assets.

Siemens staff will enter the new asset ID numbers in the maintenance database and provide the necessary information to SCE to complete the reassignment of the tariff rate from LS-1 to LS-2.

The City will assume the maintenance responsibility over the newly acquired street light assets once they are cutover, with contracted service to Siemens. This will be calculated on a unit cost basis dependent on the street light technology type and prorated from date of cutover. During the cutover process an asset database will be created that will incorporate the new asset ID numbers and the available asset attributes identified by Siemens during the IGA field audit. This database will allow Siemens and City staff to access asset location, attributes, maintenance related activities, as well as, allow members of the community to report outages.

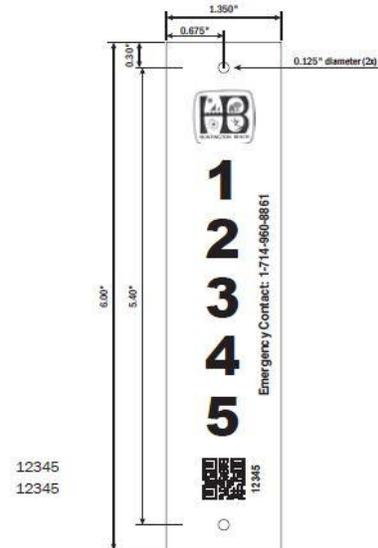


Figure 1: Sample of pole label

## LED Street Light Conversion

Siemens will provide LED street light installation services and associated LED fixture materials in conjunction with the asset cutover. By coordinating the asset cutover and the LED conversion, the City will realize the energy cost savings as soon as possible and limit any maintenance issues with the incumbent technology. As indicated by the Investment Grade Audit the following material schedule has been designed for the conversion.

STYLE	LINE ITEM	CATALOG NUMBER	WATTAGE	QTY
COBRAHEAD	A	ERL1-0-03-B1-40-A-GRAY	25	2,098
	B	ERL1-0-04-B1-40-A-GRAY	32	1,349
	C	ERL1-0-07-C1-40-A-GRAY	67	199
	D	ERL1-0-10-C1-40-A-GRAY	90	66
	E	ERL1-H-0-13-C1-40-A-GRAY	125	3
	F	ERS2-0-19-C1-40-A-GRAY	162	1
	I	(ALREADY LED- WILL NOT CONVERT)	94	2
	J	(ALREADY LED- WILL NOT CONVERT)	103	1
	K	(ALREADY LED- WILL NOT CONVERT)	106	1
	L	(ALREADY LED- WILL NOT CONVERT)	189	4
DOUBLE COBRAHEAD	A	ERL1-0-03-B1-40-A-GRAY	25	4
GATEWAY	G	LES - 57W443 - 840 - HWD - XXXX - UNV - 1	57	38
POST TOP	H	LES - 37W333 - 840 - HWD - XXXX - UNV - 1	37	40
GRAND TOTAL				3,806

Siemens plans to mobilize out of our local Riverside office but requests that a City owned facility be made available for material storage, if available. This will increase installation efficiency and energy cost savings to the City.

The project will require 2 technicians for the duration of the project. In addition to technicians, Siemens will also have a field supervisor, project manager, commercial project manager, project coordinator, and warehouse staff supporting the project. Siemens staff will use Microsoft Project to track the overall progress of the project and to create overview progress reports, as well as mobile technology that will track progress in real time through the use of tablets in the field.

Installation progress will be tracked on a daily basis by the project's Field Supervisor and Project Manager, and a brief status report that includes project status and any current issues will be provided to the City of Rialto on a weekly basis. Project team meetings will be held on a regular basis as determined by the City and Siemens. These meetings will include the Siemens' project management staff, Siemens' field supervisor, and City staff. In addition to progress reports, these meetings will ensure that the project is on schedule, any issues are being addressed, the work is being done safely and to the satisfaction of all stakeholders.

Quality control will be a top priority during the implementation phase of the project. The Siemens project manager and field supervisor will routinely visit the field to perform quality control and identify opportunities for improvement. Siemens staff will routinely perform internal project audits and reviews to ensure the project is being executed correctly and efficiently. In addition, Siemens project management and supervisory staff will communicate on a regular basis with City staff and City existing street light maintenance contractor in relation to any issues found in the field that require attention.

All materials removed that are able to be recycled will be recycled appropriately. Resulting hazardous waste and general refuse will be handled in accordance with all applicable regulations and best practices. To facilitate the recycling effort, Siemens is partnering with Laurel Environmental, a WBE company specializing in streetlight recycling. Laurel Environmental will supply all applicable recycling certificates. Additionally Laurel Environmental will advise Siemens of any increase in scrap values, which will be passed along to the City.

Throughout the implementation phase, GIS data will be recorded, in real time, through the use of mobile devices. This will allow for access to real-time project data for both Siemens and the City of Rialto. Part of this process will be ensuring that the GIS and GPS data is accurate and the fixtures are appropriately tagged with wattage labels in compliance with the American National Standard for Roadway Lighting Equipment, ANSI C136.15.



With agreement from the City, Siemens will provide monthly summaries of completed zones for the City's provisional acceptance. This will allow any issues that may arise to be addressed on an on-going basis rather than at the end of the project. In conjunction with this, on a monthly basis, the Siemens energy engineer will use information gathered in the monthly summaries to process rebates with utility providers and ensure that energy rates are accurately adjusted in accordance with the project's progress. Siemens will coordinate with the utilities to ensure that any inspections are scheduled well in advance, as to not impact the project schedule or unnecessarily delay any funding.

Following the completion of the conversion, Siemens will self-audit the project, and then work with the City on final project inspection and acceptance, at which time any punchlist items will be addressed, and the warranty period will begin.

### Milestones

Siemens will utilize a milestone based approach in tracking the progress of this project, along with other key performance indicators that will represent actual progress on the project, and will demonstrate that the project is staying on track.

## Project Completion

### Completion Documentation

Following the completion of the implementation phase and City acceptance, Siemens will begin the fourth phase of the project, the Project Completion Phase. At this point Siemens will provide a comprehensive summary of the project that includes (but is not limited to) the following:

- Final GIS Data
- Summary of inventory, including fixture quantities, wattages, and installation dates
- As-built documentation (as-needed)
- As-built schedule of the project and a comparison of the actual installation vs. the scheduled baseline.
- A summary of any scope changes that occurred
- A statement of Siemens warranty details with contacts and procedures
- A statement of manufacturers' warranties with contacts and procedures
- Final energy calculations
- Summary of rebates, incentives and rate changes
- Recommendations for maintenance and cleaning schedules

Siemens will prepare and submit the final rebate documentation to the utility. In addition, Siemens will verify that the billing rate change has been submitted and accepted, and that the utility billing is correct. As Siemens foresees this as an on-going process throughout the implementation phase, the project completion phase will consist of confirming prior implementation phases and finalizing the last installation phase.

Once the rebate is secured, the billing is verified then a final project closeout report will be generated. This will consist of a complete inventory database of the installed system with GIS locations and all attributes of the LED street light system. Furthermore, this report will also include the final results of the rebate allocation, the energy savings to date and the final estimated energy savings for future years, summarizing the final results of the project.

When the Audit and Conversion process has been completed, the city will receive a Geodatabase containing a complete Inventory of all the Street lights within the city. This data will open many opportunities for integration into the city's existing GIS system. For example:

- Integration into a CMMS or other work order management system to track and issue work-orders or fix failures
- Assisting with City Planning related to lighting, such as identifying areas which may require lighting, report on various decorative issues using provided templates.

Assets can be added to existing enterprise GIS systems such as ArcServer or ArcGIS online webmap, or internal websites.

## Warranty



Siemens offers a 12 month warranty on all materials and workmanship performed by Siemens. Further Siemens will pass through to the City all Manufacturers' Warranties. The warranty phase shall begin for each fixture upon installation completion. The manufacturer offers a ten (10) year warranty on all LED light fixtures. Labor to replace any inoperable, defective or otherwise non-performing fixtures will be covered in our comprehensive maintenance plan, which is detailed in the section below for years 1-10. Should the City not elect to purchase a maintenance plan from Siemens, the labor to replace defective, inoperable or otherwise non-performing fixtures will not be covered and would be billed separately to the City by Siemens.

## Fee Proposal

Siemens offers the following price for the proposed goods and services outlined in this proposal.

Base Scope: Price for the asset cutover, asset labeling and LED street light conversion labor and materials of the street light fixtures to be acquired from Southern California by the City: \$1,580,256.49.

*In recognition of the partnership between Siemens and the City of Rialto over the past two years, Siemens will offer a onetime discount of \$160,026.00, if a sole source contract is signed between both parties prior to November 30, 2016.*

This would make the total base scope price: \$ 1,420,230.49.

Optional Scope: Price for the asset labeling and LED street light conversion labor and materials of the street light fixtures currently owned by the City: \$79,060.66.

Total Fee Proposal (inclusive of base scope discount): \$1,499,291.15.

*Price is inclusive of cutover activities and LED conversion. This includes pole labels and associated labor, GE Evolve series LED fixtures, photocell control node, and associated installation labor and equipment. As a valued partner to the City of Rialto Siemens offers the following discounted pricing if contract is signed prior to November 30, 2016. This offer is extended for the services described, inclusive of the GE Evolve series LED material.*

## Terms and Conditions

Siemens submits this proposal with the agreed upon Terms and Conditions negotiated with the City.

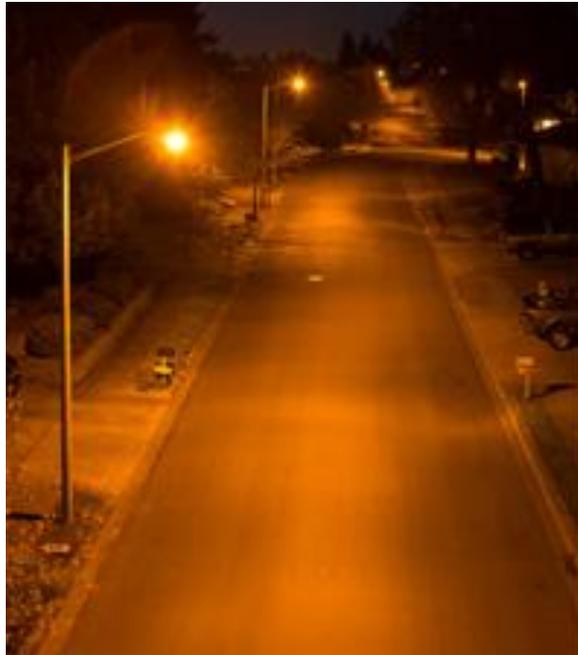
## Validity

This proposal and the associated pricing is valid for 90 days unless stated otherwise in this document.

Attachments

# 2016

## CITY of RIALTO, CA



Richard James O'Hearn Jr.

Siemens Mobility

6/15/2016

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## **SIEMENS**

The Siemens Intelligent Traffic Systems (ITS) Energy Services team is a dedicated organization within Siemens ITS who works exclusively with local agencies to assist in the development of LED street light conversion projects. To date, Siemens ITS Energy Services team has completed over \$60 million in street light conversion projects. We specialize in maintenance, and therefore have a long term view in selecting high quality lighting solutions that will meet the cities needs over many years. Nationally, Siemens has completed:

- LED conversion of over 150,000 street lights
- Over 500,000 traffic signal LED conversions
- Over 300 street and traffic light maintenance contracts with public agencies in the US

## INTRODUCTION

The following Investment Grade Audit provides the City of Rialto the results of a system wide analysis of the Southern California Edison (SCE) owned LS-1 street light system. Siemens ITS staff and field audit subcontractor Evari GIS Consulting completed a pole-by-pole field check of the street lights in the City. The data collected was then compiled into a database, compared to the SCE billing data, and the anticipated acquisition and LED conversion cost savings was calculated.

The City of Rialto has the opportunity to purchase approximately 3,800 street light assets from SCE. By purchasing the street light assets, converting them to LED technology and maintaining the system, the City can anticipate an annual cost savings of **\$360,051**.

## SCOPE OF WORK

### AUDIT

The first step was obtaining GIS data by the utility Southern California Edison (SCE) who currently owns the existing system. By integrating it into a GIS platform, Siemens conducted a data collection phase in which field personnel went to every location provided in the system to confirm or correct the data, which would then be used to establish a baseline of costs and benefits with regards to the customer purchasing, maintaining, and converting the entire system to LEDs.

### ANALYSIS

The following pages are a detailed analysis conducted under the objective of identifying any and all benefits for the City of Rialto to purchase & maintain their existing street light system. Upon review of the data collected in the field during the audit, it has been determined that the City of Rialto, CA would benefit from a 3-step process, ending in the owning and operating of an LED street light system:

1. Utility Bill Corrections – while minor in comparison, there were a few discrepancies that were identified:
  - a. A total of (5) items were found to not actually exist in the field that the City is still paying for, and
  - b. (206) total fixtures were found to be of different wattages than what the utility had on record. Impacts of correcting these discrepancies will have a positive and negative impact on the customers utility bill, however the net result is positive, however small.
2. System Purchase – the customer should purchase the existing system under an adjusted cost based on the added age of the assets since its last valuation and the discrepancies discussed. The customer should also identify a method for maintaining a street light system before taking ownership, which – as mentioned below – would be to either perform the maintenance “in-house” or hire a 3<sup>rd</sup> party contractor.
3. System Conversion – once the customer owns their street lights, they should move forward with a conversion to more energy efficient LEDs. This will drastically reduce the cost to operate and maintain the street light system, while providing equal or improved light levels based on the perceived lumens of both systems.

## UTILITY BILL ANALYSIS

Unmetered street lights that fall under the territory of Southern California Edison (SCE) that are included in this report, there exists two tariff rates that are dependent upon ownership of the street lights (assets). The street light tariffs have two components that make up the costs associated with operating and maintaining the streetlights. The energy costs are based on the total kWh of a system, and the facility charges (also known as "Service Charges") are based on the wattage and lamp of each fixture, and are applied on a monthly basis.

### LS-1: Company Owned Assets

Applicable to service for the lighting of streets, highways, and publicly-owned and publicly-operated automobile parking lots which are open to the general public where SCE owns and maintains the street lighting equipment and associated facilities under this schedule.

#### LS-1 COSTS

	Delivery Service								Generation		
	Trans	Distribution	NSGC	NDC	PPPC	DWRBC	PUCRF	Total	UG	DWREC	Total
LS-1 All Night Service	0.00831	0.00981	0.00199	-0.00085	0.01098	0.00539	0.00033	0.03596	0.03584	-0.00022	0.03562

Cost / Lamp / Month	
HPS	
50 Watt	8.87
70 Watt	8.81
100 Watt	8.81
150 Watt	9.31
200 Watt	9.75
250 Watt	9.61
310 Watt	9.80
400 Watt	9.68
LED	
50 WattEquivalent	9.43
70 WattEquivalent	9.61
100 WattEquivalent	9.75
150 WattEquivalent	10.44
200 WattEquivalent	11.30
250 WattEquivalent	12.93
400 WattEquivalent	13.75

**TOTAL ENERGY CHARGES: 0.07158**

### LS-2 b: Customer Owned Assets

Applicable to unmetered service for the lighting of streets, highways, other public thoroughfares, and publicly-owned and publicly-operated automobile parking lots, which are open to the general public, where the customer owns the street lighting equipment including, but not limited to, the pole, mast arm, luminaire and lamp, and all connecting cable in a street light system.

#### LS-2 b COSTS

	Delivery Service								Generation		
	Trans	Distribution	NSGC	NDC	PPPC	DWRBC	PUCRF	Total	UG	DWREC	Total
LS-2 All Night Service	0.00831	0.00981	0.00199	-0.00085	0.01098	0.00539	0.00033	0.03596	0.03584	-0.00022	0.03562

Cost / Lamp / Month	
ALL LAMPS	\$2.47

**TOTAL ENERGY CHARGES: 0.07158**

## **TARIFF RATE CHANGES**

It should be noted that all calculated costs stated in this report are based on the existing tariffs and their cost structures. Any changes to the LS-1 and LS-2 B tariffs and associated rates will result in changes to the calculated values.

Both the LS-1 and LS-2 B tariffs are included in Attachment A for the customers' review.

## EXISTING LIGHTING SYSTEM

In reference to Attachment B which was a valuation provided by SCE for purchase of an existing inventory, a total asset count of 3,813 assets is stated. However, the data provided by the utility for the data collection stage in the field only listed a total of 3,811 assets. It is assumed that the missing (2) data points had been removed between the date of the valuation and the date of the data delivery. Furthermore, it is unknown what the missing data points were, with regards to wattage and lamp type.

## STYLES, QTY, WATTAGES, and OTHER TECHNOLOGY

**TABLE 2.1 – DATA DELIVERED QUANTITIES**

POLE MATERIAL	SCE WATTAGE & LAMP	QTY
CONCRETE	50 HPS	2
	70 HPS	1770
	100 HPS	1189
	150 HPS	210
	200 HPS	52
	250 HPS	1
METAL	70 HPS	190
	100 HPS	42
	150 HPS	5
WOOD	100 HPS	150
	150 HPS	24
	200 HPS	13
	250 HPS	1
	70 HPS	162
<b>GRAND TOTAL</b>		<b>3811</b>

## EXISTING BASELINE

The existing system is currently being billed under the LS-1 tariff rate, with the quantities and types shown in table 2.1 above. Establishing an existing system baseline is important for identifying billing changes that would occur under billing corrections, asset purchases, and conversions.

Under the SL-1 tariff rate, annual baseline costs for the existing system are shown in table 2.2 below:

**TABLE 2.2 – EXISTING SYSTEM BASELINE**

	ANNUAL KWH	ANNUAL ENERGY COSTS	ANNUAL FACILITY COST	TOTAL ANNUAL OPERATING COSTS
RIALTO, CA	1,656,684	\$118,585	\$404,663	\$523,248
<b>GRAND TOTAL</b>	<b>1,656,684</b>	<b>\$118,585</b>	<b>\$404,663</b>	<b>\$523,248</b>

During the data collection stage, the data provided by SCE was used for verification of asset location. It has been determined that an additional (5) assets that had GIS data assigned to them were in fact not in the field. Table 2.3

below shows the pole material, wattage, and lamp type for these missing assets. These assets should be removed from the current billing system, unless the customer wishes to have them reinstalled.

**TABLE 2.3 – ASSETS NOT FOUND IN FIELD**

POLE MATERIAL	SCE WATTAGE & LAMP	QTY
CONCRETE	70 HPS	2
	100 HPS	1
METAL	70 HPS	1
	100 HPS	1
<b>GRAND TOTAL</b>		<b>5</b>

In addition to missing assets, there were instances where the observed wattages and lamp types did not match the existing SCE data, thus not matching the existing billed system. Table 2.4 shows the wattage and lamp type variances found during the data collection phase:

**TABLE 2.4 – WATTAGE & LAMP VARIANCES**

POLE MATERIAL	OBSERVED WATTAGE & LAMP	SCE WATTAGE & LAMP						ADDITIONS
		50 HPS	70 HPS	100 HPS	150 HPS	200 HPS	250 HPS	
CONCRETE	70 HPS	2		86	2	2		92
	100 HPS		62		8	6		76
	150 HPS		3	10				13
	200 HPS		2	3	5			10
	250 HPS			1				1
	400 HPS					1		1
	94 LED			2				2
	103 LED		1					1
	106 LED		1					1
	189 LED		1	3				4
<b>CONCRETE SUBTRACTACTIONS</b>		<b>2</b>	<b>70</b>	<b>105</b>	<b>15</b>	<b>9</b>	<b>0</b>	<b>201</b>
METAL	70 HPS			3				3
	100 HPS		2					2
	150 HPS							0
<b>METAL SUBTRACTACTIONS</b>		<b>0</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>
<b>GRAND TOTAL</b>		<b>2</b>	<b>72</b>	<b>108</b>	<b>15</b>	<b>9</b>	<b>0</b>	<b>206</b>

The primary approach for converting to LEDs is a one-for-one energy conservation measure (ECM) under the assumption that the customer is generally satisfied with the existing lit environment. While billing accuracy is important for the customer even with a High Intensity Discharge (HID) lighting system, the main reason for identifying inaccuracies between book values and field values with respect to wattage and lamp type is for the design of the LED system, which is best done by trying to achieve a lit environment that is equal to the existing one. Thus a field value in this regard supersedes ledger values.

**TABLE 2.5 – FINAL SCOPE QUANTITIES**

<b>POLE MATERIAL</b>	<b>WATTAGE &amp; LAMP</b>	<b>QTY</b>
CONCRETE	70 HPS	1790
	100 HPS	1159
	150 HPS	208
	200 HPS	53
	250 HPS	2
	400 HPS	1
	94 LED	2
	103 LED	1
	106 LED	1
	189 LED	4
METAL	70 HPS	190
	100 HPS	40
	150 HPS	5
WOOD	100 HPS	150
	150 HPS	24
	200 HPS	13
	250 HPS	1
	70 HPS	162
<b>GRAND TOTAL</b>		<b>3806</b>

The existing system can also be broken down by style, which is not considered material for the energy and service charges, however for a light source conversion style will need to be recognized in order to assure that all fixtures are replaced with their LED counterparts. Table 2.6 below breaks the assets down by style:

**TABLE 2.6 – EXISTING SYSTEM BY STYLE**

<b>STYLE</b>	<b>QTY</b>
COBRAHEAD	3724
DOUBLECOBRAHEAD	4
GATEWAY	38
POSTTOP	40
<b>GRAND TOTAL</b>	<b>3806</b>

In order to fully understand the benefits of street light ownership and conversion, a baseline based on the established existing system needs to be provided, as is in Table 2.7 below:

**TABLE 2.7 – BASELINE ENERGY CONSUMPTION AND COSTS**

	<b>ANNUAL KWH</b>	<b>ANNUAL ENERGY COST</b>	<b>ANNUAL SERVICE CHARGES</b>	<b>ANNUAL OPERATING COSTS</b>
RIALTO, CA	1,658,327	\$118,703	\$405,087	\$523,790
<b>GRAND TOTAL</b>	<b>1,658,327</b>	<b>\$118,703</b>	<b>\$405,087</b>	<b>\$523,790</b>

## SYSTEM CORRECTIONS

Siemens recommends that the utility be notified of all billing adjustments in an attempt to reach 100% billing accuracy. This includes discussing the assets that were not found in the field during the data collection phase, as well as the wattage and lamp variances identified in Table 2.4.

Once the system corrections have been recognized by the utility, the customer can expect to see a minor adjustment to system costs as that shown in Table 3.1 below:

**TABLE 3.1 – CORRECTED SYSTEM ANNUAL COST SAVINGS**

	<b>ANNUAL ENERGY COST SAVINGS</b>	<b>ANNUAL SERVICE CHARGE SAVINGS</b>	<b>ANNUAL OPERATING COST SAVINGS</b>
CITY OF RIALTO, CA	\$ 118	\$ 424	\$ 541
<b>GRAND TOTAL</b>	<b>\$ 118</b>	<b>\$ 424</b>	<b>\$ 541</b>

## SYSTEM PURCHASE

Customers who purchase street lighting equipment from their utility can typically incur savings that are attributed to the maintenance – or in this case the “service charge” – of their lighting equipment. Under this scenario, the customer is responsible for the maintenance of the lighting system, which can be done either by their own maintenance department or by hiring a 3<sup>rd</sup> party to maintain the system at a lesser cost than what the utility cost was. Because these new costs have not been established yet, Siemens takes a conservative approach to estimating the cost/fixture/month, which is derived from historical data from Siemens’ own street light maintenance group.

Because energy consumption will not have changed, these costs are not affected by the purchase of the system.

Table 3.2 below shows the new anticipated savings the customer will see, based on the corrected ledger and after assuming ownership of the existing system, which will place the new assets on the SCE LS-2 B tariff rate:

**TABLE 3.2 – EXISTING SYSTEM SAVINGS UNDER LS-2 TARIFF**

	<b>ANNUAL ENERGY COST SAVINGS</b>	<b>ANNUAL SERVICE COST SAVINGS</b>	<b>ANNUAL OPERATING COST SAVINGS</b>
CITY OF RIALTO, CA	\$0	\$291,853	\$291,853
<b>GRAND TOTAL</b>	<b>\$0</b>	<b>\$291,853</b>	<b>\$291,853</b>

Once the customer purchases their existing system, they will be required to maintain the street lights on their own, which can be done either through a in-house approach in which the customer has their own street light maintenance system, or by hiring a 3<sup>rd</sup> party maintenance contractor like Siemens to manage the system. Siemens’ historical data

shows that a traditional HID system incurs approximately \$12/fixture/year on average, while an LED system is \$4/fixture/year. Service cost savings includes routine maintenance costs only. Any structural damage to poles or associated wiring is not included in the cost savings calculation.

In all, once the customer takes ownership they can expect to offset the annual operating savings shown in Table 3.2 above by approximately \$45,000 per year, **bringing the net annual operating cost savings for correcting the existing inventory and taking ownership to \$246,722.**

## SYSTEM CONVERSION

Customer who own the community street lighting system – or portions of it – are permitted to convert the street lights to technologies that are recognized by the LS-2 customer ownership tariff rate, whether it is to improve lighting quality, energy consumption, or any other reason. LED street lighting technology is recognized by the SCE LS-2 tariff, which is why many customers are converting their street lights to LEDs as it provides both a better lit environment and improved energy consumption.

## HIGH PRESSURE SODIUM (HPS) TECHNOLOGY

The most common technology found to make up existing systems is that of a High Pressure Sodium (HPS) light source. HPS is a form of gas-discharge technology that uses an excited state to produce light. With a typical efficacy of 100 lumens per watt<sup>1</sup> (lm/w) as-well-as their relatively low operational costs, HPS lamps were historically considered a good light source for outdoor applications. However, due to their poor Color Rendering Index (CRI) value of approximately 20 CRI, HPS technology is quite limited. With an average life of approximately 12,000 – 24,000 operational hours, HPS lamps require replacement every three to six years; the ballasts need to be replaced every seven years and the entire fixture every ten years.

## LIGHT EMITTING DIODE (LED) TECHNOLOGY

Light Emitting Diode (LED) technology is a form of solid state lighting that is a two-lead semiconductor light source, which utilizes a p-n junction<sup>2</sup> diode that emits a light when activated. Over the last several years, LEDs have met and exceeded the efficacy of HPS systems, with efficacy values for street lights in the vicinity of 100 lm/w, and some – mainly those found in cobra head style luminaires – achieving over 120 lm/w, thus making them a solid-state equivalent light source for a multitude of applications, including roadway lighting. Unlike their HPS counterparts, LEDs have a higher CRI, with values exceeding 80 CRI, which improves the quality of the light for Mesopic vision<sup>3</sup> applications. LED fixtures have an expected service life of over 100,000 hours (approximately 24 years) which is 3-to-6 times longer than the expected lifetime of the incumbent HPS technology.

## BENEFITS OF LED OVER HPS

While efficacy and CRI are not the only metrics for comparing LEDs to Sodium lamp sources, it is a good start when looking at the quantitative and qualitative benefits that LEDs have over their HPS equivalents. In addition to improved efficacy values, the electromagnetic-spectrum range that LED light sources fall unto has an improved impact on the lumens perceived by the human eye, making the lumen-for-lumen measurement between and LED and HPS light sources a scaled comparison, which favors LED technology's affect on outdoor applications. Due to the exceptional operational life, when compared to HPS technology, LEDs are less expensive to both operate and maintain. With their higher efficacy and improved perceived lumen output, LEDs are able to operate using less energy, for a longer period of time. Furthermore, LEDs have historically been guided by Moore's Law, with their exponential growth in efficacy having an inverse relationship to their costs.

Because the characteristics of an LED light source outshine those of an HPS lamp, the Light Emitting Diode (LED) has become the primary light source for cities and municipalities with respect to roadway and outdoor area lighting applications.

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<sup>1</sup> When measured for Photopic lighting conditions

<sup>2</sup> A boundary or interface between two types of semiconductor material, p-type and n-type, inside a single crystal of semiconductor

<sup>3</sup> Light levels range from luminances of approximately 0.001 to 3 cd m<sup>-2</sup>

## PROPOSED SYSTEM FIXTURE SELECTION

Siemens is an expert with both the quantitative and the qualitative benefits of converting from an HID street lighting system to an LED street lighting system. The improvements to the quality of light are founded on the fact that the system operates in a Mesopic environment<sup>4</sup>, and that each lamp type (HPS, MH, MV, and LED) provides light that is perceived differently by the human eye.

Under the conditions present in a roadway lighting system, the LED solution can have an initial lumen output from the fixture that is less than that of its HID counterpart, and still produce the same perceived environment depending on the Scotopic/Photopic (S/P)

ratio, which is a correction factor determined by the spectrum of the light source, as recognized by the industry.



The Siemens' fixture selection approach is based on the perceived lumen methods, created by the Lawrence Berkley National Laboratory in July 1995<sup>5</sup>. This approach has allowed Siemens to maximize energy savings for customers without sacrificing the quality of the lit environment. While energy savings is a driving factor for a system conversion, Siemens believes that a properly lit environment is as equally important as the energy & cost savings LED brings to the customer.

We specialize in maintenance, so we gravitate toward lighting fixtures that are well-designed and provide the longest proven maintenance-free service. We have extensive experience in assisting in the selection of appropriate fixtures, performing test installations, light level studies, and helping our customers promote the financial and environmental benefits of the initiative. Our objective is to provide both vendor neutral and objective information to the City, enabling informed decisions at each project phase.

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<sup>4</sup> Luminance Levels ranging from 0.005 cd/m<sup>2</sup> – 5 cd/m<sup>2</sup>

<sup>5</sup> Reengineering of Lighting Photometry, S.M. Berman, LBNL-42327-L-213

## RECOMMENDED FIXTURES FOR THE CITY OF RIALTO, CA

For the majority of the fixtures, Siemens selected the GE Evolve series fixture to replace all cobra head style fixtures that are still utilizing HID technologies. The Evolve is optimized for customers requiring a LED solution for local, collector and major roadways. Its unique reflective optics is designed to optimize application efficiency and minimize glare while the modern design incorporates the heat sink directly into the unit for heat transfer, thus prolonging LED life. This reliable unit has a 100,000 hour design life, significantly reducing maintenance needs and expenses over the life of the fixture. This efficient solution lowers energy consumption compared to traditional HID fixture for additional operating cost savings.

In conducting the audit, it was also discovered that some of the street lights are of decorative nature in two different styles: gateway and post top. For these fixtures, Siemens selected the EYE Lighting LEDioc retrofit system, which is a decorative retrofit kit – NOT a replacement lamp – that can be specifically designed around the existing luminaire, to provide a 10 year warranty with a DLC listed product, available in 3000K, 4000K, or 5000K CCT. The LED retrofit kit includes a separate LED light source, LED driver and transient immunity device (TID). All three components are individually replaceable. The LED retrofit kit is capable of field adjusting the light center length of the LED light source to match the photometric light center length of the original luminaire, making it easier to match the existing lit environment.

For further details on both GE and EYE Lighting specified products, see Attachment C.

## PROPOSED SYSTEM WATTAGES & TECHNOLOGY

STYLE	LINE ITEM	CATALOG NUMBER	WATTAGE	QTY
COBRAHEAD	A	ERL1-0-03-B1-40-A-GRAY	25	2,098
	B	ERL1-0-04-B1-40-A-GRAY	32	1,349
	C	ERL1-0-07-C1-40-A-GRAY	67	199
	D	ERL1-0-10-C1-40-A-GRAY	90	66
	E	ERL1-H-0-13-C1-40-A-GRAY	125	3
	F	ERS2-0-19-C1-40-A-GRAY	162	1
	I	(ALREADY LED)	94	2
	J	(ALREADY LED)	103	1
	K	(ALREADY LED)	106	1
	L	(ALREADY LED)	189	4
DOUBLECOBRAHEAD	A	ERL1-0-03-B1-40-A-GRAY	25	4
GATEWAY	G	LES - 57W443 - 840 - HWD - XXXX - UNV - 1*	57	38
POST TOP	H	LES - 37W333 - 840 - HWD - XXXX - UNV - 1*	37	40
<b>GRAND TOTAL</b>				<b>3,806</b>

With a 70% reduction in energy consumption, the proposed system has a significantly lower operating cost than traditional HID systems, by comparison. As shown in Table 4.1 below, the total costs of the existing system are lower by a large margin than those in Table 2.7 above:

**TABLE 4.1: PROPOSED SYSTEM ANNUAL COSTS**

	TOTAL ENERGY COSTS	TOTAL SERVICE COST	TOTAL OPERATING COSTS <sup>6</sup>
CITY OF RIALTO, CA	\$35,641	\$112,810	\$163,675
<b>GRAND TOTAL</b>	<b>\$35,641</b>	<b>\$112,810</b>	<b>\$163,675</b>

**ENERGY CONSUMPTION and COST SAVINGS**

Upon the completion of the (3) steps defined:

1. Utility bill correction
2. System ownership
3. LED conversion

The City of Rialto would see a net benefit of a 70% reduction in energy consumption (kWh) and a net reduction of over 80% in operating costs associated with streetlight systems, as shown in Tables 4.2 and 4.3 below:

**TABLE 4.2: ANNUAL ENERGY SAVINGS (kWh)**

	EXISTING: KWH	PROPOSED: KWH	ENERGY SAVINGS (KWH)	
CITY OF RIALTO, CA	1,656,684	497,916	1,158,768	70%
<b>GRAND TOTAL</b>	<b>1,656,684</b>	<b>497,916</b>	<b>1,158,768</b>	<b>70%</b>

**TABLE 4.3: ANNUAL COST SAVINGS**

	ENERGY SAVINGS (KWH)	ENERGY COST SAVINGS	SERVICE COST SAVINGS	OPERATING COST SAVINGS <sup>6</sup>
CITY OF RIALTO, CA	1,158,768	\$83,062	\$292,278	\$360,116
<b>GRAND TOTAL</b>	<b>1,158,768</b>	<b>\$83,062</b>	<b>\$292,278</b>	<b>\$360,116</b>

<sup>6</sup> Includes \$4/fixture/yr in maintenance costs

## ATTACHMENT A - STREET LIGHT TARIFFS



Southern California Edison  
 Rosemead, California (U 338-E)

Revised Cal. PUC Sheet No. 58336-E  
 Cancelling Revised Cal. PUC Sheet No. 57886-E

Schedule LS-1  
LIGHTING - STREET AND HIGHWAY - UNMETERED SERVICE  
COMPANY-OWNED SYSTEM

Sheet 1

APPLICABILITY

Applicable to service for the lighting of streets, highways, and publicly-owned and publicly-operated automobile parking lots which are open to the general public where SCE owns and maintains the street lighting equipment and associated facilities included under this Schedule.

TERRITORY

Within the entire territory served.

RATES

	Delivery Service							Generation		
	Trans*	Distribn*	NSGC*	NDC*	PPPC*	DWRBC*	PUCRF*	Total*	UG***	DWREC**
Energy Charge* - \$/kWh/Lamp/Month										
All Night Service	0.00831 (I)	0.00981 (I)	0.00199 (R)	(0.00085) (R)	0.01098 (I)	0.00539 (I)	0.00033 (I)	0.03596 (I)	0.03584 (R)	(0.00022) (I)
Midnight Service	0.00831 (I)	0.00981 (I)	0.00199 (R)	(0.00085) (R)	0.01098 (I)	0.00539 (I)	0.00033 (I)	0.03596 (I)	0.03584 (R)	(0.00022) (I)
All Night/Midnight Service Charge										
Incandescent Lamps** - \$/Lamp/Month										
103 Watt		9.53						9.53		
202 Watt		9.48						9.48		
327 Watt		9.48						9.48		
Mercury Vapor Lamps** - \$/Lamp/Month										
100 Watt		8.87						8.87		
175 Watt		8.81						8.81		
250 Watt		9.29						9.29		
400 Watt		9.75						9.75		
700 Watt		9.68						9.68		
High Pressure Sodium Vapor Lamps - \$/Lamp/Month										
50 Watt		8.87						8.87		
70 Watt		8.81						8.81		
100 Watt		8.81						8.81		
150 Watt		9.31						9.31		
200 Watt		9.75						9.75		
250 Watt		9.61						9.61		
310 Watt		9.80						9.80		
400 Watt		9.68						9.68		

(Continued)

(To be inserted by utility)  
 Advice 3319-E-A  
 Decision \_\_\_\_\_

Issued by  
R.O. Nichols  
 Senior Vice President

(To be inserted by Cal. PUC)  
 Date Filed Dec 23, 2015  
 Effective Jan 1, 2016  
 Resolution \_\_\_\_\_



Schedule LS-1 Sheet 2  
LIGHTING - STREET AND HIGHWAY - UNMETERED SERVICE  
COMPANY-OWNED SYSTEM  
 (Continued)

RATES (Continued)

	Delivery Service							Generation		
	Trans <sup>1</sup>	Distrb <sup>2</sup>	NSGC <sup>3</sup>	NDC <sup>4</sup>	PPPC <sup>5</sup>	DWRBC <sup>6</sup>	PUCRF <sup>7</sup>	Total <sup>8</sup>	UG <sup>9</sup>	DWREC <sup>10</sup>
Low Pressure Sodium Vapor Lamps - \$/Lamp/Month										
35 Watt		11.39						11.39		
55 Watt		11.39						11.39		
90 Watt		11.92						11.92		
135 Watt		11.80						11.80		
180 Watt		12.36						12.36		
Metal Halide Lamps - \$/Lamp/Month										
100 Watt		9.59						9.59		
150 Watt		9.40						9.40		
175 Watt		10.00						10.00		
250 Watt		10.17						10.17		
400 Watt		9.94						9.94		
Light Emitting Diode (LED) Lamps - \$/Lamp/Month (High Pressure Sodium Vapor Recommended Lamps)										
50 Watt		9.43						9.43		
70 Watt		9.61						9.61		
100 Watt		9.75						9.75		
150 Watt		10.44						10.44		
200 Watt		11.30						11.30		
250 Watt		12.93						12.93		
400 Watt		13.75						13.75		
Tap Device Annual Charge - \$/Device		14.13						14.13		

- \* The kilowatthours used to determine the Energy Charge for the lamp types and sizes served under this Schedule are shown in the Special Conditions section, below.
- \*\* Closed to new installations.
- \*\*\* The ongoing Competition Transition Charge (CTC) of \$0.00000 per kWh is recovered in the URG component of Generation.
- 1 Trans = Transmission and the Transmission Owners Tariff Charge Adjustments (TOTCA) which are FERC approved. The TOTCA represents the Transmission Revenue Balancing Account Adjustment (TRBAA) of \$(0.00036) per kWh, Reliability Services (R) Balancing Account Adjustment (RSBAA) of \$0.00003 per kWh, and Transmission Access Charge Balancing Account Adjustment (I) (TACBAA) of \$0.00127 per kWh.
- 2 Distrb<sup>2</sup> = Distribution
- 3 NSGC = New System Generation Charge
- 4 NDC = Nuclear Decommissioning Charge
- 5 PPPC = Public Purpose Programs Charge (includes California Alternate Rates for Energy Surcharge where applicable.)
- 6 DWRBC = Department of Water Resources (DWR) Bond Charge. The DWR Bond Charge is not applicable to exempt Bundled Service and Direct Access Customers, as defined in and pursuant to D.02-10-063, D.02-02-051, and D.02-12-082.
- 7 PUCRF = The PUC Reimbursement Fee is described in Schedule RF-E.
- 8 Total = Total Delivery Service rates are applicable to Bundled Service, Direct Access (DA) and Community Choice Aggregation Service (CCA Service) Customers, except DA and CCA Service Customers are not subject to the DWRBC rate component of this Schedule but instead pay the DWRBC as provided by Schedule DA-CRS or Schedule CCA-CRS.
- 9 Generation = The Generation rates are applicable only to Bundled Service Customers.
- 10 DWREC = Department of Water Resources (DWR) Energy Credit – For more information on the DWR Energy Credit, see the Billing Calculation Special Condition of this Schedule.

(Continued)

(To be inserted by utility)  
 Advice 3319-E-A  
 Decision \_\_\_\_\_

Issued by  
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Schedule LS-1  
LIGHTING - STREET AND HIGHWAY-UNMETERED SERVICE  
COMPANY-OWNED SYSTEM

Sheet 3

(Continued)

SPECIAL CONDITIONS

1. Kilowatthours for Lamp Type and Size: The kilowatthours for the lamp types and sizes served under this Schedule used to determine the Energy Charge are shown below:

Lamp Wattage	Average Initial Lumens	kWh Per Lamp Per Month*	
		A All Night Service	B Midnight Service
<b>Incandescent Lamps**</b>			
103	1,000	35.535	18.633
202	2,500	69.690	36.542
327	4,000	112.815	59.154
448	6,000	154.560	81.043
<b>Mercury Vapor Lamps**</b>			
100	4,000	45.195	23.698
175	7,900	74.520	39.074
250	12,000	103.845	54.451
400	21,000	163.530	85.747
700	41,000	277.035	145.263
1,000	55,000	391.575	205.322
<b>High Pressure Sodium Vapor Lamps</b>			
50	4,000	20.010	10.492
70	5,800	28.635	15.015
100	9,500	40.365	21.165
150	16,000	66.585	34.914
200	22,000	84.870	44.501
250	27,500	107.985	56.622
310	37,000	132.135	69.285
400	50,000	167.325	87.737
<b>Low Pressure Sodium Vapor Lamps</b>			
35	4,800	21.735	11.397
55	8,000	28.980	15.196
90	13,500	45.195	23.698
135	22,500	62.790	32.924
180	33,000	79.005	41.426
<b>Metal Halide Lamps</b>			
70	5,500	32.430	16.998
100	8,500	44.505	23.328
150	12,000	61.410	32.188
175	12,000	74.175	38.879
250	19,500	101.775	53.346
400	32,000	158.010	82.822
1,000	100,000	372.600	195.300
1,500	150,000	553.725	290.238

\* When an account has more than one lamp, the total kWh will be the kWh per month lamp rating to three decimal places multiplied by the number of lamps.

\*\* Closed to new installations.

(Continued)

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Schedule LS-1  
LIGHTING - STREET AND HIGHWAY-UNMETERED SERVICE  
COMPANY-OWNED SYSTEM

Sheet 4

(T)

(Continued)

SPECIAL CONDITIONS (Continued)

1. Kilowatthours For Lamp Type and Size: (Continued)

Light Emitting Diode (LED) Lamps

Lamp Watts Including Driver Loss***	Lamps Watts Including Driver Loss Mid-Point Range****	kWh per Lamp per Month Multiple Service kWh*****	
		All Night	Midnight
0-5	2.50	0.9	0.5
5.01-10	7.50	2.6	1.4
10.01-15	12.50	4.3	2.3
15.01-20	17.50	6.0	3.2
20.01-25	22.50	7.8	4.1
25.01-30	27.50	9.5	5.0
30.01-35	32.50	11.2	5.9
35.01-40	37.50	12.9	6.8
40.01-45	42.50	14.7	7.7
45.01-50	47.50	16.4	8.6
50.01-55	52.50	18.1	9.5
55.01-60	57.50	19.8	10.4
60.01-65	62.50	21.6	11.3
65.01-70	67.50	23.3	12.2
70.01-75	72.50	25.0	13.1
75.01-80	77.50	26.7	14.0
80.01-85	82.50	28.5	14.9
85.01-90	87.50	30.2	15.8
90.01-95	92.50	31.9	16.7
95.01-100	97.50	33.6	17.6
100.01-105	102.50	35.4	18.5
105.01-110	107.50	37.1	19.4
110.01-115	112.50	38.8	20.3
115.01-120	117.50	40.5	21.2
120.01-125	122.50	42.3	22.2
125.01-130	127.50	44.0	23.1
130.01-135	132.50	45.7	24.0
135.01-140	137.50	47.4	24.9
140.01-145	142.50	49.2	25.8
145.01-150	147.50	50.9	26.7
150.01-155	152.50	52.6	27.6
155.01-160	157.50	54.3	28.5
160.01-165	162.50	56.1	29.4
165.01-170	167.50	57.8	30.3
170.01-175	172.50	59.5	31.2

(Continued)

(To be inserted by utility)

Advice 2591-E  
 Decision \_\_\_\_\_

Issued by

Akbar Jazayeri  
Vice President

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Schedule LS-1  
LIGHTING - STREET AND HIGHWAY-UNMETERED SERVICE  
COMPANY-OWNED SYSTEM

Sheet 5

(T)

(Continued)

SPECIAL CONDITIONS (Continued)

1. Kilowatthours For Lamp Type and Size: (Continued)

Light Emitting Diode (LED) Lamps

<u>Lamp Watts</u> <u>Including Driver Loss***</u>	<u>Lamps Watts Including Driver Loss</u> <u>Mid-Point Range****</u>	<u>kWh per Lamp per Month</u> <u>Multiple Service kWh*****</u>	
		<u>All Night</u>	<u>Midnight</u>
175.01-180	177.50	61.2	32.1
180.01-185	182.50	63.0	33.0
185.01-190	187.50	64.7	33.9
190.01-195	192.50	66.4	34.8
195.01-200	197.50	68.1	35.7
200.01-205	202.50	69.9	36.6
205.01-210	207.50	71.6	37.5
210.01-215	212.50	73.3	38.4
215.01-220	217.50	75.0	39.3
220.01-225	222.50	76.8	40.2
225.01-230	227.50	78.5	41.1
230.01-235	232.50	80.2	42.0
235.01-240	237.50	81.9	42.9
240.01-245	242.50	83.7	43.9
245.01-250	247.50	85.4	44.8
250.01-255	252.50	87.1	45.7
255.01-260	257.50	88.8	46.6
260.01-265	262.50	90.6	47.5
265.01-270	267.50	92.3	48.4
270.01-275	272.50	94.0	49.3
275.01-280	277.50	95.7	50.2
280.01-285	282.50	97.5	51.1
285.01-290	287.50	99.2	52.0
290.01-295	292.50	100.9	52.9
295.01-300	297.50	102.6	53.8
300.01-305	302.50	104.4	54.7
305.01-310	307.50	106.1	55.6
310.01-315	312.50	107.8	56.5
315.01-320	317.50	109.5	57.4
320.01-325	322.50	111.3	58.3
325.01-330	327.50	113.0	59.2
330.01-335	332.50	114.7	60.1
335.01-340	337.50	116.4	61.0
340.01-345	342.50	118.2	61.9
345.01-350	347.50	119.9	62.8
350.01-355	352.50	121.6	63.7

(Continued)

(To be inserted by utility)  
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Vice President

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Schedule LS-1  
LIGHTING - STREET AND HIGHWAY-UNMETERED SERVICE  
COMPANY-OWNED SYSTEM

Sheet 6

(Continued)

1. Kilowatthours For Lamp Type and Size: (Continued)

Light Emitting Diode (LED) Lamps (Continued)

Lamp Watts Including Driver Loss***	Lamps Watts Including Driver Loss Mid-Point Range****	kWh per Lamp per Month Multiple Service kWh*****	
		All Night	Midnight
355.01-360	357.50	123.3	64.6
360.01-365	362.50	125.1	65.6
365.01-370	367.50	126.8	66.5
370.01-375	372.50	128.5	67.4
375.01-380	377.50	130.2	68.3
380.01-385	382.50	132.0	69.2
385.01-390	387.50	133.7	70.1
390.01-395	392.50	135.4	71.0
395.01-400	397.50	137.1	71.9

\*\*\* Lamp Wattage is based on the total wattage consumption of the lamp and driver.

\*\*\*\* The Mid-Point Range of the Lamp Watts including driver, is established by deducting 2.5 Watts from the highest wattage of the corresponding range in the "Lamp Watts Including Driver" column.

\*\*\*\*\* The energy use calculation for All Night Service is (Mid-Point Range watts) x (4,140 hours/12 months/1000). The same calculation is used for Midnight service except that the hours of service is replaced with 2,170 hours.

(D)

(Continued)

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Schedule LS-1  
LIGHTING - STREET AND HIGHWAY-UNMETERED SERVICE  
COMPANY-OWNED SYSTEM

Sheet 7

(Continued)

SPECIAL CONDITIONS (Continued)

2. Standard Installation: A standard installation includes an overhead multiple service installation where SCE furnishes bracket or mast arm construction and standard luminaire attached to a wood pole.

SCE is responsible for all installation costs associated with the initial street light installation, as well as ongoing maintenance and replacement service when SCE has determined that such replacement is necessary. The installed cost of the Standard Installation is established by Commission Decision in SCE's General Rate Case proceeding. All facilities installed shall become and remain the sole property of SCE. (N)

3. Other Than Standard Installation:

a. Prior to January 1, 2014: (N)

(1) Installation and Payment Provision: Where the applicant requests the installation of an other than standard (OTS) Installation and the request is acceptable to SCE, SCE will install the requested equipment provided the OTS street light, installation, design, labor and material is in accordance with SCE's design and engineering specifications, and the applicant agrees to advance the amount invoiced for the installation, as described in 3.a.(2) below. For an underground service installation, the Applicant is responsible for furnishing and installing any necessary conduit, structures, excavating, backfilling and restoration of the pavement in accordance with SCE's specifications. SCE will retain ownership of the facilities, and will be responsible for ongoing maintenance and replacement service when SCE has determined that such replacement is necessary. Advances made for other than a standard installation will not be refunded. (T)

(2) Wood Pole Allowance Provision: For OTS Installations where SCE installs the requested equipment, as described in Special Condition 3.a(1) above, the applicant is required to pay the estimated difference between the OTS installed costs and the Wood Pole Allowance. This amount will be invoiced by SCE, and the customer must satisfy both of the following conditions before January 1, 2014 for the provision of the Wood Pole Allowance to apply: (N)

(a) A complete street light design package must be submitted to SCE including the SCE street light authorization form completed by the applicable public authority, and;

(b) The SCE invoice for the proposed streetlight facilities must be paid in full. (N)

(D)  
(L)

(Continued)

(To be inserted by utility)

Advice 2872-E  
Decision 13-03-031

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Akbar Jazayeri  
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Schedule LS-1  
LIGHTING - STREET AND HIGHWAY-UNMETERED SERVICE  
COMPANY-OWNED SYSTEM

Sheet 8

(Continued)

SPECIAL CONDITIONS (Continued)

3. Other Than Standard Installation: (Continued)

b. Starting on January 1, 2014:

(1) Installation and Payment Provision: Effective January 1, 2014, where the applicant requests an OTS Installation, and the request is acceptable to SCE, the requested equipment will be installed pursuant to Installation Options (a) or (b), below: (T)

(a) Applicant-Installed: The applicant provides the OTS street light, installation, labor and material (cable and related electrical facilities) of OTS by the applicant's qualified contractor or sub-contractor in accordance with SCE's design and engineering specifications, covers all costs associated with the installation of the OTS street light facility (including furnishing and installing any necessary conduit, structures, excavation, backfill and restoration of the pavement in accordance with SCE's specifications), pays SCE for system inspections and upon completion of facility installation and subsequent acceptance by SCE, the applicant transfers and conveys ownership of all installed structures and facilities to SCE. SCE will be responsible for ongoing maintenance and replacement service when SCE has determined that such replacement is necessary.

(b) SCE-Installed: The applicant requests SCE to provide the OTS street light installation, design, labor and material in accordance with SCE's design and engineering specifications, and the applicant agrees to advance the full cost of the installation. For an underground service installation, the Applicant is responsible for furnishing and installing any necessary conduit, structures, excavation, backfill and restoration of the pavement in accordance with SCE's specifications. SCE will retain ownership of the facilities, and will be responsible of ongoing maintenance and replacement service when SCE has determined that such replacement is necessary. Advances made for OTS Installations will not be refunded.

(2) Wood Pole Allowance Provision: Effective January 1, 2014, SCE will discontinue granting the Wood Pole Allowance to applicants under this Schedule.

4. Hours of Service: Under SCE's standard all night operating schedule approximately 4,140 hours of service per year will be furnished. Under SCE's midnight service operating schedule approximately 2,170 hours of service per year will be furnished.

(Continued)

(To be inserted by utility)

Advice 3118-E

Decision \_\_\_\_\_

Issued by

Megan Scott-Kakures

Vice President

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Schedule LS-1  
LIGHTING - STREET AND HIGHWAY-UNMETERED SERVICE  
COMPANY-OWNED SYSTEM

(Continued)

SPECIAL CONDITIONS (Continued)

5. Other Than All Night Service:

- a. Where the customer requests the installation and/or removal of equipment in order to obtain Midnight Service and such request is acceptable to SCE, SCE will comply with such request provided the customer first agrees to pay to SCE the estimated cost installed of any additional equipment required and/or the removal cost of equipment currently installed. Such payments will not be refunded and shall be paid in advance or in installments acceptable to SCE over a period not to exceed three years. Facilities installed in connection with such requests become and remain the sole property of SCE.
- b. Total non-energy charge(s) shown under the RATES section shall be applicable under this Schedule when SCE has been requested to discontinue the existing service by the customer and the customer has stipulated, in writing, that the facilities are to be left in place for future use.

6. Removal, Relocation or Modification of Facilities:

- a. Where street lighting service and facilities are ordered removed by a customer and such facilities, or any part thereof, were in service for a period of less than 10 years (120 consecutive months), the customer shall pay to SCE a nonrefundable amount equal to the total estimated cost installed less any customer contribution, plus the estimated cost of removal less the estimated net salvage value of the facilities.
- b. Where street lighting service and facilities were ordered removed or modified by a customer and such service and facilities, or their equivalent, are ordered reinstalled within 36 months from the date of the order to remove or to modify, the customer shall pay to SCE, in advance of the reinstallation, a nonrefundable amount equal to the cost of removal or modification of the prior facilities and the estimated cost of such reinstallation.

(Continued)

(To be inserted by utility)

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Schedule LS-1  
LIGHTING - STREET AND HIGHWAY-UNMETERED SERVICE  
COMPANY-OWNED SYSTEM

Sheet 10 (T)

(Continued)

SPECIAL CONDITIONS (Continued)

6. Removal, Relocation or Modification of Facilities: (Continued)

- c. Where street lighting facilities are ordered modified and/or relocated by a customer, the customer shall pay to SCE, in advance of such modification and/or relocation, a nonrefundable amount equal to the estimated cost of such modification and/or relocation. This includes facilities that now serve street light load only, but that may have been installed originally to serve other than street light load.
- d. Facilities removed or installed remain the sole property of SCE.

7. Requirements and Restrictions:

- a. The applicant for street light service shall specify the type of service, lamp size, and location of street lights.
- b. Service shall not be furnished under this Schedule where location, mounting height, and/or other considerations are unacceptable to SCE.
- c. The installation of street lighting equipment and facilities hereunder is contingent upon SCE obtaining easements, rights of way, and highway permits satisfactory to SCE for the required poles, lines, equipment, and facilities.
- d. In accordance with Rule 4, a written contract for a term of not less than one year and not more than five years is required in order to receive street light service under the provisions of this Schedule.
- e. Should the applicant not commence using the street lighting in a bona fide manner within ninety (90) days after date of completion and installation of a street light or street lighting system requested by the applicant, SCE will bill, and the applicant shall pay, the applicable non-energy (other charges) portion of the lamp charge(s).

(Continued)

(To be inserted by utility)

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Schedule LS-1  
LIGHTING - STREET AND HIGHWAY  
COMPANY-OWNED SYSTEM

Sheet 11 (T)

(Continued)

SPECIAL CONDITIONS (Continued)

8. Timed Auxiliary Power Device Adaptor (TAP):
- a. This service is available under the terms and conditions stated below. An annual charge per device, found in the RATES section of this Schedule, plus a one-time set up administrative fee and a per modification administrative fee of \$65.00 per account plus Energy Charges billed at the LS-1 Midnight Service rate.
  - b. A Standard Installation shall consist of an individual TAP installed on SCE-owned ornamental street lighting pole.
  - c. This rate option is only available to governmental agencies who are the customer of record for ornamental street lighting service. A written Application and Agreement is required for service in conjunction with SCE-owned ornamental street lighting poles.
  - d. SCE will install the requested TAP and the installed TAP shall remain the sole property of SCE.
  - e. The installation of the applicant's holiday lighting decorations and hanger assemblies shall be in accordance with SCE's specifications.
  - f. The applicant shall specify the number of TAPs required. Billing will be based on the manufacturers' 300 watt rating for each device and the hours of operation.
  - g. At the time of installation of the TAP and annually thereafter until such TAP has been removed, the customer will be required to pay the annual charge.
  - h. In no case shall the granting of permission to install lighted holiday decorations for use with a TAP device on SCE's ornamental poles give the applicant any additional rights.

(Continued)

(To be inserted by utility)

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Decision 13-03-031

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Schedule LS-1  
LIGHTING - STREET AND HIGHWAY  
COMPANY-OWNED SYSTEM

Sheet 12 (T)

(Continued)

SPECIAL CONDITIONS (Continued)

9. Maintenance: SCE shall exercise reasonable care and diligence in maintaining its street light facilities or SCE-owned attachments thereto. Where SCE experiences, or expects to experience, maintenance costs exceeding its normal maintenance expense resulting from, but not limited to, vandalism, SCE may require the customer to pay the excess maintenance expense.
10. Liability of SCE: SCE shall not, by taking action pursuant to its tariffs, be liable for any loss, damage, or injury, established or alleged, which may result, or be claimed to result, therefrom.
11. Differential Facilities Rate: Where a governmental agency (applicant) requests and SCE agrees to install facilities which are in addition to the Standard Installation (differential facilities), the differential facilities installed costs shall be borne by the applicant.

In addition, where an applicant requests and SCE agrees to acquire the applicant's series street light system, the difference between the cost of the facilities to convert the series system to multiple service and the cost of the Standard Installation, shall be borne by the applicant.

At the option of SCE, the applicant may pay the differential facilities installed costs as a monthly charge in lieu of a one-time payment. The monthly charge is equal to 1.2 percent times the differential facilities total installed costs.

A Schedule LS-1 Differential Facilities Rate Agreement is required for service under this Special Condition.

12. Parking Lot Lighting Service: An "Agreement For Parking Lot Lighting Service SCE-Owned System Schedule LS-1" (Form 14-685) shall be required for parking lot lighting service under this Schedule.

(Continued)

(To be inserted by utility)  
 Advice 2872-E  
 Decision 13-03-031

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Vice President

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Schedule LS-1  
LIGHTING - STREET AND HIGHWAY  
COMPANY-OWNED SYSTEM

(Continued)

SPECIAL CONDITIONS (Continued)

13. Billing Calculation: A customer's bill is calculated according to the rates and conditions above.

The charges listed in the RATES section are calculated by multiplying the Total Delivery Service rates and the Generation rates, when applicable, by the billing determinants (e.g., per kilowatt [kW], kilowatthour [kWh], etc.).

As of January 1, 2012, all generation supplied to Bundled Service Customers is provided by SCE. The DWR Energy Credit provided to Bundled Service Customers is determined by multiplying the DWR Energy Credit rate component by the customer's total kWhs.

- a. Bundled Service Customers receive Delivery Service and Generation service from SCE. The customer's bill is the sum of the charges for Delivery Service and Generation service determined, as described in this Special Condition, and subject to applicable discounts or adjustments provided under SCE's tariff schedules.
- b. Direct Access Customers receive Delivery Service from SCE and purchase energy from an Energy Service Provider. The customer's bill is the sum of the charges for Delivery Service determined as described in this Special Condition except that the DWRBC rate component is subtracted from the Total Delivery Service rates before the billing determinants are multiplied by such resulting Total rates; plus the applicable charges as shown in Schedule DA-CRS and subject to applicable discounts or adjustments provided under SCE's tariff schedules.
- c. CCA Service Customers receive Delivery Service from SCE and purchase energy from their Community Choice Aggregator (CCA). SCE will read the meters and present the bill for both Delivery and Generation Services to the CCA Service Customer. The customer's bill is the sum of the charges for Delivery Service as displayed in this Rate Schedule and Generation charges determined by the CCA plus the applicable charges as shown in Schedule CCA-CRS, and subject to applicable discounts or adjustments provided under SCE's tariff schedules.

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Vice President

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**Schedule LS-2** Sheet 1  
**LIGHTING - STREET AND HIGHWAY**  
**CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE**

**APPLICABILITY**

Applicable to unmetered service for the lighting of streets, highways, other public thoroughfares, and publicly-owned and publicly-operated automobile parking lots which are open to the general public, where the customer owns the street lighting equipment including, but not limited to, the pole, mast arm, luminaire and lamp, and all connecting cable in a street light system.

**TERRITORY**

Within the entire territory served.

**RATES**

	Delivery Service							Generation		
	Trans	Distrbtn	NSGC	NDC	PPPC	DWRBC	PUCRF	Total	UG**	DWREC
Energy Charge* - \$/kWh/Lamp/Month										
All Night Service	0.00831 (I)	0.00981 (I)	0.00199 (R)	(0.00085) (R)	0.01098 (I)	0.00539 (I)	0.00033 (I)	0.03596 (I)	0.03584 (R)	(0.00022) (I)
Midnight Service	0.00831 (I)	0.00981 (I)	0.00199 (R)	(0.00085) (R)	0.01098 (I)	0.00539 (I)	0.00033 (I)	0.03596 (I)	0.03584 (R)	(0.00022) (I)

**Multiple Service - Rate A**

The following rates are applicable where SCE is requested to provide a single feed point to service a customer-owned street light system where the customer provides a point of connection for a single SCE owned photo-controller to control all street lights in the system.

**All Night/Midnight Service Charge**

Incandescent Extended Service Lamps - \$/Lamp/Month	0.82	0.82
Mercury Vapor Lamps - \$/Lamp/Month	0.82	0.82
Light Emitting Diode (LED) Lamps - \$/Lamp/Month	0.82	0.82
High Pressure Sodium Vapor Lamps - \$/Lamp/Month	0.82	0.82
Low Pressure Sodium Vapor Lamps - \$/Lamp/Month	0.82	0.82
Metal Halide Lamps - \$/Lamp/Month	0.82	0.82
Induction Lamps - \$/Lamp/Month	0.82	0.82
All Other Lamps - \$/Lamp/Month	0.82	0.82

- \* The kilowatt hours used to determine the Energy Charge for the lamp types and sizes served under this Schedule are shown in the Special Conditions section, below.
- \*\* The ongoing Competition Transition Charge (CTC) of \$0.00000 per kWh is recovered in the UG component of Generation.
- 1 Trans = Transmission and the Transmission Owners Tariff Charge Adjustments (TOTCA) which are FERF approved. The TOTCA represents the Transmission Revenue Balancing Account Adjustment (TRBAA) of \$(0.00036) per kWh, Reliability Services (R) Balancing Account Adjustment (RSBAA) of \$0.00003 per kWh, and Transmission Access Charge Balancing Account Adjustment (I) (TACBAA) of \$0.00127 per kWh.
- 2 Distrbtn = Distribution
- 3 NSGC = New System Generation Charge
- 4 NDC = Nuclear Decommissioning Charge
- 5 PPPC = Public Purpose Programs Charge (includes California Alternate Rates for Energy Surcharge where applicable.)
- 6 DWRBC = Department of Water Resources (DWR) Bond Charge. The DWR Bond Charge is not applicable to exempt Bundled Service and Direct Access Customers, as defined in and pursuant to D.02-10-063, D.02-02-051, and D.02-12-082.
- 7 PUCRF = The PUC Reimbursement Fee is described in Schedule RF-E.
- 8 Total = Total Delivery Service rates are applicable to Bundled Service, Direct Access (DA) and Community Choice Aggregation Service (CCA Service) Customers, except DA and CCA Service Customers are not subject to the DWRBC rate component of this Schedule but instead pay the DWRBC as provided by Schedule DA-CRS or Schedule CCA-CRS.
- 9 Generation = The Generation rates are applicable only to Bundled Service Customers.
- 10 DWREC = Department of Water Resources (DWR) Energy Credit – For more information on the DWR Energy Credit, see the Billing Calculation Special Condition of this Schedule.

(Continued)

(To be inserted by utility)  
Advice 3319-E-A  
Decision \_\_\_\_\_

Issued by  
R.O. Nichols  
Senior Vice President

(To be inserted by Cal. PUC)  
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Resolution \_\_\_\_\_



Schedule LS-2 Sheet 2  
**LIGHTING - STREET AND HIGHWAY**  
**CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE**  
 (Continued)

RATES (Continued)

	Delivery Service							Generation*		
	Trans*	Distrbtn*	NSGC**	NDC	PPPC**	DWRBC**	PUCRF**	Total*	UG**	DWREC**
<b>Multiple Service - Rate B</b>										
The following rates are applicable where SCE is requested to provide a service connection point to feed a customer-owned street light with a customer-owned photocell.										
All Night/Midnight Service Charge										
Incandescent Extended Service Lamps - \$/Lamp/yr		2.47						2.47		
Mercury Vapor Lamps - \$/Lamp/Month		2.47						2.47		
Light Emitting Diode (LED) Lamps - \$/Lamp/Month		2.47						2.47		
High Pressure Sodium Vapor Lamps - \$/Lamp/Mon		2.47						2.47		
Low Pressure Sodium Vapor Lamps - \$/Lamp/Mon		2.47						2.47		
Metal Halide Lamps - \$/Lamp/Month		2.47						2.47		
Induction Lamps - \$/Lamp/Month		2.47						2.47		
All Other Lamps - \$/Lamp/Month		2.47						2.47		

- \*\* The ongoing Competition Transition Charge (CTC) of \$0.00000 per kWh is recovered in the UG component of Generation.
- 1 Trans = Transmission and the Transmission Owners Tariff Charge Adjustments (TOTCA) which are FERC approved.
  - 2 Distrbtn = Distribution
  - 3 NSGC = New System Generation Charge
  - 4 NDC = Nuclear Decommissioning Charge
  - 5 PPPC = Public Purpose Programs Charge (includes California Alternate Rates for Energy Surcharge where applicable.)
  - 6 DWRBC = Department of Water Resources (DWR) Bond Charge. The DWR Bond Charge is not applicable to exempt Bundled Service and Direct Access Customers, as defined in and pursuant to D.02-10-063, D.02-02-051, and D.02-12-082.
  - 7 PUCRF = The PUC Reimbursement Fee is described in Schedule RF-E.
  - 8 Total = Total Delivery Service rates are applicable to Bundled Service, Direct Access (DA) and Community Choice Aggregation Service (CCA Service) Customers, except DA and CCA Service Customers are not subject to the DWRBC rate component of this Schedule but instead pay the DWRBC as provided by Schedule DA-CRS or Schedule CCA-CRS.
  - 9 Generation = The Generation rates are applicable only to Bundled Service Customers.
  - 10 DWREC = Department of Water Resources (DWR) Energy Credit – For more information on the DWR Energy Credit, see the Billing Calculation Special Condition of this Schedule.

(Continued)

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Schedule LS-2 Sheet 3  
**LIGHTING - STREET AND HIGHWAY**  
**CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE**  
 (Continued)

RATES (Continued)

Series Service	Delivery Service							Generation		
	Trans <sup>1</sup>	Distrbtn <sup>2</sup>	NSGC <sup>3</sup>	NDC <sup>4</sup>	PPPC <sup>5</sup>	DWRBC <sup>6</sup>	PUCRF <sup>7</sup>	Total <sup>8</sup>	UG <sup>**</sup>	DWREC <sup>10</sup>
All Night/Midnight Service Charge										
Incandescent Extended Service Lamps - \$/Lamp/Month		11.86						11.86		
Mercury Vapor Lamps - \$/Lamp/Month		11.86						11.86		
High Pressure Sodium Vapor Lamps - \$/Lamp/Month		11.86						11.86		
Low Pressure Sodium Vapor Lamps - \$/Lamp/Month		11.86						11.86		
Metal Halide Lamps - \$/Lamp/Month		N/A						N/A		
All Other Lamps - \$/Lamp/Month		11.86						11.86		
Series Service Power Factor Charge* - \$/kVar		0.51						0.51		
Series Service Voltage Discount, Energy - \$/kWh		0.00000						0.00000	(0.00112) (I)	

- \* kVAR losses for the Series Service Power Factor Charge are calculated in accordance with Special Condition 14.
- \*\* The ongoing Competition Transition Charge (CTC) of \$0.00000 per kWh is recovered in the UG component of Generation.
- 1 Trans = Transmission and the Transmission Owners Tariff Charge Adjustments (TOTCA) which are FERC approved.
- 2 Distrbtn = Distribution
- 3 NSGC = New System Generation Charge
- 4 NDC = Nuclear Decommissioning Charge
- 5 PPPC = Public Purpose Programs Charge
- 6 DWRBC = Department of Water Resources (DWR) Bond Charge. The DWR Bond Charge is not applicable to exempt Bundled Service and Direct Access Customers, as defined in and pursuant to D.02-10-063, D.02-02-051, and D.02-12-082.
- 7 PUCRF = The PUC Reimbursement Fee is described in Schedule RF-E.
- 8 Total = Total Delivery Service rates are applicable to Bundled Service, Direct Access (DA) and Community Choice Aggregation Service (CCA Service) Customers, except DA and CCA Service Customers are not subject to the DWRBC rate component of this Schedule but instead pay the DWRBC as provided by Schedule DA-CRS or Schedule CCA-CRS.
- 9 Generation = The Generation rates are applicable only to Bundled Service Customers.
- 10 DWREC = Department of Water Resources (DWR) Energy Credit – For more information on the DWR Energy Credit, see the Billing Calculation Special Condition of this Schedule.

(Continued)

(To be inserted by utility)  
 Advice 3319-E-A  
 Decision \_\_\_\_\_

Issued by  
R.O. Nichols  
 Senior Vice President

(To be inserted by Cal. PUC)  
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 Resolution \_\_\_\_\_



Schedule LS-2 Sheet 4  
**LIGHTING - STREET AND HIGHWAY**  
**CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE**  
 (Continued)

**RATES (Continued)**

	Delivery Service							Generation		
	Trans <sup>1</sup>	Distrbtn <sup>2</sup>	NSGC <sup>3</sup>	NDC <sup>4</sup>	PPPC <sup>5</sup>	DWRBC <sup>6</sup>	PUCRF <sup>7</sup>	Total <sup>8</sup>	UG <sup>9</sup> **	DWREC <sup>10</sup> **
<b>Optional Relamp Service Charge</b>										
Incandescent Extended Service Lamps- \$/Lamp/Month		N/A						N/A		
Mercury Vapor Lamps- \$/Lamp/Month		N/A						N/A		
High Pressure Sodium Vapor Lamps - \$/Lamp/Month										
50 Watt		0.67						0.67		
70 Watt		0.65						0.65		
100 Watt		0.65						0.65		
150 Watt		0.66						0.66		
200 Watt		0.66						0.66		
250 Watt		0.66						0.66		
310 Watt		N/A						N/A		
400 Watt		0.68						0.68		
Low Pressure Sodium Vapor Lamps- \$/Lamp/Month		N/A						N/A		
Metal Halide Lamps- \$/Lamp/Month		N/A						N/A		
All Other Lamps- \$/Lamp/Month		N/A						N/A		

- \*\* The ongoing Competition Transition Charge (CTC) of \$0.00000 per kWh is recovered in the UG component of Generation. (R)
- 1 Trans = Transmission and the Transmission Owners Tariff Charge Adjustments (TOTCA) which are FERC approved.
  - 2 Distrbtn = Distribution
  - 3 NSGC = New System Generation Charge
  - 4 NDC = Nuclear Decommissioning Charge
  - 5 PPPC = Public Purpose Programs Charge
  - 6 DWRBC = Department of Water Resources (DWR) Bond Charge. The DWR Bond Charge is not applicable to exempt Bundled Service and Direct Access Customers, as defined in and pursuant to D.02-10-063, D.02-02-051, and D.02-12-082.
  - 7 PUCRF = The PUC Reimbursement Fee is described in Schedule RF-E.
  - 8 Total = Total Delivery Service rates are applicable to Bundled Service, Direct Access (DA) and Community Choice Aggregation Service (CCA Service) customers, except DA and CCA Service customers are not subject to the DWRBC rate component of this Schedule but instead pay the DWRBC as provided by Schedule DA-CRS or Schedule CCA-CRS.
  - 9 Generation = The Generation rates are applicable only to Bundled Service Customers.
  - 10 DWREC = Department of Water Resources (DWR) Energy Credit – For more information on the DWR Energy Credit, see the Billing Calculation Special Condition of this Schedule.

(Continued)

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 Advice 2971-E  
 Decision 13-10-052

Issued by  
**Megan Scott-Kakures**  
Vice President

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Schedule LS-2  
LIGHTING - STREET AND HIGHWAY  
CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE

Sheet 5 (T)

(Continued)

SPECIAL CONDITIONS

1. Ownership of Facilities:

- a. For multiple systems SCE will deliver service at 120, 120/240 volts, or, at the option of SCE, at 240/480 or 277/480 volts, three wire, single phase. For existing series systems (installed prior to October 25, 1981) SCE will furnish and maintain constant current regulating transformers and deliver service at the secondary side of such transformers.
- b. The customer will furnish and maintain all utilization equipment beyond the point of delivery except for switching equipment and where the customer has elected the Optional Relamp Service provided by SCE in accordance with Special Condition 5.
- c. New or modified installations normally shall be multiple service installations. New or modified series installations shall be made only where, in the opinion of SCE, it is practical to supply series service.
- d. For new or modified series installations requiring a new constant current regulating transformer, the customer shall furnish and maintain the transformer; and service will be delivered at the primary side of the transformer.

(Continued)

(To be inserted by utility)

Advice 2041-E  
Decision 06-06-067

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Akbar Jazayeri  
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Schedule LS-2  
LIGHTING - STREET AND HIGHWAY  
CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE

Sheet 6 (T)

(Continued)

SPECIAL CONDITIONS (Continued)

2. Service Connections and Distribution Extensions:
  - a. The point or points of service connection shall be mutually agreed upon by SCE and the customer.
  - b. Distribution line extensions to reach a street light or a street light system shall be in accordance with the applicable Rule 15.
3. Switching and Related Facilities: For All Night or Midnight Service under SCE's standard operating schedules, SCE will furnish, operate, and maintain, the necessary switching facilities. All auxiliary relay equipment, irrespective of voltage, not furnished by SCE, but required in connection with providing street lighting service, shall be furnished, installed, and maintained by the customer in accordance with SCE's requirements.
4. Hours of Service: Under SCE's standard All Night Service operating schedule approximately 4,140 hours of service per year will be furnished, and under SCE's standard Midnight Service operating schedule approximately 2,170 hours of service per year will be furnished. Service for other operating schedules is not available under this Schedule.
5. Optional Relamp Service: Closed to all new installations. Optional relamp service will be provided at the request of the customer. The charges thereunder shall be in addition to any other applicable charges. After the original lamp installation, relamp service will be furnished by SCE as soon as practicable after notification by the customer. Relamp service is provided only for the high pressure sodium vapor lamps listed on this Schedule for which charges are shown. At the time of relamping, SCE will clean the refractor, or install replacement refractors furnished by the customer, as required. This service will be provided only where, in the opinion of SCE, no undue hazard or expense will result because of location, mounting height, or other reason.

(Continued)

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Schedule LS-2  
LIGHTING - STREET AND HIGHWAY  
CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE

Sheet 7 (T)

(Continued)

SPECIAL CONDITIONS (Continued)

- 6. Removal of Equipment: Where SCE-owned street lighting service and/or facilities were ordered removed by a customer and such service and/or facilities, or their equivalent, are ordered reinstalled within 36 months from the date of the order to remove, the customer shall pay to SCE in advance of reinstallation a nonrefundable amount equal to the cost of removal of the prior facilities and the estimated cost of such reinstallation. SCE-owned facilities removed or installed remain the sole property of SCE.
- 7. Modification of Facilities: Where the customer requests a modification of SCE-owned facilities serving customer-owned street light facilities, and such modifications are acceptable to SCE, SCE will perform the requested modifications, provided the customer agrees to pay the cost of said modifications.
- 8. Midnight Service: Where the customer requests the installation and/or removal of equipment in order to take Midnight Service, and such request is acceptable to SCE, SCE will comply with such request provided the customer first agrees to pay to SCE the estimated cost installed of any additional equipment required and/or the removal cost of any equipment currently installed. Such payments will not be refunded and shall be paid in advance or in installments acceptable to SCE over a period not to exceed three years. Facilities installed in connection with such requests become and remain the sole property of SCE .
- 9. Contract: In accordance with Rule 4, a written contract for a term of not less than one year and not more than five years is required in order to receive street light service under the provisions of this Schedule. Should the customer terminate service within 36 months of the date service is first supplied, the customer shall pay to SCE the cost of installation plus the cost of removal less salvage for any SCE-owned facilities installed to supply the customer's street light service.

(Continued)

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Schedule LS-2  
LIGHTING - STREET AND HIGHWAY  
CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE  
(Continued)

Sheet 8 (T)

SPECIAL CONDITIONS (Continued)

10. Kilowatthours: The kilowatthours used to determine the Energy Charge and the Voltage Discount shall be as follows:

Lamp <u>Wattage</u>	Nominal <u>Lamp Rating</u> Average <u>Initial Lumens</u>	Lamp Load Including <u>Ballast - Watts</u>		<u>kWh per Lamp Per Month*</u>			
		<u>Multiple Service</u>	<u>Series Service</u>	<u>Multiple Service kWh</u>		<u>Series Service kWh</u>	
				<u>A</u> <u>All Night</u>	<u>B</u> <u>Midnight</u>	<u>C</u> <u>All Night</u>	<u>D</u> <u>Midnight</u>
Incandescent Lamps Extended Service **							
103	1,000	103	75	35.535	18.633	29.528	15.488
202	2,500	202	164	69.690	36.542	64.567	33.866
327	4,000	327	248	112.815	59.154	97.638	51.212
448	6,000	448	347	154.560	81.043	136.614	71.656
690	10,000	690	578	238.050	124.821	227.559	119.357
Mercury Vapor Lamps							
100	4,000	131	125	45.195	23.698	51.675	27.113
175	7,900	216	207	74.520	39.074	85.574	44.898
250	12,000	301	285	103.845	54.451	117.819	61.817
400	21,000	474	445	163.530	85.747	183.963	96.521
700	41,000	803	760	277.035	145.263	314.184	164.844
1,000	55,000	1,135	1,070	391.575	205.322	442.338	232.083

\* When an account has more than one lamp, the total kWh will be the kWh per lamp per month lamp rating to three decimal places multiplied by the number of lamps.

\*\* Represents Extended Service lamps only. For Group Replacement and Regular Service Lamps see Special Condition 11.

(Continued)

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Schedule LS-2 Sheet 9  
**LIGHTING - STREET AND HIGHWAY**  
**CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE**  
(Continued)

**SPECIAL CONDITIONS (Continued)**

10. Kilowatthours: (Continued)

<u>Nominal Lamp Rating</u>		<u>Lamp Load Including Ballast/Generator - Watts</u>		<u>kWh per Lamp Per Month*</u>			
<u>Lamp Wattage</u>	<u>Average Initial Lumens</u>	<u>Multiple Service</u>	<u>Series Service</u>	<u>Multiple Service kWh</u>		<u>Series Service kWh</u>	
				<u>A All Night</u>	<u>B Midnight</u>	<u>C All Night</u>	<u>D Midnight</u>
<b>High Pressure Sodium Vapor Lamps</b>							
50	4,000	58	64	20.010	10.492	30.746	16.134
70	5,800	83	85	28.635	15.015	40.834	21.429
100	9,500	117	121	40.365	21.165	58.128	30.504
150	16,000	193	174	66.585	34.914	83.590	43.865
200	22,000	246	233	84.870	44.501	111.933	58.739
250	27,500	313	N/A	107.985	56.622	N/A	N/A
310	37,000	383	N/A	132.135	69.285	N/A	N/A
400	50,000	485	N/A	167.325	87.737	N/A	N/A
<b>Low Pressure Sodium Vapor Lamps</b>							
35	4,800	63	51	21.735	11.397	24.225	12.709
55	8,000	84	72	28.980	15.196	34.200	17.942
90	13,500	131	130	45.195	23.698	61.750	32.396
135	22,500	182	185	62.790	32.924	87.875	46.102
180	33,000	229	219	79.005	41.426	104.025	54.575
<b>Metal Halide</b>							
70	5,500	94	N/A	32.430	16.998	N/A	N/A
100	8,500	129	N/A	44.505	23.328	N/A	N/A
150	12,000	178	N/A	61.410	32.188	N/A	N/A
175	12,000	215	N/A	74.175	38.879	N/A	N/A
250	19,500	295	N/A	101.775	53.346	N/A	N/A
400	32,000	458	N/A	158.010	82.822	N/A	N/A
1000	100,000	1080	N/A	372.600	195.300	N/A	N/A
1500	150,000	1605	N/A	553.725	290.238	N/A	N/A
<b>Induction Lamps</b>							
23	N/A	25	N/A	8.625	4.521	N/A	N/A
40	N/A	41	N/A	14.137	7.410	N/A	N/A
55	N/A	56	N/A	19.185	10.056	N/A	N/A
65	N/A	69	N/A	23.805	12.478	N/A	N/A
80	N/A	82	N/A	28.428	14.901	N/A	N/A
85	N/A	88	N/A	30.293	15.878	N/A	N/A
100	N/A	105	N/A	36.225	18.988	N/A	N/A
120	N/A	123	N/A	42.410	22.229	N/A	N/A
150	N/A	155	N/A	53.303	27.939	N/A	N/A
165	N/A	170	N/A	58.566	30.698	N/A	N/A
200	N/A	210	N/A	72.450	37.975	N/A	N/A

\* When an account has more than one lamp, the total kWh will be the kWh per lamp per month lamp rating to three decimal places multiplied by the number of lamps.

(Continued)

(To be inserted by utility)

Advice 2629-E  
Decision \_\_\_\_\_

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Schedule LS-2 Sheet 10  
LIGHTING - STREET AND HIGHWAY  
CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE  
 (Continued)

SPECIAL CONDITIONS (Continued)

10. Kilowatthours: (Continued)

Light Emitting Diode (LED) Lamps

<u>Lamp Watts</u> <u>Including Driver Loss**</u>	<u>Lamps Watts Including Driver Loss</u> <u>Mid-Point Range***</u>	<u>kWh per Lamp per Month</u> <u>Multiple Service kWh****</u>		(T)
		<u>All Night</u>	<u>Midnight</u>	
0-5	2.50	0.9	0.5	
5.01-10	7.50	2.6	1.4	
10.01-15	12.50	4.3	2.3	
15.01-20	17.50	6.0	3.2	
20.01-25	22.50	7.8	4.1	
25.01-30	27.50	9.5	5.0	
30.01-35	32.50	11.2	5.9	
35.01-40	37.50	12.9	6.8	
40.01-45	42.50	14.7	7.7	
45.01-50	47.50	16.4	8.6	
50.01-55	52.50	18.1	9.5	
55.01-60	57.50	19.8	10.4	
60.01-65	62.50	21.6	11.3	
65.01-70	67.50	23.3	12.2	
70.01-75	72.50	25.0	13.1	
75.01-80	77.50	26.7	14.0	
80.01-85	82.50	28.5	14.9	
85.01-90	87.50	30.2	15.8	
90.01-95	92.50	31.9	16.7	
95.01-100	97.50	33.6	17.6	
100.01-105	102.50	35.4	18.5	
105.01-110	107.50	37.1	19.4	
110.01-115	112.50	38.8	20.3	
115.01-120	117.50	40.5	21.2	
120.01-125	122.50	42.3	22.2	
125.01-130	127.50	44.0	23.1	
130.01-135	132.50	45.7	24.0	
135.01-140	137.50	47.4	24.9	
140.01-145	142.50	49.2	25.8	
145.01-150	147.50	50.9	26.7	
150.01-155	152.50	52.6	27.6	
155.01-160	157.50	54.3	28.5	
160.01-165	162.50	56.1	29.4	
165.01-170	167.50	57.8	30.3	
170.01-175	172.50	59.5	31.2	

(Continued)

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 Advice 2591-E  
 Decision \_\_\_\_\_

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Vice President

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Schedule LS-2 Sheet 11  
LIGHTING - STREET AND HIGHWAY  
CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE  
 (Continued)

10. Kilowatthours: (Continued)

Light Emitting Diode (LED) Lamps (Continued)

<u>Lamp Watts</u> <u>Including Driver Loss**</u>	<u>Lamps Watts Including Driver Loss</u> <u>Mid-Point Range***</u>	<u>kWh per Lamp per Month</u> <u>Multiple Service kWh****</u>		(T)
		<u>All Night</u>	<u>Midnight</u>	
175.01-180	177.50	61.2	32.1	
180.01-185	182.50	63.0	33.0	
185.01-190	187.50	64.7	33.9	
190.01-195	192.50	66.4	34.8	
195.01-200	197.50	68.1	35.7	
200.01-205	202.50	69.9	36.6	
205.01-210	207.50	71.6	37.5	
210.01-215	212.50	73.3	38.4	
215.01-220	217.50	75.0	39.3	
220.01-225	222.50	76.8	40.2	
225.01-230	227.50	78.5	41.1	
230.01-235	232.50	80.2	42.0	
235.01-240	237.50	81.9	42.9	
240.01-245	242.50	83.7	43.9	
245.01-250	247.50	85.4	44.8	
250.01-255	252.50	87.1	45.7	
255.01-260	257.50	88.8	46.6	
260.01-265	262.50	90.6	47.5	
265.01-270	267.50	92.3	48.4	
270.01-275	272.50	94.0	49.3	
275.01-280	277.50	95.7	50.2	
280.01-285	282.50	97.5	51.1	
285.01-290	287.50	99.2	52.0	
290.01-295	292.50	100.9	52.9	
295.01-300	297.50	102.6	53.8	
300.01-305	302.50	104.4	54.7	
305.01-310	307.50	106.1	55.6	
310.01-315	312.50	107.8	56.5	
315.01-320	317.50	109.5	57.4	
320.01-325	322.50	111.3	58.3	
325.01-330	327.50	113.0	59.2	
330.01-335	332.50	114.7	60.1	
335.01-340	337.50	116.4	61.0	
340.01-345	342.50	118.2	61.9	
345.01-350	347.50	119.9	62.8	
350.01-355	352.50	121.6	63.7	

(Continued)

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 Advice 2591-E  
 Decision \_\_\_\_\_

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Schedule LS-2 Sheet 12  
**LIGHTING - STREET AND HIGHWAY**  
**CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE**  
(Continued)

10. Kilowatthours: (Continued)

Light Emitting Diode (LED) Lamps (Continued)

<u>Lamp Watts</u> <u>Including Driver Loss**</u>	<u>Lamps Watts Including Driver Loss</u> <u>Mid-Point Range***</u>	<u>kWh per Lamp per Month</u> <u>Multiple Service kWh****</u>		(T)
		<u>All Night</u>	<u>Midnight</u>	
355.01-360	357.50	123.3	64.6	
360.01-365	362.50	125.1	65.6	
365.01-370	367.50	126.8	66.5	
370.01-375	372.50	128.5	67.4	
375.01-380	377.50	130.2	68.3	
380.01-385	382.50	132.0	69.2	
385.01-390	387.50	133.7	70.1	
390.01-395	392.50	135.4	71.0	
395.01-400	397.50	137.1	71.9	

\*\* Lamp Wattage is based on the total wattage consumption of the lamp and driver. Customer may be required to provide verification of total energy consumption of lamp and driver upon request by SCE.

\*\*\* The Mid-Point Range of the Lamp Watts including driver, is established by deducting 2.5 Watts from the highest wattage of the corresponding range in the "Lamp Watts Including Driver" column.

\*\*\*\* The energy use calculation for All Night Service is (Mid-Point Range watts) x (4,140 hours/12 months/1000). The same calculation is used for Midnight service except that the hours of service is replaced with 2,170 hours.

11. Lamp Loads: SCE will provide service under this Schedule to street light lamps which are not listed on this Schedule provided that a lamp load, including lamp wattage and ballast, can be reliably established by SCE.

In addition to the extended service incandescent lamps listed above in Special Condition 10, SCE has determined a lamp load wattage rating for the following lumen rated regular and group replacement incandescent lamps to be used to determine the Energy Charge Components.

(Continued)

(To be inserted by utility)  
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Schedule LS-2 Sheet 13 (T)  
LIGHTING - STREET AND HIGHWAY  
CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE  
(Continued)

SPECIAL CONDITIONS (Continued)

11. Lamp Loads: (Continued)

Average Initial <u>Lumens</u>	<u>Incandescent Wattage Per Lamp</u>			
	<u>Multiple Service</u>		<u>Series Service</u>	
	<u>Regular</u>	<u>Group Replacement</u>	<u>Regular</u>	<u>Group Replacement</u>
600	55	58	42	44
800	N/A	N/A	57	N/A
1,000	85	92	61	64
2,500	175	189	143	152
4,000	268	295	213	226
6,000	370	405	316	332
10,000	575	620	525	565
15,000	800	860	755	822
25,000	N/A	N/A	1,275	N/A

The kilowatthours for the above regular and group replacement lamps or any unlisted lamps shall be determined in accordance with the provisions of Special Condition 12, below.

12. Kilowatthour Per Lamp per Month For Nonstandard Lamps: The total monthly kWh usage for each type of service shall be computed by applying the following Hours per kW billing factors to the applicable lamp load (including ballast/driver/generator, if applicable) wattage rating. The kWh shall be computed to the nearest Watt-hour. (C)

	<u>Hours Per Month Per kW of Lamp Load</u>						(C)
	<u>Incandescent</u>	<u>Mercury Vapor</u>	<u>High Pressure Sodium Vapor</u>	<u>Low Pressure Sodium Vapor</u>	<u>Metal Halide</u>	<u>Other Lamps</u>	(N)
Type of Service:							(N)
All Night Service							(N)
Multiple Service*	345.0	345.0	345.0	345.0	345.0	345.0	(N)
Series Service***	393.7	413.4	480.4	475.0	N/A	N/A	(N)
Midnight or Equivalent Service							(N)
Multiple Service**	180.9	180.9	180.9	180.9	180.9	180.9	(N)
Series Service***	206.5	216.9	252.1	249.2	N/A	N/A	(N)

kWh Per Lamp Per Month=Hours Per Month Per kW of Lamp Load x kW Per Lamp (including ballast/driver/generator if applicable)

\* All Night Service Multiple Service Hours Per Month Per kW of Lamp Load = (4,140 hours/12 months) = 345 hours  
 \*\* Midnight Service Multiple Service Hours Per Month Per kW of Lamp Load = (2,170 hours/12 months) = 180.9 hours  
 \*\*\* Series Services Hours Per Month Per kW of Lamp Load applies the same formula as Multiple Service except that it is adjusted for Line Loss Factor. (N)

(Continued)

(To be inserted by utility)  
 Advice 2360-E  
 Decision \_\_\_\_\_

Issued by  
Akbar Jazayeri  
Vice President

(To be inserted by Cal. PUC)  
 Date Filed Jul 17, 2009  
 Effective Aug 17, 2009  
 Resolution \_\_\_\_\_

Schedule LS-2

Sheet 14

LIGHTING - STREET AND HIGHWAY  
CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE

(Continued)

SPECIAL CONDITIONS (Continued)

13. Charges for Nonstandard Lamps: Nonstandard Lamps are lamps for which a monthly charge is not listed in this Schedule. Where a lamp is not listed in this Schedule, the monthly charge is computed by first computing the applicable kWh for the lamp. The kWhs are computed by applying the method provided in Special Condition 12 for Other Lamps. Where manufacturer's information is not available for rated wattage consumption, the customer must provide third party documentation before SCE will accept lamps for this Schedule. The Energy Charge is calculated using the rates shown in the RATES section, above. The total monthly lamp charge for nonstandard lamps is the sum of the monthly lamp charge as shown in the RATES section for all other lamps, plus the Energy Charge. For Series Service Lamps, the Energy Charge is adjusted for Voltage Discount, and the total lamp charge increased for Series Service Power Factor.
14. Energy Efficient Street Lights – Where Customers permanently install energy efficient streetlights under the terms of this Schedule and the total energy use cannot be verified through industry standards or other documentation acceptable to SCE, the customer may be required to provide verifiable documentation to SCE's satisfaction regarding the total energy consumption of the lamp and driver. All fixtures that include the capability of adjustable light wattage settings will be billed at the maximum wattage setting.
15. Limited testing of emerging Streetlight technologies will be allowed under this Schedule. Such test installations are subject to approval by SCE. Testing is limited to existing streetlight fixtures and the total energy consumption per fixture must not exceed current energy use per fixture. Additional energy efficient streetlight fixtures installed will also be subject to billing under the current rate upon the approval of SCE. The test period will not exceed 12 months.
16. Series Service Power Factor: The kVAR losses for the Series Service Power Factor charge shall be calculated by multiplying the applicable series service kW lamp load from Special Condition 10 by the applicable kVAR demand loss factor shown below:

kVAR Demand Loss Factor (kVAR Loss/kW load)

<u>Incandescent</u>	<u>Mercury Vapor</u>	<u>High Pressure Sodium Vapor</u>	<u>Low Pressure Sodium Vapor</u>
2.133	2.953	5.270	7.067

17. Voltage Discount: Bundled Service, CCA Service, and Direct Access customers will have the Distribution rate component of the applicable Delivery Charges reduced by the corresponding Voltage Discount amount for service metered and delivered at the applicable voltage level as shown in the RATES section above. In addition, Bundled Service Customers will have the Utility Generation (UG) rate component of the applicable Generation charges reduced by the corresponding Voltage Discount amount for service metered and delivered at the applicable voltage level as shown in the RATES section. (T)

(Continued)

(To be inserted by utility)  
Advice 2861-E  
Decision \_\_\_\_\_

Issued by  
Akbar Jazayeri  
Vice President

(To be inserted by Cal. PUC)  
Date Filed Mar 13, 2013  
Effective Apr 12, 2013  
Resolution \_\_\_\_\_

## ATTACHMENT B - SCE Valuation

Schedule LS-2

Sheet 15

LIGHTING - STREET AND HIGHWAY  
CUSTOMER-OWNED INSTALLATION - UNMETERED SERVICE

(Continued)

SPECIAL CONDITIONS (Continued)

18. Billing Calculation: A customer's bill is calculated according to the rates and conditions above.

The charges listed in the RATES section are calculated by multiplying the Total Delivery Service rates and the Generation rates, when applicable, by the billing determinants (e.g., per kilowatt [kW], kilowatthour [kWh], kilovar [kVa] etc.). (T)

As of January 1, 2012, all generation supplied to Bundled Service Customers is provided by SCE. The DWR Energy Credit provided to Bundled Service Customers is determined by multiplying the DWR Energy Credit rate component by the customer's total kWhs. (N)

a. Bundled Service Customers receive Delivery Service and Generation service from SCE. The customer's bill is the sum of the charges for Delivery Service and Generation service determined, as described in this Special Condition, and subject to applicable discounts or adjustments provided under SCE's tariff schedules. (T)

b. Direct Access Customers receive Delivery Service from SCE and purchase energy from an Energy Service Provider. The customer's bill is the sum of the charges for Delivery Service determined as described in this Special Condition except that the DWRBC rate component is subtracted from the Total Delivery Service rates before the billing determinants are multiplied by such resulting Total rates; plus the applicable charges as shown in Schedule DA-CRS and subject to applicable discounts or adjustments provided under SCE's tariff schedules. (D)

c. CCA Service Customers receive Delivery Service from SCE and purchase energy from their Community Choice Aggregator (CCA). SCE will read the meters and present the bill for both Delivery and Generation Services to the CCA Service Customer. The customer's bill is the sum of the charges for Delivery Service as displayed in this Rate Schedule and Generation charges determined by the CCA plus the applicable charges as shown in Schedule CCA-CRS, and subject to applicable discounts or adjustments provided under SCE's tariff schedules. (T)

(To be inserted by utility)  
Advice 2648-E-A  
Decision \_\_\_\_\_

Issued by  
Akbar Jazayeri  
Vice President

(To be inserted by Cal. PUC)  
Date Filed Dec 27, 2011  
Effective Jan 1, 2012  
Resolution \_\_\_\_\_

# The City of Rialto LS-1 Streetlight System Valuation

March 6, 2015

## Overview of the Total LS-1 Streetlight System

Type	Qty	Type	Overhead	Underground
Non-Wood	3,463	73%	441	3,022
Wood	1,291	27%	1,278	13
	<u>4,754</u>	<u>100%</u>	<u>1,719</u>	<u>3,035</u>
			36%	64%
1990-2013	1,668			
1970-1989	1,938			
Prior to 1970	1,148			

## Valuation of the Sellable LS-1 Streetlight System

		Qty	RCNLD	With Ad-hoc
	Non-Wood	3,463	\$1,383,206	\$1,557,181
27%	* Wood	350	\$346,898	\$390,530
	<b>Total:</b>	<b>3,813</b>	<b>\$1,730,104</b>	<b>\$1,947,710</b>
	2%	<b>Ad Hoc Replacements</b>	<b>\$183,004</b>	Included
		<b>Omissions and Exclusions</b>	<b>\$34,602</b>	Included
		<b>Subtotal</b>	<b>\$1,947,710</b>	<b>\$1,947,710</b>
		<b>Tax Neutral Adjustment</b>	<b>\$50,609</b>	
		<b>Tax Neutral Price</b>	<b>\$1,998,319</b>	
		<b>Transition Cost</b>	<b>\$114,390</b>	
		<b>Valuation Price</b>	<b>\$2,112,709</b>	

\*Note: 27% Sellable Wood Poles (streetlights attached to distribution or transmission poles are excluded)

Ad Hoc Replacements represent 2% of the quantity of poles replaced without developer's contribution

Omissions and Exclusions include other asset components relevant to the sale (i.e. riser poles, insulators, down guy, etc.)

Tax Neutral Adjustment is needed to recover any tax implication

Transition Cost is the severance cost to transfer ownership of the asset

**SCE CONFIDENTIAL**

## ATTACHMENT C - CUT SHEETS

GE  
Lighting

# Evolve™ LED Roadway Lighting

LED Roadway Luminaire (ERL1-ERLH-ERS1-ERS2)



imagination at work

## Product Features

The Evolve™ LED Roadway Luminaire is optimized for customers requiring a LED solution for local, collector and major roadways. GE's unique reflective optics are designed to optimize application efficiency and minimize glare. The modern design incorporates the heat sink directly into the unit for heat transfer to prolong LED life. This reliable unit has a 100,000 hour design life, significantly reducing maintenance needs and expense over the life of the fixture. This efficient solution lowers energy consumption compared to traditional HID fixture for additional operating cost savings.

### Applications

- Designed to meet recommended luminance and illuminance requirements for local, collector and major roadway/street classifications.

### Housing

- The modern design incorporates Casting-integral heatsink for maximum heat transfer.
- Meets 3G vibration per ANSI C136.31-2010.
- Die Cast Enclosure.

### LED & Optical Assembly

- Evolve™ light engine consisting of reflective technology designed to optimize application efficiency and minimize glare.
- Utilizes high brightness LEDs, 70 CRI at 3000K and 4000K typical.
- LM-79 tests and reports in accordance with IESNA standards.

### Lumen Maintenance

- Lumen Maintenance per TM21.

### Ratings

- /  listed, suitable for wet locations per UL 1598.
- Std. Optical enclosure rated per ANSI C136.25-2009: ERL1 = IP65, ERS1-2 = IP66, ERLH = IP65.
- Upward Light Output Ratio (ULOR) = 0.
- Compliant with the material restriction requirements of RoHS.

Product ID	Lumen Output	Ambient Rating
ERL1	02-09	-40°C to 50°C
ERLH	10-11	-40°C to 50°C
ERLH	13-15	-40°C to 40°C
ERS1	10-15	-40°C to 50°C
ERS2	16-23	-40°C to 50°C
ERS2	25-28	-40°C to 40°C

Delayed start may be experienced <-35°C.

### Mounting

- Slipfitter with +/- 5 degree of adjustment for leveling.
- Integral die cast mounting pipe stop.
- Adjustable for 1.25 in. or 2 in. mounting pipe.

### Finish

- Corrosion resistant polyester powder paint, minimum 2.0 mil. thickness.
- Standard colors: Black, Gray and Dark Bronze.
- RAL & custom colors available.
- Optional coastal finish available.

### Electrical

- 120-277 VAC and 347-480 VAC.
- System power factor is >90% and THD <20%.\*
- Class "A" Sound rating.
- 0-10V dimming standard or DALI dimming available upon request for 120V-277V.
- Surge Protection per ANSI C136.2-2015:
  - Standard: 6kV/3kA "Basic: (120 Strikes)"
  - Optional Secondary: 10kV/5kA "Enhanced: (40 Strikes)"
- EMI: Title 47 CFR Part 15 Class A
- Photo electric sensors (PE) available.

\* System power factor and THD is tested and specified at 120V input and maximum load conditions. THD<26% for 347/480V supply with 03 power level.

### Warranty

- 5 Year Standard
- 10 Year Optional

### Suggested HID Replacement Lumen Levels

- ~4,000–5,000 lumens to replace 100W HPS Cobra-head
- ~7,000–8,800 lumens to replace 150W HPS Cobra-head
- ~8,500–11,500 lumens to replace 200W HPS Cobra-head
- ~11,500–14,000 lumens to replace 250W HPS Cobra-head
- ~21,000–28,000 lumens to replace 400W HPS Cobra-head

**Note:** Actual replacement lumens may vary based upon mounting height, pole spacing, design criteria, etc.

# Ordering Number Logic

## Evolve™ LED Streetlight (ERL1)



**ERL1**

PROD. ID	VOLTAGE	LUMEN OUTPUT	DISTRIBUTION	CCT	CONTROLS	COLOR	OPTIONS
<b>E</b> = Evolve <b>R</b> = Roadway <b>L</b> = Local <b>1</b> = Single Module	<b>0</b> = 120-277* <b>1</b> = 120 <b>2</b> = 208 <b>3</b> = 240 <b>4</b> = 277 <b>5</b> = 480 <b>D</b> = 347 <b>H</b> = 347-480*	<b>02*</b> <b>03</b> <b>04</b> <b>05</b> <b>06</b> <b>07</b> <b>08</b> <b>09</b>	<b>A1</b> = Extra Narrow Asymmetric <b>B1</b> = Narrow Asymmetric (Medium) <b>C1</b> = Asymmetric (Short) <b>D1</b> = Asymmetric Forward <b>E1</b> = Asymmetric (Medium) <b>F1</b> = Asymmetric (Wide) <b>G1</b> = Asymmetric (Extra Wide)	<b>30</b> = 3000K <b>40</b> = 4000K	<b>A</b> = ANSI C136.41 7-pin <b>D</b> = ANSI C136.41 7-pin receptacle with Shorting Cap <b>E</b> = ANSI C136.41 7-pin Receptacle with non-Dimming PE Control.*	<b>GRAY</b> = Gray <b>BLCK</b> = Black <b>DKBZ</b> = Dark Bronze	<b>A</b> = 4 Bolt Slipfitter † <b>F</b> = Fusing <b>G</b> = Internal Bubble Level <b>I</b> = IP66 Optical <b>L</b> = Tool-Less Entry <b>R</b> = Optional Secondary Enhanced Surge Protection (10kV/5kA) <b>U</b> = Universal DALI Programmable +^ <b>X</b> = Single Package # <b>Y</b> = Coastal Finish * <b>XXX</b> = Special Options
	* Not available with Fusing. Must choose a discreet voltage with F option.	See Data Table for more information. *120V only, not compatible with 0-10V dimming.	See Data Table for more information		* PE Control Only available for 120-277V or 480V Discrete. Not available for 347-480V or 347V Discrete. <b>NOTE:</b> Dimming controls wired for 0-10V standard unless DALI option "U" requested.		† Contact manufacturer for Lead-Time. # Std Packaging = 20 units per container. * Recommended for installations within 1 mile from the coast. Contact Factory for Lead-Time. + Compatible with LightGrid 2.0 nodes. ^ Not available in 347V, 480V or 347-480V for Lumen Level 07 and 08.

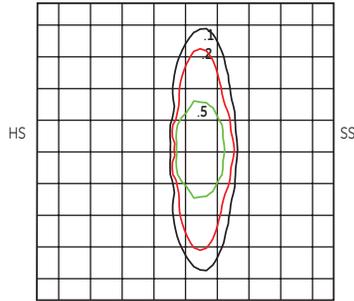
PRODUCT ID	LUMEN OUTPUT	DISTRIBUTION	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE		BUG RATING		IES FILE NUMBER							
			4000K	3000K	120-277V	347-480V	4000K	3000K	4000K		3000K					
									120-277V	347-480V	120-277V	347-480V				
ERL1	02	A1	1900	1800	15	N/A	B1-U0-G1	B1-U0-G1	ERL1_02A140	-120VIES	N/A	ERL1_02A130	-120VIES	N/A		
ERL1		B1	1900	1800			B1-U0-G1	B1-U0-G1	ERL1_02B140	-120VIES	N/A	ERL1_02B130	-120VIES	N/A		
ERL1		C1	2000	1900			B1-U0-G1	B1-U0-G1	ERL1_02C140	-120VIES	N/A	ERL1_02C130	-120VIES	N/A		
ERL1		D1	1900	1800			B1-U0-G0	B1-U0-G0	ERL1_02D140	-120VIES	N/A	ERL1_02D130	-120VIES	N/A		
ERL1		E1	2000	1900			B1-U0-G0	B1-U0-G0	ERL1_02E140	-120VIES	N/A	ERL1_02E130	-120VIES	N/A		
ERL1		F1	2000	1900			B1-U0-G1	B1-U0-G1	ERL1_02F140	-120VIES	N/A	ERL1_02F130	-120VIES	N/A		
ERL1		G1	2000	1900			B1-U0-G1	B1-U0-G1	ERL1_02G140	-120VIES	N/A	ERL1_02G130	-120VIES	N/A		
ERL1	03	A1	2800	2700	25	28	B1-U0-G1	B1-U0-G1	ERL1_03A140	-120-277VIES	ERL1_03A140	-347-480VIES	ERL1_03A130	-120-277VIES	ERL1_03A130	-347-480VIES
ERL1		B1	2900	2800			B1-U0-G1	B1-U0-G1	ERL1_03B140	-120-277VIES	ERL1_03B140	-347-480VIES	ERL1_03B130	-120-277VIES	ERL1_03B130	-347-480VIES
ERL1		C1	3000	2900			B1-U0-G1	B1-U0-G1	ERL1_03C140	-120-277VIES	ERL1_03C140	-347-480VIES	ERL1_03C130	-120-277VIES	ERL1_03C130	-347-480VIES
ERL1		D1	2900	2800			B1-U0-G1	B1-U0-G1	ERL1_03D140	-120-277VIES	ERL1_03D140	-347-480VIES	ERL1_03D130	-120-277VIES	ERL1_03D130	-347-480VIES
ERL1		E1	3000	2900			B1-U0-G1	B1-U0-G1	ERL1_03E140	-120-277VIES	ERL1_03E140	-347-480VIES	ERL1_03E130	-120-277VIES	ERL1_03E130	-347-480VIES
ERL1		F1	3000	2900			B1-U0-G1	B1-U0-G1	ERL1_03F140	-120-277VIES	ERL1_03F140	-347-480VIES	ERL1_03F130	-120-277VIES	ERL1_03F130	-347-480VIES
ERL1		G1	3000	2900			B1-U0-G1	B1-U0-G1	ERL1_03G140	-120-277VIES	ERL1_03G140	-347-480VIES	ERL1_03G130	-120-277VIES	ERL1_03G130	-347-480VIES
ERL1	04	A1	3800	3700	32	35	B1-U0-G1	B1-U0-G1	ERL1_04A140	-120-277VIES	ERL1_04A140	-347-480VIES	ERL1_04A130	-120-277VIES	ERL1_04A130	-347-480VIES
ERL1		B1	3900	3800			B1-U0-G1	B1-U0-G1	ERL1_04B140	-120-277VIES	ERL1_04B140	-347-480VIES	ERL1_04B130	-120-277VIES	ERL1_04B130	-347-480VIES
ERL1		C1	4000	3900			B1-U0-G1	B1-U0-G1	ERL1_04C140	-120-277VIES	ERL1_04C140	-347-480VIES	ERL1_04C130	-120-277VIES	ERL1_04C130	-347-480VIES
ERL1		D1	3900	3800			B1-U0-G1	B1-U0-G1	ERL1_04D140	-120-277VIES	ERL1_04D140	-347-480VIES	ERL1_04D130	-120-277VIES	ERL1_04D130	-347-480VIES
ERL1		E1	4000	3900			B1-U0-G1	B1-U0-G1	ERL1_04E140	-120-277VIES	ERL1_04E140	-347-480VIES	ERL1_04E130	-120-277VIES	ERL1_04E130	-347-480VIES
ERL1		F1	4000	3900			B1-U0-G1	B1-U0-G1	ERL1_04F140	-120-277VIES	ERL1_04F140	-347-480VIES	ERL1_04F130	-120-277VIES	ERL1_04F130	-347-480VIES
ERL1		G1	4000	3900			B1-U0-G1	B1-U0-G1	ERL1_04G140	-120-277VIES	ERL1_04G140	-347-480VIES	ERL1_04G130	-120-277VIES	ERL1_04G130	-347-480VIES
ERL1	05	A1	4800	4600	41	45	B2-U0-G1	B2-U0-G1	ERL1_05A140	-120-277VIES	ERL1_05A140	-347-480VIES	ERL1_05A130	-120-277VIES	ERL1_05A130	-347-480VIES
ERL1		B1	4800	4600			B2-U0-G1	B2-U0-G1	ERL1_05B140	-120-277VIES	ERL1_05B140	-347-480VIES	ERL1_05B130	-120-277VIES	ERL1_05B130	-347-480VIES
ERL1		C1	5000	4800			B2-U0-G1	B2-U0-G1	ERL1_05C140	-120-277VIES	ERL1_05C140	-347-480VIES	ERL1_05C130	-120-277VIES	ERL1_05C130	-347-480VIES
ERL1		D1	4800	4600			B1-U0-G1	B1-U0-G1	ERL1_05D140	-120-277VIES	ERL1_05D140	-347-480VIES	ERL1_05D130	-120-277VIES	ERL1_05D130	-347-480VIES
ERL1		E1	5000	4800			B2-U0-G1	B2-U0-G1	ERL1_05E140	-120-277VIES	ERL1_05E140	-347-480VIES	ERL1_05E130	-120-277VIES	ERL1_05E130	-347-480VIES
ERL1		F1	5000	4800			B2-U0-G1	B2-U0-G1	ERL1_05F140	-120-277VIES	ERL1_05F140	-347-480VIES	ERL1_05F130	-120-277VIES	ERL1_05F130	-347-480VIES
ERL1		G1	5000	4800			B2-U0-G1	B2-U0-G1	ERL1_05G140	-120-277VIES	ERL1_05G140	-347-480VIES	ERL1_05G130	-120-277VIES	ERL1_05G130	-347-480VIES
ERL1	06	A1	5700	5500	53	58	B2-U0-G1	B2-U0-G1	ERL1_06A140	-120-277VIES	ERL1_06A140	-347-480VIES	ERL1_06A130	-120-277VIES	ERL1_06A130	-347-480VIES
ERL1		B1	5800	5600			B2-U0-G1	B2-U0-G1	ERL1_06B140	-120-277VIES	ERL1_06B140	-347-480VIES	ERL1_06B130	-120-277VIES	ERL1_06B130	-347-480VIES
ERL1		C1	6000	5800			B2-U0-G1	B2-U0-G1	ERL1_06C140	-120-277VIES	ERL1_06C140	-347-480VIES	ERL1_06C130	-120-277VIES	ERL1_06C130	-347-480VIES
ERL1		D1	5800	5600			B1-U0-G1	B1-U0-G1	ERL1_06D140	-120-277VIES	ERL1_06D140	-347-480VIES	ERL1_06D130	-120-277VIES	ERL1_06D130	-347-480VIES
ERL1		E1	6000	5800			B2-U0-G1	B2-U0-G1	ERL1_06E140	-120-277VIES	ERL1_06E140	-347-480VIES	ERL1_06E130	-120-277VIES	ERL1_06E130	-347-480VIES
ERL1		F1	6000	5800			B2-U0-G1	B2-U0-G1	ERL1_06F140	-120-277VIES	ERL1_06F140	-347-480VIES	ERL1_06F130	-120-277VIES	ERL1_06F130	-347-480VIES
ERL1		G1	6000	5800			B2-U0-G1	B2-U0-G1	ERL1_06G140	-120-277VIES	ERL1_06G140	-347-480VIES	ERL1_06G130	-120-277VIES	ERL1_06G130	-347-480VIES
ERL1	07	A1	6700	6500	67		B2-U0-G2	B2-U0-G2		ERL1_07A140	_JES		ERL1_07A130	_JES		
ERL1		B1	6800	6600			B2-U0-G1	B2-U0-G1		ERL1_07B140	_JES		ERL1_07B130	_JES		
ERL1		C1	7000	6800			B2-U0-G1	B2-U0-G1		ERL1_07C140	_JES		ERL1_07C130	_JES		
ERL1		D1	6800	6600			B2-U0-G1	B2-U0-G1		ERL1_07D140	_JES		ERL1_07D130	_JES		
ERL1		E1	7000	6800			B2-U0-G1	B2-U0-G1		ERL1_07E140	_JES		ERL1_07E130	_JES		
ERL1		F1	7000	6800			B2-U0-G2	B2-U0-G2		ERL1_07F140	_JES		ERL1_07F130	_JES		
ERL1		G1	7000	6800			B2-U0-G2	B2-U0-G2		ERL1_07G140	_JES		ERL1_07G130	_JES		
ERL1	08	A1	8200	8000	88		B2-U0-G2	B2-U0-G2		ERL1_08A140	_JES		ERL1_08A130	_JES		
ERL1		B1	8300	8100			B2-U0-G1	B2-U0-G1		ERL1_08B140	_JES		ERL1_08B130	_JES		
ERL1		C1	8500	8200			B2-U0-G1	B2-U0-G1		ERL1_08C140	_JES		ERL1_08C130	_JES		
ERL1		D1	8300	8100			B2-U0-G1	B2-U0-G1		ERL1_08D140	_JES		ERL1_08D130	_JES		
ERL1		E1	8500	8200			B2-U0-G1	B2-U0-G1		ERL1_08E140	_JES		ERL1_08E130	_JES		
ERL1		F1	8500	8200			B2-U0-G2	B2-U0-G2		ERL1_08F140	_JES		ERL1_08F130	_JES		
ERL1		G1	8500	8200			B2-U0-G2	B2-U0-G2		ERL1_08G140	_JES		ERL1_08G130	_JES		
ERL1	09	A1	8400	8100	90		B2-U0-G2	B2-U0-G2		ERL1_09A140	_JES		ERL1_09A130	_JES		
ERL1		B1	8500	8200			B2-U0-G1	B2-U0-G1		ERL1_09B140	_JES		ERL1_09B130	_JES		
ERL1		C1	8800	8400			B2-U0-G1	B2-U0-G1		ERL1_09C140	_JES		ERL1_09C130	_JES		
ERL1		D1	8500	8200			B2-U0-G2	B2-U0-G2		ERL1_09D140	_JES		ERL1_09D130	_JES		
ERL1		E1	8800	8400			B2-U0-G1	B2-U0-G1		ERL1_09E140	_JES		ERL1_09E130	_JES		
ERL1		F1	8800	8400			B2-U0-G2	B2-U0-G2		ERL1_09F140	_JES		ERL1_09F130	_JES		
ERL1		G1	8800	8400			B2-U0-G2	B2-U0-G2		ERL1_09G140	_JES		ERL1_09G130	_JES		

# Photometrics

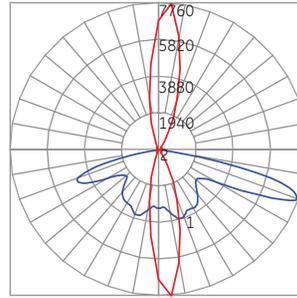
## Evolve™ LED Streetlight (ERL1)

### ERL1 Extra Narrow Asymmetric (08A1)

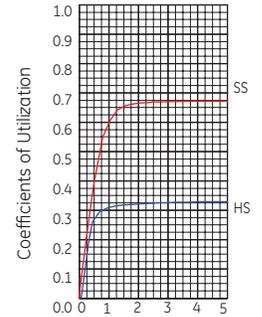
8,200 Lumens  
4000K  
ERL1\_08A140\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



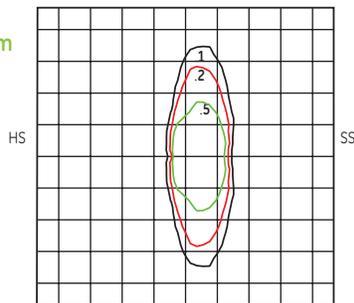
— Vertical plane through horizontal angle of maximum candlepower at 85°  
— Vertical plane through horizontal angle of 70°



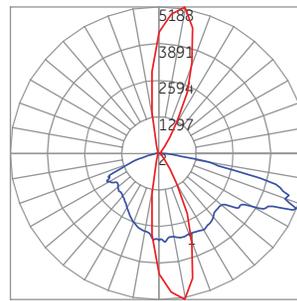
Coefficients of Utilization vs. Street Width/Mounting Height

### ERL1 Narrow Asymmetric Medium (08B1)

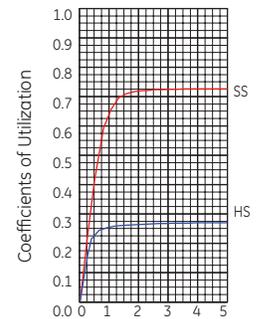
8,300 Lumens  
4000K  
ERL1\_08B140\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



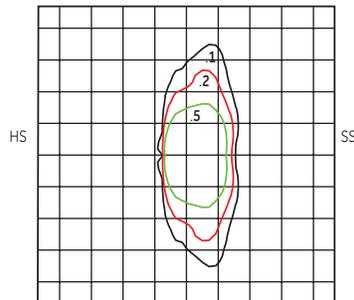
— Vertical plane through horizontal angle of maximum candlepower at 80°  
— Vertical plane through horizontal angle of 68°



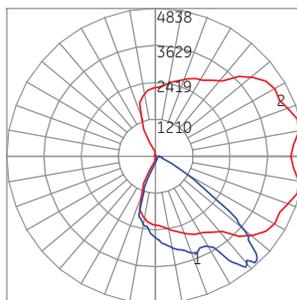
Coefficients of Utilization vs. Street Width/Mounting Height

### ERL1 Asymmetric Short (08C1)

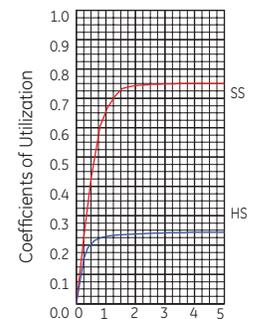
8,500 Lumens  
4000K  
ERL1\_08C140\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



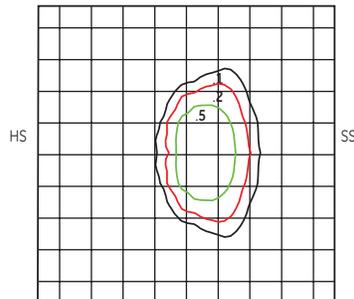
— Vertical plane through horizontal angle of maximum candlepower at 15°  
— Vertical plane through horizontal angle of 42°



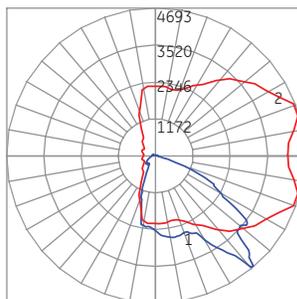
Coefficients of Utilization vs. Street Width/Mounting Height

### ERL1 Asymmetric Forward (08D1)

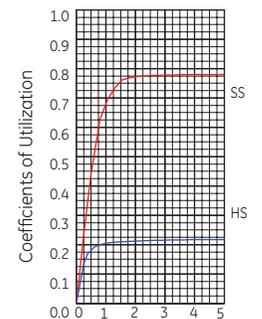
8,300 Lumens  
4000K  
ERL1\_08D140\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of maximum candlepower at 15°  
— Vertical plane through horizontal angle of 42°



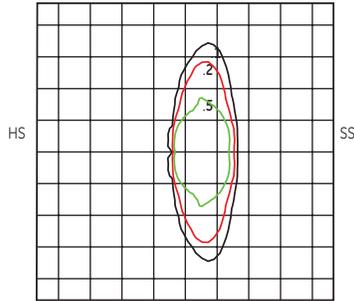
Coefficients of Utilization vs. Street Width/Mounting Height

# Photometrics

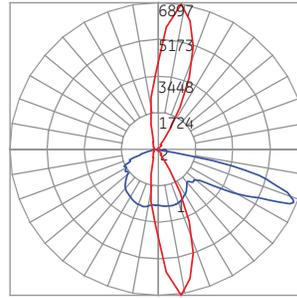
## Evolve™ LED Streetlight (ERL1)

### ERL1 Asymmetric Medium (08E1)

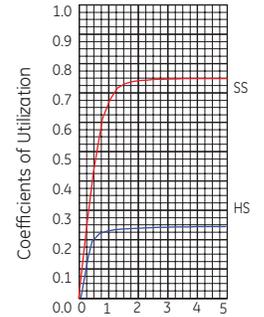
8,500 Lumens  
4000K  
ERL1\_08E140\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



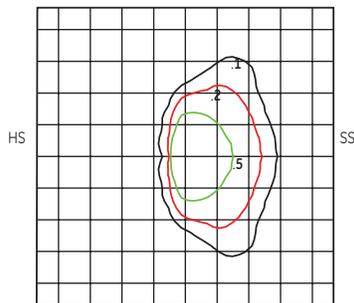
— Vertical plane through horizontal angle of maximum candlepower at 80°  
— Vertical plane through horizontal angle of 69°



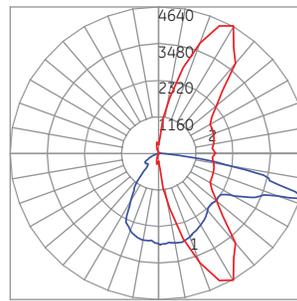
Street Width/Mounting Height

### ERL1 Asymmetric Wide (08F1)

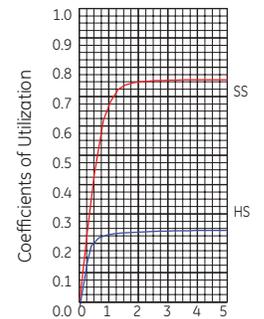
8,500 Lumens  
4000K  
ERL1\_08F140\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



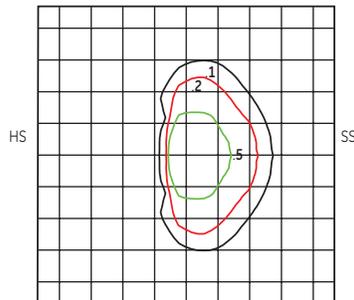
— Vertical plane through horizontal angle of maximum candlepower at 60°  
— Vertical plane through horizontal angle of 73°



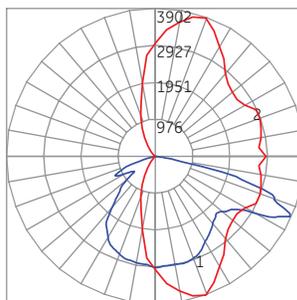
Street Width/Mounting Height

### ERL1 Asymmetric Extra Wide (08G1)

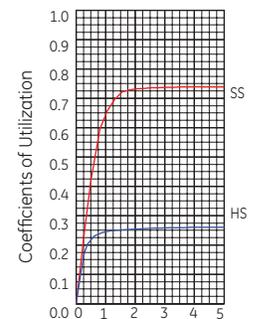
8,500 Lumens  
4000K  
ERL1\_08G140\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of maximum candlepower at 70°  
— Vertical plane through horizontal angle of 66°



Street Width/Mounting Height

# Ordering Number Logic

## Evolve™ LED Streetlight (ERLH)



**E R L H**

PROD. ID	VOLTAGE	LUMEN OUTPUT	DISTRIBUTION	CCT	CONTROLS	COLOR	OPTIONS
<b>E</b> = Evolve <b>R</b> = Roadway <b>L</b> = Local <b>H</b> = High Output	<b>0</b> = 120-277* <b>1</b> = 120 <b>2</b> = 208 <b>3</b> = 240 <b>4</b> = 277 <b>5</b> = 480 <b>D</b> = 347 <b>H</b> = 347-480* * Not available with Fusing. Must choose a discreet voltage with F option.	<b>10</b> <b>11</b> <b>13</b> <b>14</b> <b>15</b> See Data Table for more information.	<b>A1</b> = Extra Narrow Asymmetric <b>B1</b> = Narrow Asymmetric (Medium) <b>C1</b> = Asymmetric (Short) <b>D1</b> = Asymmetric Forward <b>E1</b> = Asymmetric (Medium) <b>F1</b> = Asymmetric (Wide) <b>G1</b> = Asymmetric (Extra Wide) See Data Table for more information	<b>30</b> = 3000K <b>40</b> = 4000K	<b>A</b> = ANSI C136.41 7-pin <b>D</b> = ANSI C136.41 7-pin receptacle with Shorting Cap <b>E</b> = ANSI C136.41 7-pin Receptacle with non-Dimming PE Control.* * PE Control Only available for 120-277V or 480V Discrete. Not available for 347-480V or 347V Discrete. <b>NOTE:</b> Dimming controls wired for 0-10V standard unless DALI option "U" requested.	<b>GRAY</b> = Gray <b>BLCK</b> = Black <b>DKBZ</b> = Dark Bronze	<b>A</b> = 4 Bolt Slipfitter † <b>F</b> = Fusing <b>G</b> = Internal Bubble Level <b>I</b> = IP66 Optical <b>L</b> = Tool-Less Entry <b>R</b> = Optional Secondary Enhanced Surge Protection (10kV/5kA) <b>U</b> = Universal DALI Programmable + ^ <b>X</b> = Single Package # <b>Y</b> = Coastal Finish * <b>XXX</b> = Special Options † Contact manufacturer for Lead-Time. # Std Packaging = 20 units per container. * Recommended for installations within 1 mile from the coast. Contact Factory for Lead-Time. + Compatible with LightGrid 2.0 nodes. ^ Not available at 347V, 480V or 347-480V.

PRODUCT ID	LUMEN OUTPUT	DISTRIBUTION	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE	BUG RATING		IES FILE NUMBER	
			4000K	3000K		4000K	3000K	4000K	3000K
ERLH	10	A1	9500	9100	90	B3-U0-G2	B3-U0-G2	ERLH_10A140_IES	ERLH_10A130_IES
ERLH		B1	9800	9500		B3-U0-G1	B2-U0-G1	ERLH_10B140_IES	ERLH_10B130_IES
ERLH		C1	10000	9600		B2-U0-G1	B2-U0-G1	ERLH_10C140_IES	ERLH_10C130_IES
ERLH		D1	9800	9500		B2-U0-G2	B2-U0-G2	ERLH_10D140_IES	ERLH_10D130_IES
ERLH		E1	10000	9600		B2-U0-G2	B2-U0-G2	ERLH_10E140_IES	ERLH_10E130_IES
ERLH		F1	10000	9600		B2-U0-G2	B2-U0-G2	ERLH_10F140_IES	ERLH_10F130_IES
ERLH		G1	10000	9600		B2-U0-G2	B2-U0-G2	ERLH_10G140_IES	ERLH_10G130_IES
ERLH	11	A1	10900	10500	108	B3-U0-G2	B3-U0-G2	ERLH_11A140_IES	ERLH_11A130_IES
ERLH		B1	11200	10800		B3-U0-G2	B3-U0-G1	ERLH_11B140_IES	ERLH_11B130_IES
ERLH		C1	11500	11100		B3-U0-G2	B3-U0-G2	ERLH_11C140_IES	ERLH_11C130_IES
ERLH		D1	11200	10800		B2-U0-G2	B2-U0-G2	ERLH_11D140_IES	ERLH_11D130_IES
ERLH		E1	11500	11100		B3-U0-G2	B3-U0-G2	ERLH_11E140_IES	ERLH_11E130_IES
ERLH		F1	11500	11100		B3-U0-G2	B3-U0-G2	ERLH_11F140_IES	ERLH_11F130_IES
ERLH		G1	11500	11100		B3-U0-G2	B3-U0-G2	ERLH_11G140_IES	ERLH_11G130_IES
ERLH	13	A1	12300	11900	125	B3-U0-G2	B3-U0-G2	ERLH_13A140_IES	ERLH_13A130_IES
ERLH		B1	12700	12200		B3-U0-G2	B3-U0-G2	ERLH_13B140_IES	ERLH_13B130_IES
ERLH		C1	13000	12500		B3-U0-G2	B3-U0-G2	ERLH_13C140_IES	ERLH_13C130_IES
ERLH		D1	12700	12200		B3-U0-G2	B2-U0-G2	ERLH_13D140_IES	ERLH_13D130_IES
ERLH		E1	13000	12500		B3-U0-G2	B3-U0-G2	ERLH_13E140_IES	ERLH_13E130_IES
ERLH		F1	13000	12500		B3-U0-G2	B3-U0-G2	ERLH_13F140_IES	ERLH_13F130_IES
ERLH		G1	13000	12500		B3-U0-G2	B3-U0-G2	ERLH_13G140_IES	ERLH_13G130_IES
ERLH	14	A1	13300	12800	139	B3-U0-G3	B3-U0-G3	ERLH_14A140_IES	ERLH_14A130_IES
ERLH		B1	13700	13200		B3-U0-G2	B3-U0-G2	ERLH_14B140_IES	ERLH_14B130_IES
ERLH		C1	14000	13500		B3-U0-G2	B3-U0-G2	ERLH_14C140_IES	ERLH_14C130_IES
ERLH		D1	13700	13200		B3-U0-G2	B3-U0-G2	ERLH_14D140_IES	ERLH_14D130_IES
ERLH		E1	14000	13500		B3-U0-G2	B3-U0-G2	ERLH_14E140_IES	ERLH_14E130_IES
ERLH		F1	14000	13500		B3-U0-G2	B3-U0-G2	ERLH_14F140_IES	ERLH_14F130_IES
ERLH		G1	14000	13500		B3-U0-G2	B3-U0-G2	ERLH_14G140_IES	ERLH_14G130_IES
ERLH	15	A1	14200	13700	161	B3-U0-G3	B3-U0-G3	ERLH_15A140_IES	ERLH_15A130_IES
ERLH		B1	14700	14200		B3-U0-G2	B3-U0-G2	ERLH_15B140_IES	ERLH_15B130_IES
ERLH		C1	15000	14500		B3-U0-G2	B3-U0-G2	ERLH_15C140_IES	ERLH_15C130_IES
ERLH		D1	14700	14200		B3-U0-G2	B3-U0-G2	ERLH_15D140_IES	ERLH_15D130_IES
ERLH		E1	15000	14500		B3-U0-G2	B3-U0-G2	ERLH_15E140_IES	ERLH_15E130_IES
ERLH		F1	15000	14500		B3-U0-G2	B3-U0-G2	ERLH_15F140_IES	ERLH_15F130_IES
ERLH		G1	15000	14500		B3-U0-G2	B3-U0-G2	ERLH_15G140_IES	ERLH_15G130_IES

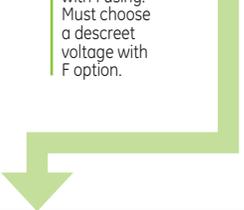
# Ordering Number Logic

## Evolve™ LED Streetlight (ERS1)



ERS1

PROD. ID	VOLTAGE	LUMEN OUTPUT	DISTRIBUTION	DRIVE CURRENT	CCT	CONTROLS	COLOR	OPTIONS
<b>E</b> = Evolve <b>R</b> = Roadway <b>S</b> = Scalable <b>1</b> = Single Module	<b>0</b> = 120-277* <b>1</b> = 120 <b>2</b> = 208 <b>3</b> = 240 <b>4</b> = 277 <b>5</b> = 480 <b>D</b> = 347 <b>H</b> = 347-480* * Not available with Fusing. Must choose a discreet voltage with F option.	<b>10</b> <b>11</b> <b>13</b> <b>14</b> <b>15</b> See Data Table for more information.	<b>A1</b> = Extra Narrow Asymmetric <b>B1</b> = Narrow Asymmetric (Medium) <b>C1</b> = Asymmetric (Short) <b>D1</b> = Asymmetric Forward <b>E1</b> = Asymmetric (Medium) <b>F1</b> = Asymmetric (Wide) <b>G1</b> = Asymmetric (Extra Wide) See Data Table for more information	<b>X</b> = Not Applicable	<b>30</b> = 3000K <b>40</b> = 4000K	<b>A</b> = ANSI C136.41 7-pin <b>D</b> = ANSI C136.41 7-pin receptacle with Shorting Cap <b>E</b> = ANSI C136.41 7-pin Receptacle with non-Dimming PE Control.* * PE Control Only available for 120-277V or 480V Discrete. Not available for 347-480V or 347V Discrete. <b>NOTE:</b> Dimming controls wired for 0-10V standard unless DALI option "U" requested.	<b>GRAY</b> = Gray <b>BLCK</b> = Black <b>DKBZ</b> = Dark Bronze	<b>F</b> = Fusing <b>G</b> = Internal Bubble Level <b>L</b> = Tool-Less Entry <b>R</b> = Optional Secondary Enhanced Surge Protection (10kV/5kA) <b>T</b> = 20kV/10kA Surge Protection per IEEE/ANSI C62.41.2-2002 † <b>U</b> = Universal DALI Programmable+ <sup>^</sup> <b>Y</b> = Coastal Finish* <b>XXX</b> = Special Options * Recommended for installations within 1 mile from the coast. Contact Factory for Lead-Time. + Compatible with LightGrid 2.0 nodes. ^Not available at 347V, 480V or 347-480V.



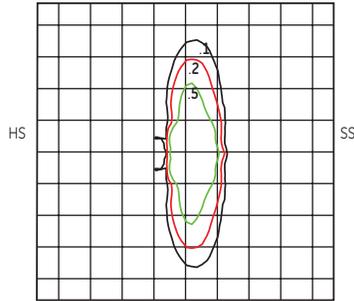
PRODUCT ID	LUMEN OUTPUT	DISTRIBUTION	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE	BUG RATING		IES FILE NUMBER	
			4000K	3000K		4000K	3000K	4000K	3000K
ERS1	10	A1	9500	9200	90	B3-U0-G2	B3-U0-G2	ERS1_10A1X40_IES	ERS1_10A1X30_IES
ERS1		B1	9800	9500		B3-U0-G1	B2-U0-G1	ERS1_10B1X40_IES	ERS1_10B1X30_IES
ERS1		C1	10000	9600		B2-U0-G1	B2-U0-G1	ERS1_10C1X40_IES	ERS1_10C1X30_IES
ERS1		D1	9800	9500		B2-U0-G2	B2-U0-G2	ERS1_10D1X40_IES	ERS1_10D1X30_IES
ERS1		E1	10000	9600		B2-U0-G2	B2-U0-G2	ERS1_10E1X40_IES	ERS1_10E1X30_IES
ERS1		F1	10000	9600		B2-U0-G2	B2-U0-G2	ERS1_10F1X40_IES	ERS1_10F1X30_IES
ERS1		G1	10000	9600		B2-U0-G2	B2-U0-G2	ERS1_10G1X40_IES	ERS1_10G1X30_IES
ERS1	11	A1	10900	10500	108	B3-U0-G2	B3-U0-G2	ERS1_11A1X40_IES	ERS1_11A1X30_IES
ERS1		B1	11200	10800		B3-U0-G2	B3-U0-G1	ERS1_11B1X40_IES	ERS1_11B1X30_IES
ERS1		C1	11500	11100		B3-U0-G2	B3-U0-G2	ERS1_11C1X40_IES	ERS1_11C1X30_IES
ERS1		D1	11200	10800		B2-U0-G2	B2-U0-G2	ERS1_11D1X40_IES	ERS1_11D1X30_IES
ERS1		E1	11500	11100		B3-U0-G2	B3-U0-G2	ERS1_11E1X40_IES	ERS1_11E1X30_IES
ERS1		F1	11500	11100		B3-U0-G2	B3-U0-G2	ERS1_11F1X40_IES	ERS1_11F1X30_IES
ERS1		G1	11500	11100		B3-U0-G2	B3-U0-G2	ERS1_11G1X40_IES	ERS1_11G1X30_IES
ERS1	13	A1	12300	11900	125	B3-U0-G2	B3-U0-G2	ERS1_13A1X40_IES	ERS1_13A1X30_IES
ERS1		B1	12700	12200		B3-U0-G2	B3-U0-G2	ERS1_13B1X40_IES	ERS1_13B1X30_IES
ERS1		C1	13000	12500		B3-U0-G2	B3-U0-G2	ERS1_13C1X40_IES	ERS1_13C1X30_IES
ERS1		D1	12700	12200		B3-U0-G2	B2-U0-G2	ERS1_13D1X40_IES	ERS1_13D1X30_IES
ERS1		E1	13000	12500		B3-U0-G2	B3-U0-G2	ERS1_13E1X40_IES	ERS1_13E1X30_IES
ERS1		F1	13000	12500		B3-U0-G2	B3-U0-G2	ERS1_13F1X40_IES	ERS1_13F1X30_IES
ERS1		G1	13000	12500		B3-U0-G2	B3-U0-G2	ERS1_13G1X40_IES	ERS1_13G1X30_IES
ERS1	14	A1	13300	12800	139	B3-U0-G3	B3-U0-G3	ERS1_14A1X40_IES	ERS1_14A1X30_IES
ERS1		B1	13700	13200		B3-U0-G2	B3-U0-G2	ERS1_14B1X40_IES	ERS1_14B1X30_IES
ERS1		C1	14000	13500		B3-U0-G2	B3-U0-G2	ERS1_14C1X40_IES	ERS1_14C1X30_IES
ERS1		D1	13700	13200		B3-U0-G2	B3-U0-G2	ERS1_14D1X40_IES	ERS1_14D1X30_IES
ERS1		E1	14000	13500		B3-U0-G2	B3-U0-G2	ERS1_14E1X40_IES	ERS1_14E1X30_IES
ERS1		F1	14000	13500		B3-U0-G2	B3-U0-G2	ERS1_14F1X40_IES	ERS1_14F1X30_IES
ERS1		G1	14000	13500		B3-U0-G2	B3-U0-G2	ERS1_14G1X40_IES	ERS1_14G1X30_IES
ERS1	15	A1	14200	13700	161	B3-U0-G3	B3-U0-G3	ERS1_15A1X40_IES	ERS1_15A1X30_IES
ERS1		B1	14700	14200		B3-U0-G2	B3-U0-G2	ERS1_15B1X40_IES	ERS1_15B1X30_IES
ERS1		C1	15000	14500		B3-U0-G2	B3-U0-G2	ERS1_15C1X40_IES	ERS1_15C1X30_IES
ERS1		D1	14700	14200		B3-U0-G2	B3-U0-G2	ERS1_15D1X40_IES	ERS1_15D1X30_IES
ERS1		E1	15000	14500		B3-U0-G2	B3-U0-G2	ERS1_15E1X40_IES	ERS1_15E1X30_IES
ERS1		F1	15000	14500		B3-U0-G2	B3-U0-G2	ERS1_15F1X40_IES	ERS1_15F1X30_IES
ERS1		G1	15000	14500		B3-U0-G2	B3-U0-G2	ERS1_15G1X40_IES	ERS1_15G1X30_IES

# Photometrics

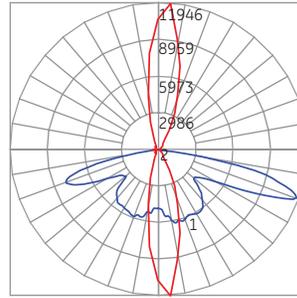
## Evolve™ LED Streetlight (ERLH and ERS1)

### ERLH and ERS1 Extra Narrow Asymmetric (15A1)

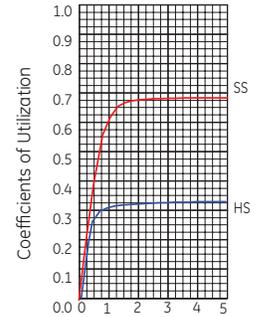
14,200 Lumens  
4000K



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



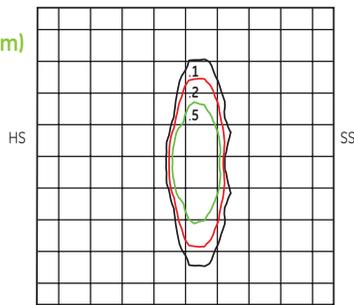
— Vertical plane through horizontal angle of maximum candlepower at 85°  
— Vertical plane through horizontal angle of 71°



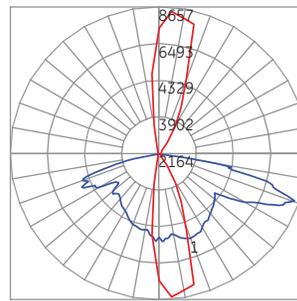
Street Width/Mounting Height

### ERLH and ERS1 Narrow Asymmetric (Medium) (15B1)

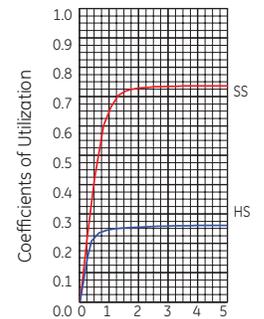
14,700 Lumens  
4000K



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



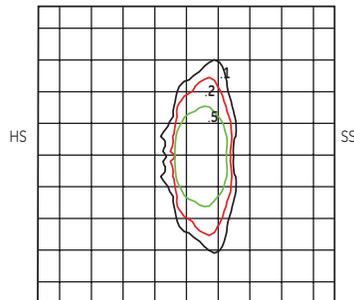
— Vertical plane through horizontal angle of maximum candlepower at 85°  
— Vertical plane through horizontal angle of 71°



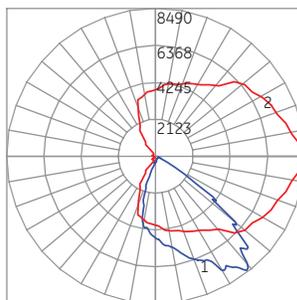
Street Width/Mounting Height

### ERLH and ERS1 Asymmetric Short (15C1)

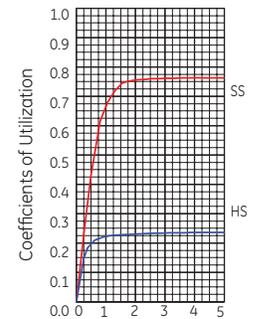
15,000 Lumens  
4000K



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



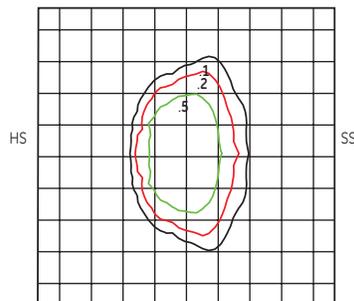
— Vertical plane through horizontal angle of maximum candlepower at 0°  
— Vertical plane through horizontal angle of 38°



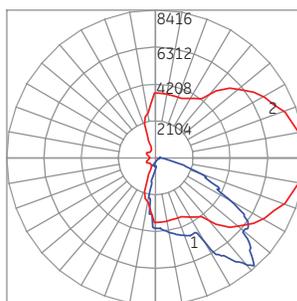
Street Width/Mounting Height

### ERLH and ERS1 Asymmetric Forward (15D1)

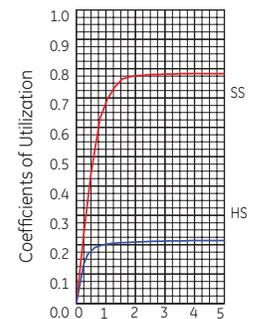
14,700 Lumens  
4000K



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of maximum candlepower at 5°  
— Vertical plane through horizontal angle of 41°



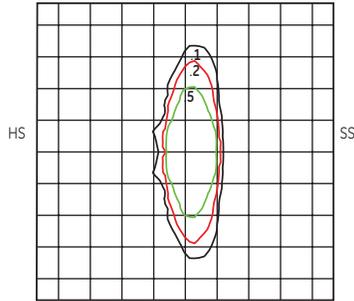
Street Width/Mounting Height

# Photometrics

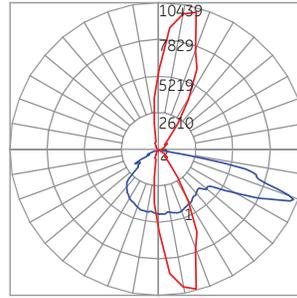
## Evolve™ LED Streetlight (ERLH and ERS1)

### ERLH and ERS1 Asymmetric Medium (15E1)

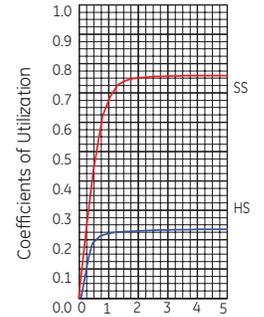
15,000 Lumens  
4000K



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



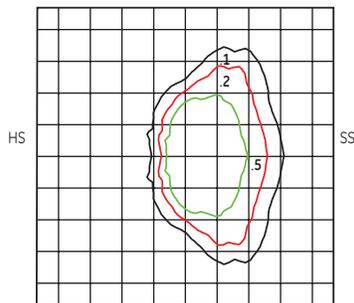
— Vertical plane through horizontal angle of maximum candlepower at 75°  
— Vertical plane through horizontal angle of 70°



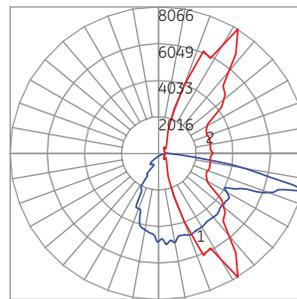
Street Width/Mounting Height

### ERLH and ERS1 Asymmetric Wide (15F1)

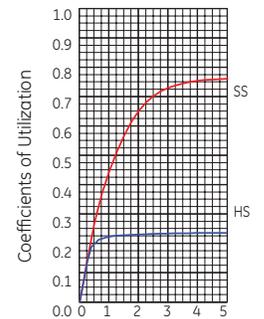
15,000 Lumens  
4000K



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



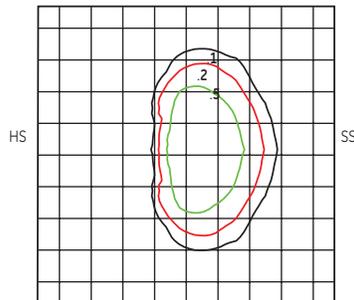
— Vertical plane through horizontal angle of maximum candlepower at 60°  
— Vertical plane through horizontal angle of 75°



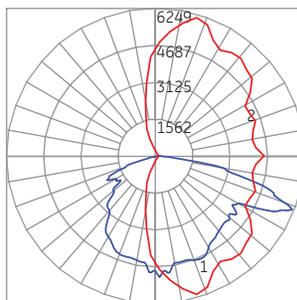
Street Width/Mounting Height

### ERLH and ERS1 Asymmetric Extra Wide (15G1)

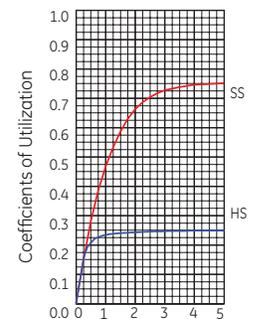
15,000 Lumens  
4000K



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of maximum candlepower at 75°  
— Vertical plane through horizontal angle of 68°



Street Width/Mounting Height

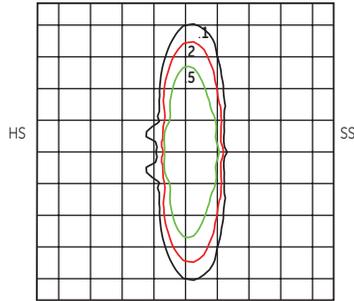


# Photometrics

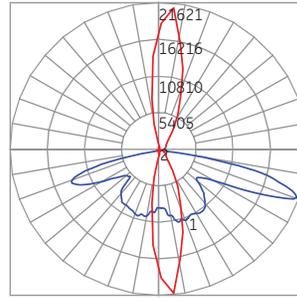
## Evolve™ LED Streetlight (ERS2)

### ERS2 Extra Narrow Asymmetric (27A1)

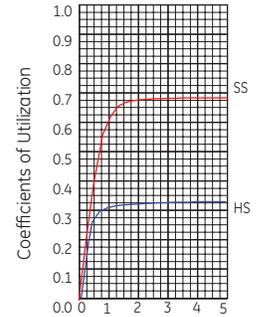
25,700 Lumens  
4000K  
ERS2\_27A1X40\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



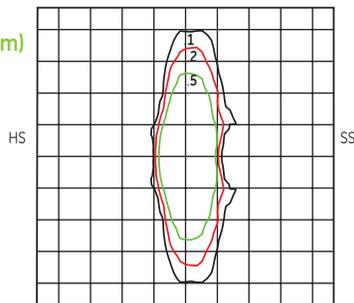
— Vertical plane through horizontal angle of maximum candlepower at 85°  
— Vertical plane through horizontal angle of 71°



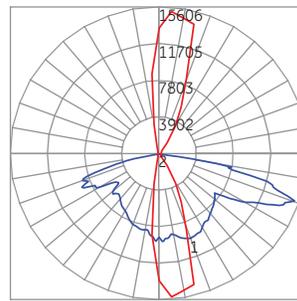
Coefficients of Utilization  
Street Width/Mounting Height

### ERS2 Narrow Asymmetric (Medium) (27B1)

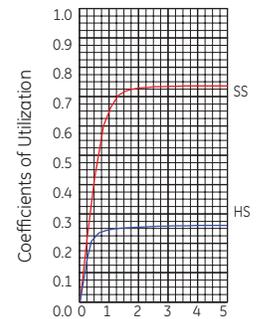
26,500 Lumens  
4000K  
ERS2\_27B1X40\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



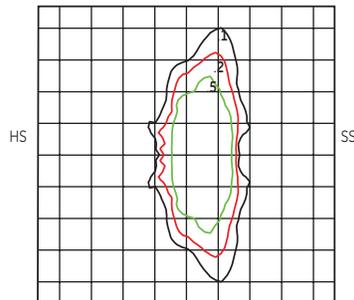
— Vertical plane through horizontal angle of maximum candlepower at 85°  
— Vertical plane through horizontal angle of 71°



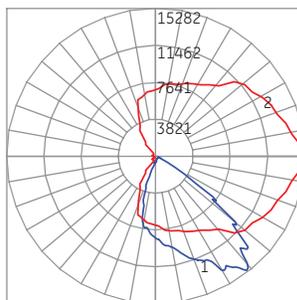
Coefficients of Utilization  
Street Width/Mounting Height

### ERS2 Asymmetric Short (27C1)

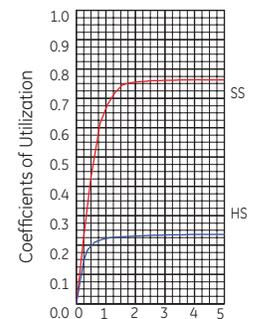
27,000 Lumens  
4000K  
ERS2\_27C1X40\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



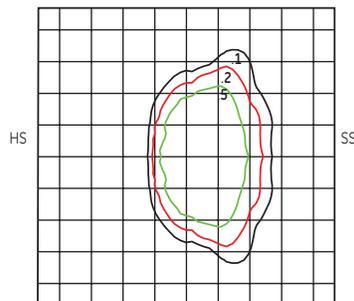
— Vertical plane through horizontal angle of maximum candlepower at 0°  
— Vertical plane through horizontal angle of 38°



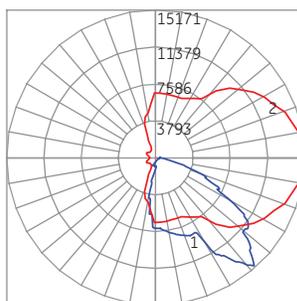
Coefficients of Utilization  
Street Width/Mounting Height

### ERS2 Asymmetric Forward (27D1)

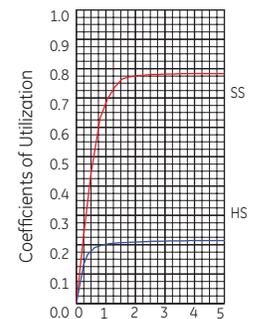
26,500 Lumens  
4000K  
ERS2\_27D1X40\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of maximum candlepower at 5°  
— Vertical plane through horizontal angle of 41°



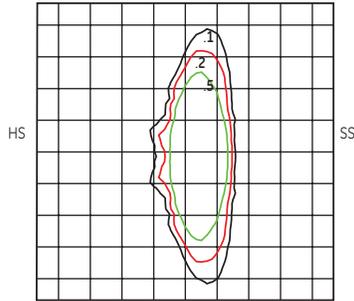
Coefficients of Utilization  
Street Width/Mounting Height

# Photometrics

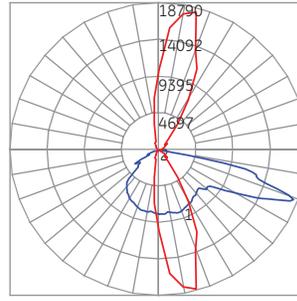
## Evolve™ LED Streetlight (ERS2)

### ERS2 Asymmetric Medium (27E1)

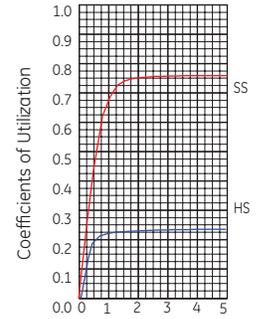
27,000 Lumens  
4000K  
ERS2\_27E1X40\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



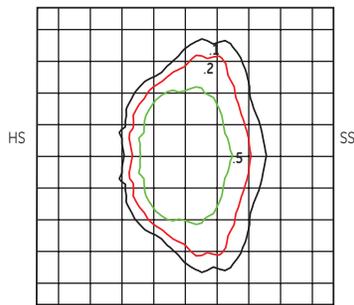
— Vertical plane through horizontal angle of maximum candlepower at 75°  
— Vertical plane through horizontal angle of 70°



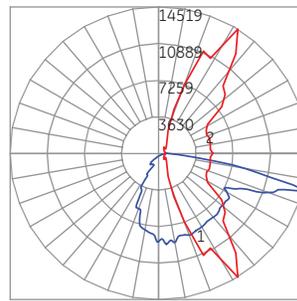
Street Width/Mounting Height

### ERS2 Asymmetric Wide (27F1)

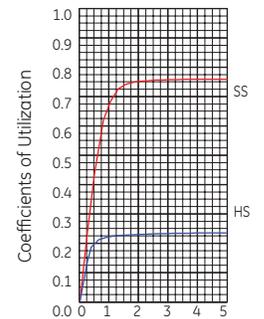
27,000 Lumens  
4000K  
ERS2\_27F1X40\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



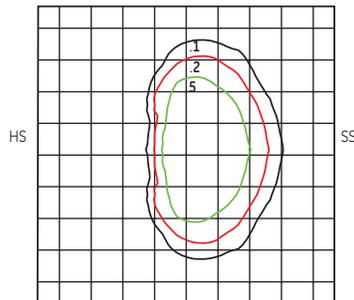
— Vertical plane through horizontal angle of maximum candlepower at 60°  
— Vertical plane through horizontal angle of 75°



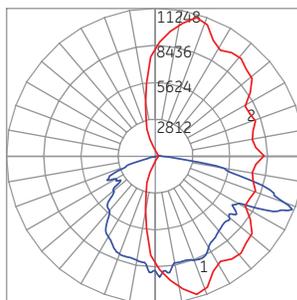
Street Width/Mounting Height

### ERS2 Asymmetric Extra Wide (27G1)

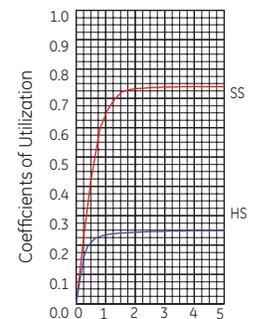
27,000 Lumens  
4000K  
ERS2\_27G1X40\_\_\_\_.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



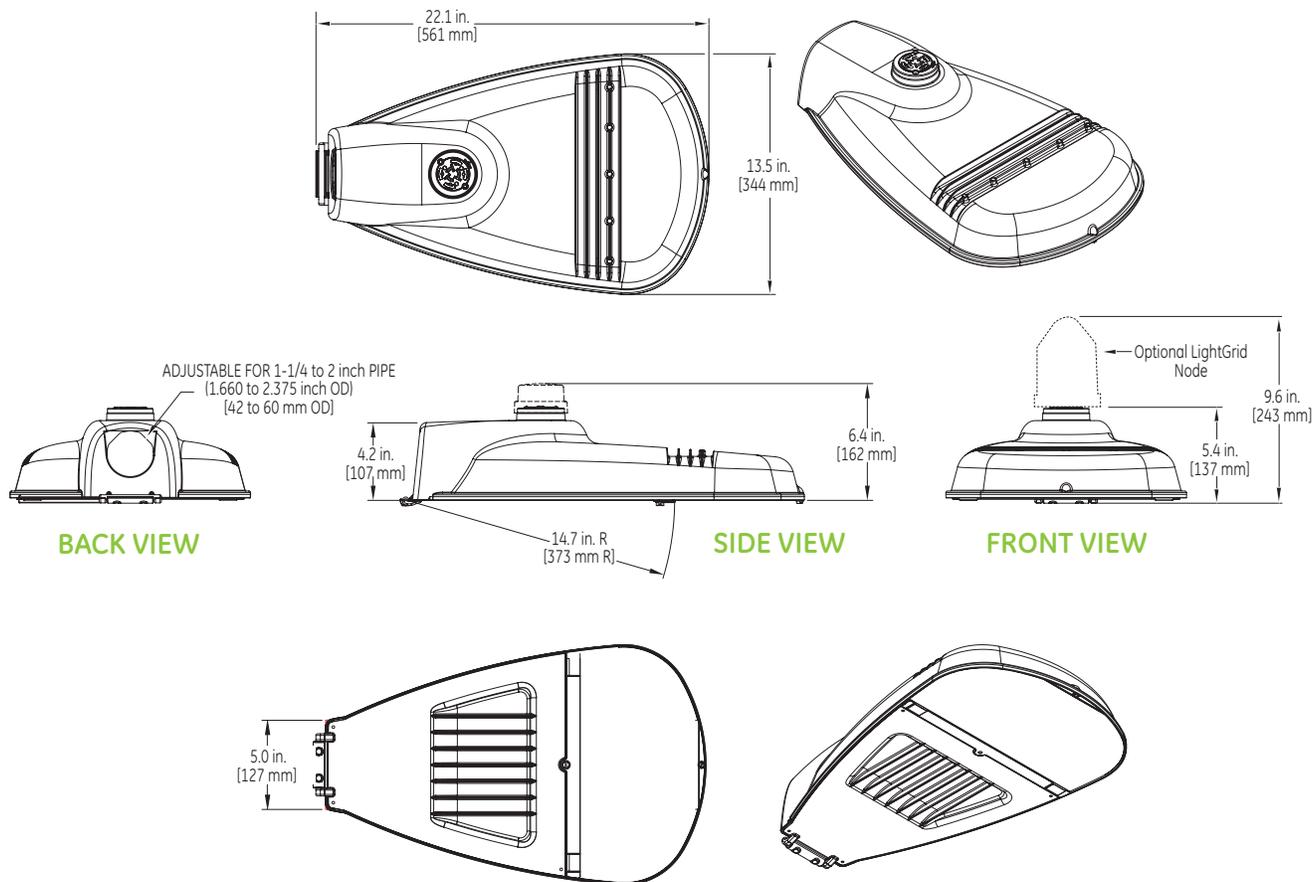
— Vertical plane through horizontal angle of maximum candlepower at 75°  
— Vertical plane through horizontal angle of 68°



Street Width/Mounting Height

# Product Dimensions

## Evolve™ LED Streetlight (ERL1)

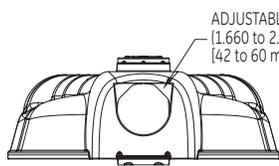
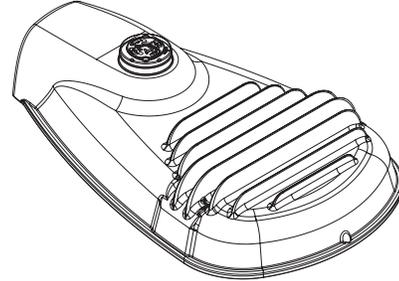
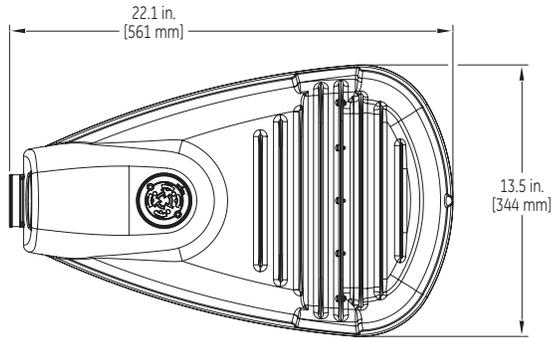


### DATA

- Approximate net weight: 12.4 lbs (5.6 kgs) - Without XFMR
- Approximate net weight: 15.5 lbs (7 kgs) - With XFMR
- Effective Projected Area (EPA): 0.5 sq ft max (0.046 sq m)

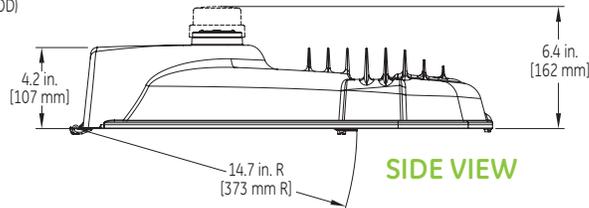
# Product Dimensions

## Evolve™ LED Streetlight (ERLH)

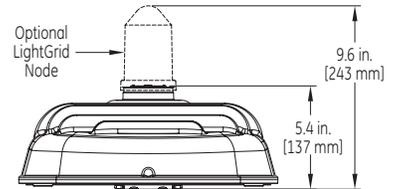


BACK VIEW

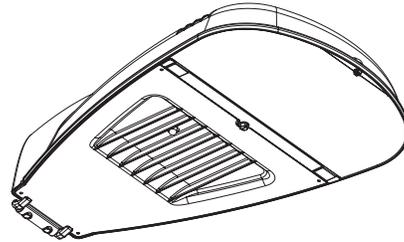
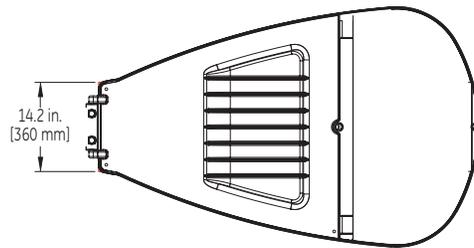
ADJUSTABLE FOR 1-1/4 to 2 inch PIPE  
(1.660 to 2.375 inch OD)  
(42 to 60 mm OD)



SIDE VIEW



FRONT VIEW

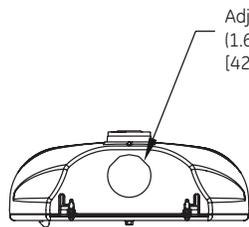
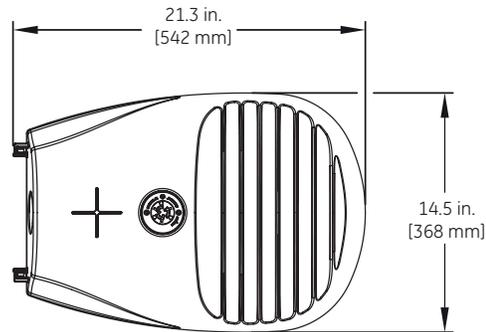


### DATA

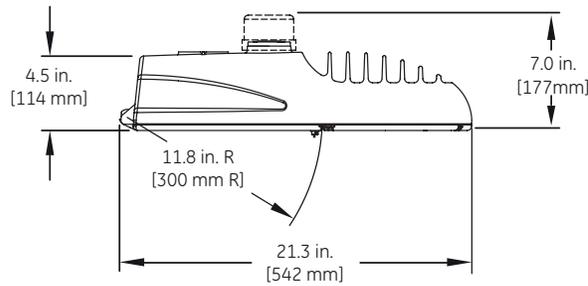
- Approximate net weight: 15.15 lbs (6.9 kgs) - 2 Bolt Slipfitter
- Approximate net weight: 15.85 lbs (7.2 kgs) - 4 Bolt Slipfitter
- Effective Projected Area (EPA): 0.5 sq ft max (0.046 sq m)

# Product Dimensions

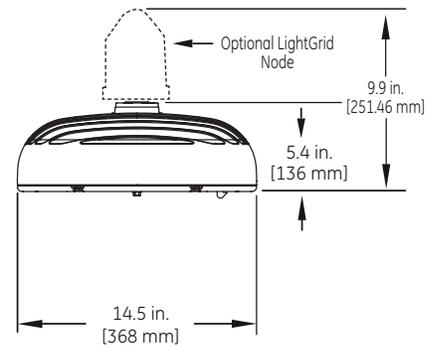
## Evolve™ LED Streetlight (ERS1)



BACK VIEW



SIDE VIEW



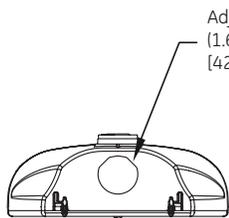
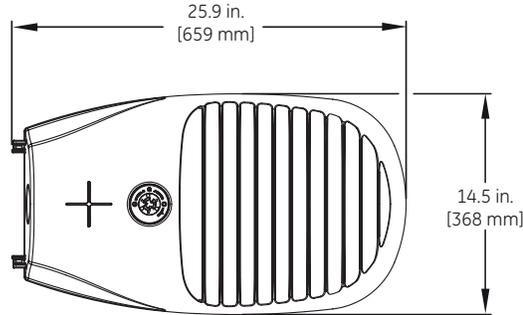
FRONT VIEW

### DATA

- Approximate net weight: 20 lbs (9.1 kgs) to 25 lbs (11.4 kgs)
- Effective Projected Area (EPA): 0.5 sq ft max (0.046 sq m)

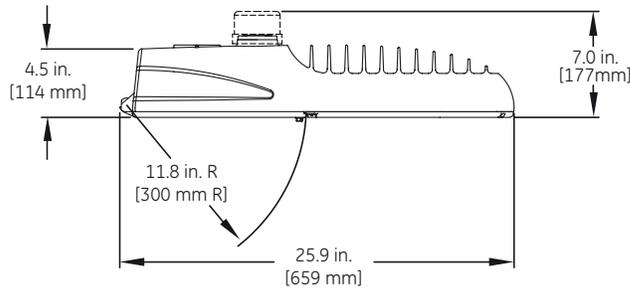
# Product Dimensions

## Evolve™ LED Streetlight (ERS2)

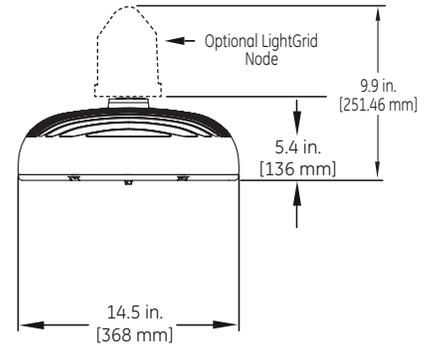


**BACK VIEW**

Adjustable for 1-1/4 to 2 in. mounting pipe  
(1.660 to 2.375 inch OD)  
(42 to 60 mm OD)



**SIDE VIEW**



**FRONT VIEW**

**DATA**

- Approximate net weight: 25 lbs (11.4 kgs) to 29 lbs (13.2 kgs)
- Effective Projected Area (EPA): 0.7 sq ft max (0.065 sq m)



[www.gelighting.com](http://www.gelighting.com)

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OLP3105 (Rev 04/22/16)

Project ..... Date .....

Catalog # ..... Prepared by .....

Luminaire Type .....

Comments .....

# LEDioc® - Hardwired LED Lamp Retrofit Engineered Solution

*Applications include: Street/Area, Historic Districts, City Parks & Recreation, Campuses, Glass Lens Post Tops, Plastic Lens Post Tops, Teardrop Pendants*

## Specification Features

### Construction

The LED retrofit kit includes a separate LED light source, LED driver and transient immunity device (TID). All three components are individually replaceable. The LED retrofit kit is capable of field adjusting the light center length of the LED light source to match the photometric light center length of the original luminaire.

### Mounting

LED lampholder is hardwire mounted on a clamp assembly and can be field adjustable. Medium and Mogul base designs are available.

### Optics

Designed for use in the existing HID post top and pendant mount luminaire optics. House-Friendly™ versions available with reduced house side lumens.

### Electrical

Constant Current Driver is 120-277V input, with 0-10V dimming capability, and the operating temperature is -30° to +60° C. The 25W lamp (28 system watts) along with the 37W lamp (41.5 system watts) driver has a 300mA output and the 57W lamp (63 system watts) driver has a 350mA output. Electrical components are mounted separately to allow for easy serviceability. Transient immunity device (TID) or surge protector supplied per system requirements.

### Reliability

The LEDioc lamp features cast aluminum passive thermal management, which allows air circulation around each LED module to ensure optimal lighting performance and long life.

### Warranty

See the EYE Lighting full Warranty and Terms and Conditions of Sale at [www.eyelighting.com](http://www.eyelighting.com).

## Order Guide

### CATALOG NUMBER

LEH - 25WH323 - 830 - HWD - XXXX - UNV - 1\*  
 LEH - 25WH323 - 840 - HWD - XXXX - UNV - 1\*  
 LEH - 25WH323 - 750 - HWD - XXXX - UNV - 1\*  
 LES - 37W333 - 830 - HWD - XXXX - UNV - 1\*  
 LES - 37W333 - 840 - HWD - XXXX - UNV - 1\*  
 LES - 37W333 - 750 - HWD - XXXX - UNV - 1\*  
 LEH - 37WH433 - 830 - HWD - XXXX - UNV - 1\*  
 LEH - 37WH433 - 840 - HWD - XXXX - UNV - 1\*  
 LEH - 37WH433 - 750 - HWD - XXXX - UNV - 1\*  
 LES - 57W443 - 830 - HWD - XXXX - UNV - 1\*  
 LES - 57W443 - 840 - HWD - XXXX - UNV - 1\*  
 LES - 57W443 - 750 - HWD - XXXX - UNV - 1\*

### DESCRIPTION

25W House-Friendly, 3-Sides, 2-Sides Populated, 3000K, 85 CRI, Hardwired, 120-277V, standard TID  
 25W House-Friendly, 3-Sides, 2-Sides Populated, 4000K, 83 CRI, Hardwired, 120-277V, standard TID  
 25W House-Friendly, 3-Sides, 2-Sides Populated, 5000K, 70 CRI, Hardwired, 120-277V, standard TID  
 37W, 3-Sides, 3-Sides Populated, 3000K, 85 CRI, Hardwired, 120-277V, standard TID  
 37W, 3-Sides, 3-Sides Populated, 4000K, 83 CRI, Hardwired, 120-277V, standard TID  
 37W, 3-Sides, 3-Sides Populated, 5000K, 70 CRI, Hardwired, 120-277V, standard TID  
 37W, House-Friendly, 4-Sides, 3-Sides Populated, 3000K, 85 CRI, Hardwired, 120-277V, standard TID  
 37W, House-Friendly, 4-Sides, 3-Sides Populated, 4000K, 83 CRI, Hardwired, 120-277V, standard TID  
 37W, House-Friendly, 4-Sides, 3-Sides Populated, 5000K, 70 CRI, Hardwired, 120-277V, standard TID  
 57W, 4-Sides, 4-Sides Populated, 3000K, 84 CRI, Hardwired, 120-277V, standard TID  
 57W, 4-Sides, 4-Sides Populated, 4000K, 85 CRI, Hardwired, 120-277V, standard TID  
 57W, 4-Sides, 4-Sides Populated, 5000K, 70 CRI, Hardwired, 120-277V, standard TID



Check the latest update at [www.DesignLights.org](http://www.DesignLights.org) for listed product catalog numbers. Hardwired versions are listed. Contact company for solution availability.

\* PLEASE NOTE

- Luminaire description "XXXX" to be completed by factory.

- Surge protector "-1\*" indicates a standard 3-wire unit rated 10KA with indicator light. Options are "-2\*" (a 2-wire unit rated 10KA with indicator light) or "-3\*" (a 3-wire unit rated 10KA with indicator light).

# LEDioc® - Hardwired LED Lamp Retrofit Engineered Solution

The complete LEDioc component kit includes: the exclusive patent pending EYE LEDioc lamp, driver, TID and mounting bracket for the specific luminaire. Installation is easy, thermal/mechanical compatibility is assured and lamp LCL is maintained, preserving the optics and photometric performance of the existing luminaire. Each solution includes luminaire-specific installation instructions for the installer. Other solutions available, contact the factory or visit [eyelighting.com](http://eyelighting.com) for other solutions.

**GE Town and Country**  
Model# T10C Series



**King Luminaire**  
Model # K118 series

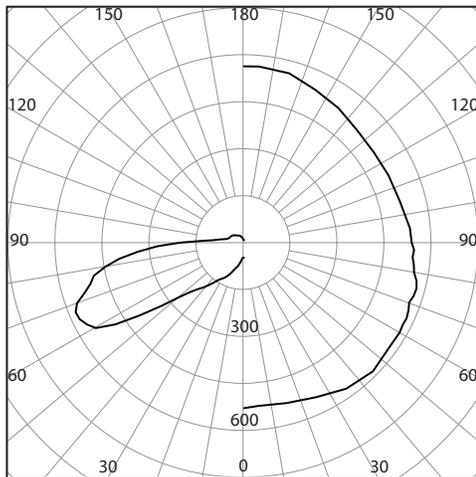


**Hadco**  
Model # R52 series

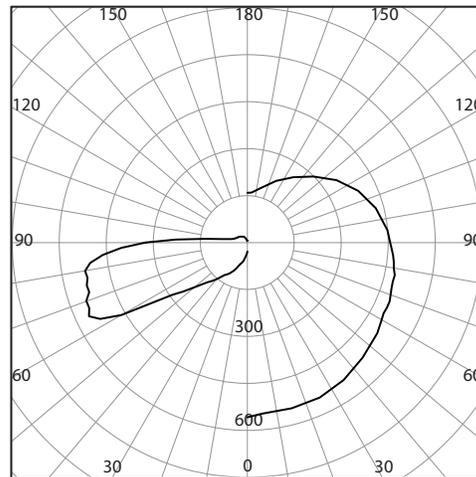


## Hardwire Photometrics

**37W STANDARD**



**25W HOUSE-FRIENDLY™**



\* Photometric distribution is based on Lexalite Lindy 424 per DLC specifications in a Type V distribution.

### NOTES:

- 1) Applications are subject to project performance evaluation and may be subject to thermal validation prior to installation.
- 2) Actual design will vary based on specific luminaire mounting requirements.
- 3) Lexalite Lindy 424, GE Town and Country, King Luminaire, and Hadco are trademarks owned by their respective company.

## EYE Lighting International of North America, Inc.

a division of Iwasaki Electric of Japan

9150 Hendricks Road  
Mentor, Ohio 44060

Tel: (888) 665-2677  
Fax: (440) 350-7001

[www.eyelighting.com](http://www.eyelighting.com)

## Attachment B: Resumes

Alex Valenti

Account Manager

## Summary

Currently Mr. Valenti serves as a technical expert and Business Development Manager for LED street light retrofit programs for Siemens Industry. This involves developing Investment Grade Assessments (IGA) for large municipal street light retrofit programs, performing energy analysis, and material specification, as well as working closely with our clients to ensure they are receiving the best possible service.

In previous employment Mr. Valenti worked as a Project Manager for Energy Solutions coordinating energy efficiency rebate programs and developing California building codes. This included managing large scale commercial lighting retrofits and facilitating the participation of California Investor Owned Utilities in building code development. Prior to Project Management, Mr. Valenti worked as a Researcher at Lawrence Berkeley National Laboratory assisting in the development of Federal lighting standards, and detailed economic, technical and market based analysis. Mr. Valenti also has four years experience as an Environmental Consultant for Environmental Health and Safety related projects.

## Education

- Professional Certification, Project Management, San Francisco State University
- Bachelor of Science, Environmental Science, University of California Berkeley
- Bachelor of Science Minor, Energy and Resources, University of California Berkeley

## Employment History

### 2014 - Present

Account Manager, Siemens Industry, Inc.

Responsibilities include:

- Primary contact with customer
- Siemens interface for contractual and finance issues
- Assist with time schedules
- Assist with documentation
- Assist with energy functions

### 2013 -2014

Project Manager, Energy Solutions

### 2012 – 2013

Research Associate, Lawrence Berkeley National Laboratory

2008 – 2012

Environmental Consultant, J. Stanley Consulting

## Reference Projects

### City of Huntington Beach, CA LED Street Light Retrofit

Role: Account Manager and IGA development

Project Details: Point of contact for the City, worked directly with City and field personnel on IGA and retrofit of approximately 12,000 streetlights.

Completed: IGA completed 2013, Phase 1 completed 2014, Phase 2 expected completion 2016.

### City of Rialto, CA LED Street Light Retrofit

Role: Account Manager and IGA development

Project Details: Point of contact for the City, worked with City to develop IGA for approximately 5,000 streetlights.

Completed: 2014, anticipating Phase 1 in 2016

## Certifications

- Project Management Certified

## Professional Associations

- Association of Energy Engineers

Piron Vossoughi

Project Manager

## Summary

Mr. Vossoughi has extensive project management experience with leadership in managing successful projects from proposal development through multifaceted design, product and implementation development and qualification phases to multi-year production programs. He is experienced in managing multiple teams and subcontracts while responsible for budget, delivery and technical performance of the project. Mr. Vossoughi also excels in project risk mitigation and planning.

## Education

Bachelor of Science, Manufacturing; Western Michigan University

## Employment History

### 2015 – Present

Project Manager, Siemens Industry, Inc

Responsibilities include:

- Management of client deliverables
- Budget management
- Supervision of field and office staff involved with project
- Client interface
- Lead client updates and meetings
- Manage timeline of project
- Create project data files
- Detail project implementation schedule and deliverables

### 2015

Project Manager, BAE Systems

### 2010-2013

Project Manager, Rix Industries

### 2008-2010

Project Manager, BAE Systems

### 2005-2008

Project Manager, Honeywell International

## Certifications

PMP Certified

Michael Hutchens

Area Operations Manager

## Summary

Mr. Hutchens has over 21 years of extensive experience in both the technical and construction-related aspects of the traffic signal and streetlight maintenance industry. He has served in many different capacities with increasing responsibility as he has shown himself thorough, professional and competent through the years from field laborer to foreman, field supervisor, technical support for US Traffic Corporation, and estimating, operations management, project management, and service account management.

## Education

## Employment History

### 2006 - Present

Siemens Industry, Inc.

2016- Present, Area Operations Manager

2010-2016, Sr. Service Account Manager

2006-2010, Operations Manager (formerly Republic ITS)

Responsibilities include:

- Management and scheduling of installation crews
- Coordinating installation with project manager and project plan
- Ensuring EH&S standards are met

### 2003 - 2006

Maintenance Operations Manager, Econolite Traffic Engineering & Maintenance

### 1998 – 2003

Chief Estimator, US Traffic Corporation

### 1994 – 1998

Utility Technician, PEEK Traffic/ Signal Maintenance, Inc.

## Reference Projects

### City of Irvine Signal Traffic Maintenance Services

Role: Service Account Manager

Project Details: Traffic signal maintenance for 338 intersections and 7 lighted crosswalks

Completed: Active contract

### City of Glendale Traffic Signal Maintenance Contract

Role: Service Account Manager

Project Details: Traffic signal maintenance for 238 intersections

Completed: Active contract

### City of Anaheim Traffic Signal Maintenance On-Call Services

Role: Service Account Manager

Project Details: Traffic signal maintenance on-call services for 400 intersections

Completed: Active contract

## Certifications

- IMSA Work Zone Safety Certified
- IMSA Level I, II, & III Traffic Signal Technician Certified

## Richard O'Hearn Jr., CEM

Senior Energy Engineer

### Summary

Mr. O'Hearn has over 7 years in the roadway lighting industry, focusing on turnkey & energy efficiency projects on the national level. He has acted as a consultant for a joint venture between the U.S. Dept. of Energy & the National Renewable Energy Labs, as the industry expert in roadway lighting data collection. Since joining Siemens Mr. O'Hearn has been involved in numerous energy analysis projects and has added rich value and expertise to each opportunity he has been assigned.

### Education

Post-Bachelors Program, Accounting; University of Massachusetts Dartmouth  
Bachelor of Science, International Business; Massachusetts Maritime Academy

### Employment History

#### 2014 – Present

Energy Engineer, Siemens Industry, Inc.

Responsibilities include:

- Utility analysis
- GIS data oversight
- Luminaire selection
- Energy calculations
- Utility bill adjustments
- Rebate calculations & applications
- Energy Assessments
- Investment Grade Audits
- Project Energy Management
- Guaranteed Energy Savings Analysis and Management

#### 2014 – 2014

Program Manager, Lighting Solutions, ConserVision Energy

#### 2012 – 2014

Sr. Project Manager, Phillips Lighting

#### 2007 – 2012

Applications Engineer, Speclines

### Reference Projects

#### City of Manchester Street Light Conversion

**Role:** Energy Engineer

**Project Details:** Street light conversion and maintenance contract for 9,000 lights

**Completed:** Active contract

### **City of New Bedford Street Light Conversion**

**Role:** Energy Engineer

**Project Details:** Street light conversion and maintenance contract for 10,000 lights

**Completed:** Active contract

### **Cape Light Compact Street Light Retrofit**

**Role:** Energy Engineer

**Project Details:** Streetlight retrofit for 8,100 lights for multiple cities

**Completed:** Active Contract

## **Other Experience Relevant to this Project**

AutoCAD, Lighting Design, Project Management, Facility Simulations

## **Certifications**

Certified Energy Manager (CEM), Association of Energy Engineers; 3/2013

AGi32: Emphasis on Roadway Lighting & Design, Lighting Analysis; 3/2010

## **Professional Associations**

Plymouth Energy Committee (Plymouth, MA), Committee Member; 6/2013 - Current

**Attachment C: Siemens Terms and Conditions**

# **SIEMENS PROJECTS BUSINESS STANDARD TERMS AND CONDITIONS**

## **PREAMBLE**

THESE STANDARD TERMS AND CONDITIONS, entered into by and between [\_\_\_\_\_], a [insert State/Province of incorporation of Buyer and entity type] ("Buyer") and [**Siemens entity entering into the Agreement**], [insert State/Province of incorporation of Siemens entity and entity type] ("Siemens"), are effective as of the Effective Date hereof. These general terms and conditions incorporate the supplemental terms and conditions set forth in Attachment "A," as though Attachment "A" was fully set forth herein.

## **ARTICLE 1** **DEFINITIONS**

### 1.1 Definitions.

As used in this Agreement, the following terms have the meanings set forth below:

"Agreement" has the meaning set forth in Article 19.

"Affiliate" means, as to a specified Person, any other Person that, directly or indirectly, controls or is controlled by or is under common control with the Person in question and, with respect to Siemens or Buyer, is not a competitor of, or in litigation or arbitration with, Siemens or Buyer, as the case may be.

"Applicable Laws" means all applicable laws, including Environmental Laws, treaties, ordinances, rules, regulations and interpretations of any Governmental Authority having jurisdiction over the design, engineering, fabrication, manufacturing, Delivery, assembly, erection, installation, and/or the performance of the Parties' obligations under this Agreement.

"Applicable Permits" means the permits, clearances, licenses, authorizations, consents, filings, exemptions or approvals from or required by any Governmental Authority that are necessary for the performance of the Parties' obligations under this Agreement.

"Asbestos" shall mean and include chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that has been chemically treated and/or altered.

"Attachment 'A'" means the business specific terms set forth in Attachment "A" to this Agreement.

"Business Day" means every day other than a Saturday, Sunday or a day on which banks are permitted or required to remain closed in the [State/Province of [X]].

"Buyer" means the entity identified in the preamble and signing this Agreement for buyer, including its successors or permitted assigns.

"Buyer Caused Delay" means any delay in Siemens' or its Subcontractors' performance of the Work which is caused by (i) Buyer's or any Buyer Party's failure to timely perform its obligations under this Agreement, or (ii) any other event or cause which is beyond the control or not the responsibility of Siemens or any of its Subcontractors, and is not otherwise a Force Majeure Event.

“Buyer Documents” means all drawings, specifications and other information with respect to the Project and Work to be provided by Buyer in accordance with Buyer’s Documents Submission Schedule set forth in Attachment “A.”

“Buyer Documents Submission Schedule” means the schedule specified in Attachment “A,” identifying the Buyer Documents and the dates by which Buyer shall submit such Buyer Documents to Siemens.

“Buyer Event of Default” has the meaning set forth in Section 14.2.

“Buyer Party” or “Buyer Parties” means Buyer, any Affiliate of Buyer, and any of their respective contractors, subcontractors, employees, laborers, materialmen, agents or representatives which is not a competitor of Siemens.

“Buyer Permits” has the meaning set forth in Section 5.5.

“Contract Price” means the cumulative price payable by Buyer with respect to all Work which Siemens shall perform or provide in connection with this Agreement, as the same is set forth in Section 4.1 of this Agreement.

“Convenience Termination Payment” has the meaning set forth in Section 14.3.

“Default Termination Payment” has the meaning set forth in Section 14.2.

“Delivery,” “to Deliver,” “Delivering,” or “Delivered” means, for each component of any particular Equipment, or initial Spare Parts, being supplied by Siemens to Buyer pursuant to this Agreement, the arrival at the delivery point of such component or to such other location as is mutually agreed by Buyer and Siemens.

“Effective Date” means [ \_\_\_\_\_ ] or the date this Agreement was executed if no specific date is set forth in this definition.

“Environmental Laws” means applicable national, [state/provincial], municipal, and local laws as well as all rules, regulations, codes, standards, permits, directives, or ordinances that impose liability or standards of conduct (including disclosure or notification requirements) concerning the protection of human health or the environment, including, without limitation, all laws affecting, controlling, limiting, regulating, pertaining, or relating to the manufacture, possession, presence, use, generation, storage, transportation, detection, monitoring, treatment, Release, disposal, abatement, cleanup, removal, remediation, or handling of Hazardous Materials.

“Equipment” has the meaning as set forth in Attachment “A.”

“Final Completion” has the meaning as set forth in Attachment “A” (if applicable).

“Final Completion Date” means the date on which Final Completion of Siemens’ scope of Work occurs.

“Force Majeure Event” has the meaning set forth in Section 11.2.

“Governmental Authority” means any federal, [state/provincial], local or other governmental, judicial, public or statutory instrumentality, tribunal, agency, authority, body or entity, or any political subdivision thereof, having legal jurisdiction over the matter or Person in question.

"Hazardous Materials" means any material, substance, or waste, that, by reason of its composition or characteristics, is hazardous to human health and/or the environment, including any "solid waste" or "hazardous waste," as those terms are defined by the Resource Conservation and Recovery Act of 1976, as amended, any "hazardous substance," as that term is defined by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, and any other hazardous, toxic or radioactive chemical, waste, byproduct, pollutant, contaminant, compound, product, material or substance, including without limitation, Asbestos, Asbestos containing materials ("ACM"), polychlorinated biphenyls, petroleum (including crude oil or any fraction or byproduct thereof), hydrocarbons, radon, urea, urea formaldehyde, and any other material that is prohibited, controlled, limited or regulated in any manner under any Environmental Laws.

"Import Duties" means any taxes, customs duties, fees, imposts and governmental charges of any kind that are payable upon or in relation to the importation of the components of the Equipment into the [United States/Canada]. Import Duties do not include any property, license, privilege, sales, use, excise, value added, gross receipts (including any business, occupation or similar taxes) and/or transactional taxes now or hereafter applicable to, measured by, or imposed upon or with respect to the transaction, the Equipment, or their sale, their value or their use, or any services (including any Services, as that term may be defined in Attachment "A" (if applicable)) performed in connection therewith imposed by any federal, state or local Governmental Authority in the [United States/Canada].

"Indemnitor" has the meaning set forth in Section 15.1.

"Indemnitee" has the meaning set forth in Section 15.1.

"Lien" means: (a) any mortgage, charge, lien, pledge, hypothecation, title retention arrangement or other security interest, as or in effect as security for the payment of a monetary obligation or the observance of any other obligation; (b) any easement, servitude, restrictive covenant, equity or interest in the nature of an encumbrance, garnishee order, writ of execution, right of set-off, lease, license to use or occupy, or assignment of income; or (c) any agreement to create any of the foregoing or allow any of the foregoing to exist.

"Maintenance Service" shall mean the scheduled and unscheduled maintenance, replacement and repair of components of the Equipment in accordance with the Siemens manuals and revisions thereto, Siemens' technical service bulletins and revisions thereto, and other technical documentation supplied by Siemens to Buyer.

"Notice to Proceed" shall mean the written notice issued by Buyer to Siemens stating that Siemens may begin the Work.

"Outside Notice to Proceed Date" means [\_\_\_\_\_].

"Party" or "Parties" means, respectively, Buyer, Siemens or both, as the context requires.

"Patent Cooperation Treaty" means an international patent law treaty, concluded in 1970, that provides a unified procedure for filing patent applications to protect inventions in each of its more than one hundred and forty-five (145) contracting states.

"Person" or "Persons" means any individual, corporation, partnership, limited liability company, association, joint stock company, trust, unincorporated organization, joint venture, government or political subdivision or agency thereof.

"Project" has the meaning as set forth in Attachment "A" (if applicable).

"Project Site" means the particular site designated by Buyer on which the Project shall be located.

"Project Infrastructure" has the meaning specified in Section 5.1.

"Release" shall mean any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of any Hazardous Materials into the environment, including the abandonment or discard of barrels, containers, and other closed receptacles containing any Hazardous Materials.

"Scope Change" includes where Siemens determines, after receipt of a request for a change, that the change request of Buyer is technically and commercially feasible and requires a change in the scope of Work, Contract Price or the Work Schedule, or (b) Buyer fails to perform its obligations under Article 5 or other provisions of this Agreement and such failure results in increased costs to Siemens or delays Siemens' performance of the Work and/or ability to meet the milestones contained in the Work Schedule, including any guaranteed dates set forth therein, or (c) for any other event set forth in this Agreement for which Siemens has the right to a change in the scope of Work, Contract Price or the Work Schedule; in which case Siemens shall be entitled to a Scope Change Order.

"Scope Change Order" has the meaning set forth in Section 9.2.

"Service and Maintenance Agreement" has the meaning set forth in Section 5.8.

"Siemens" means the Siemens entity identified in the preamble and signing this Agreement, including its successors and permitted assigns.

"Siemens Event of Default" has the meaning set forth in Section 14.1.

"Siemens Parties" means Siemens, any Affiliate of Siemens, and any of their respective Subcontractors, employees, laborers, materialmen, agents or representatives, and "Siemens Party" means any of the foregoing.

"Siemens Permits" has the meaning set forth in Section 2.4.

"Spare Parts" means the types and quantities of spare parts for repair of the Work that Buyer is purchasing pursuant to this Agreement.

"Subcontractor(s)" means any Person of any tier supplying material, equipment, labor, goods or services to Siemens in connection with the Work and obligations of Siemens under the Agreement.

"Termination for Cause" has the meaning set forth in Section 14.1.

"Warranty" or "Warranties" has the meaning set forth in Section 10.1.

"Warranty Period" has the meaning set forth in Section 10.4.

"Work" means Siemens' scope of work with respect to the Equipment, Major Components, Spare Parts and associated Services and other work supplied by or on account of Siemens and its Subcontractors pursuant to its obligations specified in this Agreement and as identified as Siemens' responsibility in Attachment A.

"Work Schedule" means that certain schedule governing Siemens' provision of the Work and

Buyer's performance of certain obligations, attached hereto as an exhibit to Attachment "A," as modified and replaced mutually between the Parties.

**ARTICLE 2**  
**PERFORMANCE OF THE WORK**  
**AND OBLIGATIONS OF SIEMENS**

2.1 Work to be Performed by Siemens.

2.1.1 General.

Buyer hereby retains Siemens as an independent contractor, not an agent or employee of Buyer, to perform and provide, or cause to be performed and provided, and Siemens hereby agrees to perform and provide, or cause to be performed or provided, all of the Work specified as being within Siemens' scope of Work, all in accordance with the terms and conditions of this Agreement.

2.1.2 Standard of Care.

The Work shall be conducted in a manner consistent with the degree of care and skill ordinarily exercised by reputable firms performing the same or similar work in the same locale acting under similar circumstances or conditions.

2.1.3 Work Schedule.

Buyer shall issue a Notice to Proceed to Siemens on or prior to the Outside Notice to Proceed Date and Siemens shall conduct the Work in accordance with the Work Schedule set forth in this Agreement.

If at any time prior to issuance of Notice to Proceed, Purchaser notifies Siemens in writing that the timing of the Project has changed so that the Work Schedule is no longer accurate, Siemens and Purchaser shall negotiate in good faith to undertake a Scope Change Order, amending the Work Schedule and amending the corresponding Outside Notice to Proceed Date, based on the equitable adjustment necessary to overcome any delays and taking into account any prior committed orders that Siemens must fulfill. Any references herein to the Outside Notice to Proceed Date shall be deemed to be the Outside Notice to Proceed Date, as adjusted in accordance with the foregoing. If Purchaser has not issued the Notice to Proceed to Siemens by the Outside Notice to Proceed Date, Siemens shall have no obligation to maintain the Work Schedule or abide by any milestone dates set forth therein.

2.2 Scheduling and Monitoring of Milestones.

2.2.1 Generally.

Except to the extent that Siemens is entitled to a Scope Change Order or other relief provided for in this Agreement, Siemens shall perform its Work in accordance with the Work Schedule. Further, Siemens shall provide periodic reports to Buyer concerning the status of Siemens' activities, including information pertaining to the progress of the Work and any circumstances known at the time of reporting which could be anticipated to cause a material deviation from the Work Schedule.

2.2.2 Timing of Deliveries and Storage.

(a) Siemens may Deliver components of the Equipment up to thirty (30) days earlier than the dates specified therefor on the Work Schedule.

(b) If (i) Buyer requests, in writing, that any component of the Equipment be placed in storage and designates the storage location, or (ii) Buyer fails or is unable to accommodate Delivery of the Equipment at the Project Site, then Siemens shall, following the arrival of the components of such Equipment at the port of import into North America or the completion of the components if the manufacturing/assembly is performed within North America, transport the

applicable components of the Equipment to the storage location designated in writing by Buyer, if possible, or to a storage location selected by Siemens if either Buyer has not designated a storage location or transportation to the storage location designated in writing by Buyer is impracticable. Any such storage shall be in accordance with Siemens' maintenance procedures. The Delivery of any components of the Equipment placed into storage in accordance with this provision shall be deemed to have occurred upon arrival onboard carrier of such components of the Equipment into storage. Buyer shall be responsible for all additional costs incurred by Siemens in transporting such components of the Equipment to the storage location, as well as all additional expenses incurred by Siemens as a result of such storage, including, but not limited to, unloading, preparation for and placement into storage, handling, storage costs, inspection, preservation and standstill maintenance (if applicable), taxes, and insurance. Such costs plus [\_\_\_\_ percent (\_\_\_%)] to cover Siemens' administrative expenses shall be paid by Buyer within thirty (30) days after the date of Siemens' invoice therefor.

(c) Provided that Buyer has timely made each payment when due and provided Siemens at least thirty (30) days prior written notice of its request, Siemens shall arrange for removal of components of the Equipment from the storage location and shall transport such components to the Project Site. Buyer shall be responsible for all costs incurred by Siemens in removing such components of the Equipment from storage and the extra costs of transporting such components of the Equipment to the Project Site. Such costs plus [\_\_\_\_ percent (\_\_\_%)] to cover Siemens' administrative expenses shall be paid by Buyer within thirty (30) days after the date of Siemens' invoice therefor.

(d) The Work Schedule applicable to any Equipment being held in storage in accordance with Section 2.2.2(b) shall be subject to equitable adjustment in accordance with Article 9. The Work Schedule applicable to any Equipment not placed in storage shall be equitably extended to the extent reasonably required as a result of the storage of the other Equipment.

### 2.3 Siemens Documents.

Except as otherwise provided in this Agreement, within fifteen (15) days of receipt of any Siemens Document required to be submitted to Buyer for review under this Agreement, Buyer shall notify Siemens of any resulting comments or questions. If Buyer fails to respond within such period, then such drawing or document shall be deemed to have been reviewed and approved by Buyer as submitted. Siemens shall, within fifteen (15) days of Buyer's notification of any comments or questions on any Siemens Document respond to Buyer's comments or questions; provided that Siemens shall not be required to change the design of the Equipment pursuant to such Buyer comments or questions.

### 2.4 Permits.

Subject to Section 5.5, Siemens shall obtain and maintain the Applicable Permits required to be obtained by Siemens in its name to perform the Work under Applicable Laws (the "Siemens Permits"). If any Siemens Permit (or application therefor) requires action by Buyer, Buyer shall, upon the request of Siemens, take such action as is reasonably appropriate.

### 2.5 Siemens' Labor.

Siemens shall be responsible for the conduct and deeds of its labor and its Subcontractor's labor in the performance of the Work under this Agreement. However, Siemens shall not interfere with any members of any police, military or security force in the execution of their duties.

### 2.6 Safety, Emergencies.

#### 2.6.1 Safety.

Siemens may suspend its performance of the Work at the Project Site, if, in the reasonable opinion of Siemens, based upon industry standards and Siemens' applicable safety programs,

conditions at the Project Site for which Siemens is not responsible become unsafe for the continued performance of the Work and such conditions are not rectified by Buyer immediately. Siemens shall resume its performance of the Work promptly after the unsafe conditions are rectified by Buyer. Siemens shall be entitled to a Scope Change Order to compensate Siemens for the increased cost of its performance and/or schedule delay resulting from such suspension of the Work.

#### 2.6.2 Emergencies.

In the event of any emergency endangering persons or property relating to or as a result of the performance of the Work, Siemens and Buyer shall take such action as may be reasonable and necessary to prevent, avoid or reduce the likelihood of injury, damage or loss, and shall, as soon as possible, report any such incidents, including responses thereto, to the other Party

### 2.7 Hazardous Materials.

The Work does not include, either directly or indirectly, performing or arranging for the detection, monitoring, handling, storage, removal, transportation, disposal, or treatment of Hazardous Materials. Further, Siemens shall not, either itself or through any Siemens Party, bring any Hazardous Materials onto the Project Site or incorporate any Hazardous Material into the Work, other than those Hazardous Materials to be used by Siemens or any Siemens Party in a manner that complies with applicable Environmental Laws. To the extent that the negligent Release of any Hazardous Materials brought onto the Project Site by Siemens or any Siemens Party is caused by Siemens or any Siemens Party while on the Project Site, Siemens shall bear the responsibility and liability for such Release to the extent of its or the Siemens Parties' negligence as set forth herein.

Siemens shall maintain an updated file of the material safety data sheets for all Hazardous Materials either used in connection with performance of Siemens' Work or used by or on behalf of Siemens or any Siemens Party at the Project Site. Siemens shall deliver an update of such file(s) to Buyer as requested in writing by Buyer no more than thirty (30) days after such written request, or more frequently as the Parties may agree in writing.

In the event that Siemens encounters any Hazardous Materials or other hazardous conditions at the Project Site, Siemens shall immediately stop Work in the area affected and report the condition to Buyer. Siemens shall not have any liability arising from pre-existing Hazardous Materials present or howsoever occurring at, on or under the Project Site, or Hazardous Materials that migrate onto or are introduced upon the Project Site by Buyer, any Buyer Party, any contractor of Buyer, or any third party, other than due to the willful misconduct of Siemens or a Siemens Party that directly results in the Release thereof. In no event shall Siemens be required or construed to take title, ownership, or responsibility for such Hazardous Materials. Buyer shall be solely responsible for all such Hazardous Materials and shall comply with applicable Environmental Laws and the terms of Section 5.7 in connection therewith. To the extent that such Hazardous Materials impact Siemens' schedule or cost to complete the Work, Siemens shall be entitled to a Scope Change Order for such impact.

### 2.8 Clean-up.

As soon as practicable after the achievement of the final milestone for the Project, Siemens shall remove all of its equipment and materials, not constituting deliverables hereunder or part of the Equipment or required for the service and maintenance of the Equipment, from the Project Site and shall, consistent with the provisions of Section 5.7 hereof, collect the waste material and rubbish resulting from the Work for disposal by Buyer.

### 2.9 Buyer's Right to Inspect; Correction of Defects.

Siemens shall promptly correct any part of the Work that is found during any inspection by Buyer or Buyer's authorized representatives not to be in conformance with the requirements of this Agreement, regardless of the stage of its completion or the time or place of the discovery of such nonconformance, in

accordance with, and subject to, the provisions of Article 10.

#### 2.10 No Liens

Except for Buyer's failure to make payments required under this Agreement, including for Scope Changes, to resolve other claims of Siemens within a reasonable time period after learning of such claims, or as permitted pursuant to Section 13.1, Siemens shall not directly or indirectly create, incur, assume or suffer to be created by any Siemens Party any claim, Lien, charge or encumbrance on the Project Site, any Equipment, or any part thereof. Siemens shall promptly pay or discharge, and discharge of record, any such claim, Lien or encumbrance for labor, materials, supplies or other charges which, if unpaid, might be or become a Lien upon the Project Site, any Equipment, or any component thereof. In the event a Subcontractor files a Lien against the Project Site, any Equipment, or any component thereof, Siemens shall, within thirty (30) days of the date of filing thereof, either (i) pay or discharge such claim and have such Lien removed, or (ii) obtain bonds in accordance with Applicable Laws from a reputable surety company sufficient to remove or discharge such claim or Lien. Siemens shall notify Buyer in writing of the assertion of any Lien or encumbrance against the Project Site, any Equipment or any part thereof promptly upon learning of such Lien or encumbrance. Upon the failure of Siemens promptly to pay, discharge, or bond over any Lien or encumbrance as required hereby within thirty (30) days of written notice of the existence thereof from Buyer, Buyer may, but shall not be obligated to, pay, discharge or obtain a bond, or security for such Lien or encumbrance and, upon such payment, discharge, or posting of security therefor, shall be entitled to promptly recover from Siemens the amount thereof together with the actual direct costs incurred by Buyer in connection with such payment or discharge, with such actual direct costs to be substantiated to the reasonable satisfaction of Siemens, or set off such amounts against any sums owed by Buyer pursuant to this Agreement to Siemens.

#### 2.11 Compliance with Real Property Rights.

Siemens shall only be obligated to comply with the real property restrictions specifically identified in this Agreement. In the event that real property rights are identified after the Effective Date hereof and compliance with such real property rights is both technically feasible and commercially practicable, Siemens will comply with such real property rights and shall be entitled to an equitable adjustment in the Contract Price and Siemens' Work Schedule in accordance with Article 9 in connection therewith.

### **ARTICLE 3** **SUBCONTRACTORS**

Buyer acknowledges that Siemens intends to have portions of the Work performed by Subcontractors qualified to perform such Work pursuant to written subcontracts between Siemens and such Subcontractors. No contractual relationship shall exist between Buyer and any Subcontractor with respect to the Work. Siemens shall not have any responsibility, duty or authority to direct, supervise or oversee any contractors of Buyer or their work or to provide the means, methods or sequence of their work or to stop their work. Siemens' Work and/or presence at a site shall not relieve Buyer's subcontractors of their responsibility to Buyer or to others. Siemens shall not be liable for the failure of Buyer's contractors or others to fulfill their responsibilities, and Buyer agrees to indemnify, hold harmless and defend Siemens against any claims arising out of such failures.

### **ARTICLE 4** **CONTRACT PRICE AND PAYMENTS TO SIEMENS**

#### 4.1 Contract Price and Payment.

The total Contract Price is [\_\_\_\_\_ Dollars (\$\_\_\_\_\_)] as set forth and defined more specifically in Attachment "A." Purchaser shall pay the total Contract Price to Siemens in accordance with Attachment "A." Each payment, except for the initial payment, shall be made by wire transfer, pursuant to wire transfer instructions to be provided by Siemens to Purchaser, within thirty (30) days from the date of the Siemens invoice therefor.

The Contract Price is based upon Purchaser performing its obligations set forth in this Agreement.

The Contract Price, schedule, warranty and guarantee obligations are based upon the use of non-union labor at the Project Site, unrestricted working hours at, and free access seven (7) days a week, twenty-four (24) hours a day, to the Project Site, including free access to any components requiring assembly by Siemens as part of Siemens' scope of Work.

#### 4.2 Taxes.

The Contract Price does not include any Import Duties levied upon the Equipment or any federal, state, or local (other than net income taxes imposed on Siemens) property, license, privilege, sales, use, excise, value added, gross receipts (including any business, occupation or similar taxes) and/or transactional taxes now or hereafter applicable to, measured by, or imposed upon or with respect to the transaction, the Equipment or their sale, their value or their use, or any Services performed in connection therewith. Purchaser agrees to pay or reimburse Siemens for any such Import Duties and any such license, privilege, sales, use, excise, value added, gross receipts (including any business, occupation or similar taxes) and/or transactional taxes, which Siemens or its Subcontractors are required to pay, including any property taxes incurred on inventory purchased by Siemens for the Project which are applicable as a result of any Project delay caused by Purchaser.

Should Purchaser be exempt from any sales and/or use taxes, it shall provide Siemens with valid exemption documentation upon the Effective Date of the Agreement for the state(s) in which the Delivery of the Equipment shall take place. Siemens shall not collect sales and/or use taxes from Purchaser if Siemens is provided such valid exemption documentation for its files.

To the extent that Siemens is required by Applicable Laws to pay or collect from Purchaser sales/use, value added or other similar transactional taxes, Siemens shall, at the time of their incurrence, invoice and collect the entire amount of such taxes due from Purchaser and remit such amount to the applicable taxing authority as required by Applicable Laws. At the written request of Purchaser and provided that a valid exemption certificate is provided to Siemens by Purchaser, Siemens shall claim any and all applicable tax exemptions, credits or deductions relating to the Work available to itself or Purchaser, including, but not limited to, any sale-for-resale exemption and any manufacturing machinery and/or equipment exemption.

At the written request and expense of Purchaser, Siemens agrees to take such action as may be reasonably required to allow the Work, including the Equipment and any other property included within the applicable Project, to qualify for applicable exemption from sales and/or use taxes. In the event that an assessment for any such property, license, privilege, sales, use, excise, value added, gross receipts (including any business, occupation or similar taxes) and/or transactional taxes is levied against Siemens for the Project, Siemens shall promptly notify Purchaser and furnish to Purchaser a copy of such assessment notification. If Purchaser determines that the assessment should be contested and so notifies Siemens in writing and coordinates such contest with the Siemens Tax Department, Purchaser may, at Purchaser's sole cost and expense, file such documents as are necessary to contest such assessment. Purchaser shall coordinate with the Siemens Tax Department, any such contest or other action regarding any such assessment, and Purchaser shall pay any penalties or interest in respect thereof. Siemens shall cooperate with and assist Purchaser, at Purchaser's expense, in any such contest or other tax assessment proceeding.

Purchaser shall remain liable for any such taxes that actually become due and shall indemnify and reimburse Siemens for any costs or expenses incurred by Siemens relating thereto, including the amount of such taxes, and any interest and penalties; provided that Purchaser's indemnification and reimbursement obligations shall not cover amounts accrued or incurred by or levied upon Siemens due to Siemens' failure to timely submit exemption certificates properly provided by Purchaser to the proper Governmental Authority. Purchaser shall not withhold any tax assessment reimbursements from Siemens while Purchaser is contesting or otherwise challenging any such tax assessments.

#### 4.3 Disputed Invoices.

If there is any dispute about any amount invoiced by Siemens, the amount not in dispute shall be promptly paid and any disputed amount that is ultimately determined to have been payable shall be paid with interest calculated at a [\_\_\_\_\_] annual rate. The date of the original invoice on which there was a disputed amount, shall determine the date upon which the disputed amount first became due and payable, irrespective of whether any subsequent invoice is issued or reissued in connection with the resolution and payment of the disputed amount.

#### 4.4 Payment Dates.

Notwithstanding any provision to the contrary in this Article 4, in the event that a payment to be made under this Agreement falls due on any day that is not a Business Day, the payment shall be deemed due on the first (1st) Business Day thereafter.

### **ARTICLE 5 BUYER'S RESPONSIBILITIES**

Siemens' performance is contingent upon Buyer timely fulfilling all of its obligations under this Agreement. These obligations include the Buyer supplying all documents and approvals needed for Siemens to perform, including, but not limited to, technical information and data, drawing and document approvals, and necessary commercial documentation. Siemens may request a Scope Change Order for an equitable adjustment in prices and times for performance, as well as for any additional costs or any delay resulting from the failure of Buyer or Buyer's contractors, successors or assigns to meet these obligations.

At no cost to Siemens, Buyer shall provide the following:

#### 5.1 Project Site.

Buyer shall construct and maintain, subject to Siemens' approval, as applicable: the Project Site, roads and other necessary civil infrastructure, crane hardstandings and equipment lay-down and staging areas, including necessary repair, watering (dust control), dewatering, and snow and ice removal during the performance of the Work (the "Project Infrastructure"). Prior to the commencement of the Work at the Project Site and at any time during the performance of such Work, including during the Warranty Period, Siemens may inspect the Project Site to determine if the Project Site has been constructed in accordance with this Agreement, as it may have been modified by the final approved Project Infrastructure. If Siemens reasonably determines that Project Infrastructure deviates from the final approved Project Infrastructure, Siemens may require Buyer to correct such deviations prior to the commencement of the Work at the Project Site or otherwise suspend the Work at the Project Site until such deviations are corrected by Buyer. All delays in the performance of the Work and costs incurred by Siemens as a result of such suspension shall entitle Siemens to an equitable Scope Change Order in accordance with Section 9.2.

#### 5.2 Security for Equipment at the Project Site.

Buyer shall provide, at its cost, security for all components of the Work, materials, supplies and other equipment required to assemble, erect, install and Commission the Work and any other property owned or leased by Buyer, Siemens or any of its Subcontractors located at the Project Site.

#### 5.3 Storage of Spare Parts.

If purchased pursuant to this Agreement, Buyer shall, until the expiration of the Warranty Period: (i) store the Spare Parts purchased by Buyer and supplied by Siemens under this Agreement in a suitable location at the Project Site at no cost or expense to Siemens, (ii) provide Siemens with reasonable access to such Spare Parts, and (iii) take all commercially reasonable steps to ensure that such Spare Parts are secure, undamaged and available to Siemens when needed.

#### 5.4 Effect of Buyer Delay or Non-performance.

Buyer shall perform those obligations required of Buyer as set forth in this Agreement. Any delay by Buyer in completing its obligations this Agreement shall be a Buyer Caused Delay, which shall entitle Siemens to a Scope Change Order pursuant to Article 9. When offloading of the Equipment from Delivery conveyances is in Buyer's scope, if Buyer fails to offload any of the Equipment from the Delivery conveyances within the time provided for in this Agreement, then Buyer shall reimburse Siemens for the applicable demurrage charges resulting therefrom and Siemens shall not be held responsible for any delays in Deliveries, including liquidated damages for late Delivery, resulting from Buyer's failure to timely offload Equipment, including components thereof, and other items supplied by Siemens. Any late payment by Buyer shall accrue interest at [\_\_\_\_ (%)] annual rate. Siemens may suspend or terminate this Agreement for Buyer convenience if Buyer fails to pay within thirty (30) days of its receipt of Siemens' invoice.

#### 5.5 Permits, Licenses and Approvals.

Buyer shall obtain and maintain the Applicable Permits, licenses and approvals required to be obtained for the zoning and construction of the Project, including, but not limited to, all building permits, all Project Site permits required for the erection, installation, Commissioning, use and Mechanical Completion of the Work, all permits, licenses and approvals necessary to move the construction equipment (including cranes, if applicable) and Delivery conveyances within the Project Site, and all permits, licenses and approvals otherwise necessary for the ownership, operation and maintenance of the Work and the Project (the "Buyer Permits"). Buyer shall promptly provide Siemens with copies of all Buyer Permits whose contents or requirements might impact the performance of the Work. Buyer shall assist Siemens in obtaining required visas, work permits and custom clearance for its or its Subcontractor's personnel and their equipment.

#### 5.6 Project Work Schedule.

For Siemens' information, Buyer shall provide Siemens with a written schedule showing all of the work being performed by or on behalf of Buyer for the Project and shall further provide Siemens with progress reports, in accordance with the agreed reporting schedule of actual progress of the work at the Project Site, showing in detail the progress to date and the then-current scheduling of all major elements of the work to be performed by or on behalf of Buyer for the Project, setting forth the dates by which work not being performed by Siemens, but nonetheless impacting Siemens' Work, are expected to be completed.

#### 5.7 Hazardous Materials.

Prior to any Work being conducted at the Project Site, Buyer shall: (a) identify to Siemens the presence, location and quantity of ACM at the Project Site; and (b) either certify that the work area associated with Siemens' scope of Work is free of ACM or take such action as may be required under Environmental Laws to abate the ACM and, thereafter, certify that the work area associated with Siemens' scope of Work is free of ACM. Siemens makes no representation that it is licensed to abate ACM and shall not be obligated to install, disturb, handle, or remove any ACM.

Further, Buyer represents and warrants that, prior to the execution of this Agreement, Buyer has notified Siemens in writing of any and all Hazardous Materials known to be present on the Project Site and has: (a) expressly identified the nature and location of such Hazardous Materials to Siemens, including the provision of a map identifying the same; and (b) provided a copy of any Project Site policies related to such pre-existing Hazardous Materials, including, without limitation, material safety data sheets, chemical hygiene plans, laboratory procedures, or other items covered or required to be disclosed or maintained pursuant to applicable Environmental Laws.

Buyer shall also be responsible for the handling, storage, and disposal of all regulated Hazardous Materials at its expense. Buyer shall furnish Siemens with appropriate containers for regulated Hazardous Materials and shall designate a waste storage facility at the Project Site where such containers are to be

placed by Siemens for removal and disposal by Buyer. Buyer shall handle, store, and dispose of regulated Hazardous Materials in accordance with all Environmental Laws.

In the event that any Hazardous Materials, including ACM, are encountered at the Project Site which are not the responsibility of Siemens under Section 2.9, Siemens shall immediately stop all Work in the affected area and Buyer shall promptly, in accordance with all applicable Environmental Laws and at its sole cost and expense, remove or render harmless, or take other actions as may be necessary to remediate the hazards associated with any such Hazardous Material, including, without limitation, signing and listing Buyer (or the appropriate Buyer Party) as the generator of the Hazardous Materials on any waste manifest that may be required by Environmental Laws. Siemens' Work in the affected area shall not be resumed until Buyer has complied with the foregoing obligations. Further, if the existence and remedying of such Hazardous Materials results in an increase in Siemens' costs and/or impacts Siemens' ability to meet its obligations, guarantees, or the Work Schedule under the Agreement, Siemens shall be entitled to a Scope Change Order in accordance with the applicable provisions of Article 9, increasing the Contract Price and providing an equitable extension of the Work Schedule and other provisions of the Agreement affected thereby or otherwise affected by Buyer's non-compliance, commensurate with the time reasonably required to overcome such delay and added cost, including without limitation, overtime charges for labor and equipment.

#### 5.8 Service and Maintenance Agreement.

Buyer and Siemens shall execute a Service and Maintenance Agreement for the Work under which Siemens shall provide the Maintenance Service for the Work ("Service and Maintenance Agreement"). The term of such Service and Maintenance Agreement shall be at least until the expiration of the Warranty Period under this Agreement. During the Warranty Period, if Buyer and/or operator under the Service and Maintenance Agreement terminates such Service and Maintenance Agreement, other than as permitted for a Siemens breach or event of default (as set forth in such Service and Maintenance Agreement), Siemens' remaining Warranty obligations and any performance guarantees (if any) for the Work under this Agreement shall automatically terminate. If Siemens is permitted and does terminate such Service and Maintenance Agreement due to a breach or event of default under the Service and Maintenance Agreement by Buyer or the operator under the Service and Maintenance Agreement, then Siemens' remaining Warranty obligations and performance guarantees (if any) for the Work under this Agreement shall also automatically terminate. Unless otherwise agreed, Buyer shall provide operators of the facility and the Work for all testing, start-up and Commissioning activities.

#### 5.9 Transportation Infrastructure and Access.

Buyer is responsible for having all necessary structural modifications, upgrades and/or repairs to public roads and other transportation infrastructure that may be required to permit the transport of the Equipment to the Project Site made and any other deviations from Siemens' requirements corrected prior to the commencement of, and during, the Delivery of the components of the Work to the Project Site. In addition, Buyer shall provide Siemens with all required legal and physical access to the Project Site, including obtaining and maintaining all private rights-of-way and private access rights, including the removal, lowering or raising of power lines and the safe passage over buried wires, cables and pipes.

#### 5.10 Buyer Documents.

Buyer shall submit to Siemens those Buyer Documents set forth in and in accordance with Buyers Documents Submission Schedule set forth as an exhibit to Attachment "A."

#### 5.11 Permanent Facilities.

When Buyer is required pursuant to Attachment "A" to provide a permanent facility, Buyer shall have the permanent Project Site facilities available at least thirty (30) days prior to the date required by the Work Schedule. These permanent facilities shall be substantially similar to the facilities diagrams set forth in this Agreement or an exhibit hereto. The permanent Project Site facilities shall also include the

telecommunication requirements and services as specified in the Services and Maintenance Agreement, or if no Services and Maintenance Agreement, in Attachment "A."

5.12 Temporary Facilities.

Buyer shall provide and maintain site electricity, water, sanitary facilities and a construction office, with data connections, phone connections and appropriate clean room.

5.13 Payments

Buyer shall pay all undisputed invoices within thirty (30) days of receipt of invoice from Siemens.

5.14 Single Point of Contact and Notification

Buyer shall designate a contact person with authority to act for the Buyer and respond in emergency situations. Buyer shall notify Siemens as soon as practicable, but in no event more than twenty-four (24) hours, after any change in Project Site conditions, approvals, permits or licenses which affect the Work. If such person cannot be reached, any request for Work received from an employee or agent of Buyer will be deemed authorized by Buyer.

5.15 Export Import Compliance.

Buyer acknowledges that Siemens is required to comply with applicable export / import laws and regulations relating to the sale, export, import, transfer, assignment, disposal and use of the Equipment, including any export / import license requirements. Buyer agrees that Equipment will not at any time directly or indirectly be used, exported, imported, sold, transferred, assigned or otherwise disposed of in a manner which will result in non-compliance with any export / import laws and regulations. Siemens' continuing performance hereunder is conditioned on compliance with such export / import laws and regulations at all times.

**ARTICLE 6**

**[See Attachment "A" if applicable]**

**ARTICLE 7**

**[See Attachment "A" if applicable]**

**ARTICLE 8**

**LIMITATION OF LIABILITY**

NOTWITHSTANDING ANYTHING IN THIS AGREEMENT TO THE CONTRARY, SIEMENS IS NOT LIABLE, WHETHER BASED IN CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, INDEMNITY OR ANY OTHER LEGAL OR EQUITABLE THEORY, FOR: LOSS OF USE, REVENUE, SAVINGS, PROFIT, INTEREST, GOODWILL OR OPPORTUNITY, COSTS OF CAPITAL, COSTS OF REPLACEMENT OR SUBSTITUTE USE OR PERFORMANCE, LOSS OF INFORMATION AND DATA, LOSS OF POWER, VOLTAGE IRREGULARITIES OR FREQUENCY FLUCTUATION, CLAIMS ARISING FROM BUYER'S THIRD PARTY CONTRACTS, OR FOR ANY TYPE OF INDIRECT, SPECIAL, LIQUIDATED, PUNITIVE, EXEMPLARY, COLLATERAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR ANY OTHER LOSS OR COST OF A SIMILAR TYPE.

SIEMENS' MAXIMUM LIABILITY UNDER THIS AGREEMENT IS THE ACTUAL PURCHASE PRICE RECEIVED BY SIEMENS FOR THE EQUIPMENT THAT GAVE RISE TO THE CLAIM.

BUYER AGREES THAT THE EXCLUSIONS AND LIMITATIONS IN THIS ARTICLE 8 WILL PREVAIL OVER ANY CONFLICTING TERMS AND CONDITIONS IN THIS AGREEMENT AND MUST BE GIVEN FULL FORCE AND EFFECT, WHETHER OR NOT ANY OR ALL SUCH REMEDIES ARE DETERMINED TO HAVE FAILED OF THEIR ESSENTIAL PURPOSE. THESE LIMITATIONS OF LIABILITY ARE EFFECTIVE EVEN IF SIEMENS HAS BEEN ADVISED BY BUYER OF THE POSSIBILITY OF SUCH

DAMAGES. THE WAIVERS AND DISCLAIMERS OF LIABILITY, RELEASES FROM LIABILITY AND LIMITATIONS ON LIABILITY EXPRESSED IN THIS ARTICLE 8 EXTEND TO SIEMENS' AFFILIATES (AND THEIR EMPLOYEES), PARTNERS, PRINCIPALS, SHAREHOLDERS, DIRECTORS, OFFICERS, EMPLOYEES, SUPPLIERS OF ANY TIER (AND THEIR EMPLOYEES), AGENTS, AND SUCCESSORS AND ASSIGNS.

## **ARTICLE 9** **CHANGES TO THE WORK**

- 9.1. Siemens shall deliver and/or perform the Work in accordance with the Applicable Laws in effect on the Effective Date.
- 9.2. No change will be made to the scope of Work unless Buyer and Siemens agree in writing to the change and any resulting price, schedule or other contractual modifications associated therewith ("Scope Change Order"). If any change to any law, rule, regulation, order, code, standard or requirement impacts Siemens' obligations or performance under this Agreement, Siemens may request a Scope Change Order for an equitable adjustment in the price and time of performance.

## **ARTICLE 10** **WARRANTY**

### 10.1. Warranties.

Siemens warrants that: (i) the Equipment is free from defects in material and workmanship; (ii) the Equipment is in compliance with Siemens' specifications that are attached to, or expressly incorporated into this Agreement; and (iii) at the time of delivery, Siemens has title to the Equipment free and clear of liens and encumbrances (collectively, the "Warranties"). The Warranties do not apply to software furnished by Siemens. The sole and exclusive warranties for any software are set forth in the Software License/Warranty Addendum, if applicable.

### 10.2. Conditions to the Warranties.

The Warranties are conditioned on: (i) no repairs, modifications or alterations being made to the Equipment other than by Siemens or its authorized representatives; (ii) Buyer handling, using, storing, installing, operating and maintaining the Equipment in compliance with any parameters or instructions in any specifications attached to, or incorporated into this Agreement; (iii) compliance with all generally accepted industry standards; (iv) Buyer discontinuing use of the Equipment after it has, or should have had, knowledge of any defect; (v) Buyer providing prompt written notice of any warranty claims within the Warranty Period described below; (vi) at Siemens' discretion, Buyer either removing and shipping the Equipment or non-conforming part thereof to Siemens, at Buyer's expense, or granting Siemens reasonable access to the Equipment to assess the warranty claims; (vii) Equipment not having been subjected to accident (including force majeure), alteration, abuse or misuse; (viii) Buyer not being in default of any payment obligation and (ix) Buyer allowing Siemens the opportunity to review the operating and maintenance records relating to the Equipment and the facility its incorporated into, if applicable.

### 10.3. Exclusions from Warranty Coverage.

The Warranties do not apply to any equipment not provided by Siemens under this Agreement.

Any Equipment that is described as being experimental, developmental, prototype, or pilot is specifically excluded from the Warranties and is provided to Buyer "as is" with no warranties of any kind. Normal wear and tear is excluded, including any expendable items that comprise part of the Equipment (such as fuses, light bulbs and lamps). Siemens does not warrant or guarantee that any Equipment will be secure from cyber threats, hacking or similar malicious activity. Equipment that is networked, connected to the

internet, or otherwise connected to computers or other devices must be appropriately protected by Buyer and/or end user against unauthorized access.

#### 10.4. Warranty Period.

Buyer must provide written notice of any claims for breach of Warranties by the earlier of twelve (12) months from initial operation of the Equipment or eighteen (18) months from shipment ("Warranty Period"). Additionally, absent written notice within the Warranty Period, any use or possession of the Equipment after expiration of the Warranty Period is conclusive evidence that the Warranties have been satisfied.

#### 10.5 Remedies.

Buyer's sole and exclusive remedies for breach of the Warranties are limited, at Siemens' discretion, to repair or replacement of the Equipment, or its non-conforming parts, within a reasonable time period, or refund of all or part of the purchase price applicable to the non-conforming part. The warranty on repaired or replaced parts is limited to the remainder of the original Warranty Period. Unless Siemens agrees otherwise in writing, Buyer will be responsible for any costs associated with: (i) gaining access to the Equipment; (ii) removal, disassembly, replacement, installation, or reinstallation of any equipment, materials or structures to permit Siemens to perform its warranty obligations; (iii) transportation to and from the Siemens factory or repair facility; and (iv) damage to equipment components or parts resulting in whole or in part from non-compliance by the Buyer with Section 10.2 hereof or from their deteriorated condition. All exchanged Equipment replaced under this Warranty will become the property of Siemens.

#### 10.6 Transferability.

The Warranties are only transferable during the Warranty Period and only to the Equipment's initial end-user.

10.7 THE WARRANTIES IN THIS ARTICLE 10 ARE SIEMENS' SOLE AND EXCLUSIVE WARRANTIES AND ARE SUBJECT TO THE LIMITS OF LIABILITY IN ARTICLE 8 ABOVE. SIEMENS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, COURSE OF DEALING AND USAGE OF TRADE.

### **ARTICLE 11** **DELAYS; EXCUSED PERFORMANCE**

#### 11.1 Change in Law and Buyer Caused Delay.

As the Work is performed, conditions may change or circumstances outside Siemens' reasonable control (including changes of Applicable Law) may develop which would require Siemens to expend additional costs, effort or time to complete the Work, in which case Siemens will notify Buyer and an equitable adjustment will be made to Siemens' Contract Price and Work Schedule pursuant to Article 9. In the event conditions or circumstances require the Work to be suspended or terminated, Siemens shall be compensated for Work performed and for costs reasonably incurred in connection with the suspension or termination.

#### 11.2 Force Majeure.

If Siemens' performance is delayed by any cause beyond its reasonable control (regardless of whether the cause was foreseeable), including without limitation acts of God, strikes, labor shortage or disturbance, fire, accident, war or civil disturbance, delays of carriers, cyber-attacks, terrorist attacks, failure of normal sources of supply, or acts or inaction of government ("Force Majeure Event"), Siemens' time of performance will be extended by a period equal to the length of the delay plus any consequences

of the delay and Siemens will get its reasonable costs for such extension of time pursuant to Article 9. Siemens will notify Buyer within a reasonable time after becoming aware of any such delay.

## **ARTICLE 12**

### **INSURANCE**

#### **12.1 Siemens' Insurance Coverage.**

- (a) Siemens shall maintain in full force and effect the following insurance coverage and limits specified below commencing [ten (10) days after Buyer's issuance of a Notice to Proceed] and continuing until the Final Completion Date. Siemens shall provide Buyer applicable insurance certificates of such coverage prior to the shipment of any Equipment to the Project Site or the commencement of any Work at the Project Site. The required limits of insurance may be satisfied with any combination of primary and excess coverage.
- (b) Siemens or Siemens' insurance carrier shall endeavor to provide Buyer with thirty (30) Days' prior Notice of cancellation, termination or material alteration of any insurance coverage set forth in this Article 12. In addition, Siemens' insurance shall be maintained with insurance companies having an A.M. Best rating of "A-" or better and a financial size category of "VII" or higher (or a comparable rating by any other rating entity reasonably acceptable to Buyer and evidenced by Buyer's written confirmation, which acceptance shall not be unreasonably withheld). Siemens shall provide Buyer applicable insurance certificates of such coverage prior to Siemens' or its Subcontractor's commencement of any Work at the Project Site.
- (c) Siemens has the responsibility and obligation to procure and maintain the following insurance policies:
  - (i) Workers' Compensation Insurance in accordance with Applicable Laws and regulations applicable to the jurisdiction in which the Work is performed;
  - (ii) Employer's Liability Insurance with a limit of One Million Dollars (\$1,000,000) per accident, per employee for occupational disease, and in the aggregate for occupational disease;
  - (iii) Commercial General Liability Insurance with coverage written for bodily injury and broad form property damage on an "occurrence" basis with a limit of Five Million Dollars (\$5,000,000) per occurrence and Five Million Dollars (\$5,000,000) aggregate. This policy shall include blanket contractual coverage, railroad protective liability coverage, and coverage for premises, operations, explosion, collapse and underground (XCU) hazards, and products/completed operations. Siemens shall name Buyer as an additional insured to the extent bodily injury (including death) or third party property damage results from the negligent acts or omissions of Siemens or Siemens' Subcontractors and require that this policy contain a "separation of insureds" clause.

#### **12.2 Subcontractor's Insurance Coverage.**

Siemens shall require its Subcontractors performing Work at the Project Site to maintain the types, coverage and limits of insurance which are reasonable in accordance with prudent industry practice and commensurate with the Work to be performed by such Subcontractor.

#### **12.3 Buyer's Insurance Coverage.**

Buyer shall maintain in full force and effect the insurance coverage and limits specified below from the date of Siemens' or its Subcontractor's commencement of Work at the Project Site and continuing until the end of the Warranty Period. Buyer or Buyer's insurance carrier shall endeavor to provide Siemens with thirty (30) Days' prior Notice of cancellation, termination or material alteration of any insurance coverage set forth in this Article 12. In addition, Buyer's Insurance shall be maintained with insurance

companies having an A.M. Best rating of "A- " or better and a financial size category of "VII" or higher (or a comparable rating by any other rating entity reasonably acceptable to Siemens and evidenced by Siemens' written confirmation, which acceptance shall not be unreasonably withheld). Buyer shall provide Siemens applicable insurance certificates of such coverage prior to Siemens' or its Subcontractor's commencement of any Work at the Project Site. The required limits of insurance may be satisfied with any combination of primary and excess coverage.

- (a) Workers' Compensation Insurance in accordance with Applicable Laws and regulations applicable to the jurisdiction in which the Work is performed.
- (b) Employer's Liability Insurance with a limit of One Million Dollars (\$1,000,000) per accident, per employee for occupational disease, and in the aggregate for occupational disease;
- (c) Commercial General Liability Insurance with a limit of Five Million Dollars (\$5,000,000) per occurrence and Five Million Dollars (\$5,000,000) annual aggregate. This policy shall include blanket contractual coverage, railroad protective liability coverage, and coverage for premises, operations, explosion, collapse and underground (XCU) hazards, and products/completed operations. Buyer shall name Siemens and its Affiliates as additional insureds to the extent bodily injury (including death) or third party property damage results from the negligent acts or omissions of Buyer or Buyer's subcontractors. This policy shall contain a "separation of insureds" clause.
- (d) Builders' Risk Insurance coverage protecting all property and Equipment intended to be incorporated into the Work, in the course of construction and commissioning defined in the Work, on an "all-risk," replacement cost basis, with appropriate coverage sub-limits which are customary or otherwise required by the insurers, upon commencement of Work at the Project Site and continuing coverage and limits until the Final Completion Date. Buyer shall name Siemens, its Affiliates and Subcontractors as additional insureds. The Builders' Risk Insurance policy will include:
  - (i) property coverage for the Work at the Project Site, which insurance shall be written on a LEG 2/96 basis or better and include coverage for removal of debris and shall insure the buildings, structures, boiler and machinery, equipment, facilities, fixtures, rolling stock, electronic equipment and media and other properties constituting a part of the Work (whether above or below the surface of the ground) in an amount equal to the total constructed value; and
  - (ii) off-Project Site (local staging area) coverage for such property to insure values at risk, with appropriate sub-limits which are customary or otherwise required by the insurers; and

The Builder's Risk Insurance policy shall also provide that it is primary without right of contribution from any other insurance that might otherwise be available to an insured Party prior to the Final Completion Date.

- (e) Operating property insurance coverage protecting all property of Buyer at the Project Site (including Equipment supplied as part of the Work), on a primary, all-risk, replacement cost basis, commencing at the Final Completion Date. The operating property insurance policy shall be written on a LEG 2/96 basis or better and include coverage for removal of debris and shall insure the buildings, structures, boiler and machinery, equipment, facilities, fixtures, rolling stock, electronic equipment and media and other property of Buyer at the Project Site (whether above or below the surface of the ground) in an amount equal to the total constructed value. Buyer shall name Siemens, its Affiliates and Subcontractors as additional insureds.

12.4 Waiver of Rights. In regard to insurance maintained by either Party, including any property insurance, each such Party hereby waives, for itself and its insurers, all rights of recovery and

subrogation which may arise against the other Party and its Affiliates as a result of a payment made by an insurer.

#### 12.5 Cooperation Between the Parties.

- (a) Each Party agrees to provide the other Party reasonable cooperation and assistance in the procurement of any property insurance required by the Agreement or otherwise to be procured in connection with the Work.
- (b) Siemens agrees to provide such reasonable assistance and documentation as Buyer may request in connection with claims Buyer may make under its property insurance policies purchased in connection with the facility for damage or events that occur after the Effective Date and prior to the expiration of the Warranty Period. Such assistance will be provided under the responsibility, and at the cost, of Buyer.
- (c) Notwithstanding Article 12.5(a) and Article 12.5(b), neither Party shall be required to provide confidential or proprietary information to a third party. If the disclosing Party agrees to provide such information, the third party shall first be required to execute a confidentiality agreement with the disclosing Party in a form reasonably acceptable to the disclosing Party.

### **ARTICLE 13** **TITLE AND RISK OF LOSS**

#### 13.1 Title to Equipment.

Siemens warrants that (i) legal title to and ownership of the Equipment (excluding, however, the Intellectual Property Rights) shall upon Delivery be free and clear of any and all Liens, claims, security interests or other encumbrances; and (ii) such Intellectual Property Rights shall be free and clear of any and all Liens, claims, security interests or other encumbrances that would in any way interfere with Purchaser's use thereof that is permitted by this Agreement. Except as set forth in the next sentence, title to each component or Spare Part of the Equipment shall pass to Purchaser on Delivery of such component or of such Spare Part and title to all Services performed by Siemens at the Project Site shall pass to Purchaser upon performance thereof by Siemens, subject only to any Lien of Siemens that may arise under Applicable Laws that is not otherwise prohibited hereunder. Notwithstanding the foregoing or any other provision of this Agreement, the Intellectual Property Rights are not sold to Purchaser and title thereto shall not be transferred to Purchaser; rather, Siemens shall retain sole and exclusive title to the Intellectual Property Rights, and grants to Purchaser a license to use the Intellectual Property Rights in accordance with the terms and conditions set forth in Section 13.2 and Article 18 of this Agreement.

#### 13.2 Title to Copies of Drawings.

Title to copies of drawings which are required to be provided to Purchaser hereunder which are owned by Siemens shall be automatically transferred to Purchaser when such copies of the drawings are provided to the Purchaser by Siemens. However, title to the underlying Intellectual Property Rights contained in such drawings shall not be transferred to Purchaser; rather, title to such Intellectual Property Rights shall be retained solely by Siemens or its licensor, and Siemens hereby grants Purchaser, subject to the terms and conditions of this Agreement and timely payment of all undisputed amounts due hereunder, an irrevocable, royalty-free, non-exclusive license, subject to Purchaser's ongoing compliance with this Section 13.2 and the confidentiality provisions of this Agreement, which authorizes Purchaser to use and reproduce such drawings for the purpose of completing assembly, erection, Mechanical Completion and installation of the Equipment, or constructing, operating, maintaining and repairing the Equipment supplied under this Agreement; provided that (i) such drawings shall not be used to manufacture similar equipment (ii) any third parties who are permitted to access such drawings shall obtain such access solely for the authorized purposes in connection with the Project, and shall first agree to abide by the license and confidentiality restrictions set forth in this Section 13.2 and in Article 18. Any permitted purchaser or assignee shall acquire such license subject to the same terms and restrictions as stated in

this Section 13.2. Purchaser may retain the necessary number of copies of all such documents solely for purposes of construction, operation, maintenance and repair of the Units. Any costs to register such licenses in the [United States/Canada] shall be paid by Purchaser. Purchaser and its permitted assignees shall not use the Intellectual Property Rights referred to in this Section 13.2 for any purpose other than as expressly authorized herein.

### 13.3 Risk of Loss.

Irrespective of the passage of title as provided in Section 13.1, and except for loss or damage due to uninsurable events for which Purchaser shall be responsible, Siemens shall bear the risk of loss and damage with respect to the Equipment, components of the Equipment, Spare Parts and all other materials, equipment and components to be supplied by Siemens, or that are within the care, custody and control of Siemens, wherever located, that have been or will be incorporated into the Work or Services, until Delivery of such Equipment, Spare Parts, other materials, equipment and components supplied by Siemens, Work or Services. Upon Delivery, risk of loss and damage pursuant to this Section 13.3 shall transfer to Buyer and Buyer shall assume full and exclusive custody and control of such components of the Unit and Spare Parts, other materials, equipment and components supplied by Siemens, and of all Work and Services; provided that Purchaser's assumption of risk of loss and damage shall not obviate Siemens' obligations to correct any Warranty non-conformances in accordance with Article 10.

## **ARTICLE 14 DEFAULT, TERMINATION AND SUSPENSION**

### 14.1 Siemens Defaults.

The occurrence of any one or more of the following events shall constitute an event of default by Siemens hereunder (each, a "Siemens Event of Default"):

- (a) Siemens makes a general assignment for the benefit of its creditors, is generally unable to pay its debts as they become due, or becomes the subject of any voluntary or involuntary bankruptcy, insolvency, arrangement, reorganization or other debtor relief proceeding under any Applicable Laws and, in the case of any such involuntary proceeding, instituted against Siemens but not by Siemens, that is not dismissed or stayed within forty-five (45) days after it is commenced;
- (b) Siemens fails to make prompt payments required to be made by Siemens to Buyer under this Agreement, which failure continues for thirty (30) days after receipt of written notice of such non-payment from Buyer;
- (c) Siemens has made a material misrepresentation under the Agreement that is likely to have a material adverse effect on its ability to perform its obligations hereunder and such representation is not made true within thirty (30) days after receipt of written notice thereof from Buyer; or
- (d) Siemens is otherwise in material default of any provision of this Agreement or has materially failed to perform its obligations under this Agreement; provided that if such material default of this Agreement or material failure to perform this Agreement can be cured within a commercially reasonable timeframe, Siemens shall be permitted such period of time within which to accomplish such cure, so long as Siemens commences such cure efforts within thirty (30) days after written notice from Buyer and thereafter diligently proceeds to complete such cure within such time period.

Upon the occurrence and during the continuation of any Siemens Event of Default hereunder, Buyer, in addition to its right to pursue any other remedy given under the Agreement, shall have the right to terminate this Agreement upon not less than five (5) days prior written notice to Siemens (a "Termination for Cause"); A Termination for Cause shall be effective upon the sixth day following delivery of Buyer's notice with respect thereto. Subject to the provisions of Section 14.5.2, in the event of a termination by Buyer under this Section 14.1, Buyer may employ any other Person, other than employees of Siemens or

its Affiliates, to complete the Work by whatever reasonable method that Buyer may deem necessary. Buyer shall, within a reasonable period of time after the Work is finally completed by the work of one or more replacement suppliers and contractors, determine the total cost (including such other contractors' fees) to Buyer for completing the Work, including all sums previously paid or then owed to Siemens pursuant to the Agreement. In contracting with such replacement suppliers and contractors, Buyer shall, to the extent practicable, cause the Work to be completed in accordance with this Agreement and shall employ reasonable efforts to mitigate the costs incurred in connection with completion of the Work. If the sum of the Contract Price and the maximum liquidated damages assessed are less than the sum of (i) the direct costs incurred by Buyer to complete the Work, (ii) all other direct damages suffered by Buyer as a result of the Siemens Event of Default, and (iii) all amounts previously paid to Siemens pursuant to this Agreement, Siemens shall, subject to and not to exceed the limitations upon Siemens' liability set forth in Article 8, pay to Buyer within thirty (30) days following receipt of an original invoice therefor the amount of such difference. Any amount owed by Buyer to Siemens for the level of completion of the Work achieved by Siemens prior to Buyer's termination under this Section 14.1 shall be retained by Buyer until after completion of the Work and applied by Buyer to pay any amounts and damages owed by Siemens pursuant to this Section 14.1. Any excess shall be remitted to Siemens within thirty (30) days after the Work is finally completed. If the Agreement is terminated by Buyer pursuant to this Section 14.1, then Siemens' remaining warranty and performance guarantee obligations shall also automatically terminate. For the avoidance of doubt, Buyer understands and agrees that if Buyer terminates this Agreement pursuant to this Section 14.1, the foregoing is Buyer's exclusive remedy for such termination.

If termination occurs under this Section 14.1 prior to Delivery of the Work, then within thirty (30) days from the effective date of such termination, Buyer shall either (a) return to Siemens any of Siemens' confidential information which had been in Buyer's possession (excluding this Agreement) or (b) certify in writing to Siemens that all of Siemens' confidential information which had been in Buyer's possession has been destroyed.

#### 14.2 Buyer Default.

The occurrence of any one or more of the following events shall constitute an event of default by Buyer hereunder (each, a "Buyer Event of Default"):

- (a) Buyer's failure to pay to Siemens any required payment, which failure continues for ten (10) days after receipt of written notice of the failure to make the payment has been received by Buyer from Siemens;
- (b) Buyer makes a general assignment for the benefit of its creditors, is generally unable to pay its debts as they become due, or becomes the subject of any voluntary or involuntary bankruptcy, insolvency, arrangement, reorganization or other debtor relief proceeding under any Applicable Laws and, in the case of any such involuntary proceeding, instituted against Buyer but not by Buyer, that is not dismissed or stayed within forty-five (45) days after it is commenced;
- (c) Buyer has made a material misrepresentation under the Agreement that is likely to have a material adverse effect on its ability to perform its obligations hereunder and such representation is not made true within fifteen (15) Business Days after receipt of written notice thereof from Siemens;
- (d) Any of the financing parties terminates its financing arrangements with Buyer or any Buyer Affiliate for the Project; or
- (e) Buyer is otherwise in material default of any provision of this Agreement or has materially failed to perform its obligations under this Agreement; provided that if such material default of this Agreement or material failure to perform this Agreement can be cured within a commercially reasonable timeframe, Buyer shall be permitted such period of time within which to accomplish such cure, so long as Buyer commences such cure efforts within fifteen (15) days after notice from Siemens and thereafter diligently proceeds to complete such cure within such time period.

Upon the occurrence and during the continuation of a Buyer Event of Default, Siemens, in addition to its right to pursue any other remedy given under the Agreement, shall have the right to terminate this Agreement upon not less than five (5) days prior written notice to Buyer. In the event of such termination by Siemens, Siemens shall be entitled to either (a) payment of the sum set forth in the termination payment schedule if applicable or (b) the Contract Price less any savings, and any additional cost and expenses incurred by Siemens due to such termination (the "Default Termination Payment"). Siemens shall submit an invoice to Buyer for the Default Termination Payment, including supporting documentation for the damages and other amounts due and owing to Siemens prior to the termination and the costs incurred by Siemens in effectuating the termination, and Buyer shall pay such invoice by wire transfer within thirty (30) days after the date of such invoice. All payments of the Contract Price made by Buyer and received by Siemens prior to the effective date of termination shall be credited toward the Default Termination Payment. Without limiting Siemens' other rights herein, Siemens may, in lieu of such termination, suspend its performance of the Work after such five (5) day period. In such event, Buyer shall be responsible for all costs incurred by Siemens as a result of such suspension plus reasonable profit thereon. If the Agreement is terminated by Siemens pursuant to this Section 14.2, then Siemens' remaining warranty and performance guarantee obligations shall also automatically terminate.

Within thirty (30) days from the effective date of such termination, Buyer shall either (a) return to Siemens any of Siemens' confidential information which had been in Buyer's possession (excluding this Agreement) or (b) certify to Siemens that all of Siemens' confidential information which had been in Buyer's possession has been destroyed.

#### 14.3 Termination for Buyer's Convenience.

In addition to any other termination rights available to Buyer under this Agreement, Buyer shall have the right to terminate the Delivery of Work in the event that Buyer terminates the construction of the Project due to the economic unfeasibility of the Project for Buyer upon fifteen (15) days prior written notice to Siemens. Buyer shall pay Siemens either (a) the sum set forth in the termination payment schedule if applicable or (b) that portion of the Contract Price reflecting the amount of Work performed, man hours expended and materials acquired at the date of termination. These charges will also include the expenses associated with the termination, including, but not limited to, any additional expense incurred by reason of termination or cancellation of agreements between Siemens and its suppliers and Subcontractors, and any applicable cost allocated in contemplation of performance (the "Convenience Termination Payment"). All payments of the Contract Price made by Buyer and received by Siemens prior to the date of termination shall be credited toward the Convenience Termination Payment. Siemens shall submit an invoice to Buyer for the Convenience Termination Payment and Buyer shall pay such invoice by wire transfer within thirty (30) days after the date of such invoice. If the Agreement is terminated by Buyer pursuant to this Section 14.3, then Siemens' remaining warranty and performance guarantee obligations shall also automatically terminate.

Within thirty (30) days from the effective date of such termination, Buyer shall either (a) return to Siemens any of Siemens' confidential information which had been in Buyer's possession (excluding this Agreement) or (b) certify to Siemens that all of Siemens' confidential information which had been in Buyer's possession has been destroyed.

#### 14.4 Termination Due to Force Majeure Event.

If Siemens is entirely prevented from performing the Work for a time period of one hundred eighty (180) aggregate days as a result of the occurrence of a Force Majeure Event suffered by Siemens, then either Party may terminate this Agreement with respect to the Work that has not been erected by the effective date of such termination at no cost or penalty, other than Buyer's obligation to pay Siemens either (a) the sum set forth in the termination payment schedule if applicable or (b) that portion of the Contract Price reflecting the amount of work performed, man hours expended and materials acquired at the date of termination. These charges will also include the expenses associated with the termination, including, but not limited to, any additional expense incurred by reason of termination or cancellation of agreements between Siemens and its suppliers, and any applicable cost allocated in contemplation of performance;

provided, however, that nothing in this Section 14.4 shall relieve or excuse either Party from its obligations under Article 11 in respect of the occurrence of a Force Majeure Event. If the Agreement is terminated pursuant to this Section 14.4, then Siemens' remaining warranty and performance guarantee obligations shall also automatically terminate.

Within thirty (30) days from the effective date of such termination, Buyer shall either (a) return to Siemens any of Siemens' confidential information which had been in Buyer's possession (excluding this Agreement) or (b) certify to Siemens that all of Siemens' confidential information which had been in Buyer's possession has been destroyed.

#### 14.5 Actions Required Following Termination.

##### 14.5.1 Discontinuation of Work.

Upon termination of this Agreement, Siemens shall promptly discontinue the Work and take such steps as are reasonably necessary to preserve and protect any Work completed and in progress at the Project Site, and then remove its personnel and equipment from the Project Site, and for a termination for a Siemens Event of Default, Buyer shall be entitled to take exclusive possession of the Work Delivered or en route to the Project Site; provided, however, that if the cause of the termination is other than due to a Siemens Event of Default, Buyer shall pay on Siemens' demand made from time to time all amounts reasonably requested by Siemens to cover Siemens' costs incurred in performing Siemens' obligations pursuant to this Section 14.5.1.

##### 14.5.2 Cancellation and Transfer of Subcontracts and Other Rights.

Upon termination of this Agreement by Buyer pursuant to Section 14.1, if requested by Buyer, Siemens shall use reasonable efforts to (a) deliver and assign to Buyer any and all Subcontracts made by Siemens in performance of the Work and provide to Buyer (without charge) all rights, if any, it has obtained from Subcontractors to use patented or proprietary materials in completing, operating and maintaining the Work. Except as provided herein, no action taken by Buyer or Siemens after the termination of this Agreement shall prejudice any other rights or remedies of Buyer or Siemens provided by this Agreement upon such termination.

## **ARTICLE 15** **INDEMNITIES**

#### 15.1 Mutual Indemnity.

Siemens and Buyer (each as an "Indemnitor") shall indemnify the other ("Indemnitee") from and against all third party claims alleging bodily injury, death or damage to a third party's tangible property, but only to the extent caused by the Indemnitor's negligent acts or omissions. If the injury or damage is caused by the parties' joint or contributory negligence, the loss and/or expenses shall be borne by each party in proportion to its degree of fault. No part of the Equipment(s) or Buyer's Project Site is considered third party property.

Indemnitee shall provide the Indemnitor with prompt written notice of and shall not acknowledge any third party claims covered by this Article 15. Indemnitor has the unrestricted right to select and hire counsel and the exclusive right to conduct the legal defense and/or settle the claim on the Indemnitee's behalf. The Indemnitee shall not make any admission(s) which might be prejudicial to the Indemnitor and shall not enter into a settlement without the express permission of the Indemnitor.

#### 15.2 Buyer's Environmental Release and Indemnity.

Buyer, on behalf of itself, all Buyer Parties, and the predecessors and successors in interest, insurers, and assigns of each of them, shall defend, release, indemnify and hold harmless Siemens, all Siemens Parties, and the successors and assigns of each of them (each, an Indemnitee under this Section 15.2)

from and against any and all liability arising under Environmental Laws or as a result of any Hazardous Materials at or any environmental condition of the Project Site, except to the extent for which Siemens is responsible under Section 2.7, including, without limitation, fines and penalties, reasonable fees for attorneys, consultants or other professionals, and the costs of reporting, investigation, monitoring, containment, cleanup, storage, disposal, transportation and any other remedial actions arising under applicable Environmental Laws that are incurred by any Indemnitee hereunder for and as a result of: (i) death or bodily injury to any person, (ii) destruction or damage to any property, (iii) contamination of or adverse effects on the environment, including a Release of any kind, (iv) any violation by Buyer or any Buyer Party of Environmental Laws, and/or (v) a breach by Buyer or any Buyer Party of any legal duty arising under applicable Environmental Laws or any obligations under the environmental provisions of this Agreement. This release and indemnity shall survive the termination or expiration of this Agreement and shall be construed as broadly as possible under applicable Environmental Laws.

## **ARTICLE 16 REPRESENTATIONS**

### 16.1 Siemens Representations.

Siemens represents that on the Effective Date:

#### 16.1.1 Organization.

It is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and is qualified to do business in the jurisdictions in which the nature of the business conducted by it as pertains to or has bearing upon its performance of this Agreement makes such qualification necessary and where failure to so qualify would have a material adverse effect on its ability to perform this Agreement.

#### 16.1.2 No Violation of Law; Litigation.

It is not in violation of any Applicable Laws or judgment entered by any Governmental Authority which violations, individually or in the aggregate, would materially and adversely affect its performance of any of its obligations under this Agreement. There are no legal or arbitration proceedings or any proceeding by or before any Governmental Authority now pending or (to the best knowledge of Siemens) threatened against Siemens which, if adversely determined, could reasonably be expected to have a material adverse effect on the ability of Siemens to perform under this Agreement.

#### 16.1.3 Permits.

It is or will be prior to performing any Work on the Project Site the holder of the governmental consents, Siemens Permits or other authorizations required in Siemens' name to permit it to perform the Work and operate or conduct its business now and as contemplated by this Agreement.

#### 16.1.4 No Breach.

None of the execution and delivery of this Agreement, the consummation of the transactions herein contemplated or compliance with the terms and provisions hereof and thereof shall conflict with or result in a breach of, or require any consent under, the charter or by-laws of Siemens, or any Applicable Laws or regulation, order, writ, injunction or decree of any court, or any agreement or instrument to which Siemens is a party or by which it is bound or to which it is subject, or constitute a default under any such agreement or instrument.

#### 16.1.5 Corporate Action.

It has all necessary power and authority to execute, deliver and perform its obligations under this Agreement; the execution, delivery and performance by Siemens of this Agreement have been duly authorized by all necessary action on its part; and this Agreement has been duly and validly executed and delivered by Siemens and constitutes

the legal, valid and binding obligation of Siemens enforceable in accordance with its terms, except as the enforceability thereof may be limited by bankruptcy, insolvency, reorganization or moratorium or other similar laws relating to the enforcement of creditors' rights generally and by general equitable principles.

## 16.2 Buyer's Representations

Buyer represents that on the Effective Date:

### 16.2.1 Organization.

It is a [ ] duly organized, validly existing and in good standing under the laws of the State of [ ], and is qualified to do business in all jurisdictions in which the nature of the business conducted by it as pertains to or has bearing upon its performance of this Agreement makes such qualification necessary and where failure to so qualify would have a material adverse effect on its ability to perform this Agreement.

### 16.2.2 No Violation of Law; Litigation.

It is not in violation of any Applicable Laws or judgment entered by any Governmental Authority which violations, individually or in the aggregate, would materially and adversely affect its performance of any of its obligations under this Agreement. There are no legal or arbitration proceedings or any proceeding by or before any Governmental Authority now pending or (to the best knowledge of Buyer) threatened against Buyer which, if adversely determined, could reasonably be expected to have a material adverse effect on the ability of Buyer to perform under this Agreement.

### 16.2.3 No Breach.

None of the execution and delivery of this Agreement, the consummation of the transactions herein contemplated or compliance with the terms and provisions hereof and thereof shall conflict with or result in a breach of, or require any consent under, the governing documents of Buyer, or any Applicable Laws or regulation, order, writ, injunction or decree of any court, or any agreement or instrument to which Buyer is a party or by which it is bound or to which it is subject, or constitute a default under any such agreement or instrument.

### 16.2.4 Corporate Action.

It has all necessary power and authority to execute, deliver and perform its obligations under this Agreement; the execution, delivery and performance by Buyer of this Agreement have been duly authorized by all necessary action on its part; and this Agreement has been duly and validly executed and delivered by Buyer and constitutes the legal, valid and binding obligation of Buyer enforceable in accordance with its terms, except as the enforceability thereof may be limited by bankruptcy, insolvency, reorganization or moratorium or other similar laws relating to the enforcement of creditors' rights generally and by general equitable principles.

### 16.2.5 Permits.

It is or will be prior to the commencement of performance of any Work by Siemens on the Project Site the holder of all governmental consents, Buyer Permits or other authorizations required to permit it to undertake and operate its business and the Project as contemplated by this Agreement.

### 16.2.6 Nuclear.

Unless expressly authorized in writing by Siemens, the Equipment must not be used in or in connection with a nuclear facility or application. If Buyer uses any Equipment in connection with any nuclear facility or activity, it does so at its own risk and Buyer will indemnify, defend and hold Siemens harmless, and waives and will require its insurers to

waive all right of recovery against Siemens for any damage, loss, destruction, injury or death resulting from a "nuclear incident," as defined in the Atomic Energy Act of 1954, as amended, whether or not due to Siemens' negligence. Siemens' consent to Buyer's use of the Equipment in connection with any nuclear facility or application will be subject to additional terms and conditions that Siemens deems necessary to protect its interests.

## **ARTICLE 17** **PATENT AND COPYRIGHT INFRINGEMENT**

Siemens will, at its option and expense, defend or settle any suit or proceeding brought against Buyer based on an allegation that any Equipment or use thereof for its intended purpose constitutes an infringement of any Patent Cooperation Treaty country member's patent or misappropriation of a third party's trade secret or copyright in the country where the Equipment is delivered by Siemens. Buyer will promptly give Siemens written notice of the suit or proceeding and the authority, information, and assistance needed to defend the claims. Buyer shall not acknowledge any such third party proceedings defined under this Article 17. Siemens shall have the full and exclusive authority to defend and settle such claim(s) and will pay the damages and costs awarded in any suit or proceeding so defended. Buyer shall not make any admission(s) which might be prejudicial to Siemens and shall not enter into a settlement without Siemens' consent. Siemens is not responsible for any settlement made without its prior written consent. If the Equipment, or any part thereof, as a result of any suit or proceeding so defended is held to constitute infringement or its use by Buyer is enjoined, Siemens will, at its option and expense, either: (i) procure for Buyer the right to continue using said Equipment; (ii) replace it with substantially equivalent non-infringing Equipment; or (iii) modify the Equipment so it is non-infringing.

Siemens will have no duty or obligation under this Article 17 if the Equipment is: (i) supplied according to Buyer's design or instructions and compliance therewith has caused Siemens to deviate from its normal course of performance; (ii) modified by Buyer or its contractors after delivery; or (iii) combined by Buyer or its contractors with devices, methods, systems or processes not furnished hereunder and by reason of said design, instruction, modification, or combination a suit is brought against Buyer. In addition, if by reason of such design, instruction, modification or combination, a suit or proceeding is brought against Siemens, Buyer must protect Siemens in the same manner and to the same extent that Siemens has agreed to protect Buyer under this Article 17.

THIS ARTICLE 17 IS AN EXCLUSIVE STATEMENT OF SIEMENS' DUTIES AND BUYER'S REMEDIES RELATING TO PATENTS, TRADE SECRETS AND COPYRIGHTS, AND DIRECT OR CONTRIBUTORY INFRINGEMENT THEREOF.

## **ARTICLE 18** **CONFIDENTIALITY**

(a) Both during and after the term of this Agreement, the parties will: (i) treat as confidential all information obtained from the disclosing party, (ii) use such confidential information for its intended purpose only, and (iii) all information compiled or generated by the disclosing party under this Agreement for the receiving party, including but not limited to business information, manufacturing schedule information, technical data, drawings, flow charts, program listings, software, plans and projections. Neither party may disclose or refer to the work to be performed under this Agreement in any manner that identifies the other party without advance written permission. However, Siemens has the right to share confidential information with its Affiliates and subcontractors, provided those recipients are subject to the same confidentiality obligations set forth herein.

(b) Nothing in this Agreement requires a party to treat as confidential any information which: (i) is or becomes generally known to the public, without the fault of the receiving party; (ii) is disclosed to the receiving party, without obligation of confidentiality, by a third party having the right to make such disclosure; (iii) was previously known to the receiving party, without obligation of confidentiality, which fact can be demonstrated by means of documents which are in the possession of the receiving party upon the date of this Agreement; (iv) was independently developed by receiving party or its representatives, as

evidenced by written records, without the use of discloser's confidential information; or (v) is required to be disclosed by law, except to the extent eligible for special treatment under an appropriate protective order, provided that the party required to disclose by law will promptly advise the originating party of any requirement to make such disclosure to allow the originating party the opportunity to obtain a protective order and assist the originating party in so doing.

**ARTICLE 19**  
**MISCELLANEOUS PROVISIONS**

19.1 Entire Agreement.

This agreement, including Attachment "A" and all Exhibits thereto (the "Agreement") contains the entire understanding of the Parties with respect to the subject matter hereof and supersedes all prior and/or contemporaneous agreements and commitments with respect thereto. There are no other understandings, oral or written, nor other terms or conditions and neither Party has relied upon any representation, express or implied, not contained in this Agreement. Any modification to the Agreement must be in writing and executed by both Parties.

19.2 Applicable Law and Jurisdiction.

This Agreement is governed by and construed in accordance with the laws of the State of Delaware, without regard to its conflict of laws principles. The application of the United Nations Convention on Contracts for the International Sale of Goods is excluded. BOTH SIEMENS AND BUYER KNOWINGLY, VOLUNTARILY AND IRREVOCABLY WAIVE ALL RIGHTS TO A JURY TRIAL IN ANY ACTION OR PROCEEDING RELATED IN ANY WAY TO THIS AGREEMENT. Each party agrees that claims and disputes arising out of this Agreement must be decided exclusively in a federal or state court of competent jurisdiction located in a state in which either Buyer or Siemens maintains its principal place of business. Each party submits to the personal jurisdiction of such courts for the purpose of litigating any claims or disputes.

19.3 Notice.

All notices, reports, demands, claims, elections, requests and other official communications required or permitted by this Agreement or by law to be served upon or given to a Party by the other Party shall be in writing signed by the Party giving such notice and shall be deemed duly served, given to and received by the other Party when delivered by first class registered or certified mail, return receipt requested, postage prepaid, or by a nationally recognized courier, in each case addressed as follows:

If delivered to Buyer:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Attention: \_\_\_\_\_

If delivered to Siemens:

Siemens  
Street Address  
City, State, zip code

Attention: Project Manager \_\_\_\_\_

The Parties, by like notice in writing, may designate, from time to time, another address, addressee or office to which notices shall be delivered pursuant to this Agreement, which change of address shall become effective five (5) Business Days after delivery of such Notice.

#### 19.4 No Rights in Third Parties.

Except as otherwise expressly provided herein, this Agreement and all rights hereunder are intended for the sole benefit of the Parties and shall not imply or create any rights on the part of, or obligations to, any other Person, except as specifically provided herein with respect to Subcontractors.

#### 19.5 Compliance with Laws.

The parties agree to comply with all Applicable Laws, including but not limited to those relating to the manufacture, purchase, resale, exportation, transfer, assignment or use of the Equipment.

#### 19.6 Conflicting Provisions.

In the event of any inconsistencies in this Agreement, the following order of precedence in the interpretation hereof or resolution of such conflict hereunder shall prevail:

- (1) Duly authorized and executed Scope Change Orders and written amendments to the Agreement executed by both Parties, with the latest ones having precedence over the earlier ones;
- (2) This Agreement including Attachment "A" as equal priority; and
- (3) The Exhibits to this Agreement or Attachment "A."

Any differing or additional terms and conditions in any purchase order or other document are of no force and effect unless specifically accepted in writing by the Parties. Siemens' failure to object to any such additional, different or conflicting terms does not operate as a waiver of the terms of this Agreement.

#### 19.7 Right of Waiver.

Each Party, in its sole discretion, shall have the right, but shall have no obligation, to waive, defer or reduce any of the requirements to which the other Party is subject under this Agreement at any time; provided, however, that such waiver is in writing. Any failure of any Party to enforce any of the provisions of this Agreement or to require compliance with any of its terms at any time during the pendency of this Agreement shall in no way affect the validity of this Agreement, or any part hereof, and shall not be deemed a waiver of the right of such Party thereafter to enforce any and each such provision.

#### 19.8 No Partnership Created.

Nothing contained in this Agreement shall be construed as constituting a joint venture or partnership between Siemens and Buyer.

#### 19.9 Captions; Shortened Names for Convenience.

The captions contained in this Agreement are for convenience of reference only and in no way define, describe, extend or limit the scope of intent of this Agreement or the intent of any provision contained herein. Similarly, the references to "Buyer" and "Siemens" in this Agreement are shorthand used for convenience only.

#### 19.10 Counterparts and Facsimile Execution.

This Agreement may be signed in any number of counterparts and each counterpart shall represent a fully executed original as if signed by both Parties, with all such counterparts together constituting but one and the same instrument. Facsimile or electronic pdf signatures of the Parties shall be deemed to constitute original signatures, and executed facsimile copies hereof shall be deemed to constitute duplicate originals.

#### 19.11 Joint Effort.

Preparation of the Agreement has been a joint effort of the Parties and the resulting document shall not be construed more severely against one of the Parties than against the other. Each Party represents that it has obtained the professional advice (including legal, tax and accounting advice on Applicable Laws and regulations) as it has deemed appropriate or convenient.

#### 19.12 Appendixes.

All appendixes, attachments, or exhibits referenced in this Agreement shall be incorporated into this Agreement by such reference and shall be deemed to be an integral part of this Agreement.

#### 19.13 Rules of Interpretation.

In the interpretation of the Agreement, unless the context specifically otherwise requires, the following rules shall apply:

- (a) words importing persons shall include firms and corporations and vice versa;
- (b) words importing the singular shall include the plural and vice versa;
- (c) the headings to the Articles or Sections are for convenience only and do not affect the interpretation of the Agreement; and
- (d) all references to documents or other instruments include all amendments and replacements thereof and supplements thereto, to the extent such amendments, replacements and supplements have been incorporated into the Agreement by means of a Scope Change Order.

#### 19.14 Communications.

Unless otherwise specified, wherever provision is made for the giving or issue of any notification, instruction, consent, approval, certificate or determination by any person, such communication shall be made in the form of a notice. The word "notify" and "notification" shall be construed accordingly.

#### 19.15 Hiring.

If, during or within ninety (90) days after the term of this Agreement, Buyer engages any Siemens employee who has performed work under this or any other agreement between Buyer and Siemens, Buyer shall pay Siemens an amount equal to the employee's latest annual salary.

#### 19.16 Non-waiver of Default.

Each shipment made hereunder shall be considered a separate transaction. In the event of any default by Buyer, Siemens may decline to make further shipments. If Siemens elects to continue to make shipments, Siemens' actions shall not constitute a waiver of any default by Buyer or in any way affect Siemens' legal remedies for any such default. Any waiver of Siemens to require strict compliance with the provisions of this contract shall be in writing and any failure of Siemens to require such strict compliance shall not be deemed a waiver of Siemens' right to insist upon strict compliance thereafter.

#### 19.17 Non-Waiver.

Any waiver by a party of strict compliance with this Agreement must be in writing, and any failure by the parties to require strict compliance in one instance will not waive its right to insist on strict compliance thereafter.

19.18 Modification of Terms.

This Agreement may only be modified by a written instrument signed by authorized representatives of both parties.

19.19 Assignment.

Neither party may assign all or part of this Agreement, or any rights or obligations under this Agreement, without the prior written consent of the other; but either party may assign its rights and obligations, without recourse or consent, to any parent, wholly owned subsidiary, or affiliate or affiliate's successor organization (whether as a result of reorganization, restructuring or sale of substantially all of a party's assets). However, Buyer shall not assign this Agreement to: a competitor of Siemens; an entity in litigation with Siemens; or an entity lacking the financial capability to satisfy Buyer's obligations. Any assignee expressly assumes the performance of any obligation assigned. Siemens may grant a security interest in this Agreement and/or assign proceeds of this Agreement without Buyer's consent.

19.20 Severability.

If any provision of this Agreement is held invalid, illegal or unenforceable, the remaining provisions will not in any way be affected or impaired. A court may modify the invalid, illegal or unenforceable provision to reflect, as closely as possible, the parties' original intent.

19.21 Survival.

The articles titled "Patent and Copyright Infringement," "Limitation of Liability," "Confidentiality," "Title and Risk of Loss," "Indemnitees," "Export / Import Compliance," and "Nuclear" survive termination, expiration or cancellation of this Agreement.

## Proposal Review Owner Changes - CSI

**Date:** 4/18/2016  
**Work Order #:** 040472.00  
**Title:** ██████████ Street lighting project  
**Contractor:** ██████████, Inc.  
**Job Order Value:** \$0.00

**Proposal Name:** ██████████ Street lighting project  
**Proposal Value:** \$1,055,280.32  
**Proposal Submitted:** 4/18/2016 7:00 PM

**GroupBy:** CSI

**Selected Options:** All Tasks

	Section	Modifier	UOM	Description						
<b>01 - General Requirements</b>										
1	01 22 16 00-0002		EA	Reimbursable Fees Reimbursable fees will be paid to the contractor for the actual cost, without mark-up, for which a receipt or bill is received. The Adjustment Factor applied to Reimbursable Fees will be 1.0000. The labor cost involved in obtaining all permits is in the Adjustment Factor. The base cost of the Reimbursable Fee is \$1.00. The quantity used will adjust the base cost to the actual Reimbursable Fee (e.g. quantity of 125 = \$125.00 Reimbursable Fee). If there are multiple Reimbursable Fees, each one shall be listed separately with a comment in the "note" block to identify the Reimbursable Fees (e.g. sidewalk closure, road cut, various permits, extended warrantee, expedited shipping costs, etc.). A copy of each receipt shall be included with the Proposal.	Quantity	X	Unit Price	X	Factor	= Total
	Installation:	39,154.75	X	1.00	X	1.0750	=		\$42,091.36	
Contractor Notes: Performance and Payment bonds										
2	01 22 20 00-0082		DAY	Traffic Control System Note: Includes 1 truck, 1 arrow board, 1 licensed traffic control person, traffic cones	Quantity	X	Unit Price	X	Factor	= Total
	Installation:	35.00	X	904.57	X	1.0830	=		\$34,287.73	
<b>Contractor Subtotal for - 01 - General Requirements : \$76,379.09</b> <b>Owner Changes Subtotal for - 01 - General Requirements : \$0.00</b>										

<b>26 - Electrical</b>										
3	26 01 50 51-0154		EA	Recycle HID Lamps	Quantity	X	Unit Price	X	Factor	= Total
	Installation:	3,139.00	X	1.41	X	1.0830	=		\$4,793.35	
4	26 51 13 00-0003		EA	Plug-In Photocell For Lighting Fixtures	Quantity	X	Unit Price	X	Factor	= Total
	Installation:	2,300.00	X	51.94	X	1.0830	=		\$129,377.35	

## Proposal Review Owner Changes - CSI

5	26 56 19 00-0191	EA	Up To 7,000 Lumens, Horizontal Tenon Mount, LED Cobra Head Street Light (Leotek GC1-30F-MV-NW-X-GY-XXX-WL) (DLC Certified)
			Quantity X      Unit Price X      Factor =      Total
	Installation:		292.00 X      238.13 X      1.0830 =      \$75,305.28
	Demolition:		292.00 X      6.51 X      1.0830 =      \$2,058.70
	Contractor Notes:GC1-30F-MV-NW-X-WHITE-700-WL-PCR7		
6	26 56 19 00-0191	0732	For ANSI 7-wire Photocontrol Receptacle, Add
			Quantity X      Unit Price X      Factor =      Total
	Installation:		292.00 X      13.20 X      1.0830 =      \$4,174.32
7	26 56 19 00-0194	EA	Up To 13,400 Lumens, Horizontal Tenon Mount, LED Cobra Head Street Light (Leotek GC1-60F-MV-NW-X-GY-XXX-WL) (DLC Certified)
			Quantity X      Unit Price X      Factor =      Total
	Installation:		247.00 X      306.38 X      1.0830 =      \$81,956.96
	Demolition:		247.00 X      6.51 X      1.0830 =      \$1,741.43
	Contractor Notes:GC1-60F-MV-NW-X-GY-530-WL-PCR7		
8	26 56 19 00-0194	0732	For ANSI 7-wire Photocontrol Receptacle, Add
			Quantity X      Unit Price X      Factor =      Total
	Installation:		247.00 X      13.20 X      1.0830 =      \$3,531.01
9	26 56 19 00-0194	EA	Up To 13,400 Lumens, Horizontal Tenon Mount, LED Cobra Head Street Light (Leotek GC1-60F-MV-NW-X-GY-XXX-WL) (DLC Certified)
			Quantity X      Unit Price X      Factor =      Total
	Installation:		9.00 X      306.38 X      1.0830 =      \$2,986.29
	Demolition:		9.00 X      6.51 X      1.0830 =      \$63.45
	Contractor Notes:GC1-60F-MV-NW-X-WHITE-700-WL-PCR7		
10	26 56 19 00-0194	0732	For ANSI 7-wire Photocontrol Receptacle, Add
			Quantity X      Unit Price X      Factor =      Total
	Installation:		9.00 X      13.20 X      1.0830 =      \$128.66
11	26 56 19 00-0194	EA	Up To 13,400 Lumens, Horizontal Tenon Mount, LED Cobra Head Street Light (Leotek GC1-60F-MV-NW-X-GY-XXX-WL) (DLC Certified)
			Quantity X      Unit Price X      Factor =      Total
	Installation:		5.00 X      306.38 X      1.0830 =      \$1,659.05

## Proposal Review Owner Changes - CSI

Demolition: 5.00 X 6.51 X 1.0830 = \$35.25

Contractor Notes:GC1-60F-MV-NW-X-GY-700-WL-PCR7

12	26 56 19 00-0194	<b>0732</b>	For ANSI 7-wire Photocontrol Receptacle, Add			
			Quantity X	Unit Price X	Factor =	Total
			Installation: 5.00 X	13.20 X	1.0830 =	\$71.48

13	26 56 19 00-0194		EA Up To 13,400 Lumens, Horizontal Tenon Mount, LED Cobra Head Street Light (Leotek GC1-60F-MV-NW-X-GY-XXX-WL) (DLC Certified)			
			Quantity X	Unit Price X	Factor =	Total
			Installation: 297.00 X	306.38 X	1.0830 =	\$98,547.43
			Demolition: 297.00 X	6.51 X	1.0830 =	\$2,093.95

Contractor Notes:GC1-60F-MV-NW-X-GY-700-WL-PCR7

14	26 56 19 00-0194	<b>0732</b>	For ANSI 7-wire Photocontrol Receptacle, Add			
			Quantity X	Unit Price X	Factor =	Total
			Installation: 297.00 X	13.20 X	1.0830 =	\$4,245.79

15	26 56 19 00-0197		EA Up To 19,800 Lumens, Horizontal Tenon Mount, LED Cobra Head Street Light (Leotek GC2-90F-MV-NW-X-GY-XXX-WL) (DLC Certified)			
			Quantity X	Unit Price X	Factor =	Total
			Installation: 16.00 X	462.83 X	1.0830 =	\$8,019.92
			Demolition: 16.00 X	6.51 X	1.0830 =	\$112.81

Contractor Notes:GC2-90F-MV-NW-X-GY-700-WL-PCR7

16	26 56 19 00-0197	<b>0732</b>	For ANSI 7-wire Photocontrol Receptacle, Add			
			Quantity X	Unit Price X	Factor =	Total
			Installation: 16.00 X	13.20 X	1.0830 =	\$228.73

17	26 56 19 00-0198		EA Up To 22,000 Lumens, Horizontal Tenon Mount, LED Cobra Head Street Light (Leotek GC2-100F-MV-NW-X-GY-XXX-WL) (DLC Certified)			
			Quantity X	Unit Price X	Factor =	Total
			Installation: 51.00 X	498.53 X	1.0830 =	\$27,535.31
			Demolition: 51.00 X	6.51 X	1.0830 =	\$359.57

Contractor Notes:GC2-100F-MV-NW-X-GY-700-WL-PCR7

18	26 56 19 00-0198	<b>0732</b>	For ANSI 7-wire Photocontrol Receptacle, Add			
			Quantity X	Unit Price X	Factor =	Total

## Proposal Review Owner Changes - CSI

Installation:	51.00 X	13.20 X	1.0830 =	\$729.08
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19	26 56 19 00-0200	EA	Up To 7,000 Lumens, Horizontal Tenon Mount, LED Cobra Head Street Light (Leotek GCM1-30F-MV-NW-X-GY-XXX-WL) (DLC Certified)
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	Quantity X	Unit Price X	Factor =	Total
Installation:	36.00 X	204.53 X	1.0830 =	\$7,974.22
Demolition:	36.00 X	6.51 X	1.0830 =	\$253.81

Contractor Notes:GCM1-30F-MV-NW-X-GY-700-WL-PCR7

20	26 56 19 00-0200	0732	For ANSI 7-wire Photocontrol Receptacle, Add
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	Quantity X	Unit Price X	Factor =	Total
Installation:	36.00 X	13.20 X	1.0830 =	\$514.64

21	26 56 19 00-0202	EA	Up To 12,000 Lumens, Horizontal Tenon Mount, LED Cobra Head Street Light (Leotek GCM2-40F-MV-NW-X-GY-1AMP-WL) (DLC Certified)
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	Quantity X	Unit Price X	Factor =	Total
Installation:	1,016.00 X	243.38 X	1.0830 =	\$267,797.83
Demolition:	1,016.00 X	6.51 X	1.0830 =	\$7,163.14

Contractor Notes:GCM2-40F-MV-NW-X-GY-700-WL-PCR7

22	26 56 19 00-0202	0732	For ANSI 7-wire Photocontrol Receptacle, Add
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	Quantity X	Unit Price X	Factor =	Total
Installation:	1,016.00 X	13.20 X	1.0830 =	\$14,524.33

23	26 56 19 00-0203	EA	Up To 4,400 Lumens, Horizontal Tenon Mount, LED Cobra Head Street Light (Leotek GCJ1-20G-MV-NW-X-GY-XXX-WL) (DLC Certified)
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	Quantity X	Unit Price X	Factor =	Total
Installation:	15.00 X	162.53 X	1.0830 =	\$2,640.30
Demolition:	15.00 X	6.51 X	1.0830 =	\$105.75

Contractor Notes:GCJ1-20G-MV-NW-X-GY-350-WL-PCR7

24	26 56 19 00-0203	0732	For ANSI 7-wire Photocontrol Receptacle, Add
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	Quantity X	Unit Price X	Factor =	Total
Installation:	15.00 X	13.20 X	1.0830 =	\$214.43

25	26 56 19 00-0203	EA	Up To 4,400 Lumens, Horizontal Tenon Mount, LED Cobra Head Street Light (Leotek GCJ1-20G-MV-NW-X-GY-XXX-WL) (DLC Certified)
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	Quantity X	Unit Price X	Factor =	Total
Installation:	469.00 X	162.53 X	1.0830 =	\$82,553.38

## Proposal Review Owner Changes - CSI

Demolition:            469.00 X                    6.51 X            1.0830 =            \$3,306.60

Contractor Notes:GCJ1-20G-MV-NW-X-GY-700-WL-PCR7

26	26 56 19 00-0203	0732	For ANSI 7-wire Photocontrol Receptacle, Add			
			Quantity X	Unit Price X	Factor =	Total
			Installation:	469.00 X	13.20 X	1.0830 = \$6,704.64

27	26 56 19 00-0203		EA Up To 4,400 Lumens, Horizontal Tenon Mount, LED Cobra Head Street Light (Leotek GCJ1-20G-MV-NW-X-GY-XXX-WL) (DLC Certified)			
			Quantity X	Unit Price X	Factor =	Total
			Installation:	686.00 X	162.53 X	1.0830 = \$120,749.71
			Demolition:	686.00 X	6.51 X	1.0830 = \$4,836.53

Contractor Notes:GCJ1-20G-MV-NW-X-GY-580-WL-PCR7

28	26 56 19 00-0203	0732	For ANSI 7-wire Photocontrol Receptacle, Add			
			Quantity X	Unit Price X	Factor =	Total
			Installation:	686.00 X	13.20 X	1.0830 = \$9,806.78

**Contractor Subtotal for - 26 - Electrical :    \$978,901.23**  
**Owner Changes Subtotal for - 26 - Electrical :    \$0.00**

<b>Contractor Proposal Review Total:</b>	<b>\$1,055,280.32</b>
<b>Owner Revised Proposal Review Total:</b>	<b>\$1,055,280.32</b>

<b>SUMMARY:</b>	
<b>Owner Added Tasks Total</b>	<b>\$0.00</b>
<b>Owner Modified Tasks Total</b>	<b>\$0.00</b>
<b>Owner Deleted Tasks Total</b>	<b>\$0.00</b>

**Value Difference:** **\$0.00**

This work order proposal total represents the correct total for the proposal. Any discrepancy between line totals, sub-totals and the proposal total is due to rounding of the line totals and sub-totals.





Civil Engineering Division  
 1437 4<sup>th</sup> Street, Suite 300  
 Santa Monica, California 90401  
 Phone: (310) 458-8721  
 Fax: (310) 393-4425

**Project Name:**

**On - Bill Financed LED Streetlight  
 Replacement Project  
 Various Streets throughout the City**

**Contract Documents: SP2372**

**Bids Due Date:**

June 30th ,2016

**Submit Bids To:**

Office of the City Clerk  
 City Hall  
 1685 Main Street, Room 102  
 Santa Monica, California 90401

Approved for Bidding:

Lee Swain, P.E. – City Engineer  
 Civil Engineering Division



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**CITY OF SANTA MONICA  
NOTICE INVITING BIDS**

NOTICE IS HEREBY GIVEN that the City of Santa Monica invites Contractors to complete and submit sealed bids for the:

**On-Bill Financed LED Streetlight Replacement Project**

**SP2372**

Bids shall be delivered to the City of Santa Monica, Office of the City Clerk, Room 102, 1685 Main Street, Santa Monica, California, 90401, not later than 3:00 p.m. on June 30th to be publicly opened and read aloud after 3:30 p.m. on said date in Council Chambers. Each Bid shall be in accordance with the Request for Bids.

**MANDATORY PRE-BID JOB WALK:**

**N/A**

**PROJECT ESTIMATE: \$875,000**

**CONTRACT DAYS: 100 Calendar days**

**LIQUIDATED DAMAGES: \$1050.00 Per Day**

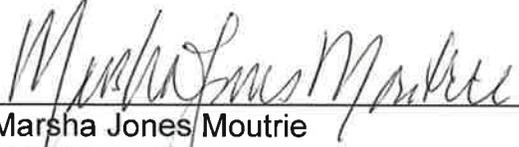
**COMPENSABLE DELAY: \$830.00 Per Day**

Bidding Documents may be obtained by logging onto the City's bidding website at: <http://www.smgov.net/planetbids/>. The Contractor is required to have a **Class A** license at the time of bid submission. Contractors wishing to be considered must submit Bids containing all information required pursuant to the City's Request for Bids.

Pursuant to Public Contracts Code Section 22300, the Contractor shall be permitted to substitute securities for any monies withheld by the City to ensure performance under this Contract.

Dated this 14<sup>th</sup> day of June, 2016

APPROVED AS TO FORM:

  
Marsha Jones Moutrie  
City Attorney

CITY OF SANTA MONICA

By:   
Rick Cole  
City Manager

TO BE PUBLISHED: June 18th, 2016 & June 22nd, 2016



## INSTRUCTIONS TO BIDDERS

### **On Bill Financed LED Streetlight Replacement Project SP 2372**

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1) **PREPARATION OF BIDS**

Bids must be submitted on the prescribed Bid Form furnished by the City, and must be filled out completely. The Bid prices must be included in both words and figures and must be written in ink or typed. In case of any discrepancy between the words and figures, the words will govern. Erasures or other changes must be noted over by the signature of the Bidder.

The Bid must state the amounts for which the Bidder proposes to supply all labor, materials, equipment, tools, transportation and services and perform all Work required by the Contract Documents. Bids shall not contain any conditions, limitations or provisions of the Work to be done. Alternative Bids will not be considered unless requested. No oral, telegraphic or telephonic Bids or Modifications shall be considered.

FAILURE TO PROVIDE THE INFORMATION REQUESTED IN THE ATTACHED BID FORM MAY RESULT IN REJECTION OF A BID AT THE DISCRETION OF THE CITY.

2) **INTERPRETATION OF CONTRACT DOCUMENTS**

The Contract Documents are identified in the Bid Documents. Capitalized terms are defined in the Bid Documents. All Bidders are cautioned that the successful Bidder incurs duties and obligations under all of the Contract Documents and that they should review all of the Contract Documents and should not merely examine the Drawings and Specifications in making their Bid.

Should a Bidder find discrepancies in, or omissions from, the Contract Documents, or should the Bidder be in doubt as to their meaning, the Bidder shall at once notify the City and request an interpretation or clarification. ***Requests for clarifications must be in writing and emailed to:***

**Tom Shahbazi**  
**Tom.shahbazi@smgov.net**

The City is not responsible for Bidder's technical difficulties with submitting requests for clarification via email. The person submitting such request will be responsible for insuring that the email was delivered and received by the City. Verbal requests for clarifications will not be considered. ***The last day to submit requests for clarification is June 27, 2016.***

Should the City find that the point in question is not clearly and fully set forth in the Contract Documents; the City may issue a written Addendum, which will be sent to all Bidders of record. The City will not be responsible for any other explanation or interpretation of the Contract Documents, or for any oral instructions.

3) **SUBMITTAL OF BIDS**

Bid submittals must include one original. Each Bid must be in a sealed envelope clearly marked with the number and name of the Project and the name of the Bidder. If the Bid is mailed to the City, the sealed envelope should be placed within a mailing envelope, and the mailing envelope should be marked in such a fashion as to indicate that it contains a sealed Bid. The envelope enclosing the Bid shall be sealed and addressed to the Office of the City Clerk, and delivered or mailed to the City of Santa Monica, 1685 Main Street, Room 102, Santa Monica, California, 90401. All Bids must be received by the Office of the City Clerk by the time and date specified in the Bid Documents and may be withdrawn only as specified in the Bid Documents. No Bid received after that time will be considered. Also, the envelope shall be plainly marked in the upper left-hand corner as follows:

ATTENTION: CITY CLERK ROOM 102

---

(Bidder's Name and Address)

**On Bill Financed LED Streetlight Replacement Project, SP 2372**

(Project Number and Title)

4) **WITHDRAWAL OF BIDS**

Bids may only be withdrawn in writing, addressed to the City Clerk, prior to the time specified in the Notice Inviting Bids for the opening of Bids.

5) **ERRORS**

The City reserves the right to reject any and all Bids. Bidders will not be released on account of errors except that the City reserves the right to waive any minor irregularity or informality in any Bid.

6) **AWARD OF CONTRACT**

The award of the Contract, if it be made, will be made to the Best Bidder in accordance with Santa Monica Municipal Code Section 2.24.072. The City is not required to award to the lowest bidder. The successful Bidder must be able to show that it can perform the required Work within the allotted time.

7) **REJECTION OF BIDS**

Bids may be rejected if they show any alteration in form, additions not called for, conditions or alternative Bids, incomplete Bids or irregularities. The City reserves the right to reject any and all Bids.

**8) EXECUTION OF CONTRACT**

The Bidder to whom the award is made shall execute the Contract and furnish both the Performance Bond and the Labor and Material Payment Bond along with the Certificate of Insurance required by the Contract Documents and shall deliver the same to the City Project Manager within ten (10) days after the City has mailed the Notice of Award to said Bidder that the Contract has been awarded to the Bidder.

Failure or refusal of the successful Bidder to execute the Contract and return the same to the City within said ten (10) days shall result in the forfeiture of the Bidder's cash deposit, check, or Bidder's bond to the City as liquidated damages. No Bid shall be considered binding upon the City until the execution of the Contract by the City.

**9) BID GUARANTEE**

Each Bid must be accompanied by cash, a certified or cashier's check made payable to the City of Santa Monica, or Bidder's bond (using the form provided in the Bid Form) for an amount equal to at least ten percent (10%) of the amount bid as a guarantee that the Bidder will enter into a contract with the City. Failure to comply with this Paragraph 9.0 will render the Bid non-responsive. If awarded the Contract, the Bid Guarantee will be retained by the City as liquidated damages if the successful Bidder fails or refuses to enter into said Contract and furnish the required Labor and Material Bond, Performance Bond, and evidence of insurance coverage. Forfeiture by the successful Bidder shall not preclude recovery of any sum over and above the Bid Guarantee, to which the City sustains damage because of default. If the successful Bidder executes the Contract and furnishes all bonds and insurance required by the Contract Documents within the time specified by the Contract Documents, any cash or check accompanying that successful Bid will be returned. Cash or checks accompanying rejected Bids will be returned within fourteen (14) Days after execution of the Contract.

**10) BOND REQUIREMENTS**

Within ten (10) Days after the issuance of the Notice of Award and prior to commencing Work on the Project, Contractor shall file with City good and sufficient Labor & Material Payment and Performance Bonds each in the amount of 100% of the Contract Sum. The bonds shall be signed by both Contractor and Surety and properly notarized on the City's provided forms or such other forms as required by City. Should any bond required hereunder or any surety on such bond become or be determined by City to be insufficient, it shall be replaced within ten (10) Days by a bond that fully complies with the requirements of Article 11.2 (Bond Requirements) of the City's General Conditions. No further payments to Contractor for Work performed shall be made or due until Contractor has fully complied with all the requirements.

Surety companies used by Contractor for Labor & Material Payment and Performance Bonds shall be, on the date the Contract is signed by Owner, listed in the latest published United States Treasury Department list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies (Treasury List)."

11) **LICENSES**

The Contractor and Subcontractors shall be licensed in accordance with the provisions of Chapter 9, Division 3, of the Business and Professions Code of the State of California and submit the number and classification of said licenses with the Bid Documents.

12) **PREVAILING RATES OF WAGES**

This Project constitutes a "public works" project within the meaning of California Labor Code section 1720 and is subject to the prevailing wage laws. Bidder should familiarize itself with the prevailing wage provisions in Article 13 (Statutory Requirements) of the City's General Conditions.

13) **PUBLIC WORKS CONTRACTOR REGISTRATION PROGRAM**

In accordance with State of California Senate Bill No. 854 (Stat.2014, Chapter 28), contractors wishing to bid on or engage in the performance of public works must be registered with the Department of Industrial Relations ("DIR"). Subcontractors must also be registered with the DIR to be listed in a bid proposal. By submitting a bid for a City of Santa Monica public works project, Bidder acknowledges the above and agrees that it is currently registered with the DIR and will maintain its registration with the DIR during the term of the Contract. Bidder also agrees that its listed subcontractors are currently registered with the DIR and will remain registered with the DIR during the term of the Contract.

- No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

A bid proposal shall not be accepted nor any contract entered into without proof of the Bidder's or its subcontractors' current registration with the DIR.

As of April 1, 2015, contractors and subcontractors must furnish electronic certified payroll records to the Labor Commissioner (State of California, Division of Labor Standards Enforcement).

Please see the DIR website for complete details and actions. It is the responsibility of the contractor to ensure all DIR requirements and regulations are met and stay current. For more information on Senate Bill No. 854, see <http://www.dir.ca.gov/Public-Works/SB854.html>.

**14) SANTA MONICA LIVING WAGE ORDINANCE**

The City of Santa Monica's Living Wage Ordinance, Santa Monica Municipal Code Chapter 4.65 ("Living Wage Ordinance"), requires the payment of Minimum Wage for work done on any Contract over a certain threshold to any worker who does not actually work as a manager, supervisor or confidential employee, and who is not required to possess an occupational license. The established Minimum Wage includes an annual adjustment each July 1<sup>st</sup> by an amount corresponding to the previous calendar year's change in the Consumer Price Index for Urban Wage Earners and Clerical Workers in Los Angeles, Riverside and Orange Counties.

If the Living Wage Ordinance applies to services sought pursuant to this bid, bidders are required to prepare and return a Living Wage Ordinance Certification Form, attached in the Bid Form, with their bid packet. If the bidder is selected, the bidder must maintain payroll records that include, at minimum, the full name of each employee providing services under the contract, job classification and rate of pay. Bids that fail to include this Certification Form may be considered non-responsive and excluded from further consideration.

**15) SANTA MONICA OAKS INITIATIVE NOTICE**

Santa Monica's voters adopted a City Charter amendment commonly known as the Oaks Initiative. It prohibits a public official from receiving specified personal benefits from a person or entity after the official votes, or otherwise takes official action, to award a "public benefit" to that person or entity. Examples of a "public benefit" include public contracts to provide goods or services worth more than \$25,000 or a land use approval worth more than \$25,000.

The Oaks Initiative requires the City to provide this note and information about the Initiative's requirements. An information sheet on the Oaks Initiative is attached in the Bid Form. If the Oaks Initiative applies to services sought pursuant to this bid, bidders are required to prepare and return the Oaks Initiative Disclosure Form, attached in the Bid Form, with their bid packet. You may also obtain a full copy of the Initiative's text from the City Clerk.

**16) CITY POLICY ON DOING BUSINESS WITH ARIZONA FIRMS**

The City Council of the City of Santa Monica adopted Resolution No. 10479 (CCS) on May 25, 2010, which requires a review of all current and likely future agreements and contracts with Arizona-based businesses to examine the feasibility of acquiring such products and services elsewhere while the Arizona law remains in effect.

Additionally, Council directed staff to require vendors offering goods or services to the City of Santa Monica to complete and sign the attached disclosure form; this applies to all solicitations, including but not limited to, bids and proposals. Please review, sign and submit the State of Arizona Disclosure Form, attached in the Bid Form, with your bid packet prior to the closing date of bid.

17) **BID PROTEST**

All parties wishing to file a protest shall comply with the procedures set forth below.

Proposer may file a written protest with the Division Manager no more than seven calendar days following the posting of award recommendation on the City's online vendor portal website. The protest must include the name address and telephone number of the protestor and or the person representing the protesting party. The written protest must set forth in detail all grounds for the protest including without limitation all facts supporting documentation legal authorities and arguments in support of the grounds for the protest. All factual contentions must be supported by evidence. Any matters not set forth in the written protest shall be deemed waived. Any protest not conforming to the requirements of this Section may be rejected as invalid.

The Division Manager shall review the merits and timeliness of the protest and issue a written decision to the protestant within ten calendar days of receipt of the protest.

Any protestant may appeal the decision of the Division Manager to the Director of Public Works by filing a letter of appeal within seven calendar days of the date of the Division Manager's decision. The appeal must include the name address and telephone number of the appellant and or the person representing the appealing party. The letter of appeal shall include the original protest and any additional supporting information including without limitation all facts supporting documentation legal authorities and arguments in support of the grounds for the appeal. All factual contentions must be supported by evidence. Any matters not set forth in the letter of appeal shall be deemed waived. Any letter of appeal not conforming to the requirements of this Section may be rejected as invalid.

The Director of Public Works shall review the merits and timeliness of the letter of appeal and issue a written decision to the appellant within ten calendar days of receipt of the letter of appeal. The Director of Public Works shall have final authority to sustain or deny a protest. The Director of Public Works decision shall constitute the City's final determination on the protest.

Once a protest has been filed with the Division Manager no contract shall be awarded until the Division Manager has issued his or her decision on the protest or if the Division Manager's decision is appealed the Director of Public Works has issued his or her final determination.

**Protests received after the deadline will not be accepted.**

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)



CONSTRUCTION  
BID FORM

**On - Bill Finance LED Streetlight Replacement Project  
SP2372**

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Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

## **BID FORM**

HONORABLE MAYOR AND  
MEMBERS OF THE CITY COUNCIL  
City of Santa Monica  
1685 Main Street  
Santa Monica, California 90401

The undersigned hereby submits the following Bid to conduct the Work described in the Bid Documents. It is understood and agreed that:

### **1) INTRODUCTION**

All Work shall be completed within the price shown herein below and within the Contract Time. Submission of a Bid will be deemed a binding offer for one hundred twenty (120) Days from the Bid opening. The undersigned agrees to enter into the Construction Contract contained in the Bid Documents on the terms contained therein. Capitalized terms used herein shall have the meanings assigned to them in the Bid Documents.

### **2) INSTRUCTIONS TO BIDDERS**

The undersigned acknowledges receiving the Instructions to Bidders and hereby agrees to the terms set forth therein.

### **3) DOCUMENT EXAMINATION**

The undersigned has carefully examined all Bid Documents.

### **4) ERRORS AND OMISSIONS**

The undersigned fully understands the scope of Work and has checked carefully all words and figures inserted in this Bid and further understands that the City of Santa Monica will be in no way responsible for any errors and/or omissions in the preparation of the Bid. In case of discrepancy between words and figures, the words shall prevail.

### **5) WORK START-UP**

The undersigned agrees, acknowledges and is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions before commencing the performance of this Contract if it is awarded to the undersigned.

The undersigned will not begin the Work until all requirements in regard to bonds and insurance have been satisfied, the Contract has been executed and the Notice to Proceed has been issued. The undersigned understands that time is of the essence with respect to all time limits set forth in the Contract Documents and will complete all Work within the Contract Time specified in the Contract Documents. The undersigned will execute the Contract and furnish the required statutory bonds and Certificates of Insurance within the period of time specified in the Contract Documents.

**6) NON-COLLUSION AFFIDAVIT**

The undersigned hereby declares under penalty of perjury:

- A. That this Bid is genuine and not sham or collusive, or made in the interest or on behalf of a person not herein named.
- B. That it has not directly or indirectly induced or solicited any other Bidder to put in a sham Bid or any other person, firm, or corporation to refrain from bidding.
- C. That it has not in any manner sought by collusion to secure any advantage over any other Bidder.
- D. That it has not in any way, directly or indirectly, entered into any arrangement or agreement with any other Bidder, or with any public officer of the City of Santa Monica whereby the undersigned executing this affidavit has paid or shall pay to such other Bidder or public officer any sum of money, or has given or shall give to such other Bidder or public officer anything of value whatsoever.
- E. That the undersigned executing this affidavit has not directly or indirectly, entered into any arrangement or agreement with any other Bidder or Bidders, which tends to or does lessen or destroy free competition in the letting of the contract sought for.
- F. That no Bid has been accepted from any Subcontractor or supplier through any bid depository, the By-Laws, Rules, or Regulations of which prohibit or prevent the Contractor from considering any bid from any Subcontractor or supplier or which has the effect of keeping a Subcontractor or supplier from bidding to any Contractor who does not use the facilities of or accept Bids from or through such bid depository.
- G. That no inducement of any form or character other than that which appears upon the face of the Bid will be suggested, offered, paid or delivered to any person for the purpose of affecting the award of the Contract.
- H. That it does not have any agreement or understanding of any kind whatsoever, with any person to pay, deliver to, or share with any other person in any way or manner, any of the proceeds of the contracts sought by this Bid.

**7) BID GUARANTEE OR BIDDER'S BOND**

In the event the undersigned fails to execute a Construction Contract and furnish the required bonds and insurance therefore within the time provided by the Request for Bids, the undersigned agrees that the City of Santa Monica shall recover or retain as liquidated damages all amounts equal to ten percent (10%) of the total amount of the award made, all in accordance with the foregoing stipulations.

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

If the Bidder desires to submit a bond with the Bid instead of cash, a certified check or a cashier's check, the form attached hereto and incorporated herein as Attachment A should be executed.

**8) PRE-BID SITE INSPECTION CERTIFICATION**

The undersigned hereby certifies that it and its Subcontractors have inspected the Site for the performance of the Work and fully acquainted itself with all conditions and matters which might in any way affect the Work, time of completion or the cost thereof.

Bidders must examine and judge for themselves the location, surroundings, physical condition, and nature of any work to be done. The undersigned acknowledges that it is satisfied as to the character, quality and quantities of surface and subsurface materials or obstacles to be encountered and the condition of Existing Improvements insofar as reasonably ascertainable from a careful inspection of the Site and from the geological investigation reports, data and similar information made available by the City. Submission of the Bid by the undersigned shall be conclusive evidence that the undersigned has made such an examination and included all costs associated with preparing the Site for the intended Work.

The Drawings for the Work show conditions as they are supposed or believed to exist. The conditions shown do not constitute a representation or warranty express or implied by the City or its officers that such conditions actually exist.

The Bidder also certifies it has observed the designated Contractor Work areas, material and equipment storage areas, access routes, as well as the ability to protect existing surface and subsurface improvements. No claim for allowance--time or money--will be allowed for such matters.

Persons who inspected site of the proposed Work for your firm:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

**9) TOTAL BID**

To determine the lowest monetary Bidder, the City will calculate the Total Bid, which will equal the sum of the Base Bid listed in Attachment B. The Contract will be awarded to the Best Bidder in accordance with Santa Monica Municipal Code Section 2.24.072.

**10) REJECTION OF BIDS**

The City reserves the right, in its sole discretion, to reject all Bids, delete construction items, and/or decrease quantities of Unit Price items, or waive any minor irregularities in the Bids.

**11) DESIGNATION OF SUBCONTRACTORS**

In compliance with the "Subletting and Subcontracting Fair Practices Act" being Sections 4100 et seq. of the California Public Contract Code, and any amendments thereto, the undersigned shall set forth below the name and location of the place of business of each Subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the Work or improvement in an amount in excess of one-half (1/2) of one percent (1%) of the Contractor's Total Bid, and shall further set forth the trade(s) that will be done by each Subcontractor and the dollar amount of each subcontract. Only one Subcontractor for each such trade shall be listed. If there are additive alternates, the Contractor must list any subcontractors performing in excess of one-half (1/2) of one percent (1%) of the Contractor's Total Bid.

If the Contractor fails to specify a Subcontractor for any portion of the Work to be performed under the Contract, the Contractor shall be deemed to have agreed to perform such portion itself, and it shall not be permitted to subcontract that portion of the Work except in cases of public emergency or necessity, and then only after the City, in a finding reduced to writing as a public record of the City, sets forth the facts constituting the emergency or necessity.

Re-subletting or re-subcontracting of any portion of the Work for which a subcontractor was designated in the original Bid shall only be permitted for the reasons and according to the procedures set forth in Sections 4100 et seq. of the California Public Contract Code.



Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

Except for the Subcontractors listed above and for the Subcontractors who will perform work in an amount less than one-half (1/2) of one percent (1%) of the Contractor's Total Bid, the Contractor acknowledges that the Contractor will perform all required work as required by Section 4106 of the Public Contract Code.

**12) PRE-BID QUALIFICATION STATEMENT (if applicable)**

The Contractor Pre-Qualification Statement" submitted as Phase One of the Bid Process does NOT need to be resubmitted with the Bid (Phase Two), but is considered part of the Contractor's overall Bid package and is hereby incorporated by reference into this Bid.

**13) BIDDER'S QUALIFICATION STATEMENT**

The City reserves the right, after reviewing the qualification statements, to reject any and all Bids, and to award the Bid to the Best Bidder. The following qualification statements are intended for the purpose of determining the Bidder qualified to provide successful performance on the type of work required to construct this Project.

The undersigned certifies under oath the truth and correctness of all statements and of all answers to questions made hereinafter.

Submitted To: City of Santa Monica

Address: 1685 Main Street, Santa Monica, CA 90401

Submitted By: \_\_\_\_\_

Address: \_\_\_\_\_

Principal Office: \_\_\_\_\_

A.  Corporation  Partnership  Joint Venture  
 Individual  Other (specify): \_\_\_\_\_

a. If a Corporation, answer the following questions:

Date of Incorporation: \_\_\_\_\_

Place of Incorporation: \_\_\_\_\_

President's Name: \_\_\_\_\_

Vice-President's Name (s): \_\_\_\_\_

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

\_\_\_\_\_

Secretary or Clerk's Name: \_\_\_\_\_

Treasurer's Name: \_\_\_\_\_

Agent for Service: \_\_\_\_\_

Signatory(ies): \_\_\_\_\_

Title(s): \_\_\_\_\_

b. If a Partnership, answer the following questions:

Type of Partnership (Limited or General): \_\_\_\_\_

Date of Organization: \_\_\_\_\_

Location where Partnership formed: \_\_\_\_\_

Name(s) and Address(es) of Partner(s): \_\_\_\_\_

Authorized Signatory(ies): \_\_\_\_\_

c. If a Joint Venture, answer the following questions:

Date of Formation: \_\_\_\_\_

Place of Formation: \_\_\_\_\_

Authorized Signatory(ies): \_\_\_\_\_

d. If an Individual, signature: \_\_\_\_\_

e. If Other, answer the following questions:

Nature of Organization: \_\_\_\_\_

Name of Principals: \_\_\_\_\_

Authorized Signatory(ies): \_\_\_\_\_

B. Number of years engaged in construction  
business under present firm or trade  
name:

\_\_\_\_\_

\_\_\_\_\_

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

Under what other name or former names  
has your business operated? \_\_\_\_\_

Identify all other business names used by  
any corporate officers/partners/principals  
within the past five years \_\_\_\_\_

C. Contractor Representative: \_\_\_\_\_

Title: \_\_\_\_\_

Alternate: \_\_\_\_\_

Title: \_\_\_\_\_

D. Staff Roster/Functions:

Furnish a proposed organization chart that includes all positions and  
names of personnel anticipated to be assigned to the Project and indicate  
whether full or part time.

List key members of your staff who will be assigned to or responsible for  
Work as a team member on this Project and provide the following  
information for each individual:

	Project Executive	Project Superintendent	Project Manager
Name			
Years with Company			
Years in Position			
Projects Completed and for Whom			

E. Construction Experience:

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

Bidders participating in this publicly bid contract must have completed at least three projects similar in nature to the Project subject of this Bid in the last ten (10) years, each having an in place value of at least **\$800,000.00**. List these projects below.

a. Owner: \_\_\_\_\_

Project Location: \_\_\_\_\_

Type of Project: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Contact Person: \_\_\_\_\_

b. Owner: \_\_\_\_\_

Project Location: \_\_\_\_\_

Type of Project: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Contact Person: \_\_\_\_\_

c. Owner: \_\_\_\_\_

Project Location: \_\_\_\_\_

Type of Project: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Contact Person: \_\_\_\_\_

d. Owner: \_\_\_\_\_

Project Location: \_\_\_\_\_

Type of Project: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

e. Owner: \_\_\_\_\_

Project Location: \_\_\_\_\_

Type of Project: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Contact Person: \_\_\_\_\_

F. Is your firm registered with the State of California Department of Industrial Relations (DIR) as outlined in the Instructions to Bidders, Section 13?

Yes  No

DIR Registration Number: \_\_\_\_\_

Are your subcontractors registered with the State of California Department of Industrial Relations (DIR) as outlined in the Instructions to Bidders, Section 13?

Yes  No

DIR Registration Number(s): \_\_\_\_\_

G. List the construction projects in excess of **\$800,000.00** your organization has in progress:

a. Owner: \_\_\_\_\_

Project Location: \_\_\_\_\_

Type of Project: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Contact Person: \_\_\_\_\_

b. Owner: \_\_\_\_\_

Project Location: \_\_\_\_\_

Type of Project: \_\_\_\_\_

\_\_\_\_\_

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

Phone Number: \_\_\_\_\_

Contact Person: \_\_\_\_\_

c. Owner: \_\_\_\_\_

Project Location: \_\_\_\_\_

Type of Project: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Contact Person: \_\_\_\_\_

d. Owner: \_\_\_\_\_

Project Location: \_\_\_\_\_

Type of Project: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Contact Person: \_\_\_\_\_

e. Owner: \_\_\_\_\_

Project Location: \_\_\_\_\_

Type of Project: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Contact Person: \_\_\_\_\_

H. Have you or your firm or any principal in your firm ever been adjudged bankrupt in any voluntary or involuntary bankruptcy proceeding?

Yes       No

If yes, when and where?

\_\_\_\_\_  
\_\_\_\_\_

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

I. Claims and Litigation:

Contractor as Defendant

Have you, your firm, or any principal in your firm **ever** had any claims filed against you by any "owner" (including a public agency owner), bonding company, subcontractor or supplier?

Yes       No

If yes, describe the nature of each claim and its resolution.

---

---

Have you, your firm, or any principal in your firm **ever** had been sued by any "owner" (including a public agency owner), or bonding company insuring said "owner" for default on a contract?

Yes       No

If yes, provide a description of the case, the court location, case number and the outcome for each lawsuit.

---

---

Have you, your firm, or any principal in your firm **ever** been sued by a subcontractor or material supplier for default on a contract?

Yes       No

If yes, provide a description of the case, the court location, case number and the outcome for each lawsuit.

---

---

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

During the past 5 years have you, your firm, or any principal in your firm been a defendant in any lawsuit besides those described in the paragraphs above?

Yes       No

If yes, provide a description of the case, the court location, case number and the outcome for each lawsuit.

---

---

Contractor as Claimant or Plaintiff

Have you, your firm, or any principal in your firm **ever** filed a claim against an "owner" (including any public agency owner) or a bonding company insuring an "owner" for any claims arising under any contract?

Yes       No

If yes, provide details as to the nature, date and resolution of any such claim.

---

---

Have you, your firm, or any principal in your firm **ever** filed a lawsuit against an "owner" (including any public agency owner) or a bonding company insuring an "owner" for any disputes arising under any contract?

Yes       No

If yes, provide a description of the case, the court location, case number and the outcome for each lawsuit.

---

---

Binding Arbitration

Have you, your firm, or any principal in your firm **ever** had to submit to binding arbitration to resolve a dispute arising from a contract?

Yes       No

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

If yes, what were the circumstances and outcome of such arbitration?

---

---

- J. The Contractor's bonding companies must meet the requirements set forth in the Bid Documents.

Provide information regarding the company(ies) that will be providing bonding coverage for this project:

Name of Firm: (1) \_\_\_\_\_ (2) \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Has **any** bonding company ever refused to bond your firm for a contract?

Yes  No

If yes, what were the circumstances?

---

---

- K. Has a bonding company ever been required to pay on a bond issued to your firm for a contract?

Yes  No

If yes, what were the circumstances?

---

---

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

L. Delays in Project Completion

Has your firm **ever** failed to complete a project by the construction deadline specified in the contract?

Yes       No

If yes, describe the nature of the particular project, the original number of contract days specified for completion, the reasons for any delays, any change orders extending the time of completion, and the total number of days actually required to complete the project.

---

---

---

---

Has your firm **ever** been penalized with liquidated damages for failure to complete the terms of a contract within a specified time?

Yes       No

If yes, what were the circumstances?

---

---

---

M. Has your firm **ever** been penalized for failure to pay prevailing wages to any persons performing work under a contract, including subcontractors?

Yes       No

If yes, what were the circumstances?

---

---

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

N.

Has your firm ever terminated or abandoned a contract prior to completion of all work on the project?

Yes       No

If yes, what were the circumstances?

---

---

Has any "owner" (including a public agency owner) ever terminated a contract with your firm prior to completion of this project?

Yes       No

If yes, what were the circumstances?

---

---

O. List or attach your major equipment available for this Contract.

---

---

P. The Contractor's insurance carriers must meet the requirements set forth in the Bid Documents.

Provide information regarding your insurance agent or agents who will be providing insurance certificates evidencing required coverages for the project:

Name of Agent: (1) \_\_\_\_\_ (2) \_\_\_\_\_

Name of Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

Q. Provide your banking references:

Name of Agent: (1) \_\_\_\_\_ (2) \_\_\_\_\_

Name of Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

R. Provide information regarding your on-site quality control.

\_\_\_\_\_  
\_\_\_\_\_

**14) ADDENDA**

The Bidder shall acknowledge receipt of all Addenda, if any:

Addendum No.	Date Received
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

**15) BIDDER'S ACKNOWLEDGMENT**

The undersigned hereby declares under penalty of perjury that:

- A. Its firm has a net worth greater than 50% and liquidity greater than 10% of the Bid amount.
- B. All necessary resources will be dedicated to complete this project within the designated contract period.
- C. The full names and residence of all persons and parties interested in the foregoing proposal, as principals, are as follows:

_____	_____
(full name)	(residence)
_____	_____
(full name)	(residence)
_____	_____
(full name)	(residence)

NOTICE: Give first and last names in full; in case of a corporation, give names of the President, Secretary, Treasurer and Manager, and affix the corporate seal; in case of partnerships and joint ventures, give names of all the individual members.

_____	_____
(Contractor's Business Name)	(Submitted by - signature)
_____	_____
(Business Address)	(Title)
_____	_____
(City) (State) (Zip)	(Business Phone Number)
_____	_____
(Contractor's License Number)	(License Expiration Date)
_____	
(License Classification)	

THE REPRESENTATIONS MADE HEREIN ARE MADE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA.

Respectfully submitted,

_____	_____
(Signature and Name)	(Date)

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

**ATTACHMENT A - BID GUARANTEE OR BIDDER'S BOND**  
(BIDDER'S BOND TO ACCOMPANY BID)

Attached hereto is cash, a certified check, a cashier's check or a Bidder's bond in the amount of:

Dollars \$ \_\_\_\_\_ said amount \_\_\_\_\_  
(in figures) (in words)

being not less than ten percent (10%) of the amount bid, which it is agreed shall be retained as liquidated damages by the City of Santa Monica if the undersigned fails or refuses to execute the Construction Contract and furnish the required bonds and certificates of insurance within the time provided.

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

KNOW ALL PERSONS BY THESE PRESENTS,

That \_\_\_\_\_, as Principal, and \_\_\_\_\_, as Surety, are held and firmly bound unto the CITY OF SANTA MONICA, hereinafter called "CITY" in the sum of ten percent (10%) of the Bid amount for the payment of which sum well and truly made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal has submitted a bid to said City to perform all work required under the Contract Documents of the City for the project entitled:

\_\_\_\_\_

NOW THEREFORE, if said Principal is awarded the Construction Contract by said City and within the time and in the manner required under the heading "Instructions to Bidders" included with said Contract Documents, enters into a written contract on the form of "Construction Contract" included with said Contract Documents, and furnishes the required bonds to the satisfaction of the City, one to guarantee faithful performance and the other to guarantee payment for labor and materials, then this obligation shall be null and void; otherwise it shall remain in full force and effect and the sum guaranteed by this bond shall, at the option of the City, be forfeited to the City. In the event suit is brought upon this bond by said City and judgment is made in favor of the City, said Surety shall pay all costs incurred by said City in such suit, including reasonable attorney's fee to be fixed by the court.

SIGNED AND SEALED, this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
(Principal)

By: \_\_\_\_\_  
(Signature)

SEAL AND NOTARY

ACKNOWLEDGMENT OF SURETY

(Seal)

**ATTACHMENT B – BASE BID**  
(TO ACCOMPANY BID)

The Bidder agrees to provide and install all Work as described in the Contract Documents, including licenses, permits, fees, taxes, overhead, bond and insurance, for the lump sum set forth below. The quantities set forth in the below unit prices are an approximation. The City does not represent that the actual quantity of any item will equal the approximate quantity stated. In addition the City shall have the right to increase or decrease any item for which an approximate quantity is stated, based on unit price Bid, or to require changes in the Contract Documents which do not in the opinion of the City materially change the character of the Work of the item from that on which the Bidder based its unit price Bid. The Contract Sum will be adjusted at the Unit Prices quoted on the basis of actual quantities measured during the Work. As noted above, the Work described in the Unit Prices is in addition to the quantities currently shown in the Contract Documents as part of the Work of the Base Bid. Also as noted below, the quantities quoted in the below Unit Prices are an approximation and are not intended to represent actual quantities.

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Price (in words)</b>	<b>Unit Price (in figures)</b>	<b>Extended Total Cost (in figures)</b>
1	Remove existing 50 W cobrahead Luminaire and replace with new equivalent LED cobrahead.	Each	1			
2	Remove existing 70 W cobrahead Luminaire and replace with new equivalent LED cobrahead.	Each	26			
3	Remove existing 100 W cobrahead Luminaire and replace with new equivalent LED cobrahead.	Each	257			
4	Remove existing 150 W cobrahead Luminaire and replace with new equivalent LED cobrahead.	Each	44			
5	Remove existing 200 W cobrahead Luminaire and replace with new equivalent LED cobrahead.	Each	311			

Bidder's Name: \_\_\_\_\_ (enter on each bid form page)

6	Remove existing 250 W cobrahead Luminaire and replace with new equivalent LED cobrahead.	Each	559			
7	Remove existing 310 W cobrahead Luminaire and replace with new equivalent LED cobrahead.	Each	30			
8	Remove existing 360 W cobrahead Luminaire and replace with new equivalent LED cobrahead.	Each	9			
9	Remove existing 400 W cobrahead Luminaire and replace with new equivalent LED cobrahead.	Each	34			
10	Traffic Control	LS	1			

**TOTAL BASE BID (in figures):** \$ \_\_\_\_\_

**TOTAL BASE BID (in words):** \_\_\_\_\_

**ATTACHMENT C – ADDITIVE/DEDUCTIVE ALTERNATE BID**  
(TO ACCOMPANY BID, IF APPLICABLE)

The Bidder agrees to provide an additive/deductive for the Alternate items listed herein as part of the overall Work. The quantities set forth in the below unit prices are an approximation. The City does not represent that the actual quantity of any item will equal the approximate quantity stated. In addition the City shall have the right to increase or decrease any item for which an approximate quantity is stated, based on unit price Bid, or to require changes in the Contract Documents which do not in the opinion of the City materially change the character of the Work of the item from that on which the Bidder based its unit price Bid. The Contract Sum will be adjusted at the Unit Prices quoted on the basis of actual quantities measured during the Work. As noted above, the Work described in the Unit Prices is in addition to the quantities currently shown in the Contract Documents as part of the Work of the Base Bid. Also as noted below, the quantities quoted in the below Unit Prices are an approximation and are not intended to represent actual quantities.

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Price (in words)</b>	<b>Unit Price (in figures)</b>	<b>Extended Total Cost (in figures)</b>

**TOTAL ADDITIVE/DEDUCTIVE ALTERNATE BID (in figures): \$ \_\_\_\_\_**

**TOTAL ADDITIVE/DEDUCTIVE ALTERNATE BID (in words): \_\_\_\_\_**

**TOTAL ADDITIVE/DEDUCTIVE ALTERNATE BID PLUS BASE BID (in figures): \$ \_\_\_\_\_**

**TOTAL ADDITIVE/DEDUCTIVE ALTERNATE BID PLUS BASE BID (in words): \_\_\_\_\_**



## ATTACHMENT D – INSURANCE REQUIREMENTS

### Minimum Insurance Requirements for Public Works Projects

#### CONTRACTOR'S INSURANCE

Prior to commencing the Work, Contractor shall procure and maintain at Contractor's own cost and expense, insurance as required, against claims for injuries to persons or damages to property which may arise out of or result from the performance of the Work by Contractor, its Subcontractors or Sub-subcontractors, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

Unless otherwise required in the Special Provisions and Technical Specifications, Contractor shall obtain insurance of the types and in the amounts described below:

#### MINIMUM LIMITS OF INSURANCE

1. Commercial General and Umbrella Liability Insurance: Contractor shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less than \$3,000,000 each occurrence/\$3,000,000 in the annual aggregate. Limits may be provided in a "layered" program, by means of primary and umbrella policies.
2. Business Auto and Umbrella Liability Insurance: Contractor shall maintain business auto liability and, if necessary, commercial umbrella liability insurance with a limit of not less than \$1,000,000 each accident. Limits may be provided in a "layered" program, by means of primary and umbrella policies.
3. Workers' Compensation and Employer's Liability Insurance: Contractor shall maintain workers' compensation insurance as required by the State of California and Employer's Liability Insurance in the amount of \$1,000,000 per accident for bodily injury or disease.
4. Contractors' Pollution Legal Liability\*: Contractor shall maintain Contractors' Pollution Legal Liability insurance with a limit of not less than \$1 million each occurrence or claim and a \$2 million annual aggregate.

This contract ( is or  is not) subject to the Contractors' Pollution Legal Liability Insurance.

#### MINIMUM SCOPE OF INSURANCE

CGL insurance shall be written on Insurance Services Office form CG 00 01 (or a substitute form providing equivalent coverage) and shall cover liability arising from:

- a. Premises - operations.
- b. Independent contractors - subcontractors.
- c. Products/completed operations.
- d. Personal injury and advertising injury liability assumed under an insured contract (including the tort liability of another assumed in a business contract).
- e. Explosions, collapse and underground hazards.
- f. Broad form contractual.
- g. Broad form property damage.

Business Auto Insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos). Coverage shall be written on Insurance Services Office form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or on a substitute form providing equivalent liability coverage. If necessary, the policy

shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.

### **DEDUCTIBLES AND SELF-INSURED RETENTIONS**

Any deductibles or self-insured retentions must be declared to and approved by City. Any and all deductibles for required insurance policies shall be assumed to be by and for the account of, and at the sole risk of, Contractor. At the option of City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects City, its officers, officials, employees or volunteers; or Contractor shall provide a financial guarantee satisfactory to City of guaranteeing payment of Losses, related investigation, Claim administration and defense expenses.

### **OTHER INSURANCE PROVISIONS**

The General Liability and Automobile Liability policies shall contain, or be endorsed to contain the following provisions:

The Construction Manager, City, Design Consultant, and its officers, officers, officials, employees and volunteers, as applicable, are to be covered as additional insureds, using the Insurance Services Office additional insured endorsement form CG 20 10 or a substitute providing equivalent coverage. Coverage as additional insureds includes liability for and relating to the Work to be performed by Contractor; premises owned, leased, or used by Contractor; or premises on which Contractor is performing services on behalf of City. City, Construction Manager and Design Consultant and other additional insureds mentioned in this Paragraph shall not, by reason of their inclusion as additional insureds, become liable for any payment of premiums to carriers for such insurance coverage.

For any Claims related to this Project, Contractor's insurance coverage shall be primary insurance as respects the Construction Manager, City, its, officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by City, its officers, officials, employees or volunteers shall be excess of Contractor's insurance and shall not contribute with it.

Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under subdivision (b) of Section 2782 of the Civil Code.

A Severability of Interest Clause stating that: The term "insured" is hereby used severally and collectively, but the inclusion herein of more than one insured shall not operate to increase the limits of the insurers' liability.

A Cross Liability Clause stating that: In the event of Claims being made under any of the coverages of the policies referred to herein by one or more insureds hereunder for which another insured hereunder may be liable, then the policies shall cover such insureds against whom a Claim is made or may be made in the manner as if separate policies had been issued to each insured hereunder. Nothing contained herein, however, shall operate to increase the insurers' limits of liability as set forth in the insuring agreements.

### **GENERAL LIABILITY, WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY**

The Worker's Compensation, Employer's Liability and General Liability insurances shall include provision by which the insurer shall agree to waive all rights of subrogation against the Construction Manager, City, its officers, officials, employees and volunteers for Losses arising from activities and operations of Contractor in the performance of services under the Contract.

### **ALL COVERAGES**

Cancellation Notice Requirements: All insurance policies provided under the Contract Documents shall be endorsed to state that coverage shall not be canceled except after thirty (30) Days prior written

notice to City. Notice thereof shall be sent to both the City Project Manager and Risk Manager, by certified mail, return receipt requested, for all of the required insurance policies. All such notices shall name Contractor and the Construction Contract number.

If Contractor, for any reason, fails to maintain insurance coverage which is required pursuant to this Construction Contract, the same shall be deemed a material breach of contract. City, at its sole option, may terminate this Construction Contract and obtain damages from Contractor resulting from said breach. Alternatively, City may purchase such coverage (but has no special obligation to do so), and without further notice to Contractor, City may deduct from sums due to Contractor any premium costs advanced by City for such insurance.

### **ACCEPTABILITY OF INSURERS**

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:6 unless otherwise approved by City's Risk Manager.

### **VERIFICATION OF COVERAGE**

Contractor shall furnish City with original certificates and amendatory endorsements effecting coverage required by this section. The certificates and endorsements for each policy are to be signed by a person authorized by the insurer to bind coverage on its behalf. The certificates and endorsements shall be on the forms attached as Exhibits 2-5 and incorporated herein by reference or on other than City's forms, provided these forms and endorsements conform to the requirements in this Article. All certificates and endorsements are to be received and approved by City before Work commences. City reserves the right to require complete, certified copies of all required insurance policies, including endorsements effectuating the coverage required by these Contract Documents at any time.

### **SUBCONTRACTORS**

Contractor shall include all Subcontractors and Sub-subcontractors as insureds under its policies, or shall furnish separate certificates and endorsements for each Subcontractor and Sub-subcontractors in compliance with this Article. All coverages for Subcontractors and Sub-subcontractors shall be subject to all of the requirements stated herein.

At the request of City, Contractor shall submit to City copies of the policies obtained by Contractor.

## ATTACHMENT E – LIVING WAGE CERTIFICATION

### CITY OF SANTA MONICA LIVING WAGE ORDINANCE

#### NOTICE TO APPLICANTS, BIDDERS, PROPOSERS AND OTHERS SEEKING TO DO BUSINESS WITH THE CITY OF SANTA MONICA

THIS BID IS SUBJECT TO COMPLIANCE WITH THE  
CITY OF SANTA MONICA LIVING WAGE ORDINANCE (SEE BELOW).

The City of Santa Monica has adopted a Living Wage Ordinance, Chapter 4.65, which requires the payment of a specified minimum wage for work done pursuant to a services contract with the City where the contract amount is \$54,200 or more and requires that contractors also provide the same health care and other benefits to employees' same sex spouses and domestic partners as are provided to other employees' spouses. This Living Wage Ordinance applies to services provided by employees who do not actually work as a manager, supervisor, or confidential employee, and who is not required to possess an occupational license. The minimum wage is \$15.87 an hour for the period commencing from July 1, 2016, up through June 30, 2017. This minimum wage rate is adjusted annually each July 1st. Questions concerning the Living Wage Ordinance may be directed to the City Finance Department at (310) 458-8281.

The Living Wage Ordinance applies the services sought pursuant to this bid and **bidders are required to prepare and return the Living Wage Certification Forms**. If the bidder is selected, the bidder must maintain payroll records that include, at minimum, the full name of each employee providing services under the contract, job classification and rate of pay. Bids that fail to include Certification Forms may be considered non-responsive and excluded from further consideration.

Please note that the Living Wage Ordinance sets the Minimum Wage at \$15.87 per hour and provides for an annual adjustment each July 1st, by an amount corresponding to the previous calendar year's change (January to January) in the Consumer Price Index for Urban Wage Earners and Clerical Workers in Los Angeles, Riverside and Orange Counties. **It has been determined that the minimum wage is \$15.87 an hour for the period commencing from July 1, 2016 through June 30, 2017.**



**CITY OF SANTA MONICA  
LIVING WAGE ORDINANCE**

**Certification for Providers of Services to the  
City of Santa Monica  
(Fiscal Year 2016-17: July 1, 2016 through June 30, 2017)**

**TO BE COMPLETED BY ALL CONTRACTORS PROVIDING SERVICES TO THE CITY OF  
SANTA MONICA IN EXCESS OF \$54,200**

The City of Santa Monica Municipal Code Chapter 4.65, Living Wage Ordinance (LWO), establishes a Minimum Wage of **\$15.87 per hour**<sup>1</sup> for certain employees of contractors providing services to the City where services exceed \$54,200 and requires that contractors also provide the same health care and other benefits to employees' same sex spouses and domestic partners as are provided to other employees' spouses.

An employee covered by the LWO is any person who does not actually work as a manager, supervisor, or confidential employee, and who is not required to possess an occupational license.

The Living Wage Ordinance applies the services sought pursuant to this bid and bidders are required to prepare and return the Living Wage Certification Form. If the bidder is selected, the bidder must maintain payroll records that include, at minimum, the full name of each employee providing services under the contract, job classification and rate of pay. Bids that fail to include Certification Forms may be considered non-responsive and excluded from further consideration.

Please prepare the following certification if you are a contractor engaging in a contract for services with the City of Santa Monica in excess of \$54,200.

Your signature on this certification grants the City permission to review any and all payroll books and records and any company documents pertaining to the benefits offered to employees to assure your compliance with the LWO during the term of the contract.

Please direct any questions and send the completed, signed Certification to:

City of Santa Monica Finance Department  
Attention: Living Wage Compliance Section  
1717 4th Street, Suite 250  
Santa Monica, CA 90401

You can also contact staff regarding living wage ordinance questions by e-mail at [Finance.mailbox@smgov.net](mailto:Finance.mailbox@smgov.net) or by phone 310-458-8281.

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<sup>1</sup>

Adjusted annually each July 1 by an amount corresponding to the previous year's change (January to January) in the Consumer Price Index for Urban Wage Earners and Clerical Workers 1982-84=100 for Los Angeles-Riverside-Orange County, California

**CITY OF SANTA MONICA  
LIVING WAGE ORDINANCE CERTIFICATION**

**July 1, 2016 through June 30, 2017**

**TO BE COMPLETED BY ALL CONTRACTORS PROVIDING SERVICES TO THE  
CITY OF SANTA MONICA IN EXCESS OF \$54,200  
MINIMUM WAGE - \$15.87 per hour**

Please read, complete, and sign the following:

THIS CONTRACT IS SUBJECT TO THE LIVING WAGE ORDINANCE

THIS CONTRACT IS NOT SUBJECT TO THE LIVING WAGE ORDINANCE

If this contract is not subject to the Living Wage Ordinance requirements, please note the reason below and attach supporting documentation for exemption. For example, in order to be exempt pursuant to a collective bargaining agreement, a signed collective bargaining agreement must be attached.

- (a) \_\_\_\_\_ contractor is a government agency and is exempt
- (b) \_\_\_\_\_ contractor is a City grantee and is exempt
- (c) \_\_\_\_\_ contractor is a non-profit corporation and is exempt
- (d) \_\_\_\_\_ contractor is an employer whose employees are covered by a bona fide collective bargaining agreement where the waiver is explicitly set forth in an agreement in clear and unambiguous terms
- (e) \_\_\_\_\_ contractor is a corporation providing banking services

The undersigned, on behalf of himself or herself individually and on behalf of his or her business or organization, hereby certifies that he or she is fully aware of Santa Monica's Living Wage Ordinance (LWO), and the applicability of the LWO, and the applicability of the subject contract, as determined herein. The undersigned further agrees to be bound by all terms of the LWO, as mandated in all sections of Santa Monica Municipal Code, Chapter 4.65. If, at any time during the term of the contract, the answers to the questions posed herein change so that Contractor would be subject to the LWO, Contractor will promptly notify the Director of Finance in writing. Contractor further understands and agrees that the failure to comply with the LWO, this certification, or the terms of the Contract as it applies to the LWO, shall constitute a default of the Contract, which shall be grounds for termination. City shall have the right to examine all books and records of the Contractor as they relate to compliance with the LWO. Payroll records shall at a minimum include the full name of each employee performing labor or providing services under the contract, job classification, and rate of pay.

These statements are made under penalty of perjury under the laws of the State of California.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Contractor: \_\_\_\_\_ Bid Number (if applicable): \_\_\_\_\_

Service Description: \_\_\_\_\_

## **ATTACHMENT F – OAKS INITIATIVE DISCLOSURE**

### **CITY OF SANTA MONICA OAKS INITIATIVE NOTICE**

#### **NOTICE TO APPLICANTS, BIDDERS, PROPOSERS AND OTHERS SEEKING DISCRETIONARY PERMITS, CONTRACTS, OR OTHER BENEFITS FROM THE CITY OF SANTA MONICA**

Santa Monica’s voters adopted a City Charter amendment commonly known as the Oaks Initiative. It prohibits a public official from receiving specified personal benefits from a person or entity after the official votes, or otherwise takes official action, to award a “public benefit” to that person or entity. Examples of a “public benefit” include public contracts to provide goods or services worth more than \$25,000 or a land use approval worth more than \$25,000.

The Oaks Initiative requires the City to provide this note and information about the Initiative’s requirements. An information sheet on the Oaks Initiative is attached. You may obtain a full copy of the Initiative’s text from the City Clerk.

In order to facilitate compliance with the requirements of the Oaks Initiative, the City compiles and maintains certain information. That information includes the name of any person who is seeking a “public benefit.” If the “public benefit” is sought by an entity, rather than an individual person, the information includes the name of every: (a) trustee, (b) director, (c) partner, (d) officer, or (e) ten percent interest in the entity. Therefore, if you are seeking a “public benefit” covered by the Oaks Initiative, you must supply that information on the Oaks Initiative Disclosure Form – see next page.



## CITY OF SANTA MONICA OAKS INITIATIVE DISCLOSURE FORM

All persons or entities receiving public benefits defined below from the City of Santa Monica shall provide the names of trustees, directors, partners, and officers, and names of those with more than a 10% equity, participation or revenue interest. This information is required by City Charter Article XXII—Taxpayer Protection.

**Name of Entity:** \_\_\_\_\_

Name(s) of persons or entities receiving public benefit:

Name(s) of trustees, directors, partners, and officers:

Name(s) of those with more than a 10% equity, participation, or revenue interest:

---

Public benefits include:

1. Personal services contracts in excess of \$25,000 over any 12-month period;
2. Sale of material, equipment or supplies to the City in excess of \$25,000 over a 12-month period;
3. Purchase, sale or lease of real property to or from the City in excess of \$25,000 over a 12-month period;
4. Non-competitive franchise awards with gross revenue of \$50,000 or more in any 12-month period;
5. Land use variance, special use permit, or other exception to an established land use plan, where the decision has a value in excess of \$25,000;
6. Tax “abatement, exception, or benefit” of a value in excess of \$5,000 in any 12-month period; or
7. Payment of “cash or specie” of a net value to the recipient of \$10,000 in any 12-month period.

Prepared by: \_\_\_\_\_ Signature: \_\_\_\_\_

Date: \_\_\_\_\_ Title: \_\_\_\_\_

FOR CITY USE ONLY:

Bid/PO/Contract # \_\_\_\_\_ Permit # \_\_\_\_\_

## **ATTACHMENT G – ARIZONA DISCLOSURE**

### **CITY OF SANTA MONICA CITY POLICY ON DOING BUSINESS WITH ARIZONA FIRMS**

#### **NOTICE TO APPLICANTS, BIDDERS, PROPOSERS AND OTHERS SEEKING TO DO BUSINESS WITH THE CITY OF SANTA MONICA**

#### **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SANTA MONICA DENOUNCING ARIZONA'S ANTI-IMMIGRATION, LAW SUSPENDING OFFICIAL TRAVEL TO THE STATE OF ARIZONA AND DEVELOPING ADDITIONAL FINANCIAL SANCTIONS UNTIL SUCH TIME AS THE NEW LAW IS REVOKED**

The City Council of the City of Santa Monica adopted Resolution No. 10479 (CCS) on May 25, 2010, which requires a review of all current and likely future agreements and contracts with Arizona-based businesses to examine the feasibility of acquiring such products and services elsewhere while the Arizona law remains in effect.

Additionally, vendors offering goods or services to the City of Santa Monica must complete and sign the attached disclosure form; this applies to all solicitations, including but not limited to, bids and proposals. Please review, sign and submit the form with your bid packet prior to the closing date of bid.

Contractors that do not have headquarters in the State of Arizona and those that will not be working with Arizona-headquartered subcontractors to provide goods and/or services as specified in this solicitation will take priority in the bidding process.

NOTE: Headquarter location or residency may not be considered as a factor if prohibited by applicable law.

Failure to return this form or inability to certify as to its provisions will render your bid or proposal non-responsive.

State of Arizona Disclosure Form - see next page.



CITY OF SANTA MONICA
STATE OF ARIZONA DISCLOSURE FORM

TO BE COMPLETED BY ALL VENDORS PROVIDING GOODS AND SERVICES TO THE CITY OF SANTA MONICA

Headquarter location or residency may not be considered as a factor if prohibited by applicable law. Please check the appropriate boxes below.

Our company's headquarters are located in the State of Arizona.

Yes No checkboxes

Goods or services pertaining to this solicitation will be provided by a subcontractor whose business is headquartered in the State of Arizona.

Yes No checkboxes

If the response to the statement above was "yes", please list any and all subcontractors headquartered in the State of Arizona that may be providing goods or services (pertaining to this solicitation) to the City of Santa Monica. If more than one, attach a list of additional subcontractors, including the physical address of each location.

Name of Subcontractor: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

\*\*\* PORTION BELOW TO BE COMPLETED BY ALL VENDORS \*\*\*

\*\*\*\*\*

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Printed name: \_\_\_\_\_ Title: \_\_\_\_\_

Name of Company: \_\_\_\_\_

Street Address of Headquarters: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone # (including area code): \_\_\_\_\_ Email: \_\_\_\_\_

FOR CITY USE ONLY
NOTES: \_\_\_\_\_



## ATTACHMENT H – PUBLIC WORKS – PREVAILING WAGE JOB ACKNOWLEDGMENT

Contracts are considered “Public Works” when they include services for construction, alteration, demolition, installation or repair work, and maintenance services.

<b>PROJECT NAME:</b>	
<b>LOCATION OF WORK:</b>	
<b>TYPE OF WORK:</b>	<input type="checkbox"/> New Construction (> than \$25,000) <input type="checkbox"/> Alteration, Installation, Demolition, Repair, or Maintenance (> than \$15,000)
<b>ESTIMATED WORK START DATE:</b>	

**Prevailing Wage** - Contractors must comply with the prevailing wage requirements. (California Labor Code Section 1782)

**Contractor Registration with the California Department of Industrial Relations (DIR)** - Contractors wishing to bid on or engage in the performance of Public Works projects requiring the payment of prevailing wage as noted above **must register with the California DIR** (<https://efiling.dir.ca.gov/PWCR/>). (California Labor Code Section 1725.5)

This is notice that contractor/s and subcontractor/s must register with the California DIR and that:

- This project is subject to compliance monitoring and enforcement by the DIR.
- No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after **March 1, 2015**) unless registered with the DIR pursuant to Labor Code section 1725.5.
- No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after **April 1, 2015**) unless registered with the DIR pursuant to Labor Code section 1725.5.
- All contractors and subcontractors must furnish electronic certified payroll records (e-CPR) directly to the Labor Commissioner (aka Division of Labor Standards Enforcement) ([http://www.dir.ca.gov/Public-Works/eCPR\\_System-iForm.html](http://www.dir.ca.gov/Public-Works/eCPR_System-iForm.html)).
- Contractor agrees to maintain and provide certified payroll records for all of its workers on the project within ten (10) days of any written request made by the DIR, City staff and/or the City’s designated wage monitoring contractor.
- If Contractor employs journeymen or apprentices in any apprenticeable craft or trade, Contractor agrees to contribute the amount stated as “Training Fund” in the job determination to the California Apprenticeship Council (<http://www.dir.ca.gov/das/PublicWorksForms.htm>).
- Contractors must meet the apprentice requirement (if applicable) before hiring tenders.
- Contractor agrees to include provisions in all of its subcontracts to ensure subcontractor compliance with the above referenced prevailing wage and registration requirements for all subcontract workers on the project.
- Contractor may be subject to withholding of contract payments for underpayment of prevailing wages and/or penalties for failure to comply with prevailing wage and registration requirements.

The project listed above requires payments of not less than the general prevailing rates for per diem wages, overtime work, legal holidays, other employee payments, and travel & subsistence if applicable, in the locality in which the work is to be performed for each craft, classification, or type of worker needed as required in the California Labor Code. Such rates of wages are on file with the [Department of Industrial Relations](http://www.dir.ca.gov/OPRL/PWD/index.htm) (<http://www.dir.ca.gov/OPRL/PWD/index.htm>).

Contractors shall promptly notify the City in writing, about any classifications of labor not listed in the prevailing wage determination but necessary for the performance of the work. Contractors will post a copy of the

determination of prevailing rates at the job site/s. The Contractor is also required to furnish certificate/s of liability and/or workers' compensation insurances.

Each contractor and subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public works project. Each payroll record shall contain or be verified by a written declaration that is made under penalty of perjury. The City may require hard copies of these records for verification, prior to making related payments to the contractor (this is in addition to the electronic certified payroll reporting required by the DIR).

By signing below the contractor attests that he has read and understands this document, that he is aware of the public work and prevailing wage requirements as set forth in the California Labor Code Sections 1720 et seq.; that he is an owner, officer, or other duly authorized representative of the firm; that he and each of his subcontractors is registered with the California DIR; and that he is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and will comply with such provisions before commencing the performance of the work of this contract.

Contractor Representative Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Print Name and Title: \_\_\_\_\_  
 Company Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Email Address: \_\_\_\_\_ Phone Number: \_\_\_\_\_  
 Contractor State License Board Number (CSLB): \_\_\_\_\_ DIR Registration Number: \_\_\_\_\_  
 Professional DIR Registration Number (*Additional* number for Professional Services Firms only): \_\_\_\_\_  
 Name of Apprenticeship Program affiliated with (*if any*): \_\_\_\_\_

Please indicate the estimated number of staff and job classification(s) your company will employ on this project. To locate job classifications, please reference the DIR prevailing wage website: <http://www.dir.ca.gov/OPRL/PWD/index.htm> or contact the Department of Industrial Relations- Prevailing Wage Unit at (415) 703-4774.

#	Craft	Group Number/ Trade Classification	Number of Staff	Apprenticeable? Y/N
1				
2				
3				
4				
5				
6				

1. Is there a predetermined wage increase during the contract? (Yes/No) \_\_\_\_\_

2. Is the contract more than \$30,000? (Yes/No) \_\_\_\_\_

When applicable to the craft, apprentices are required on all public works projects over \$30,000.

If yes, how many apprentices will you use? \_\_\_\_\_

3. Is your company aware of where to report and send training fund payments to? (Yes/No) \_\_\_\_\_



**Contractors must list all Subcontractors they intend to use for the Project**

*(Attach additional sheet for each subcontractor)*

Sub-Contractor Representative Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name and Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Email Address: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Contractor State License Board Number (CSLB): \_\_\_\_\_ DIR Registration Number: \_\_\_\_\_

Professional DIR Registration Number (*Additional* number for Professional Services Firms only): \_\_\_\_\_

Name of Apprenticeship Program affiliated with (*if any*): \_\_\_\_\_

Please indicate the estimated number of staff and job classification(s) your company will employ on this project. To locate job classifications, please reference the DIR prevailing wage website: <http://www.dir.ca.gov/OPRL/PWD/index.htm> or contact the Department of Industrial Relations- Prevailing Wage Unit at (415) 703-4774.

#	Craft	Group Number/ Trade Classification	Number of Staff	Apprenticeable? Y/N
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3				
4				
5				
6				

1. Is there a predetermined wage increase during the contract? (Yes/No) \_\_\_\_\_

2. Is the contract more than \$30,000? (Yes/No) \_\_\_\_\_

When applicable to the craft, apprentices are required on all public works projects over \$30,000.

If yes, how many apprentices will you use? \_\_\_\_\_

3. Is your company aware of where to report and send training fund payments to? (Yes/No) \_\_\_\_\_

**California Prevailing Wage Laws:**

<http://www.dir.ca.gov/public-works/CaliforniaPrevailingWageLaws.pdf>

§ 1727 (a) Before making payments to the contractor of money due under a contract for public work, the awarding body shall withhold and retain therefrom all amounts required to satisfy any civil wage and penalty assessment issued by the Labor Commissioner under this chapter. The amounts required to satisfy a civil wage and penalty assessment shall not be disbursed by the awarding body until receipt of a final order that is no longer subject to judicial review.

§ 1773.2. Specification of general wage rate in call for bids, in bid specifications and in contract; posting at job site

The body awarding any contract for public work, or otherwise undertaking any public work, shall specify in the call for bids for the contract, and in the bid specifications and in the contract itself, what the general rate of per diem wages is for each craft, classification, or type of worker needed to execute the contract. In lieu of specifying the rate of wages in the call for bids, and in the bid specifications and in the contract itself, the awarding body may, in the call for bids, bid specifications, and contract, include a statement that copies of the prevailing rate of per diem wages are on file at its principal office, which shall be made available to any interested party on request. The awarding body shall also cause a copy of the determination of the director of the prevailing rate of per diem wages to be posted at each job site.

§ 1775. Penalties for violations

(a) (1) The contractor and any subcontractor under the contractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit not more than two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates as determined by the director for the work or craft in which the worker is employed for any public work done under the contract by the contractor or, except as provided in subdivision (b), by any subcontractor under the contractor.

(B) (i) The penalty may not be less than forty dollars (\$40) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, unless the failure of the contractor or subcontractor to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of the contractor or subcontractor.

§ 1777.7. Violations of § 1777.5; civil penalty; procedures

(a) (1) If the Labor Commissioner or his or her designee determines after an investigation that a contractor or subcontractor knowingly violated Section 1777.5, the contractor and any subcontractor responsible for the violation shall forfeit, as a civil penalty to the state or political subdivision on whose behalf the contract is made or awarded, not more than one hundred dollars (\$100) for each full calendar day of noncompliance. The amount of this penalty may be reduced by the Labor Commissioner if the amount of the penalty would be disproportionate to the severity of the violation. A contractor or subcontractor that knowingly commits a second or subsequent violation within a three-year period, if the noncompliance results in apprenticeship training not being provided as required by this chapter, shall forfeit as a civil penalty the sum of not more than three hundred dollars (\$300) for each full calendar day of noncompliance.

(4) Prior to making final payment to the subcontractor for work performed on the public works project, the contractor shall obtain an affidavit signed under penalty of perjury from the subcontractor that the subcontractor has paid the specified general prevailing rate of per diem wages to his or her employees on the public works project and any amounts due pursuant to Section 1813.

§ 1776 (h) The contractor or subcontractor has 10 days in which to comply subsequent to receipt of a written notice requesting the records enumerated in subdivision (a) (*Certified Payrolls*). In the event that the contractor or subcontractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit one hundred dollars (\$100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. A contractor is not subject to a penalty assessment pursuant to this section due to the failure of a subcontractor to comply with this section.

## **Prevailing Wage Reference Information for Prime and Subcontractors**

### Applicable Links & Information:

- State of California, Division of Labor Standards Enforcement, Public Works Manual  
<http://www.dir.ca.gov/dlse/PWManualCombined.pdf>
- Contact the Department of Industrial Relations (DIR):  
[Statistics@dir.ca.gov](mailto:Statistics@dir.ca.gov) or [Publicworks@dir.ca.gov](mailto:Publicworks@dir.ca.gov) (415)-703-4774
- FAQs - Contractor Registration Law Applies to Contractors and Subcontractors - How to Register on DIR  
<http://www.dir.ca.gov/public-works/PublicWorksSB854FAQ.html>
- DIR Account Setup  
<https://efiling.dir.ca.gov/PWCR/>
- Prevailing Wage Determinations - craft/journeyman/apprentice  
<http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>
- Apprentices are required on *all public works projects over \$30,000*  
<http://www.dir.ca.gov/das/PublicWorksForms.htm>  
<http://www.dir.ca.gov/das/publicworksfaq.html>
- Payment to California Apprenticeship Council (CAC) Training Fund (if applicable)  
<http://www.dir.ca.gov/CAC/TrainingFund/TFSearch.html>  
<http://www.dir.ca.gov/das/PublicWorksForms.htm>
- Certified Payroll Reporting & Upload  
(all certified payrolls will be required to be uploaded to eCPR.)  
[http://www.dir.ca.gov/Public-Works/eCPR\\_System-iForm.html](http://www.dir.ca.gov/Public-Works/eCPR_System-iForm.html)  
<https://efiling.dir.ca.gov/eCPR/pages/eCPROnlineForm.jsp>  
<https://efiling.dir.ca.gov/eCPR/pages/search>  
<https://efiling.dir.ca.gov/eCPR/pages/home.jsp>



CONSTRUCTION CONTRACT

by and between

City of Santa Monica

and

**ON-BILL FINANCED LED STREETLIGHT REPLACEMENT PROJECT  
SP 2372**

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## CONSTRUCTION CONTRACT

THIS CONSTRUCTION CONTRACT entered into on \_\_\_\_\_, 2016 ("Execution Date") by and between the CITY OF SANTA MONICA, a California municipal corporation ("City"), and \_\_\_\_\_ ("Contractor"), is made with reference to the following:

### **RECITALS:**

A. City is a municipal corporation duly organized and validly existing under the laws of the State of California with the power to carry on its business as it is now being conducted under the statutes of the State of California and the Charter of City.

B. Contractor is a \_\_\_\_\_ duly organized and in good standing in the State of \_\_\_\_\_, License Number \_\_\_\_\_. Contractor represents that it is duly licensed by the State of California and has the background, knowledge, experience and expertise to perform the obligations set forth in this Construction Contract.

C. On \_\_\_\_\_, 2016 City issued a Notice Inviting Bids to contractors for the On-Bill Financed LED Streetlight Replacement Project. A copy of City's Notice Inviting Bids is attached hereto as Exhibit 1 and incorporated by reference. In response to City's Notice Inviting Bids, Contractor submitted its Bid. A copy of Contractor's Bid is attached hereto as Exhibit 2 and incorporated herein by reference. Also attached hereto and incorporated by reference are the General Conditions (Exhibit 3), Special Provisions and/or Technical Specifications (Exhibit 4), Payment and Performance Bonds (Exhibit 5), Insurance Forms (Exhibit 6), Living Wage Certification (Exhibit 7), Oaks Initiative Disclosure (Exhibit 8), Arizona Business Disclosure (Exhibit 9), and Additional Contract Requirements, if applicable (Exhibit 10).

D. City and Contractor desire to enter into this Construction Contract for the On-Bill Financed LED Streetlight Replacement Project, and other services as identified in the Bid Documents for the On-Bill Financed LED Streetlight Replacement Project upon the following terms and conditions.

NOW THEREFORE, in consideration of the mutual promises and undertakings hereinafter set forth and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, it is mutually agreed by and between the undersigned parties as follows:

### **SECTION 1                    INCORPORATION OF RECITALS AND DEFINITIONS.**

#### **1.1     Recitals.**

All of the recitals are incorporated herein by reference.

#### **1.2     Definitions.**

Capitalized terms shall have the meanings set forth in this Construction Contract and/or in the General Conditions. If there is a conflict between the definitions in this Construction Contract and in the General Conditions, the definitions in this Construction Contract shall prevail.

## **SECTION 2            THE PROJECT.**

The Project is the construction of the On-Bill Financed LED Streetlight Replacement Project ("Project").

## **SECTION 3            THE CONTRACT DOCUMENTS.**

The Contract Documents consist of the following collection of documents:

- (i) Notice Inviting Pre-Qualification Statements, Pre-Qualification Statement, and Pre-Qualification Checklist (if applicable).
- (ii) Executed Construction Contract between City and Contractor.
- (iii) Notice Inviting Bids.
- (iv) Instructions to Bidders
- (v) Bidding Addenda.
- (vi) Contractor's Bid.
- (vii) General Conditions.
- (viii) Special Provisions and Technical Specifications.
- (ix) Performance and Payment Bonds.
- (x) Insurance Forms.
- (xi) Plans and Drawings.
- (xii) Reports listed in the Bidding Documents.
- (xiii) Supplements, Attachments, and Exhibits attached to the above items.
- (xiv) Modifications.
- (xv) Change Orders.
- (xvi) Field Orders.

## **SECTION 4            THE WORK.**

The Work includes all labor, materials, equipment, services, permits, licenses and taxes, and all other things necessary for Contractor to perform its obligations and complete the Project, including, without limitation, any Changes requested by City, in accordance with the Contract Documents and all Applicable Code Requirements.

## **SECTION 5            PROJECT TEAM.**

In addition to Contractor, City has retained, or may retain, consultants and contractors to provide professional and technical consultation for the design and construction of the Project. The Project requires that Contractor operate efficiently, effectively and cooperatively with City as well as all other members of the Project Team.

## **SECTION 6            TIME OF COMPLETION.**

### **6.1 Time Is of Essence.**

Time is of the essence with respect to all time limits set forth in the Contract Documents.

**6.2 Commencement of Work.**

Contractor shall commence the Work on the date specified in City's Notice to Proceed.

**6.3 Contract Time.**

Contractor shall diligently prosecute the Work to Substantial Completion within **100 Calendar Days** after the date specified in City's Notice to Proceed.

**6.4 Liquidated Damages.**

**6.4.1 Entitlement.**

City and Contractor acknowledge and agree that if Contractor fails to fully and satisfactorily complete the Work within the Contract Time, City will suffer, as a result of Contractor's failure, substantial damages which are both extremely difficult and impracticable to ascertain. Such damages may include, but are not limited to:

- (i) Loss of public confidence in City and its contractors and consultants.
- (ii) Loss of public use of public facilities.
- (iii) Extended disruption to public.

**6.4.2 Daily Amount.**

City and Contractor have reasonably endeavored, but failed, to ascertain the precise amount relationship to the actual damage that City will incur if Contractor fails to achieve Substantial Completion of the entire Work within the Contract Time. Therefore, the parties agree that in addition to all other damages to which City may be entitled other than delay damages, in the event Contractor shall fail to achieve Substantial Completion of the entire Work within the Contract Time, Contractor shall pay City as liquidated damages the amount of **\$850** per day for each Day occurring after the expiration of the Contract Time until Contractor achieves Substantial Completion of the entire Work. The liquidated damages amount is not a penalty but considered to be a reasonable estimate of the amount of damages City will suffer.

**6.4.3 Apportionment.**

Such liquidated damages shall be subject to apportionment for delays to Substantial Completion for which Contractor is entitled to receive an extension of time under the Contract Documents. Such apportionment shall not be affected by the fact that liquidated damages may not be capable of apportionment for other periods of time during which there have occurred delays concurrently caused by both City and Contractor. It being the Contractor's obligation to have the entire Work Substantially Completed within the Contract Time, it is agreed that such liquidated damages shall not be apportioned for portions of the Work completed prior to expiration of the Contract Time.

**6.4.4 Exclusive Remedy.**

City and Contractor acknowledge and agree that this liquidated damages provision shall be City's only remedy for delay damages caused by Contractor's failure to achieve Substantial Completion of the entire Work within the Contract Time.

**6.4.5 Damages upon Abandonment.**

In the event that Contractor either abandons the Work or is terminated for default in accordance with the provisions of Section 16 of this Construction Contract, City shall have the right, in its sole discretion exercised by written notice issued either before or after Substantial Completion, to elect to either assert or waive its right to liquidated damages under this Paragraph 6.4.

- .1 If City elects to assert its right to liquidated damages, then the liquidated damages shall be calculated from expiration of the Contract Time to the date that Substantial Completion of the Work is achieved by City or its replacement contractor employed to complete Contractor's performance.
- .2 If City elects to waive its right to liquidated damages, then Contractor shall be liable to City, in lieu of the liquidated damages provided for in this Paragraph 6.4, for all actual Losses proximately resulting from Contractor's failure to complete the Work within the Contract Time.

**6.4.6 Other Remedies.**

The parties further acknowledge and agree that City is entitled to any and all available legal and equitable remedies City may have where City's Losses are caused by any reason other than Contractor's failure to achieve Substantial Completion of the entire Work within the Contract Time.

**6.5 Adjustments to Contract Time.**

The Contract Time may only be adjusted for time extensions approved by City and agreed to by Change Order executed by City and Contractor in accordance with the requirements of the Contract Documents.

**6.6 Additional Compensation to Contractor.**

The Contract Sum shall be increased by the amount of **\$830** for each day of extension to the Contract Time that is permitted under the terms of the General Conditions solely due to Compensable Delay occurring prior to Substantial Completion, but only to the extent that such Compensable Delay is not concurrent with a Non-Compensable Delay. Regardless of the cause of the Delay (including, without limitation, acts or omissions of City or its consultants, errors, conflicts or omissions in the Contract Documents, or Changes to the Work), Contractor agrees to accept the compensation provided for in this Paragraph as its sole and exclusive right, remedy and recovery arising from or related to any Delay, interruption, hindrance, compression, acceleration, disruption or the impact or ripple effect of Delays on the Work, that may occur in connection with Contractor's performance of Work on the Project and for any resulting foreseen or unforeseen:

- (i) Overhead expenses such as, but not limited to, additional supervision, administration, extended or extraordinary overhead (direct or home office), insurance or bond costs and
- (ii) Productivity expenses such as additional loss of productivity, inefficiency, and escalation of costs of labor, wage, material or equipment.

**SECTION 7                      COMPENSATION TO CONTRACTOR.**

**7.1 Contract Sum.**

Contractor shall be compensated for satisfactory completion of the Work in compliance with the Contract Documents the Contract Sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_).

**7.2 Full Compensation.**

The Contract Sum shall be full compensation for all Work provided by Contractor and, except as otherwise expressly permitted by the terms of the Contract Documents, shall cover all Losses arising out of the nature of the Work or from the acts of the elements or any unforeseen difficulties or obstructions which may arise or be encountered in performance of the Work until its Acceptance by City, all risks connected with the Work, and any and all expenses incurred due to suspension or discontinuance of the Work. The Contract Sum may only be adjusted for Change Orders issued, executed and satisfactorily performed in accordance with the requirements of the Contract Documents.

**7.3 Compensation for Extra or Deleted Work.**

The Contract Sum shall be adjusted (either by addition or credit) for Changes in the Work involving Extra Work or Deleted Work on the basis of both of the following:

- (i) The sum of Allowable Costs as defined in Paragraph 7.2.5 of the General Conditions to be added (for Extra Work) or credited (for Deleted Work) and
- (ii) An additional sum (for Extra Work) or deductive credit (for Deleted Work) based on Contractor Markup and Subcontractor/Sub-subcontractor Markups allowable pursuant to this Section 7.3.

Contractor Markup and Subcontractor/Sub-subcontractor Markups set forth herein are the full amount of compensation to be added for Extra Work or to be subtracted for Deleted Work that is attributable to overhead (direct and indirect) and profit of Contractor and of its Subcontractors and Sub-subcontractors, of every Tier. Contractor Markup and Subcontractor/Sub-subcontractor Markups, which shall not be compounded, shall be computed as follows:

**7.3.1 Self-Performed Work.**

Fifteen percent (15%) of the Allowable Costs for that portion of the Extra Work or Deleted Work to be performed by Contractor with its own forces.

**7.3.2 Subcontractors.**

15% of the Allowable Costs for that portion of the Extra Work or Deleted Work to be performed by a first Tier Subcontractor with its own forces, plus 2.5% thereon for Contractor Markup.

**7.3.3 Sub-subcontractors.**

15% of the Allowable Costs of that portion of the Work to be performed by Sub-subcontractors of the second and lower Tier with their own forces, plus 2.5% thereon for the Subcontractor, plus 2.5% on the combined total thereof for Contractor Markup.

**SECTION 8                    STANDARD OF CARE.**

Contractor agrees that the Work shall be performed by qualified, experienced and well-supervised personnel. All services performed in connection with this Construction Contract shall be performed in a manner consistent with the standard of care under California law applicable to those who specialize in providing such services for projects of the type, scope and complexity of the Project.

**SECTION 9                    INDEMNIFICATION.**

**9.1      Hold Harmless.**

To the fullest extent allowed by law, Contractor hereby agrees to defend, indemnify, and hold harmless City, its City Council, boards and commissions, officers, agents, employees, representatives and volunteers (hereinafter collectively referred to as "Indemnitees"), through legal counsel acceptable to City, from and against any and all Losses arising directly or indirectly from, or in any manner relating to any of, the following:

- (i) Performance or nonperformance of the Work by Contractor or its Subcontractors or Sub-subcontractors, of any Tier;
- (ii) Performance or nonperformance by Contractor or its Subcontractors or Sub-subcontractors, of any Tier, of any of the obligations under the Contract Documents;
- (iii) The construction activities of Contractor or its Subcontractors or Sub-subcontractors, of any Tier, either on the Site or on other properties;
- (iv) The payment or nonpayment by Contractor of any of its Subcontractors or Sub-subcontractors, of any Tier, for Work performed on or off the Site for the Project; and
- (v) Any personal injury, property damage or economic loss to third persons associated with the performance or nonperformance by Contractor or its Subcontractors or Sub-subcontractors, of any Tier, of the Work.

However, nothing contained herein shall be construed as obligating Contractor to indemnify any Indemnatee for Losses resulting from the sole or active negligence or willful misconduct of the Indemnatee. Contractor shall pay City for any costs incurred in enforcing this provision. Nothing in the Contract Documents shall be construed to give rise to any implied right of indemnity in favor of Contractor against City or any other Indemnatee.

**9.2      Survival.**

The provisions of Section 9 shall survive the termination of this Construction Contract.

**SECTION 10                  COMPLIANCE WITH APPLICABLE CODE REQUIREMENTS.**

This Project constitutes "public works" within the meaning of California Labor Code section 1720 and is subject to the prevailing wage laws. Contractor agrees to be subject to and comply with all applicable federal, state and municipal laws, codes, ordinances and regulations governing the Work, including, but not limited to:

- (i) The applicable provisions of the California Labor Code;
- (ii) Chapter 7.28, Prevailing Wage and Apprenticeship Law, of the Santa Monica Municipal Code;
- (iii) Chapter 4.65, Living Wage Ordinance, of the Santa Monica Municipal Code; and
- (iv) Oaks Initiative requirements.

**SECTION 11                  INSURANCE AND BONDS.**

Prior to the commencement of any Work, Contractor shall provide City with evidence that it has obtained insurance and Performance and Payment Bonds satisfying all requirements in Article 11 of the General Conditions. Failure to do so shall be deemed a material breach of this Construction Contract.

**SECTION 12                  PROHIBITION AGAINST TRANSFERS.**

City is entering into this Construction Contract based upon the stated experience and qualifications set forth in Contractor's Bid. Accordingly, Contractor shall not assign, hypothecate or transfer this Construction Contract or any interest therein directly or indirectly, by operation of law or otherwise without the prior written consent of City. Any assignment, hypothecation or transfer without said consent shall be null and void.

For purposes of applying the provisions of this Section, the sale, assignment, transfer or other disposition of any of the issued and outstanding capital stock of Contractor or of any general partner or joint venturer or syndicate member of Contractor, if a partnership or joint venture or syndicate or co-tenancy exists, which shall result in changing the control of Contractor, shall be construed as an assignment of this Construction Contract. Control means more than fifty percent (50%) of the voting power of the corporation or other entity.

**SECTION 13                  NOTICES.**

**13.1 Method of Notice.**

Except as provided in Section 13.2 below, all notices, demands, requests or approvals to be given under this Construction Contract shall be given in writing and conclusively shall be deemed served on the earlier of the following:

- (i) On the date delivered if delivered personally;
- (ii) On the third business day after the deposit thereof in the United States mail, postage prepaid, and addressed as hereinafter provided;
- (iii) On the date sent if sent by facsimile transmission; or
- (iv) On the date it is accepted or rejected if sent by certified mail.

**13.2 Notice Recipients.**

All notices, demands or requests (including, without limitation, Claims) from Contractor to City shall include the Project name and the number of this Construction Contract and shall be addressed to City at:

City of Santa Monica, Public Works Department  
1437 4th Street, Suite 300  
Santa Monica, California 90401  
Attention: Lee Swain, P.E. City Engineer  
Re: On-Bill Financed LED Streetlight Replacement Project, Contract umber  
(CCS)

with copies to:

Re: On-Bill Financed LED Streetlight Replacement Project, Contract umber  
(CCS)

In addition, copies of all Claims by Contractor under this Construction Contract shall be provided to the following:

Santa Monica City Attorney Office  
1685 Main Street, Third Floor  
Santa Monica, California 90401  
Attention: Marsha Jones Moutrie, City Attorney  
Re: On-Bill Financed LED Streetlight Replacement Project, Contract umber  
(CCS)

All Claims shall be delivered personally or sent by certified mail.

All notices, demands, requests or approvals from City to Contractor shall be addressed to:

Re: On-Bill Financed LED Streetlight Replacement Project, Contract umber  
(CCS)

**13.3 Change of Address.**

In the event of any change of address, the moving party is obligated to notify the other party of the change of address in writing. Each party may, by written notice only, add, delete or replace any listed individuals.

**SECTION 14            DISPUTE RESOLUTION.**

**14.1 Resolution of Contract Disputes.**

Contract Disputes shall be resolved by the parties in accordance with the provisions of this Section 14, in lieu of any and all rights under the law that either party have its rights adjudged by a trial court or jury. All Contract Disputes shall be subject to the Contract Dispute Resolution Process set forth in this Section 14, which shall be the exclusive recourse of Contractor and City for such Contract Disputes.

**14.2 Resolution of Other Disputes.**

**14.2.1 Non-Contract Disputes.**

Contract Disputes shall not include any of the following:

- (i) Penalties or forfeitures prescribed by statute or regulation imposed by a governmental agency;
- (ii) Third party tort claims for personal injury, property damage or death relating to any Work performed by Contractor or its Subcontractors or Sub-subcontractors of any Tier;
- (iii) False claims liability under California Government Code Section 12650, et. seq.;
- (iv) Defects in the Work first discovered by City after Final Payment by City to Contractor;
- (v) Stop notices; or
- (vi) The right of City to specific performance or injunctive relief to compel performance of any provision of the Contract Documents.

**14.2.2 Litigation, City Election.**

Matters that do not constitute Contract Disputes shall be resolved by way of an action filed in the Superior Court of the State of California, County of Los Angeles, West District, and shall not be subject to the Contract Dispute Resolution Process. However, the City reserves the right, in its sole and absolute discretion, to treat such disputes as Contract Disputes. Upon written notice by City of its election as provided in the preceding sentence, such dispute shall be submitted by the parties and finally decided pursuant to the Contract Dispute Resolution Process in the manner as required for Contract Disputes, including, without limitation, City's right under Paragraph 14.4.2 to defer resolution and final determination until after Final Completion of the Work.

**14.3 Submission of Contract Dispute.**

**14.3.1 By Contractor.**

Contractor's right to commence the Contract Dispute Resolution Process shall arise upon City's written response denying all or part of a Claim pursuant to Paragraph 4.2.9 or 4.2.10 of the General Conditions. Contractor shall submit a written Statement of Contract Dispute (as set forth below) to City within seven (7) Days after City rejects all or a portion of Contractor's Claim. Failure by Contractor to submit its Statement of Contract Dispute in a timely manner shall result in the decision by City on the Claim becoming final and binding. Contractor's Statement of Contract Dispute submitted by Contractor shall be signed under penalty of perjury and shall state with specificity the events or circumstances giving rise to

the Contract Dispute, the dates of their occurrence and the asserted effect on the Contract Sum and the Contract Time. Such Statement of Contract Dispute shall include adequate supporting data to substantiate the disputed Claim that is the basis of the Contract Dispute. Adequate supporting data for a Contract Dispute relating to an adjustment of the Contract Time shall include both of the following:

- (i) All of the scheduling data required to be submitted by Contractor under the Contract Documents to obtain extensions of time and adjustments to the Contract Time and
- (ii) A detailed, event-by-event description of the impact of each event on completion of Work.

Adequate supporting data to a Statement of Contract Dispute submitted by involving an adjustment of the Contract Sum shall include both of the following:

- (i) A detailed cost breakdown and
- (ii) Supporting cost data in such form and including such information and other supporting data as required under the Contract Documents for submission of Change Order Requests and Claims.

#### **14.3.2 By City.**

City's right to commence the Contract Dispute Resolution Process shall arise at any time following City's actual discovery of the circumstances giving rise to the Contract Dispute. Nothing contained herein shall preclude City from asserting Contract Disputes in response to a Contract Dispute asserted by Contractor. A Statement of Contract Dispute submitted by City shall state the events or circumstances giving rise to the Contract Dispute, the dates of their occurrence and the damages or other relief claimed by City as a result of such events.

#### **14.4 Contract Dispute Resolution Process.**

The parties shall utilize each of the following steps in the Contract Dispute Resolution Process in the sequence they appear below. Each party shall participate fully and in good faith in each step in the Contract Dispute Resolution Process, which good faith effort shall be a condition precedent to the right of each party to proceed to the next step in the process.

##### **14.4.1 Direct Negotiations.**

Designated representatives of City and Contractor shall meet as soon as possible (but not later than ten (10) Days after receipt of the Statement of Contract Dispute) in a good faith effort to negotiate a resolution to the Contract Dispute. Each party shall be represented in such negotiations by an authorized representative with full knowledge of the details of the Claims or defenses being asserted by such party in the negotiations, and with full authority to resolve such Contract Dispute then and there, subject only to City's right and obligation to obtain administrative and/or City Council approval of any agreed settlement or resolution. If the Contract Dispute involves the assertion of a right or claim by a Subcontractor or Sub-subcontractor, of any Tier, against Contractor that is in turn being asserted by Contractor against City ("Pass-Through Claim"), then such Subcontractor or Sub-Subcontractor shall also have a representative attend such negotiations, with the same authority and knowledge as described above. Upon completion of the meeting, if the Contract Dispute is not resolved, the parties may either continue the negotiations or either party may declare negotiations ended. All discussions

that occur during such negotiations and all documents prepared solely for the purpose of such negotiations shall be confidential and privileged pursuant to California Evidence Code Sections 1119 and 1152.

**14.4.2 Deferral of Contract Disputes.**

Following the completion of the negotiations required by Paragraph 14.4.1, all unresolved Contract Disputes shall be deferred pending Final Completion of the Project, subject to City's right, in its sole and absolute discretion, to require that the Contract Dispute Resolution Process proceed prior to Final Completion. In the event that City does not elect to proceed with the Contract Dispute Resolution Process prior to Final Completion, all Contract Disputes that have been deferred until Final Completion shall be consolidated within a reasonable time after Final Completion and thereafter pursued to resolution pursuant to this Contract Dispute Resolution Process. Nothing contained in this Section 14 shall be interpreted as limiting the parties' right to continue informal negotiations of Contract Disputes that have deferred the Final Completion; provided, however, that such informal negotiations shall not be interpreted as altering the provisions of the Agreement deferring final determination and resolution of unresolved Contract Disputes until after Final Completion.

**14.4.3 Mediation.**

If the Contract Dispute remains unresolved after negotiations pursuant to Paragraph 14.4.1, the parties agree to submit the Contract Dispute to non-binding mediation before a mutually acceptable third party mediator.

- .1 Qualifications of Mediator.** The parties shall endeavor to select a mediator who is a retired judge or an attorney with at least five (5) years of experience in public works construction contract law and in mediating public works construction disputes. In addition, the mediator shall have at least twenty (20) hours of formal training in mediation skills.
- .2 Submission to Mediation and Selection of Mediator.** The party initiating mediation of a Contract Dispute shall provide written notice to the other party of its decision to mediate. In the event the parties are unable to agree upon a mediator within fifteen (15) Days after the receipt of such written notice, then the parties shall submit the matter to the American Arbitration Association (AAA) at its Los Angeles Regional Office for selection of a mediator in accordance with the AAA Construction Industry Mediation Rules.
- .3 Mediation Process.** The location of the mediation shall be at the offices of City. The costs of mediation shall be shared equally by both parties. The mediator shall provide an independent assessment on the merits of the Contract Dispute and recommendations for resolution. All discussions that occur during the mediation and all documents prepared solely for the purpose of the mediation shall be confidential and privileged pursuant to California Evidence Code Sections 1119 and 1152.

**14.4.4 Binding Arbitration.**

If the Contract Dispute is not resolved by mediation, then the party wishing to further pursue resolution or determination of the Contract Dispute shall submit the Contract Dispute for final and binding arbitration pursuant to the provisions of California Public Contract Code Sections 10240, et seq. The award of the arbitrator therein shall be final and may be entered as a judgment by any court of competent jurisdiction. Such arbitration shall be conducted in accordance with the following:

- .1 Arbitration Initiation.** The arbitration shall be initiated by filing a complaint in arbitration in accordance with the regulations promulgated pursuant to California Public Contract Code Section 10240.5.
- .2 Qualifications of the Arbitrator.** The arbitrator shall be selected based by mutual agreement of the parties. The arbitrator shall be a retired judge or an attorney with at least five (5) years of experience with public works construction contract law and in arbitrating public works construction disputes. In addition, the arbitrator shall have at least twenty (20) hours of formal training in arbitration skills. In the event the parties cannot agree upon a mutually acceptable arbitrator, then the provisions of California Public Contract Code Section 10240.3 shall be followed in selecting an arbitrator possessing the qualifications required herein.
- .3 Hearing Days and Location.** Arbitration hearings shall be held at the offices of City and shall, except for good cause shown to and determined by the arbitrator, be conducted on consecutive business days, without interruption or continuance.
- .4 Hearing Delays.** Arbitration hearings shall not be delayed except upon good cause shown.
- .5 Recording Hearings.** All hearings to receive evidence shall be recorded by a certified stenographic reporter, with the costs thereof borne equally by City and Contractor and allocated by the arbitrator in the final award.
- .6 Limitation of Depositions.** Discovery shall be permitted in accordance with the provisions of section 10240.11 of the Public Contract Code; provided, however, that depositions shall be limited to both of the following:
  - (i) Ten (10) percipient witnesses for City and ten (10) percipient witnesses for Contractor and
  - (ii) Expert witnesses.

Upon a showing of good cause, the arbitrator may increase the number of permitted depositions. An individual who is both percipient and expert shall, for purposes of applying the foregoing numerical limitation only, be deemed an expert. Expert reports shall be exchanged prior to receipt of evidence, in accordance with the direction of the arbitrator, and expert reports (including initial and rebuttal reports) not so submitted shall not be admissible as evidence

- .7 **Authority of the Arbitrator.** The arbitrator shall have the authority to hear dispositive motions and issue interim orders and interim or executory awards.
- .8 **Waiver of Jury Trial.** Contractor and City each voluntarily waives its right to a jury trial with respect to any Contract Dispute that is subject to binding arbitration in accordance with the provisions of this Paragraph 14.4.4. Contractor shall include this provision for waiver of jury trial, waiving the right to jury trial in any action involving City as a party in its contracts with its Subcontractors who provide any portion of the Work.

**14.5 Non-Waiver.**

Participation in the Contract Dispute Resolution Process shall not constitute a waiver, release or compromise of any defense of City, including, without limitation, any defense based on the assertion that the rights or Claims of Contractor that are the basis of a Contract Dispute were previously waived by Contractor due to failure to comply with the Contract Documents, including, without limitation, Contractor's failure to comply with any time periods for providing notice of requests for adjustments of the Contract Sum or Contract Time or for submission of Claims or supporting documentation of Claims.

**SECTION 15            DEFAULT.**

**15.1 Notice of Default.**

In the event that City determines, in its sole discretion, that Contractor has failed or refused to perform any of the obligations set forth in the Contract Documents, or is in breach of any provision of the Contract Documents, City may give written notice of default to Contractor in the manner specified for the giving of notices in the Construction Contract.

**15.2 Opportunity to Cure Default.**

Except for emergencies, Contractor shall cure any default in performance of its obligations under the Contract Documents within two (2) Days after receipt of written notice. However, if the breach cannot be reasonably cured within such time, Contractor will commence to cure the breach within two (2) Days and will diligently and continuously prosecute such cure to completion within a reasonable time, which shall in no event be later than ten (10) Days after receipt of such written notice.

**SECTION 16            CITY'S RIGHTS AND REMEDIES.**

**16.1 Remedies Upon Default.**

In the event that Contractor fails to cure any default of this Construction Contract within the time period set forth above in Section 15, then City may pursue any remedies available under law or equity, including, without limitation, the following:

**16.1.1 Delete Certain Services.**

City may, without terminating the Construction Contract, delete certain portions of the Work, reserving to itself all rights to Losses related thereto.

**16.1.2 Perform and Withhold.**

City may, without terminating the Construction Contract, engage others to perform the Work or portion of the Work that has not been performed by Contractor and withhold the cost thereof to City from future payments to Contractor, reserving to itself all rights to Losses related thereto.

**16.1.3 Suspend The Construction Contract.**

City may, without terminating the Construction Contract and reserving to itself all rights to Losses related thereto, suspend all or any portion of this Construction Contract for as long a period of time as City determines, in its sole discretion, appropriate, in which event City shall have no obligation to adjust the Contract Sum or Contract Time, and shall have no liability to Contractor for damages if City directs Contractor to resume Work.

**16.1.4 Terminate the Construction Contract for Default.**

City may terminate all or any part of this Construction Contract for default in accordance with Paragraph 16.4 below, reserving to itself all rights to Losses related thereto.

**16.1.5 Invoke the Performance Bond.**

City may, with or without terminating the Construction Contract and reserving to itself all rights to Losses related thereto, exercise its rights under the Performance Bond.

**16.1.6 Additional Provisions.**

All of City's rights and remedies under this Construction Contract are cumulative, and shall be in addition to those rights and remedies available in law or in equity. Designation in the Contract Documents of certain breaches as material shall not be construed as implying that other breaches not so designated are not material nor shall such designations be construed as limiting City's right to terminate the Construction Contract, or the exercise of its other rights or remedies for default, to only material breaches. City's determination of whether there has been noncompliance with the Construction Contract so as to warrant exercise by City of its rights and remedies for default under the Construction Contract, shall be binding on all parties. No termination or action taken by City after such termination shall prejudice any other rights or remedies of City provided by law or equity or by the Contract Documents upon such termination; and City may proceed against Contractor to recover all liquidated damages and Losses suffered by City.

**16.2 Delays by Sureties.**

Without limitation to any of City's other rights or remedies under the law, City has the right to suspend the performance by Contractor's sureties in the event of any of the following:

- (i) Failure of the sureties to begin Work within a reasonable time in such manner as to insure full compliance with the Construction Contract within the Contract Time;
- (ii) Abandonment of the Work;
- (iii) If at any time City is of the opinion the Work is unnecessarily or unreasonably delayed;
- (iv) Willful violation of any terms of the Construction Contract;
- (v) Failure to perform according to the Contract Documents; or
- (vi) Failure to follow instructions of City for its completion within the Contract Time.

City will serve notice of such failure upon the sureties and in the event the sureties neglect or refuse to cure the breach within the time specified in such notice, City shall have the power to suspend the performance or any part thereof of the sureties.

### **16.3 Damages to City.**

#### **16.3.1 For Contractor's Default.**

City will be entitled to recovery of all Losses under law or equity in the event of Contractor's default under the Contract Documents.

#### **16.3.2 Compensation for Losses.**

In the event that City's Losses arise from Contractor's default under the Contract Documents, City shall be entitled to withhold monies otherwise payable to Contractor until Final Completion of the Project. If City incurs Losses due to Contractor's default, then the amount of Losses shall be deducted from the amounts withheld. Should the amount withheld exceed the amount deducted, the balance will be paid to Contractor or its designee upon Final Completion of the Project. If the Losses incurred by City exceed the amount withheld, Contractor shall be liable to City for the difference and shall promptly remit same to City.

### **16.4 Termination of the Construction Contract for Default.**

Without limitation to any of City's other rights or remedies at law or in equity, and reserving to itself all rights to Losses related thereto, City shall have the right to terminate this Construction Contract, in whole or in part, upon the failure of Contractor to promptly cure any default as required by Section 15. City's election to terminate the Construction Contract for default shall be communicated by giving Contractor a written notice of termination in the manner specified for the giving of notices in the Construction Contract. Any notice of termination given to Contractor by City shall be effective immediately, unless otherwise provided therein.

### **16.5 Suspension by City for Convenience.**

City may, at any time and from time to time, without cause, order Contractor, in writing, to suspend, delay, or interrupt the Work in whole or in part for such period of time, up to an aggregate of fifty percent (50%) of the Contract Time, as City may determine, with such period of suspension to be computed from the date of the written order. Such order shall be specifically identified as a Suspension Order by City. Upon receipt of a Suspension Order, Contractor shall, at City's expense, comply with its terms and take all reasonable steps to minimize costs allocable to the Work covered by the Suspension Order during the period of Work stoppage. Within the period of the above noted aggregate time, or such extension to that period as is agreed upon by Contractor and City, City shall either cancel the Suspension Order or delete the Work covered by such Suspension Order by issuing a Change Order. If a Suspension Order is canceled or expires, Contractor shall resume and continue with the Work. A Change Order will be issued to cover any adjustments of the Contract Sum or the Contract Time necessarily caused by such suspension. The provisions of this Paragraph 16.5 shall not apply if a Suspension Order is not issued by City. A Suspension Order shall not be required to stop the Work as permitted or required under any other provision of the Contract Documents.

**16.6 Termination Without Cause.**

City shall have the option, at its sole discretion and without cause, of terminating this Construction Contract in part or in whole by giving thirty (30) Days written notice to Contractor. Contractor agrees to accept such sums as allowed under this Paragraph 16.6 as its sole and exclusive compensation and waives any claim for other compensation or Losses, including, but not limited to, loss of anticipated profits, loss of revenue, lost opportunity, or other consequential, direct, indirect or incidental damages of any kind.

**16.6.1 Compensation.**

Following such termination and within forty-five (45) Days after receipt of a billing from Contractor seeking payment of sums authorized by this Paragraph 16.6, City shall pay to Contractor as its sole compensation for performance of the Work the following:

- .1 For Work Performed.** The amount of the Contract Sum allocable to the portion of the Work properly performed by Contractor as of the date of termination, less sums previously paid to Contractor.
- .2 For Close-out Costs.** Reasonable costs of Contractor and its Subcontractors and Sub-subcontractors for:
  - (i) Demobilizing and
  - (ii) Administering the close-out of its participation in the Project (including, without limitation, all billing and accounting functions, not including attorney or expert fees) for a period of no longer than thirty (30) Days after receipt of the notice of termination in an amount not to exceed the daily sum payable to Contractor for Compensable Delays in Paragraph 6.6 of this Construction Contract.
- .3 For Fabricated Items.** Previously unpaid cost of any items delivered to the Project Site which were fabricated for subsequent incorporation in the Work.

**16.6.2 Subcontractors.**

Contractor shall include provisions in all of its subcontracts, purchase orders and other contracts permitting termination for convenience by Contractor on terms that are consistent with this Construction Contract and that afford no greater rights of recovery against Contractor than are afforded to Contractor under this Section 16.6.

**16.7 Contractor's Duties Upon Termination.**

Upon receipt of a notice of termination for default or for convenience, Contractor shall, unless the notice directs otherwise, do the following:

- (i) Immediately discontinue the Work to the extent specified in the notice;
- (ii) Place no further orders or subcontracts for materials, equipment, services or facilities, except as may be necessary for completion of such portion of the Work as is not discontinued;
- (iii) Provide to City a description, in writing no later than fifteen (15) days after receipt of the notice of termination, of all subcontracts, purchase orders and contracts that are outstanding, including, without limitation, the terms of the original price, any changes, payments, balance owing, the status of the portion of the Work covered

- and a copy of the subcontract, purchase order or contract and any written changes, amendments or modifications thereto, together with such other information as City may determine necessary in order to decide whether to accept assignment of or request Contractor to terminate the subcontract, purchase order or contract;
- (iv) Promptly assign to City those subcontracts, purchase orders or contracts, or portions thereof, that City elects to accept by assignment and cancel, on the most favorable terms reasonably possible, all subcontracts, purchase orders or contracts, or portions thereof, that City does not elect to accept by assignment; and
  - (v) Thereafter do only such Work as may be necessary to preserve and protect Work already in progress and to protect materials, plants, and equipment on the Project Site or in transit thereto.

## **SECTION 17            CONTRACTOR'S RIGHTS AND REMEDIES.**

### **17.1 Contractor's Remedies.**

Contractor may terminate this Construction Contract for cause only upon the occurrence of one of the following:

#### **17.1.1 For Work Stoppage.**

The Work is stopped for sixty (60) consecutive Days, through no act or fault of Contractor, any Subcontractor, or any employee or agent of Contractor or any Subcontractor, due to issuance of an order of a court or other public authority other than City having jurisdiction or due to an act of government, such as a declaration of a national emergency making material unavailable.

#### **17.1.2 For City's Non-Payment.**

If City does not make payment of sums that are not in good faith disputed by City and does not cure such default within ninety (90) Days after receipt of notice from Contractor, then upon an additional thirty (30) Days notice to City Contractor may terminate the Construction Contract.

### **17.2 Damages to Contractor.**

In the event of termination for cause by Contractor, City shall pay Contractor the sums provided for in Paragraph 16.6 above. Contractor agrees to accept such sums as its sole and exclusive compensation and agrees to waive any claim for other compensation or Losses, including, but not limited to, loss of anticipated profits, loss of revenue, lost opportunity, or other consequential, direct, indirect and incidental damages, of any kind.

## **SECTION 18            ACCOUNTING RECORDS.**

### **18.1 Financial Management and City Access.**

Contractor shall keep full and detailed accounts and exercise such controls as may be necessary for proper financial management under this Construction Contract in accordance with generally accepted accounting principles and practices consistently applied. City and City's accountants shall be afforded access at all times during normal business hours, to inspect, audit and copy Contractor's records, books, estimates, take-offs, cost reports, ledgers, schedules, correspondence, instructions, drawings, receipts,

subcontracts, purchase orders, vouchers, memoranda and other data relating to this Project, and Contractor shall preserve these for a period of three (3) years after the later of (i) final payment or (ii) final resolution of all Contract Disputes and other disputes or for such longer period as may be required by law.

**18.2 Compliance with City Requests.**

Contractor's compliance with any request by City pursuant to this Section 18 shall be a condition precedent to filing or maintenance of any legal action or proceeding by Contractor against City and to Contractor's right to receive further payments under the Contract Documents. Any failure by Contractor to provide access to its business records for inspection or copying by City shall be specifically enforceable by issuance of a writ or a provisional or permanent mandatory injunction by a court of competent jurisdiction based on affidavits submitted to such court, without the necessity of oral testimony.

**SECTION 19 INDEPENDENT PARTIES.**

Both parties to this Construction Contract will be acting in an independent capacity and not as agents, employees, partners, or joint venturers of one another. City, its officers or employees shall have no control over the conduct of Contractor or its respective agents, employees, subconsultants, or subcontractors, except as herein set forth.

**SECTION 20 NUISANCE.**

Contractor shall not maintain, commit, nor permit the maintenance or commission of any nuisance in connection with the performance of services under this Construction Contract.

**SECTION 21 PERMITS AND LICENSES.**

Contractor, at its sole expense, shall obtain and maintain during the term of this Construction Contract, all appropriate permits, licenses, and certificates that may be required in connection with the performance of services hereunder, including, but not limited to, a Santa Monica business license.

**SECTION 22 WAIVER.**

A waiver by City of any breach of any term, covenant, or condition contained herein shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant, or condition contained herein, whether of the same or a different character.

**SECTION 23 CONFLICTS WITH THE CONSTRUCTION CONTRACT.**

City and Contractor agree that if there is any conflict between the terms of this Construction Contract and the other Contract Documents, this Construction Contract shall control.

**SECTION 24                    GOVERNING LAW.**

This Construction Contract shall be construed in accordance with and governed by the laws of the State of California.

**SECTION 25                    COMPLETE AGREEMENT.**

This Construction Contract represents the full and complete understanding of every kind or nature between the parties with respect to the services set forth in this Construction Contract, and all preliminary negotiations and contracts of whatever kind or nature are merged herein. No verbal agreed or implied covenant shall be held to vary the provisions of this Construction Contract. Any modification of this Construction Contract will be effective only upon written execution signed by both City and Contractor and approved as to form by City Attorney.

**SECTION 26                    SURVIVAL OF CONTRACT.**

The provisions of the Construction Contract which by their nature survive termination of the Construction Contract or Final Completion, including, without limitation, all warranties, indemnities, payment obligations, and City's right to audit Contractor's books and records, shall remain in full force and effect after Final Completion or any termination of the Construction Contract.

**SECTION 27                    ADDITIONAL CONTRACT REQUIREMENTS.**

**This contract ( does or  does not) have special fund(s) involved requiring additional contract requirements, therefore this section ( does or  does not) apply.**

This Contract includes the following source of fund(s) or the City intends to apply to the following source of fund(s) for reimbursement of the expenses associated with the work set forth in this Contract:

- Community Development Block Grant (CDBG)
- Housing and Urban Development (HUD)
- Metropolitan Transportation Authority (MTA)
- Other: \_\_\_\_\_

Therefore, City shall require Contractor to comply with the special fund(s) requirements (Exhibit 10), as they may be amended from time to time, in addition to all other requirements imposed by City.

**SECTION 28                    SANTA MONICA LIVING WAGE ORDINANCE.**

**This contract ( is or  is not) subject to the City of Santa Monica's Living Wage Ordinance.**

The City of Santa Monica's Living Wage Ordinance, Santa Monica Municipal Code Chapter 4.65 ("Living Wage Ordinance"), requires the payment of Minimum Wage for work done on any Contract over a certain threshold to any worker who does not actually work as a manager, supervisor or confidential employee, and who is not required to possess an occupational license. The established Minimum Wage includes an annual adjustment each July 1<sup>st</sup> by an amount corresponding to the previous calendar year's change in the Consumer Price Index for Urban Wage Earners and Clerical Workers in Los Angeles, Riverside and Orange Counties.

If this Contract is subject to such Living Wage Ordinance, then the contractor shall comply with all of its provisions. Failure to comply with the provisions of the Living Wage Ordinance shall be grounds for termination of this Contract. Questions concerning the Living Wage Ordinance may be directed to the City Finance Department at (310) 458-8281.

## **SECTION 29 SANTA MONICA OAKS INITIATIVE NOTICE.**

**This contract ( is or  is not) subject to the City of Santa Monica's Oaks Initiative.**

Santa Monica's voters adopted a City Charter amendment commonly known as the Oaks Initiative. It prohibits a public official from receiving specified personal benefits from a person or entity after the official votes, or otherwise takes official action, to award a "public benefit" to that person or entity. Examples of a "public benefit" include public contracts to provide goods or services worth more than \$25,000 or a land use approval worth more than \$25,000.

If this Contract is subject to such Oaks Initiative, then the Contractor shall comply with all of its provisions and disclosures. Failure to comply with the provisions of the Oaks Initiative shall be grounds for termination of this Contract. Questions concerning the Living Wage Ordinance may be directed to the City Finance Department at (310) 458-8281.

## **SECTION 30 PUBLIC WORKS CONTRACTOR REGISTRATION PROGRAM- SB 854**

In accordance with State of California Senate Bill No. 854 (SB 854):

- No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

As of April 1, 2015, contractors and subcontractors must furnish electronic certified payroll records to the Labor Commissioner (State of California, Division of Labor Standards Enforcement).

Please see the DIR website for complete details and actions. It is the responsibility of the

contractor to ensure all DIR requirements and regulations are met and stay current. For more information on Senate Bill No. 854, see <http://www.dir.ca.gov/Public-Works/SB854.html>.

**SECTION 31 GOVERNMENTAL POWERS.**

Nothing in this Agreement shall be deemed directly or indirectly to restrict or to impair in any manner or respect whatsoever any of City's governmental powers or rights or the exercise thereof by City, with respect to the Work or Project.

**SECTION 32 SEVERABILITY.**

In case a provision of this Construction Contract is held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not be affected.

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**SECTION 33 EXHIBITS.**

- Exhibit 1 – Notice Inviting Bids.
- Exhibit 2 – Contractor's Bid.
- Exhibit 3 – General Conditions.
- Exhibit 4 – Special Provisions and/or Technical Specifications.
- Exhibit 5 – Payment and Performance Bonds.
- Exhibit 6 – Insurance Forms.
- Exhibit 7 – Living Wage Certification.
- Exhibit 8 – Oaks Initiative Disclosure.
- Exhibit 9 – Arizona Business Disclosure.
- Exhibit 10 – Additional Contract Requirements (if applicable)

IN WITNESS WHEREOF, the parties have caused this Construction Contract to be executed the date and year first above written.

ATTEST:

CITY OF SANTA MONICA,  
a municipal corporation

By:

\_\_\_\_\_  
DENISE ANDERSON-WARREN  
City Clerk

\_\_\_\_\_  
RICK COLE  
City Manager

APPROVED AS TO FORM:

\_\_\_\_\_  
MARSHA JONES MOUTRIE  
City Attorney

CONTRACTOR:

\_\_\_\_\_  
\_\_\_\_\_

Name:

\_\_\_\_\_

Title:

\_\_\_\_\_



CONSTRUCTION  
GENERAL CONDITIONS

**On-Bill Financed LED Streetlight Replacement Project  
SP2372**

**GENERAL CONDITIONS  
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## **ARTICLE 1 – GENERAL PROVISIONS**

### **1.1 DEFINITIONS**

Terms appearing in the Contract Documents with initial capitalization shall have the meanings set forth below:

1.1.1 **ACCEPTANCE:** The point after Final Completion when Contractor has fully performed all of the requirements of the Contract Documents and the Work is accepted by City in writing.

1.1.2 **ADDENDA, ADDENDUM:** Written or graphic information (including, without limitation, Drawings or Special Provisions and Technical Specifications) prepared and issued by Division Manager or its designee prior to the receipt of Contractor's Bid, which modify or interpret the Bid Documents by additions, deletions, clarifications or corrections

1.1.3 **ALLOWABLE COSTS:** Costs for which reimbursement is allowed under Article 7.2.5 of these General Conditions and for which reimbursement is allowed under other provisions of the Contract Documents, that may be added by Change Order to the Contract Sum for Extra Work or deducted by Change Order from the Contract Sum for Deleted Work.

1.1.4 **ALTERNATE(S):** Those portions of the Bid setting forth the price(s) for optional or alternative items of Work not covered by the Base Bid.

1.1.5 **APPLICABLE CODE REQUIREMENTS:** All applicable federal, state and municipal laws, statutes, building codes, ordinances and regulations of governmental authorities having jurisdiction over the Project, Work, Site, Contractor or City.

1.1.6 **APPLICATION FOR PAYMENT:** An itemized application for payment prepared and submitted by Contractor for review and approval by City, which is prepared, submitted and accompanied by supporting documentation in accordance with the requirements of the Contract Documents.

1.1.7 **APPROVE, APPROVED or APPROVAL:** Whether capitalized or not capitalized, shall mean, unless otherwise stated, either an express approval contained in a written statement signed by the approving individual or entity or deemed approved in accordance with the terms, conditions and procedures set forth in the Contract Documents. All such approvals by or on behalf of City (including, without limitation, approvals by Construction Manager) may be granted or withheld in the sole discretion of City.

1.1.8 **AS-BUILT DOCUMENTS:** The Contract Documents showing the condition of the Work as actually built, including, without limitation, the locations of mechanical, electrical, plumbing, HVAC or similar portions of the Work that are shown diagrammatically in the Contract Documents approved by City. These documents are maintained by Contractor

on the Site and delivered, along with an electronic version of the set, to City upon Final Completion.

1.1.9 BASE BID: The sum stated in the Bid to perform the Work, exclusive of any Alternate(s).

1.1.10 BENEFICIAL OCCUPANCY: City's right, at its option and convenience, to occupy or otherwise make use of all or any part of the Work prior to either Substantial Completion, Final Completion, or Acceptance.

1.1.11 BID: Contractor's written bid proposal submitted to City for the Project in response to City's Notice Inviting Bids.

1.1.12 BID DOCUMENTS: The following collection of documents are designated as the Bid Documents:

- (i) Notice Inviting Bids.
- (ii) Instructions to Bidders.
- (iii) Blank Bid Form.
- (iv) Construction Contract between City and Contractor.
- (v) General Conditions.
- (vi) Special Provisions and Technical Specifications.
- (vii) Plans and Drawings.
- (viii) Bidding Addenda.
- (ix) Reports, Supplements, Attachments, Modifications, and Exhibits attached to the above items.

1.1.13 CERTIFICATE FOR PAYMENT: The form for approval by the Construction Manager of Contractor's Application for Payment.

1.1.14 CHANGE: Whether capitalized or not, when used in reference to changes in the Work is a generic term encompassing additions, deletion, alterations or changes in the Work, which may or may not involve Extra Work and for which Contractor may or may not be entitled to a Change Order under the terms of the Contract Documents.

1.1.15 CHANGE ORDER: A written instrument signed by City, or by City and Contractor, describing a Change to the Work of Contractor.

1.1.16 CHANGE ORDER REQUEST: Contractor's written request for an adjustment in the Contract Sum or Contract Time due to a Change resulting in Extra Work or Deleted Work.

1.1.17 CITY: City of Santa Monica, a municipal corporation.

1.1.18 CLAIM: A written demand or assertion by City or Contractor seeking, as a matter of right, an interpretation of the Contract Documents, adjustment of the Contract Sum or Contract Time, payment of money, recovery of damages, resolution of a disputed interpretation of the Contract Documents, or other relief. A Claim does not include, and the procedures for processing of Claims do not apply to the following:

- (i) Penalties or forfeitures prescribed by statute or regulation imposed by a governmental agency.
- (ii) Tort claims for personal injury or death.
- (iii) False claims liability under California Government Code Section 12650, et seq.
- (iv) Defects in the Work first discovered by City after final payment by City to Contractor.
- (v) Stop notices.
- (vi) The right of City to specific performance or injunctive relief to compel performance of any provision of the Contract Documents.

1.1.19 CLIENT DEPARTMENT: Department or Division of City of Santa Monica identified as the end user of the facilities.

1.1.20 COMPENSABLE DELAY: A Delay for which Contractor may be entitled under the Contract Documents to both an extension of the Contract Time and an adjustment of the Contract Sum for additional compensation. "Compensable Delay" means any Delay to the path of activities that is critical to Contractor's Substantial Completion of the Work within the Contract Time, which Delay is all of the following:

- (i) Solely due to Changes requested by City that adds time, but does not involve Extra Work.
- (ii) Not due, in whole or in part, to the fault or negligence or breach of Contractor or any Subcontractor or Sub-subcontractor, of any Tier.
- (iii) Not concurrent with another Excusable Delay or any Unexcused Delay.

1.1.21 CONSTRUCTION CONTRACT: The written contract executed between City and Contractor for construction of the Project.

1.1.22 CONSTRUCTION MANAGER: The individual, partnership, corporation, joint venture or other legal entity under contract with City to perform construction management services for the Project. The term "Construction Manager" means Construction Manager or Construction Manager's authorized representative.

1.1.23 CONSTRUCTION SCHEDULE: The graphical representation of Contractor's as-planned schedule for performance of the Work, prepared in accordance with the requirements of the Contract Documents and that provides for Substantial Completion of the Work within the Contract Time.

1.1.24 CONTRACT DISPUTE: A dispute, other than a dispute listed in Section 14.2.1 (Non-Contract Disputes) of the Construction Contract, arising out of or related to the Construction Contract or the interpretation, enforcement or breach thereof.

1.1.25 CONTRACT DISPUTE RESOLUTION PROCESS: The process of resolution of Contract Disputes, and, upon election of City, disputes as set forth in Section 14 (Dispute Resolution) of the Construction Contract.

1.1.26 CONTRACT DOCUMENTS: The following collection of documents are designated as contract documents:

- (i) The Notice Inviting Pre-Qualification Statements, Pre-Qualification Statement, and Pre-Qualification Checklist (if applicable).
- (ii) Executed Construction Contract between City and Contractor.
- (iii) Notice Inviting Bids.
- (iv) Instructions to Bidders.
- (v) Bidding Addenda.
- (vi) Contractor's Bid.
- (vii) General Conditions.
- (viii) Special Provisions and Technical Specifications.
- (ix) Performance and Payment Bonds.
- (x) Insurance Forms.
- (xi) Plans and Drawings.
- (xii) Reports listed in the Bidding Documents.

(xiii) Supplements, Attachments and Exhibits attached to the above items.

(xiv) Modifications.

(xv) Change Orders.

(xvi) Field Orders.

1.1.27 CONTRACT SUM: The total amount of compensation stated in the Construction Contract that is payable to Contractor for the performance of the Work in accordance with the Contract Documents.

1.1.28 CONTRACT TIME: The total number of days set forth in the Construction Contract within which Substantial Completion of the Work must be achieved by Contractor, including approved extensions of time permitted under the terms of the Contract Documents.

1.1.29 CONTRACTOR: The individual or firm under contract with City to serve as the General Contractor for construction of the Project. The term "Contractor" means Contractor or Contractor's authorized representative.

1.1.30 CONTRACTOR MARKUP: The additional sum or deductive credit provided for under the Construction Contract for Contractor's profit and overhead on Extra or Deleted Work for which a Change Order is required to be executed under the Contract Documents adjusting the Contract Sum.

1.1.31 DAY: Whether capitalized or not, unless otherwise specifically provided, means calendar day. NOTE: For Federally-funded projects DAY, whether capitalized or not, is considered WORKING DAY and is defined as any day, except weekends and legal holidays.

1.1.32 DEFECTIVE WORK: Work by Contractor that is unsatisfactory, faulty, omitted, incomplete, deficient or does not conform to the Applicable Code Requirements, the Contract Documents, the directives of City or the requirements of any inspection, reference standard, test, code or approval specified in the Contract Documents.

1.1.33 DELAY: Whether capitalized or not, includes any circumstances involving disruption, hindrance, or interference in the performance of the Work.

1.1.34 DELETED WORK: Work that is eliminated due to a Change in the Work requested by City or Contractor for which City is entitled to a deductive adjustment in the Contract Sum.

1.1.35 DESIGN CONSULTANT. The individual(s) or firm(s) under contract with City to provide design or engineering services for the Project and are responsible for preparing the Contract Documents for the Project. The term "Design Consultant" means Design Consultant or Design Consultant's authorized representative.

1.1.36 DRAWINGS: The graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Work, generally including plans, elevations, subparagraphs, details, schedules and diagrams. The Drawings are outlined in the Drawing Index. The term "Drawings" may be used interchangeably with "Plans."

1.1.37 ESCROW AGENT: A state or federally chartered bank in the State of California which holds securities pursuant to an escrow agreement as set forth in Article 9.5 of these General Conditions.

1.1.38 EXCUSABLE DELAY: A Delay for which Contractor may be entitled under the Contract Documents to an extension of time, but not compensation. "Excusable Delay" means any delay to the path of activities that is critical to Substantial Completion of the Work within the Contract Time caused by conditions beyond the control or foreseeability, and without the fault or negligence of Contractor or its Subcontractors or Sub-subcontractors, of any Tier, such as, but not limited to: war, embargoes, fire, unavoidable casualties, unusual delays in transportation, national emergency, and stormy and inclement weather conditions that are unusual and unseasonable and in which the Work cannot continue. Without limitation to the foregoing, the financial inability of Contractor or any Subcontractor or Sub-subcontractor, shall not be deemed conditions beyond Contractor's control or foreseeability. Contractor may claim an Excusable Delay only if all Work on a critically scheduled activity is stopped for more than six (6) hours of a normal eight (8) hour working day, or if three to six hours are lost in one working day, then it may be claimed for one-half day. A Compensable Delay shall, to the extent that it is concurrent with an Excusable Delay, be conclusively deemed an Excusable Delay.

1.1.39 EXISTING IMPROVEMENTS: All improvements located on the Site as of the date of execution of the Construction Contract, whether above or below the surface of the ground, including but not limited to existing buildings, utilities, infrastructure improvements and other facilities.

1.1.40 EXTRA WORK: Additional Work or costs due to a Change in the Work that is not described in or reasonably inferable from the Contract Documents and for which Contractor is entitled to an adjustment of the Contract Sum under the terms of the Contract Documents. Extra Work shall not include additional Work or costs arising from Contractor's failure to perform any of its duties or obligations under the Contract Documents or arising from errors, omissions, conflicts, ambiguities, lack of coordination or noncompliance with Applicable Code Requirements in the Contract Documents with respect to which Contractor has assumed responsibility in connection with its obligation to conduct a careful review of the Bid Documents and Contract Documents.

1.1.41 FIELD ORDER: A written instrument signed by the Construction Manager that requests performance of Work in one of the following categories:

- (i) Over which there is a dispute as to whether the Work is or is not Extra Work.
- (ii) Involving Extra Work which City requests be performed without a unilateral Change Order adjustment to the Contract Sum or Contract Time and before all terms of an adjustment to the Contract Sum or Contract Time are fully agreed upon by City and Contractor.

The purpose of a Field Order is to direct performance of Work, which may be disputed, and, whether or not it expressly so states, shall not be construed as an acknowledgment by City that the Work described constitutes a Change or Extra Work if that is in fact not the case.

1.1.42 FINAL COMPLETION: The point at which:

- (i) Work is completed to the satisfaction of City in accordance with the Contract Documents, including minor corrective or completion items.
- (ii) All requirements of the Contract Documents entitling Contractor to final payment shall have been performed by Contractor (including, without limitation, delivery of all warranties and guarantees, equipment operation and maintenance manuals, as-built drawings and schedules and certificates required prior to occupancy).
- (iii) All approvals and acceptances shall have been made pursuant to Applicable Code Requirements.
- (iv) All rubbish, tools, scaffolding and surplus materials and equipment have been removed from the Site.

1.1.43 FRAGNET: A “Fragnet”, sometimes referred to as “time impact analysis,” is a contemporaneous, fragmentary scheduling network, which graphically identifies the sequencing of all critical and non-critical new activities and/or activity revisions affected by a Change Order Request, Field Order or Change Order, with logic ties to all affected existing activities noted on the Construction Schedule. Its objective is to isolate and quantify any time impact of a specific issue, determine and demonstrate any such specific Delay in relation to past and/or other current Delays and to provide a method for incorporating adjustments to the Contract Time into the Construction Schedule.

1.1.44 GENERAL CONDITIONS: That portion of the Contract Documents relating to the administrative procedures to be followed by Contractor in carrying out the Work.

1.1.45 HAZARDOUS SUBSTANCES: Refers to, without limitation, the following: any chemical, material or other substance defined as or included within the definition of hazardous substances, hazardous wastes, extremely hazardous substances, toxic

substances, toxic material, restricted hazardous waste, special waste, or words of similar import under any Environmental Law.

1.1.46 LOSSES: Any and all losses, costs, liabilities, Claims, damages, liquidated damages, actions, judgments, settlements, expenses, fines and penalties. "Losses" do not include attorneys' fees.

1.1.47 MODIFICATION: A document other than a Change Order, approved by City Attorney and signed by City and Contractor, agreeing to alter, amend or modify the Contract Documents.

1.1.48 NON-COMPENSABLE DELAY: An (i) Unexcused Delay, and (ii) an Excusable Delay that is not also a Compensable Delay.

1.1.49 NOTICE OF AWARD: Written notice issued by City notifying Contractor of issuance of the Construction Contract.

1.1.50 NOTICE TO PROCEED: Written notice issued by City to Contractor to begin the Work.

1.1.51 PERFORMANCE BOND, PAYMENT BOND: The performance and payment bonds to be provided by Contractor for the Project.

1.1.52 PLANS: The graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, subparagraphs, details, schedules and diagrams. The term "Plans" may be used interchangeably with "Drawings."

1.1.53 PRE-CONSTRUCTION MEETING: A meeting held with the Project Team prior to beginning construction in order to review Contract Documents and clarify roles, responsibilities and authority of the Project Team.

1.1.54 PROJECT: The total construction, of which the Work performed by Contractor under the Contract Documents may be the whole or part and which may include Work performed by City's own forces or by Separate Contractors.

1.1.55 PROJECT TEAM: Collectively, the Contractor, City, Design Consultant, Separate Contractors, Construction Manager and other consultants and contractors providing professional and technical consultation for the design and construction of the Project.

1.1.56 RECORD DOCUMENTS: The term "Record Documents" refers to the As-Built Documents, warranties, guarantees and other documents required to be submitted by Contractor as a condition of Final Completion.

1.1.57 REQUEST FOR INFORMATION: A written instrument, prepared by Contractor, which requests an interpretation or clarification in the Work or a response to a question

concerning the Work. A Request for Information does not entitle Contractor to an adjustment in the Contract Sum unless it requires Extra Work and Contractor requests and is entitled to such an adjustment in accordance with the provisions of the Contract Documents.

**1.1.58 REQUEST FOR INFORMATION RESPONSE:** A written instrument, usually prepared by the Design Consultant, which sets forth an interpretation or clarification in the Work or a response to a Contractor question concerning the Work.

**1.1.59 SCHEDULE OF VALUES:** A detailed, itemized breakdown of the Contract Sum, which provides for a fair and reasonable allocation of the dollar values to each of the various parts of the Work.

**1.1.60 SEPARATE CONTRACTOR:** A person or firm under separate contract with City or other entity performing other Work at the Site.

**1.1.61 SITE:** The physical site located within City where the Project is to be constructed, including all adjacent areas for staging, storage, parking and temporary offices.

**1.1.62 SPECIAL PROVISIONS AND TECHNICAL SPECIFICATIONS:** The portion of the Contract Documents consisting of the written requirements for materials, equipment, standards, skill, quality for the Work and performance of related services. These provisions may also contain amendments, deletions or additions to the General Conditions.

**1.1.63 STATEMENT OF CONTRACT DISPUTE:** The Contractor's written statement prepared in accordance with Section 14.3 (Submission of Contract Dispute) of the Construction Contract required as a condition of its initiating the Contract Dispute Resolution Process.

**1.1.64 SUBCONTRACTOR:** A person or firm that has a contract with a Contractor to perform a portion of the Work. The term "Subcontractor" includes suppliers and vendors and is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor.

**1.1.65 SUB-SUBCONTRACTOR:** A person or firm that has a contract with a Subcontractor to perform a portion of the Work. The term "Sub-subcontractor" includes suppliers and vendors and is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

**1.1.66 SUBCONTRACTOR/SUB-SUBCONTRACTOR MARKUPS:** The sum allowable under the Construction Contract for Subcontractor and Sub-subcontractor profit and overhead on Extra or Deleted Work for which Contractor is entitled to a Change Order under the Contract Documents adjusting the Contract Sum.

1.1.67 SUBMITTALS: All shop drawings, samples, exemplars, product data and other submittals required to be submitted by Contractor under the Contract Documents.

1.1.68 SUBSTANTIAL COMPLETION, SUBSTANTIALLY COMPLETE: The point at which the Work is sufficiently complete to be occupied and utilized by City for its intended purpose, and Contractor has fulfilled its obligations under the Contract Documents as determined by City, except for minor punchlist items which do not impair City's ability to so occupy and utilize the Project.

1.1.69 SUPERINTENDENT: The person appointed by Contractor, subject to approval by City, to supervise and coordinate Contractor's own forces and Subcontractors in all aspects of the Work.

1.1.70 TIER: The contractual level of a Subcontractor with respect to Contractor. For example, a first-tier Subcontractor is under subcontract with Contractor. A Sub-subcontractor under subcontract with a first-tier Subcontractor, is in the second tier, and so on.

1.1.71 UNEXCUSED DELAY: Any Delay in the path of activities that is critical to Substantial Completion of the Work within the Contract Time resulting from causes other than Excusable Delay or Compensable Delay. An Unexcused Delay shall not entitle Contractor to either an extension of the Contract Time or an adjustment of the Contract Sum. A Compensable Delay or Excusable Delay shall, to the extent it is concurrent with an Unexcused Delay, be conclusively deemed an Unexcused Delay.

1.1.72 WORK: All labor, materials, equipment, services, permits, licenses and taxes, and all other things necessary for Contractor to perform its obligations and complete the Project, including, without limitation, any changes or additions requested by City, in accordance with the Contract Documents and all Applicable Code Requirements.

## **1.2 OWNERSHIP AND USE OF DOCUMENTS**

1.2.1 All originals, copies and electronic forms of Drawings, Plans, specifications, shop drawings, samples, reports, schedules and other materials or documents prepared for the Project (including, without limitation, the Contract Documents) shall not be used by Contractor, or any Subcontractor or Sub-subcontractor, of any Tier, for any purpose other than performance of the Work. Contractor, Subcontractors and Sub-subcontractors are granted a limited license, revocable at will by City, to use and reproduce applicable portions of the Contract Documents appropriate to and for use in the execution of their Work under the Contract Documents; provided however, that such use shall not be construed in derogation of Owner's rights to use and ownership under this provision.

1.2.2 Contractor shall keep on the Site of the Project, at all times, a complete set of City approved, permitted Contract Documents for use by City.

1.2.3 Proposed Changes or refinements and clarifications will be provided to Contractor in the form of reproducible prints. Contractor shall, at its own expense and without adjustment to the Contract Sum, do all reproduction and distribution of such reproducible prints as necessary for the complete pricing of the Change and for performance of the Work.

1.2.4 Contractor shall take all necessary steps to assure that a provision is included in all contracts with Subcontractors and Sub-subcontractors, of every Tier, who perform Work on the Project, protecting and preserving City's rights to ownership and use of documents as set forth in this Article 1.2.

### **1.3 AUTHORITY OF CITY**

1.3.1 The Design Consultant shall, upon request, make recommendations to City and the Construction Manager concerning the quality or acceptability of Work performed.

1.3.2 City, in its sole discretion, will interpret the Contract Documents and make the determination of whether or not Contractor has fulfilled the requirements of the Contract Documents. Such interpretations and decisions of City shall be final and binding upon Contractor.

### **1.4 INTERPRETATION OF CONTRACT DOCUMENTS**

1.4.1 The Contract Documents are complementary and what is required by one shall be as binding as if required by all.

1.4.2 In general, the Drawings will show dimensions, positions, and kind of construction; and the Special Provisions and Technical Specifications will define materials, quality and standards. Any Work called for on the Drawings and not mentioned in the Special Provisions and Technical Specifications, or vice versa, shall be performed as though fully set forth in both. Work not particularly detailed, marked or specified, shall be the same as similar parts that are detailed, marked or specified.

1.4.3 Unless otherwise stated in the Contract Documents, technical words and abbreviations contained in the Contract Documents are used in accordance with commonly understood construction industry meanings and non-technical words and abbreviations are used in accordance with their commonly understood meanings.

1.4.4 The Contract Documents may omit modifying words such as "all" and "any," and articles such as "the" and "an." If a modifier or an article is not included in one statement and appears in another it is not intended to affect the interpretation of either statement. The use of the word "including," when following any general statement, shall not be construed to limit such statement to specific items or matters set forth immediately following such word or to similar items or matters whether or not non-limiting language (such as "without limitation," "but not limited to," or words of similar import) is used with

reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably fall within the broadest possible scope of such general statement.

1.4.5 Whenever the context so requires, the use of the singular number shall be deemed to include the plural and vice versa. Each gender shall be deemed to include the other gender, and each shall include corporation, partnership, trust, or other legal entity whenever the context so requires. The captions and headings of the various subdivisions of the Contract Documents are intended only as a matter of reference and convenience and in no way define, limit, or prescribe the scope or intent of the Contract Documents or any subdivision thereof.

1.4.6 Any cross-references indicated between various subparagraphs or Drawings and Documents are provided for the convenience of Contractor and shall not be deemed to be all-inclusive.

1.4.7 Unless specifically noted to the contrary, it is the intention of the Contract Documents that all Work, equipment, casework, mechanical, electrical and similar devices of whatever nature, be completely installed, hooked-up, made operational and made functional for the purpose such are intended, and that all costs therefor be included in the Contract Sum.

1.4.8 Figured dimensions on scale Drawings and on full size Drawings shall govern over scale Drawings without figured dimensions. The Drawings shall not be scaled to determine dimensions, and (except in the case of diagrammatic Drawings) shall be calculated from figures shown on the Drawings. Obvious discrepancies between scale and figured dimensions, not marked "not to scale," must be brought to the Construction Manager's attention before proceeding with the Work affected by the discrepancy.

1.4.9 If there is a conflict between or among any of the Contract Documents, Contractor shall immediately bring such conflict to the attention of City, whose decisions regarding such conflict shall be final and binding as to the requirements of the Contract Documents. In the event of any conflicts between or among the Applicable Code Requirements, the more stringent shall govern. In resolving any conflict in the Contract Documents, the highest standard of quality and skill, the most stringent requirements, and the most specific provision of the Contract Documents shall govern and shall be required in the performance of the Work.

1.4.10 The general character of the Work is shown in the Contract Documents, but Changes, modifications, clarifications and refinements may be made in details when needed to more fully explain the Work. Provided that they are a logical evolution of the Bid Documents that were bid by Contractor or were reasonably inferable as necessary to provide a completed and fully operational system, facility or structure, the same shall be considered part of the scope of the Work to be performed without adjustment in the Contract Sum or the Contract Time.

1.4.11 Where on any Drawing a portion of the Work is drawn out and the remainder is indicated in outline, the drawn-out parts shall apply also to all other like portions of the Work. Where ornament or other detail is indicated on starting only, such detail shall be continued throughout the course of parts in which it occurs and shall also apply to all other similar parts in the Work unless otherwise indicated.

1.4.12 For convenience, the Special Provisions and Technical Specifications are arranged in various trade subparagraphs, but such segregation shall not be considered as limiting the Work of any subcontract or trade. Contractor shall be solely responsible for all subcontract arrangements of Work regardless of the location or provision in the Special Provisions and Technical Specifications.

1.4.13 Contractor will provide all necessary labor, equipment, transportation and incidentals required to complete the Work, even if the Contract Documents do not describe the Work in complete detail.

1.4.14 Drawings and diagrams for mechanical, plumbing and electrical Work shall be considered as diagrammatic only, not to be used for any structural guidance or physical layout, unless specifically detailed or dimensioned, and Contractor shall be responsible to provide any and all numbers and lengths of mechanical, plumbing or electrical fittings, wire, conduit, connections, attachments or similar materials needed to complete the Work, at no adjustment to the Contract Sum or Contract Time, whether or not they exceed the numbers of such pieces or the lengths indicated by the Drawings.

## **ARTICLE 2 – CITY**

### **2.1 INFORMATION AND SERVICES PROVIDED BY CITY**

2.1.1 City will furnish up to fifteen (sets) of the Contract Documents or portions thereof free of charge.

2.1.2 Except as otherwise provided in the Special Provisions and Technical Specifications and Article 3.18 herein, City shall obtain and pay for any permits, easements and governmental approvals for the use or occupancy of permanent structures required in connection with the Work.

2.1.3 Requests for Information Responses, Approvals and decisions required of City, Design Consultant or Construction Manager under the Contract Documents shall be provided by City, Design Consultant or Construction Manager to Contractor upon request in a timely manner in order to avoid unreasonable Delay in the orderly and sequential progress of the Work. Notwithstanding the foregoing, failure by City, Design Consultant, Construction Manager or City's other consultants to provide Request for Information Response, Approvals or decisions shall not be considered as a basis for Contractor to seek adjustment in the Contract Time until seven (7) Days after Contractor has delivered written notice to City and to the person from whom such information, Approval or decision is needed, stating the following:

(i) You are hereby notified that certain information, approval or decision described herein has not been provided in accordance with this provision and if not provided within seven (7) Days from this notice may result in additional cost or a request for time extension due to Delay;.

(ii) A detailed description of the information, approval or decision required.

(iii) The date by which the information, approval or decision must be received so as to not result in Delay to the Project, which shall in no event be earlier than seven (7) Days after the date of City's receipt of such notice.

## **2.2 ACCESS TO PROJECT SITE**

2.2.1 City will make available, no later than the date designated in the current Construction Schedule accepted by City, the lands and facilities upon which the Work is to be performed, including such access and other lands and facilities designated in the Contract Documents, for use by Contractor.

## **2.3 CITY'S RIGHT TO STOP THE WORK**

2.3.1 If Contractor fails to correct Defective Work as required by Article 12.2, fails to perform the Work in accordance with the Contract Documents, or violates any Applicable Code Requirement, City may direct Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated by Contractor. Contractor shall not be entitled to any adjustment of Contract Time or Contract Sum as a result of any such order. City shall have no duty or responsibility to Contractor or any other party to exercise the right to stop the Work.

## **2.4 CITY'S RIGHT TO CARRY OUT THE WORK**

2.4.1 If Contractor fails to carry out the Work in accordance with the Contract Documents, fails to provide sufficient labor, materials, equipment, tools and services to maintain the Construction Schedule, or otherwise fails to comply with any requirement of the Contract Documents, and fails within the time specified in the Contract Documents, after receipt of notice from City to promptly commence and thereafter diligently continue to completion the correction of such failure, City may, without prejudice to other remedies City may have, correct such failure at Contractor's expense. In such case, City shall be entitled to deduct from payments then or thereafter due Contractor the cost of correcting such failure, including compensation for the additional services and expenses of City and City's consultants made necessary thereby. If payments then or thereafter due Contractor are not sufficient to cover such amounts, Contractor shall pay the additional amount to City.

## **ARTICLE 3 – CONTRACTOR**

### **3.1 REVIEW OF THE SITE, CONTRACT DOCUMENTS AND FIELD CONDITIONS**

3.1.1 Contractor acknowledges that it is satisfied as to character, quality, and quantities of surface and subsurface materials or obstacles to be encountered insofar as reasonably ascertainable from a careful inspection of the Site (including, without limitation, Existing Improvements on the Site) and from the geological investigation reports, data and similar information made available to Contractor by City. Any failure by Contractor to take such information or conditions into consideration will not relieve Contractor from responsibility for estimating the difficulty and cost of successfully completing the Work within the Contract Sum and Contract Time.

3.1.2 Contractor warrants and represents that it has carefully reviewed and compared the Bid and Bid Documents prior to submitting its Bid and executing the Contract. Based upon its careful review, Contractor agrees that it shall not be entitled, and conclusively waives any right, to an adjustment in the Contract Sum or Contract Time for any additional or unforeseen costs or Delay in the performance of Work due to conditions in Contract Documents constituting errors, omissions, conflicts, ambiguities, lack of coordination or noncompliance with Applicable Code Requirements, if such conditions were either discovered by Contractor or could have been reasonably discovered by Contractor or its Subcontractors or Sub-subcontractors, of every Tier, in the exercise of care and diligence in the review of the Bid Documents.

3.1.3 If Contractor discovers what it perceives to be errors, omissions, conflicts, ambiguities, lack of coordination or noncompliance with Applicable Code Requirements in the Contract Documents, then Contractor shall, before proceeding with the Work affected, notify City or the Construction Manager in writing within two (2) Days stating both of the following:

- (i) A detailed description of the conditions discovered.
- (ii) Contractor's request for clarification, further details or correction of the Contract Documents.

Failure by Contractor to provide written notice within the period of time required shall result in Contractor waiving any right to adjustment in the Contract Sum or Contract Time on account thereof.

3.1.4 Contractor shall submit written notice thereof to City if, in Contractor's opinion, City, Design Consultant or Construction Manager furnishes additional written or verbal instructions, information or directions that Contractor considers constitute additional Work or Delay for which Contractor believes it is entitled to an adjustment of the Contract Sum or Contract Time. Such notice shall be provided prior to performance of the Work affected by such instruction, information or direction and seven (7) Days after Contractor first received such instruction, information or direction. Failure to provide such written notice

in the manner required by this provision shall constitute a waiver by Contractor of the right to any adjustment to the Contract Sum or Contract Time by reason of such instruction, information or direction.

3.1.5 Field measurements shall be taken and existing field conditions verified by Contractor, and carefully compared with the Contract Documents and other information known to Contractor before commencing the Work. Contractor shall promptly report in writing to the Construction Manager any errors, inconsistencies, or omissions discovered.

3.1.6 If Contractor or any Subcontractor or Sub-subcontractor, of every Tier, performs any portion of the Work which it knows, or in the exercise of care and diligence should have known, involves an error, omission, conflict, ambiguity, lack of coordination or noncompliance with Applicable Code Requirements, without notifying and obtaining the written Approval of City or before obtaining a written clarification, interpretation, instruction or decision from City, Design Consultant or Construction Manager, then any Work that is performed that is not in conformance with the clarifications, interpretation, instruction or decision of City, Design Consultant or Construction Manager shall be removed or replaced and Contractor shall be responsible for the resultant Losses with no adjustment in the Contract Sum or Contract Time.

3.1.7 City does not impliedly or expressly warrant, and assumes no responsibility for, the accuracy, suitability or completeness of the Bid Documents, Contract Documents or of the data, opinions or recommendations contained or expressed in any information, data or reports provided to Contractor relating to the following conditions at the Site: geological, soils, hydrologic, groundwater, Hazardous Substances, surface and subsurface obstructions, surface and subsurface utilities or Existing Improvements. Existing Improvements at the Site, for which no specific description is made on the Drawings, but which could be reasonably assumed to interfere with the satisfactory completion of the Work, shall be removed and disposed of by Contractor, but only upon the specific direction and control of City. Without limitation to the foregoing, and notwithstanding any information provided by City pertaining to groundwater elevations and/or geological and soils conditions encountered, it is understood that it is Contractor's responsibility to determine and allow for the elevation of groundwater, and the geological and soils conditions at the date of performance of the Work and any difference between elevation of groundwater and the geotechnical and soils conditions shown in the information provided by City and groundwater and the geotechnical and soils conditions actually encountered will not be considered as a Differing Site Condition or as a basis for an adjustment to the Contract Sum or Contract Time.

## **3.2 SUPERVISION AND CONSTRUCTION PROCEDURES**

3.2.1 Contractor shall supervise, coordinate and direct the Work using Contractor's best skill and attention and shall provide supervision sufficient to assure proper coordination and timely completion. Contractor shall be solely responsible for and have control over construction means, methods, techniques, safety, sequences, procedures and the coordination of all portions of the Work.

3.2.2 Contractor shall be responsible for the accurate layout of all portions of the Work and shall verify all dimensions on the Drawings and shall report to City any discrepancies before proceeding with related Work.

3.2.3 Contractor may be assigned working space adjacent to the Site, and all field offices, materials and equipment shall be kept within this area. Contractor shall be responsible for leaving the space in as good condition as Contractor found it, or restoring it to the condition it was in prior to Contractor commencing the Work.

3.2.4 Contractor shall be responsible to City for acts and omissions of Contractor's agents, employees, and of Contractor's Subcontractors and Sub-subcontractors, of every Tier, and their respective agents and employees. Unless otherwise stated in the Contract Documents, references to Contractor, when used in reference to an obligation bearing upon performance of the Work, shall be deemed to include Contractor's Subcontractors and Sub-subcontractors of every Tier.

3.2.5 Contractor shall not be relieved of its obligation to perform the Work in accordance with the Contract Documents by the act(s) or omission(s) by City in the administration of the Contract, or by tests, inspections or Approvals required or performed by persons or firms other than Contractor.

### **3.3 RESPONSIBILITY FOR THE WORK**

3.3.1 Contractor shall be in charge of and responsible for all portions of the Work of the Contract, and shall be responsible for conforming such portions to the requirements of the Contract Documents and readying such portions to receive subsequent Work.

3.3.2 Contractor shall at all times maintain good discipline and order among its employees and Subcontractors. Contractor shall provide competent, fully qualified personnel to perform the Work, and shall ensure that each Subcontractor and Sub-subcontractor engaged on the Site arranges the storage of materials and equipment and performance of its Work so as to interfere as little as possible with Separate Contractors or other persons engaged in work for City on the Site.

3.3.3 During the installation of Work, Contractor shall insure that existing facilities, fences, and other structures are all adequately protected. Upon Final Completion of all Work, all facilities that may have been damaged shall be restored to a condition acceptable to City.

3.3.4 Contractor is responsible for the security of the Site and all Work provided under the terms of this Contract, as well as all Work provided by Separate Contractors that occurs on the Site at any time prior to Final Completion and Acceptance of the Work by City.

### **3.4 LABOR, WORKMANSHIP, MATERIALS AND MANUFACTURED ITEMS**

3.4.1 Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. Unless otherwise provided in the Contract Documents or otherwise Approved by the Construction Manager, all articles, equipment and materials incorporated in the Work shall be new, of good quality, undamaged and not defective.

### **3.5 CONTRACTOR'S WARRANTY**

3.5.1 Contractor warrants to City that all materials and equipment used in or incorporated into the Work will be of good quality, new and free of liens, Claims and security interests of third parties; that all labor, installation, materials and equipment used or incorporated into the Work will be of good quality and free from defects; and that the Work will conform with the requirements of the Contract Documents and Applicable Code Requirements. If required by City, Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. Manufactured items installed in the Work and not specifically covered in the Contract Documents are to be installed in strict accordance with manufacturers' current printed instructions.

3.5.2 All materials to be incorporated in the Work shall be protected from damage during delivery, storage, and handling, and after installation until Acceptance of the Work, and Contractor shall, without charge to City, be responsible for all damage due to Contractor's failure to provide such proper protection.

### **3.6 CONSTRUCTION METHODS AND PROCEDURES**

3.6.1 The methods and procedures adopted by Contractor shall be such as to secure a quality of Work satisfactory to City and to enable completion of the Work in the time agreed upon. If at any time such methods and procedures appear inadequate, City may order Contractor to improve their character or increase efficiency, and Contractor shall conform to such order; but the failure of City to order such improvement of methods or increase of efficiency will not relieve Contractor from its obligation to perform the Work in accordance with the Contract Documents or within the Contract Time.

3.6.2 If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, Contractor shall be fully and solely responsible for the Site safety for implementing such means, methods, techniques, sequences or procedures. If Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, Contractor shall give written notice to City and shall not proceed with that portion of the Work without further written instruction by City.

### **3.7 TAXES**

3.7.1 Contractor, Subcontractors and Sub-subcontractors are responsible for paying all sales, consumer, business license, use, income and payroll, and similar taxes for the Work or portions thereof provided by Contractor and Subcontractors.

3.7.2 All Contractors for Construction Contracts equal to or greater than \$5 million dollars shall be required to obtain a subpermit with the California Board of Equalization for a direct allocation of any and all applicable use tax to the City of Santa Monica, where the jobsite is located. Contractor shall apply for and comply with all of the conditions of the subpermit pursuant to the California State Board of Equalization, Chapter 2, Section 260.020, "Compliance Policy and Procedures Manual: Registration, subchapter Contractors," as may be amended from time to time.

### **3.8 LEGAL REQUIREMENTS**

3.8.1 Contractor shall perform the Work in accordance with all Applicable Code Requirements, even though such requirements are not specifically mentioned in the Contract Documents.

3.8.2 When the Work required by the Contract Documents is in conflict with any Applicable Code Requirement, Contractor shall notify City and shall not proceed with the Work until City has so ordered.

### **3.9 SUPERINTENDENT/PROJECT STAFF**

3.9.1 Contractor shall employ a complete and competent project staff for the duration of the Work, which shall include separate individuals designated to act as Superintendent(s), project manager(s), project engineer(s) and administrative assistant(s), plus such other members as necessary to diligently prosecute the Work. Contractor shall not replace the designated Superintendent or project manager without a minimum seven (7) Day written notice and only with the written approval of City, which may be granted or withheld in its sole discretion. Any Project staff member and any replacement member shall be subject to the approval of City, which may be granted or withheld in its sole discretion. Upon notice from City requesting replacement of any Project staff member who is unsatisfactory to City, Contractor shall in a timely manner, but in no event longer than three (3) Days after notification, replace such member with a competent member satisfactory to City. Failure by Contractor to comply with this provision shall entitle City, at its option exercised in its sole discretion, to terminate the Contract or suspend the Work until compliance is demonstrated. All costs or damages associated with such termination or suspension shall be borne by Contractor, without adjustment in the Contract Sum or Contract Time.

3.9.2 The Superintendent shall be at the Site at all times during the performance of the Work. The Superintendent shall represent Contractor and communications given to and acknowledged by the Superintendent shall be binding on Contractor. Further, communications issued by or received from the Superintendent shall be deemed as

binding on Contractor. The Superintendent must be able to read, write and communicate fluently in English. The Superintendent shall not perform the Work of any trade, pickup materials or perform any Work not directly related to the supervision and coordination of the Work.

### **3.10 SCHEDULES REQUIRED OF CONTRACTOR**

3.10.1 Contractor shall submit a preliminary Construction Schedule to City in a form approved by the Construction Manager at the Pre-Construction Meeting.

3.10.2 Updated Construction Schedules shall be submitted in the form and frequency approved by the Construction Manager.

3.10.3 The Construction Schedule and Construction Schedule updates shall meet the following requirements:

.1 Schedules must be suitable in format and clarity for monitoring progress of the Work and shall utilize the critical path method of scheduling.

.2 Schedules must provide necessary data about the timing for City's decisions and City-furnished items.

.3 Schedules must be in sufficient detail to demonstrate adequate planning and staffing for the Work.

.4 Schedules must represent a practical plan to complete the Work within the Contract Time. If at any time during the Work, any activity is not completed by its latest scheduled completion date, Contractor shall notify the Construction Manager within seven (7) Days of Contractor's plans to reorganize the work force to return to the schedule and prevent Delays on any other activity.

.5 An updated Construction Schedule shall be submitted with each progress payment request, but no less frequently than monthly, and shall include all of the following:

(i) A written narrative report detailing the actual progress of the Work as of the date of submission;

(ii) The expected progress of the Work as of such date according to the approved Construction Schedule;

(iii) The reasons for any variance between the approved Construction Schedule and the updated Construction Schedule; and

(iv) Contractor's plan for placing the Work back on Schedule, at Contractor's expense.

3.10.4 Contractor shall plan, develop, supervise, control and coordinate the performance of the Work so the progress, sequence and timing of the Work conform to the current accepted Construction Schedule. Contractor shall continuously obtain from Subcontractors information and data about the planning for and progress of the Work, the ordering and fabrication of materials, required Submittals, and the delivery of equipment, shall coordinate and integrate such information and data in updated Construction Schedules and Record Documents, and shall monitor the progress of the Work and the delivery of equipment. Contractor shall act as the expeditor of potential and actual delays, interruptions, hindrances or disruptions for its own forces and those forces of Subcontractors, regardless of Tier. Contractor shall cooperate with City in the development of the Construction Schedule and updated Construction Schedules.

3.10.5 City's review, comments, requests for revisions, or acceptance of any schedule or scheduling data shall not:

- (i) Relieve Contractor from its sole responsibility for the feasibility of the schedule and to plan for, perform, and complete the Work within the Contract Time;
- (ii) Transfer responsibility for any schedule from Contractor to City; nor
- (iii) Imply City's agreement with any assumption upon which such schedule is based or any matter underlying or contained in such schedule.

3.10.6 Failure of City to discover errors or omissions in schedules that it has reviewed, or to inform Contractor that Contractor, Subcontractors, or others are behind schedule, or to direct or enforce procedures for complying with the Construction Schedule, shall not relieve Contractor from its sole responsibility to perform and complete the Work within the Contract Time and shall not be a cause for an adjustment of the Contract Time or the Contract Sum.

3.10.7 Contractor shall cooperate with and coordinate its schedule with work of City and City's Separate Contractors.

### **3.11 DOCUMENTS AND SAMPLES AT PROJECT SITE**

3.11.1 Contractor shall maintain one (1) set of As-Built Documents at the Site, which shall be kept up to date on a daily basis at all times during the performance of the Work. All performed changes, deletions or additions in the Work from that shown in the Contract Documents shall be recorded accurately and completely in the Record Documents. Upon Final Completion and as a condition to final payment, each sheet of the As-Built Documents and other Record Documents shall be signed and attested to by a representative of Contractor as being complete and accurate.

3.11.2 Contractor shall, at all times during performance of the Work, also maintain the following at the Site:

- (i) The latest updated Construction Schedule approved by City;
- (ii) Shop Drawings, product data, and samples; and
- (iii) All other required Submittals.

At all times during the course of the Project, these documents shall be available to City, the Construction Manager and the Design Consultant to audit, excerpt, or copy as they see fit. Upon Final Completion or termination of the Construction Contract, these shall be delivered to City.

3.11.3 It shall be the responsibility of Contractor to maintain a current and complete record of all Changes performed during the progress of the Project construction. The record shall be in the form of a complete set of prints of the As-Built Documents on which daily recordings are made by Contractor, indicating in detail and dimension each variation from the original set of Contract Documents and including all of the construction Work. At the completion of construction, Contractor shall, as a requirement of the Final Completion of the Work, certify that to the best of its knowledge, the As-Built Documents are true and accurate, and that the indications thereon represent all Changes performed during the construction of the Project. At the Final Completion of the Work, the As-Built and other Record Documents shall become the property of City.

3.11.4 Contractor, in concert with the Design Consultant and the Construction Manager, shall review Contractor's As-Built Documents for conformance with all current Changes prior to presenting its monthly Application For Payment. The monthly progress payment statement will not be accepted or processed by City unless the As-Built Documents are current and complete, and Approved by City.

3.11.5 At the Final Completion of the Work, all information annotated monthly on the As-Built Documents shall be fully incorporated by Contractor onto a set of mylar reproducibles furnished by Contractor. These As-Built Documents will become the permanent property of City at the Final Completion of the Work. If the As-Built Documents are prepared on a computer, then the revised computer files shall also be provided to City in the file format specified by City.

## **3.12 SUBMITTALS**

3.12.1 Submittals are not Contract Documents. Their purpose is to demonstrate, for those portions of the Work for which Submittals are required, how Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Prior to starting Work, Contractor shall provide to City an initial schedule for all materials and equipment for which shop drawings are required by the Contract Documents. For each required shop drawing, Contractor shall provide to City the date for the drawing's intended Submittal to the Design Consultant for review. The date required for its return to avoid Delay in any activity beyond the scheduled start date shall also be given.

3.12.2 All shop drawings and other Submittals shall be provided at Contractor's expense, when required by the Contract Documents or requested by the Construction Manager.

3.12.3 Contractor shall review, stamp approved, and submit to the Construction Manager, all Submittals required by the Contract Documents to be submitted and reviewed by the Design Consultant. Submittals to the Construction Manager without evidence thereon of Contractor's approval shall be returned, without further consideration, for resubmission in accordance with these requirements. Submittals shall be provided within the time frame specified in the Special Provisions and Technical Specifications in accordance with the Construction Schedule, and in such sequence as to cause no Delay in the Work or in the activities of City or of Separate Contractors. Submittals made by Contractor which are not required by the Contract Documents, may be returned without action by the Construction Manager or Design Consultant. Submittal to the Construction Manager and Design Consultant must include a statement, in writing, identifying any deviations from the Contract Documents required due to manufacturing or installation limitations contained in the Submittal.

3.12.4 All Submittals shall be submitted in six (6) sets, accompanied by letters of transmittal, and addressed to the Construction Manager for review. Unless otherwise specified in the Contract Documents, Submittals consisting of Drawings or Plans shall be in the form of six (6) copies. The Submittal must be in accordance with the Contract Documents. If the Submittal involves a request for substitution of materials, the request shall be clearly identified on the Submittal that it is a "Request for Substitution." Unless so clearly marked, Submittals shall not be considered as a request for substitution. If changes or corrections are required, three marked-up prints shall be returned to Contractor. Submittals shall consist of the appropriate combination of catalog sheets, material lists, manufacturer's brochures, technical bulletins, specifications, diagrams, or product samples, necessary to describe a system, product, or item. The letter of transmittal shall give a list of the numbers of the sheets submitted. All sheets shall be marked with the name of the Project and the name of Contractor, shall be numbered consecutively, and shall be referenced to the sheets or paragraphs of the Contract Documents, referenced by sheet or subparagraph affected. Submittals shall be combined for singular assemblies, items or materials.

3.12.5 No Work requiring a Submittal shall be performed by Contractor until the Submittal has been reviewed by City, Construction Manager or Design Consultant and the Design Consultant has documented the exceptions noted on the Submittal. Contractor shall allow twenty (20) Days for review of Submittals. Once the Submittal is returned to Contractor by the Construction Manager with a statement that it has been reviewed and no exceptions are taken or further action requested, such Work shall be performed in accordance with the Submittal and the Contract Documents.

3.12.6 Contractor's Submittals represent that Contractor has determined or verified materials and field measurements and conditions related thereto and that it has checked

and coordinated the information contained within such Submittals with the requirements of the Contract Documents and Submittals for related Work.

3.12.7 If Contractor discovers any conflicts, omissions or errors in Submittals, Contractor shall notify the Construction Manager and receive instruction before proceeding with the affected Work.

3.12.8 Contractor shall remain solely responsible, notwithstanding City, Construction Manager or Design Consultant's review or approval of Submittals, for deviations (including, without limitation, those arising from standard shop practice) from requirements of the Contract Documents, unless Contractor has specifically informed City, Construction Manager or Design Consultant in writing of such deviation at the time of transmitting the Submittal and City, Construction Manager or Design Consultant has given written approval of such deviation. No adjustment in the Contract Sum or Contract Time shall be permitted with respect to any such deviations that are noted in writing by Contractor and as to which City, Construction Manager or Design Consultant takes no exception or approves.

3.12.9 After review of Contractor's Submittals by City, Construction Manager or Design Consultant, the Construction Manager will transmit to Contractor the required number of sets. If the Submittals are found to be incomplete or incorrect, Contractor shall resubmit after corrective action has been taken. Contractor shall reimburse City, or City may withhold from payments due Contractor, sums owing by City for any fees charged by City, Construction Manager or Design Consultant or City's other consultants for more than two (2) reviews of a Submittal, or for accelerated review in a shorter time than set forth in the approved Construction Schedule, if requested by Contractor or caused by late Submittals by Contractor. The return of a Submittal due to failure to comply with the Contract Documents or for correction or additional information shall be considered a review.

3.12.10 Review of Submittals by City, Construction Manager or Design Consultant will be general and for conformance with design intent, and shall not relieve Contractor from the responsibility for proper fitting and construction of the Work, nor from furnished materials and Work required by the Contract which may not be indicated on the reviewed Submittals.

3.12.11 Submittals shall be in English, be of good quality, and be of a size and scale to clearly show all necessary details. Submittals shall show in detail the size, sections and dimensions of all members; the arrangement and construction of all connections, joints and other pertinent details; and all holes, straps and other fittings required by other Separate Contractors for attaching their Work. When required by City, Construction Manager or Design Consultant, engineering computations shall be submitted. Contractor shall be responsible for delivering duplicates of Submittals to all other persons whose Work is dependent thereon.

3.12.12 Contractor shall, at all times, maintain at the Site a complete file of all City, Construction Manager or Design Consultant-reviewed Submittals.

### **3.13 TRADE NAMES, SUBSTITUTIONS**

3.13.1 Except as otherwise noted and permitted by law, whenever in the Contract Documents any material or process is indicated or specified by two or fewer patents, proprietary names, brand names and/or manufacturers, such specification shall be deemed pursuant to Public Contract Code 3400 to be followed by the words "or approved equal".

3.13.2 Contractor shall have ten (10) Days after submission of the Bid to submit data substantiating substitution of "or equal" items. City, with the advice of the Design Consultant, will determine whether the proposed brand or item is equal in quality and utility to that specified in the Contract Documents, and its decision shall be final. City, Construction Manager or Design Consultant may require the submission of samples, formulae, and/or statements of physical properties for consideration in determining equality of the material or process in question. No proposal for an equal will be considered complete unless accompanied by complete information and descriptive data necessary to determine the equality of the offered equal.

3.13.3 If Contractor requests use of substitute material or process, it shall be incumbent upon Contractor to furnish sufficient evidence to support the claim of equality to the satisfaction of City, Construction Manager or Design Consultant.

3.13.4 If City accepts for use in the Project a substitute material or process which in the opinion of City, Construction Manager or Design Consultant is not the equal of that specified, a Change Order shall be issued issuing a credit to City for the difference in value.

3.13.5 Substitutions by Contractor that are incorporated into the Work without the prior review and Approval by City, Construction Manager or Design Consultant in accordance with the requirements of the Contract Documents shall be deemed to be Defective Work.

3.13.6 The specified Construction Contract completion time shall not be affected by any circumstance developing from the substitution provisions of this Article 3.13.

### **3.14 DAILY REPORTS BY CONTRACTOR**

3.14.1 At the end of each working day, Contractor shall submit a daily report to the Construction Manager (on a form provided by or accepted by the Construction Manager) listing:

- (i) Labor - Names of workers, classification, and hours worked.
- (ii) Material - Description and list of quantities of materials used.

(iii) Equipment - Type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable.

(iv) Inspection and Testing Activities - Name, City or company and items involved.

(v) Areas of Work - The areas of the Site on which Work was performed and a detailed description of the stage, status and progress of the Work in each such area at the beginning and end of the day.

(vi) Accidents, Delays, Defective Work - Description in detail of any injuries to workers, accidents, Delays, or Defective Work that were encountered.

(vii) Other Services and Expenditures - Description in such detail as City may require of other services and expenditures.

3.14.2 Reports by Subcontractors and Sub-subcontractors that comply with the requirements of this Article 3.14 shall also be submitted to the Construction Manager through Contractor at the end of each working day

3.14.3 Submission of daily reports by Contractor, Subcontractors and Sub-subcontractors, of every Tier performing Work on the Site shall be a condition precedent to Contractor's right to payment under the Contract.

3.14.4 Facts, notice or information contained in daily reports of Contractor or its Subcontractors or Sub-subcontractors, whether known or not known to City or Construction Manager, shall under no circumstances be considered evidence of compliance by Contractor with any of the specific written notice requirements of the Contract Documents.

### **3.15 CUTTING AND PATCHING**

3.15.1 Contractor shall do all cutting, fitting, or patching of the Work required to make all parts of the Work join properly and to allow the Work to join the work of Separate Contractors shown in, or reasonably implied by, the Contract Documents.

3.15.2 Contractor shall not endanger the Work, the Project, Existing Improvements, or adjacent property by cutting, digging, or otherwise. Contractor shall not cut or alter the work of any Separate Contractor without the prior consent of City.

3.15.3 In all cases, cutting shall be performed under the supervision of competent workers skilled in the applicable trade and shall cause the openings to be cut as small as possible to minimize unnecessary damage.

### **3.16 ACCESS TO THE WORK**

3.16.1 City, Construction Manager, Design Consultant, their consultants and other persons authorized by City shall at all times have access to the Work wherever it is in preparation or progress. Contractor shall provide safe and proper facilities for such access and for inspection.

3.16.2 City may, at any time, and from time to time during the performance of the Work, enter the Project for the purpose of installing any necessary other work by City labor or other contracts or for any other purpose. Contractor shall cooperate with City and not interfere with other work being done by or on behalf of City.

### **3.17 ROYALTIES AND PATENTS**

3.17.1 Contractor shall pay all royalties and license fees required for the performance of the Work. Contractor shall immediately notify City if it learns of any circumstances that may constitute an infringement of patent rights and shall defend and indemnify City and the members of the Project Team in accordance with Article 3.21 against Losses, liabilities, suits or Claims resulting from Contractor's or any Subcontractor's or Sub-subcontractor's infringement of patent rights.

### **3.18 PERMITS AND LICENSES**

3.18.1 Contractor and all Subcontractors shall purchase or hold current and valid City of Santa Monica Business Licenses. Contractor shall obtain and be responsible for the cost of all permits and applications related to the construction of the Project.

### **3.19 DIFFERING SITE CONDITIONS**

3.19.1 Save and except as permitted for Differing Site Conditions as defined in this Article 3.19, Contractor agrees to solely bear the risk and the additional cost and Delay of all concealed or unknown conditions at the Site or in Existing Improvements, without adjustment to the Contract Sum or Contract Time.

3.19.2 Differing Site Conditions are those conditions encountered at the Site or in Existing Improvements that are (1) subsurface or concealed conditions which differ materially from those indicated in the Contract Documents; or (2) unknown physical conditions at the Site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the Work of the character provided for in the Contract Documents.

3.19.3 If Contractor encounters conditions it believes constitute Differing Site Conditions, then notice of such conditions shall be immediately reported to City and the Construction Manager followed within twenty-four (24) hours by a written notice stating a detailed description of the conditions encountered.

3.19.4 City shall promptly investigate Contractor's report of Differing Site Conditions. If City finds that Differing Site Conditions exist, in accordance with this Article 3.19, an adjustment shall be made in the Contract Sum and Contract Time in such amount as City approves.

3.19.5 If Contractor intends to seek an adjustment to the Contract Sum or Contract Time based upon Differing Site Conditions, it must, within seven (7) Days after it first discovered, or should have discovered in the exercise of diligence and care, the existence of such Differing Site Conditions, submit a written statement setting forth a detailed cost breakdown in the form required by Article 7.2 setting forth the basis of Contractor's calculation of the costs saved or incurred, detailed information demonstrating the effect on the Construction Schedule in the same manner as required by the Contract Documents for obtaining approval of extensions of time, identification of the Bid Documents that formed the basis of Contractor's Bid estimate to perform the Work affected by such conditions and a complete and detailed explanation of the factual basis for the request.

3.19.6 Failure by Contractor to strictly comply with the requirements of this Article 3.19 concerning the timing and content of any notice of Differing Site Conditions or request for adjustment in Contract Sum or Contract Time based on Differing Site Conditions shall be deemed a waiver of any right by Contractor for an adjustment in the Contract Sum or Contract Time by reason of such conditions.

3.19.7 No Claim by Contractor for additional compensation for Differing Site Conditions shall be allowed if asserted after final payment under the Construction Contract.

## **3.20 INSPECTIONS**

3.20.1 In order to allow for inspection by City and other agencies, or any inspection required elsewhere in the Special Provisions and Technical Specifications, Contractor shall notify City in writing three (3) Days in advance of the permanent concealment of any materials or Work.

3.20.2 Whenever Contractor desires to carry on the Work of this Construction Contract at hours other than 8:00 AM to 6:00 PM, Monday through Friday and from 9:00 AM to 5:00 PM on Saturdays, it shall request authorization in writing from City for such Work at least twelve (12) Days in advance and, if approved to proceed, Contractor agrees to pay overtime reimbursement of costs, of such required inspector(s) and the Construction Manager, Design Consultant and/or other City consultants whose presence is necessary and requested by City. City offices are closed on alternate Fridays commencing January 12, 2001, and every other Friday thereafter. Inspections by City Building Department may not be available on these days.

3.20.3 If any Work is concealed or performed without the prior notice specified above, then the Work shall be subject to such tests or exposure as may be necessary to prove to City that the materials used and the Work done are in conformity with the Contract

Documents. All labor and equipment necessary for exposing and testing shall be furnished by Contractor at its expense. Contractor shall replace, at its own expense and without reimbursement by City, any materials or Work damaged by exposure and any faulty materials or work evidenced by such exposure or testing.

3.20.4 When, in order to comply with the intent of the Contract Documents, inspection must be made at the plant or mill of the manufacturer or fabricator of material or equipment, Contractor shall notify City a sufficient length of time in advance to allow for arrangements to be made for such inspection.

3.20.5 Any inspection or approval by any representative or agent of City will not relieve Contractor of the responsibility of incorporating into the Work only those materials which conform to the Contract Documents, and any nonconforming materials shall be removed from the Site whenever identified.

3.20.6 When Contractor believes it has achieved either Substantial or Final Completion of the Work, Contractor shall notify City and the Construction Manager in writing and request a Substantial or Final Completion inspection of the Work. City, Design Consultant and Construction Manager will make such inspection as soon thereafter as possible.

### **3.21 INDEMNIFICATION, STOP NOTICES**

3.21.1 Contractor shall fully comply with the Indemnification provision of the Construction Contract.

3.21.2 Contractor shall take steps to assure that a right of indemnification is included in all subcontracts, purchase orders and other contracts entered into by Subcontractors and Sub-subcontractors, of every Tier, for the Project that afford the same coverage, benefits and protections as provided for in Article 3.21.1.

3.21.3 Nothing set forth in the Contract Documents shall be construed to give rise to any express or implied right in favor of Contractor for indemnity or contribution.

3.21.4 Contractor shall not permit any stop notices or other claims, valid or invalid, to be served, filed, recorded or otherwise imposed on City or on any part of the Work or the property on which the Work is performed. If any stop notice or other claim is served, filed or recorded in connection with the Work, City shall have the option, in its sole discretion, to require that Contractor immediately and at its own expense obtain a bond executed by a good and sufficient surety, in accordance with the California Civil Code, Section 3196, in a sum equal to one hundred twenty-five percent (125%) of the amount of such stop notice or claim. Such bond shall guarantee the payment of any amounts which the claimant may recover on the stop notice or claim, together with the claimant's costs of suit in any action to enforce such stop notice or claim if the claimant recovers therein. This remedy shall be in addition to all other rights and remedies of City under the Contract Documents and applicable law, including, without limitation, the right to withhold funds from sums due to Contractor.

## **3.22 PARKING**

3.22.1 Contractor shall provide and maintain suitable parking areas, for use by all construction workers and others performing work or furnishing services in connection with the Project, as required to avoid any need for parking personal vehicles where they may interfere with public traffic, construction activities or public parking.

## **3.23 USE OF THE PROJECT SITE AND CLEAN UP**

3.23.1 Contractor shall confine operations at the Site to areas permitted by Applicable Code Requirements and the Contract Documents. Contractor shall not encumber the Site with materials or equipment so that Separate Contractors' work is hindered or impeded due to such encumbrances.

3.23.2 Contractor shall, during performance of the Work, keep the Site and surrounding area free from the accumulation of excess dirt, dust, waste materials, water and rubbish caused by Contractor or any Subcontractors. Contractor shall continuously remove all excess dirt, waste material, water and rubbish caused by Contractor and all tools, equipment, machinery and surplus materials from the Site and surrounding area at the completion of the Work. Adequate cleanup will be a condition for progress payments.

3.23.3 Personnel of Contractor, Subcontractors, and Sub-subcontractors shall not occupy, live upon, or otherwise make use of the Site during any time that Work is not being performed at the Site, except as otherwise provided in the Contract Documents.

3.23.4 Upon Final Completion of the Work, Contractor shall remove all construction facilities, appurtenances, tools, material and other articles from the Site. The entire area, including all fixed equipment, floors, surfaces and hardware shall be cleaned and restored to their original condition in accordance with the Special Provisions and Technical Specifications.

3.23.5 In addition to water sprinkling, temporary enclosures and anti-dust sweeping compounds should be used to limit dust and dirt rising and to keep the Site clean.

3.23.6 Construction materials shall be neatly stacked by Contractor when not in use. Dusty materials in piles or in transit shall be covered to prevent suspension of the dirt in the air. Contractor shall promptly remove splattered concrete, asphalt, oil, paint, corrosive liquids and cleaning solutions from the affected surfaces to prevent marring or other damage.

3.23.7 Volatile wastes shall be properly stored in covered metal containers and removed daily. All other trash receptacles shall be promptly emptied when full.

3.23.8 Contractor shall promptly and legally transport and dispose of removed and demolished items and waste materials not identified to be recycled or reused in a manner

complying with local ordinances and anti-pollution laws. No rubbish or waste materials shall be burned, buried, or otherwise disposed of on the Site.

3.23.9 Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. Contractor shall enforce the use of such sanitary facilities by all personnel at the Site. Sanitary facilities shall be on a portable trailer and shall be removed from the Site at the end of each workday. For sewer lining projects, Contractor shall provide additional sanitary facilities on a portable trailer to be used by the residents during lining installation (one sanitary facility per each 30 meters [100 feet]). Contractor shall remove those sanitary facilities as soon as relief holes are cut and notices of completion are delivered.

### **3.24 ENVIRONMENTAL CONTROLS**

3.24.1 AIR POLLUTION CONTROL. Contractor shall comply with all air pollution control rules, regulations, ordinances and statutes which apply to any work performed pursuant to the Contract, including any air pollution control rules, regulations, ordinances and statutes, specified in the California Laws Government Code, Section 11017, and the South Coast Air Quality Management District, Rule 1403, or any other applicable law. In the absence of any applicable air pollution control rules, regulations, ordinances or statutes governing solvents, all solvents, including but not limited to the solvent portions of paints, thinners, curing compounds and liquid asphalt used on the Project shall comply with the applicable material requirements of the South Coast Air Quality Management District. All containers of paint, thinner, curing compound or liquid asphalt shall be labeled to indicate that the contents fully comply with said requirements. Material to be disposed of shall not be burned.

.1 Mold. If any material susceptible to microbial growth becomes wet during the construction phase, that material should be carefully removed from the construction Site to prevent further contamination of the indoor air.

.2 VOC's. Construction materials that emit low levels of volatile organic compounds (VOC) shall be used to improve indoor air quality. Adequate ventilation of packaged dry products shall be used prior to installation. Contractor is responsible to ventilate the building during the application of wet products (e.g., paints, glues, sealants), which release their highest levels of VOC's during the curing period immediately after the application. Also, wet products shall be applied before installing materials that act as "sinks" such as carpets, fabric, ceiling tiles, movable partitions, furniture, etc. in order to reduce the chance of the "sinks" absorbing contaminants and slowly releasing them into the building over time.

.3 Off-Gassing. Contractor is responsible for identifying specific materials that require more complex ventilation to accelerate off-gassing. In addition to paints, glues and sealants, those materials that generally require temporary ventilation include, without limitation: composite wood products, plastics, waterproofing, insulation, fireproofing, caulking, acoustical ceilings, resilient flooring and wood preservatives.

.4 Barriers. Barriers shall be used to prevent the migration of airborne pollutants from areas under construction and to mitigate any construction noise that may disrupt occupant activities. If effective controls for pollution emissions cannot be practically implemented, activities involving significant airborne pollutants shall be scheduled during off-hours at Contractor's expense. The Site shall be ventilated with fresh outside air during and immediately after the noxious activity.

.5 Exhaust. Contractor shall install a temporary exhaust in a construction area to prevent contaminated air from entering the building's return-air system, including, without limitation:

- (i) Removing windows in a space.
- (ii) Using available or dedicated exhaust systems (e.g., kitchen or toilet exhaust) that are not tied into the building's overall return-air system.

The building shall be flushed with full outdoor air for seven (7) Days prior to occupancy. Full capacity of the HVAC system shall be used for at least 2.5 ACH (air changes per hour), provided by temporary fans. During this time, the interiors shall be thoroughly cleaned, the HVAC ducts vacuumed, and air and HVAC system filters replaced.

.6 Cleaning Products. All cleaners and janitorial products shall be approved by the City of Santa Monica's Environmental Programs Division in accordance with City's required Toxic Use Reduction Program. Contractor may obtain a list of City's approved cleaning products from the Construction Manager (who will obtain it from the Environmental Programs Division). All Contractors are to use the approved products unless the approved products are not working for their needs or they have a particular product need for which a product has not yet been approved.

Before purchasing or using any cleaning product not on the approved list, Contractor shall request a copy of City's Custodial Products Bid Specifications from the Construction Manager. Contractor shall submit a Product Reporting Form with appropriate back-up documentation to the Design Consultant for each cleaning product not on the approved list, along with an explanation of why an approved product is not being used. The back-up documentation should conform to the City's Custodial Products Bid Specifications. The Construction Manager will forward Contractor's request to the Environmental Programs Division for evaluation and will notify Contractor of the approval or rejection of any product submitted. City shall not be responsible for any costs incurred due to the disapproval of any cleaning products or for delays due to Contractor's failure to submit all required information or acceptable products.

3.24.2 TEMPORARY WATER, LIGHT AND POWER. Water for any purpose shall be obtained by Contractor, at its expense, from City. Contractor is to contact the Construction Manager for a phone number and contact person. In no case may Contractor obtain water from unmetered fire hydrants. The costs of obtaining water shall

be included in the prices paid for the various contract items of work included and no additional compensation will be allowed therefor, unless otherwise specified in these Contract Documents. Contractor should be aware that there is a penalty for taking water from an unmetered fire hydrant. This amount shall be deducted from the payment due Contractor.

### 3.24.3 WATER POLLUTION CONTROL.

.1 Contractor shall use Best Available Technology and Best Management Practices to prevent the pollution of drains and watercourses by discharges of materials other than uncontaminated storm water. Prohibited discharge include stormwater discharge that may threaten to cause pollution, contamination or nuisance, sanitary waste, sediment and debris from erosion and other substances resulting from construction activities. Sanitary wastes will not be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris or other substance will be permitted to enter sanitary sewers.

.2 Contractor to provide effective and continuous control of water pollution, including where Work in small or multiple units, on an out of phase schedule or with modified construction procedures. Contractor shall determine which methods are most effective in achieving control of water pollution as a result of Contractor's operations. Contractor shall coordinate water pollution control work with all other Work performed by Contractor and Separate Contractors.

.3 Before starting any Work on the Project, Contractor shall submit to the Construction Manager for acceptance a program for effective control of water pollution. Such program shall show the schedule and detailed description for the pollution and erosion control work or practices included in the Construction Contract and for all water pollution control measures which Contractor proposes to take in connection with construction of the Project to minimize the effects of their operations upon adjacent streams and other bodies of water. Contractor shall not perform any clearing and grubbing or earthwork on the Project, other than that specifically authorized in writing by the Construction Manager, until such program has been approved by City or Construction Manager. Contractor shall revise and bring up to date said water pollution control program at any time the Construction Manager makes written request for such revisions.

.4 The Construction Manager will notify Contractor within seven (7) Days of its learning of the acceptance or rejection of any submitted or revised water pollution control program.

.5 City shall not be liable to Contractor for failure to accept all or any portion of any originally submitted or revised water pollution control program, or for any Delays to the Work due to Contractor's failure to submit an acceptable water pollution control program. Contractor assumes sole responsibility for all costs associated with treatment of water polluted as a result of Contractor's Site activities, whether treatment is initiated by Contractor or City.

.6 Contractor may request the Construction Manager to waive the requirement for submission of a written program for control of water pollution when the nature of Contractor's operation is such that pollution discharge or erosion is not likely to occur. Waiver of this requirement will not relieve Contractor from responsibility for compliance with the other provisions of this Section. Waiver of the requirement for a written program for control of water pollution will not preclude City requiring submittal of a written program at a later time if the Construction Manager deems it necessary because of the effect of Contractor's operations.

.7 Where erosion damage which will cause water pollution is probable due to the nature of the material or the season of the year, Contractor's operation shall be so scheduled that permanent erosion control features will be installed concurrently with or immediately following grading operations.

.8 All water pollution control work required elsewhere in the Contract Documents which may be accomplished under the various contract items of Work will be measured and paid for as provided in said items of Work elsewhere in these Contract Documents.

.9 All water pollution control work performed in accordance with the accepted program which is not otherwise required under the Construction Contract and which is ordered by the Construction Manager will be paid for as Extra Work as provided for in the General Conditions. Except as otherwise provided in Article 3.24.3 or elsewhere in the Contract Documents, full compensation for conforming to the requirements of Article 3.24.3 shall be considered as included in the prices paid for the various contract items of Work and no additional compensation will be allowed therefor.

3.24.4 URBAN RUNOFF. The following Best Management Practices which address the problem of urban runoff shall apply to all projects undergoing construction in City. The Best Management Practices list set forth below is required by City, and shall apply at the time of demolition of an existing structure or commencement of construction until receipt of a certificate of occupancy or certificate of completion:

.1 Runoff, sediments and construction waste from construction sites and parking areas shall not leave the site.

.2 Any sediments or other materials which are tracked off the Site shall be removed the same day. When determined necessary by the Construction Manager to provide temporary pollution control measures, a temporary sediment barrier shall be installed.

.3 On an emergency basis only, plastic covering may be utilized to prevent erosion of an otherwise unprotected area, along with runoff devices to intercept and safely convey the runoff.

.4 Excavated soil shall be located on the Site in a manner that eliminates the possibility of sediment running into the street or adjoining properties. Undocumented fills shall be covered until the soil is either used or removed.

.5 No washing of construction or other industrial vehicles shall be allowed adjacent to the Site. No runoff from washing vehicles on the Site is allowed to leave the Site.

.6 Drainage controls shall be utilized as needed, depending on the extent of proposed grading and topography of the Site, including, but not limited to the following: (i) detention ponds, sediment ponds or infiltration pits; and (ii) dikes, filter berms or ditches; and (iii) down drains, chutes or flumes.

3.24.5 STORMWATER POLLUTION. To avoid stormwater pollution, Contractor shall plan roadwork and pavement construction as follows:

(i) Apply concrete, asphalt, and seal coat during dry weather to prevent contaminants from contacting stormwater runoff.

(ii) Cover storm drain inlets and personnel access holes when paving or applying seal coat, slurry seal, fog seal, etc.

(iii) Always park paving machines over drip pans or absorbent materials, since they tend to drip continuously.

(iv) When making saw-cuts in pavement, use as little water as possible. Cover each catch basin completely with filter fabric during the sawing operation and contain the slurry by placing straw bales, sand bags, or gravel dams around the catch basin. After the liquid drains or evaporates, shovel or vacuum the slurry residue from the pavement or gutter and remove from the Site.

DRAINAGE CONTROL. Contractor shall provide for the drainage of storm water and such water as may be applied or discharged on the Site in performance of the Work. Drainage facilities shall be adequate to prevent damage to the Work, Site and adjacent property. Also drainage facilities shall be constructed to minimize the potential pollution to the ocean.

Existing drainage channels and conduits shall be cleaned, enlarged or supplemented as necessary to carry all increased runoff attributable to Contractor's operations. Dikes shall be constructed as necessary to divert increased runoff from entering adjacent property (except in natural channels), to protect City's private property and utility owner's facilities and the Work, and to direct water to drainage channels or conduits. Retention of drainage on the Site shall be provided as necessary to prevent downstream flooding.

3.24.6 SOUND CONTROL.

.1 Contractor shall comply with all local sound control and noise level rules, regulations and ordinances (including but not limited to all applicable provisions of the Santa Monica Municipal Code, Chapter 4.12) which apply to any Work performed

pursuant to the Construction Contract, except as modified in the Special Provisions and Technical Specifications.

.2 Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the Project without said muffler. The noise level from Contractor's operations, between the hours of 8:00 A.M. and 6:00 P.M., shall not exceed 86 DBA at a distance of 15 meters (50 feet). This requirement in no way relieves Contractor from responsibility for complying with local ordinances regulating noise level.

.3 The noise level requirement shall apply to all equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

.4 Prior to starting construction, all equipment to be used on the Project shall be inspected and tested for compliance with the requirements of this Project. Sound blankets or other sound mitigation equipment approved by the Construction Manager shall be required to bring equipment into compliance with the requirements of this Project.

.5 Full compensation for conforming to the requirements of this provision shall be considered as included in the prices paid for the various contract items of Work involved and no additional compensation will be allowed therefor.

SPECIAL HAZARDOUS SUBSTANCES AND PROCESSES. Contractor acknowledges that it is aware of and in compliance with the provisions of the Hazard Communication Standards (California Code of Regulations, Title 8, Section 5194). Contractor shall, at the request of the Construction Manager, demonstrate that Contractor is in complete compliance with the Hazard Communication Standards. In addition, Contractor shall, at the request of the Construction Manager, provide to the Construction Manager a material safety data sheet and a copy of the product label for any product handled or used by Contractor on City property or in an area where a City employee is working. Contractor shall contact the City's "Household Hazardous Waste Facility" regarding the intent to dispose of any materials containing asbestos or any petroleum-contaminated soil.

#### **ARTICLE 4 – ADMINISTRATION OF THE CONTRACT**

##### **4.1 CONTRACT ADMINISTRATION BY CITY, DESIGN CONSULTANT AND CONSTRUCTION MANAGER**

4.1.1 City and the Construction Manager will provide administration of the Construction Contract as provided in the Contract Documents.

4.1.2 No actions taken by City, Construction Manager or Design Consultant shall relieve Contractor of its obligations as described in the Contract Documents.

4.1.3 The Construction Manager will be present on the Site during the performance of the Work primarily for the purposes of providing administration, inspection and expediting communications between City, Design Consultant and Contractor.

4.1.4 Neither City, Design Consultant nor Construction Manager will have control over, will be in charge of, or will be responsible for construction means, methods, techniques, safety, sequences or procedures or for safety precautions and programs in connection with the Work, all of which are the sole responsibility of Contractor.

4.1.5 Unless otherwise provided in the Contract Documents or when direct communications have been specifically authorized, communications between Contractor and City or Design Consultant shall be in writing through Construction Manager. Communications by Contractor, Subcontractors and Sub-subcontractors with Separate Contractors shall be through the Construction Manager. Contractor shall not rely on oral or other non-written communications.

4.1.6 Based on the Construction Manager's Site visits and evaluations of Contractor's Applications For Payment, the Construction Manager will review and recommend to City for City approval the amounts, if any, due Contractor.

4.1.7 Construction Manager will make recommendations to City to reject the Work, or any portion thereof, which does not conform to the Contract Documents. City alone shall have the authority to stop the Work or any portion thereof. Whenever City considers it necessary or advisable, City will have the authority to require additional inspection or testing of the Work in accordance with the Contract Documents, whether or not such Work is fabricated, installed or completed. However, no authority of City conferred by the Contract Documents nor any decision made in good faith either to exercise or not exercise such authority, nor any recommendation by the Construction Manager, shall give rise to a duty or responsibility of City or the Construction Manager to Contractor or its Subcontractors or Sub-subcontractors, of any Tier.

4.1.8 Construction Manager will have the authority to do the following:

- (i) Conduct inspections in connection with Beneficial Occupancy;
- (ii) Assist City in determining the dates of Substantial Completion and Final Completion;
- (iii) Review any records, written warranties and related documents required by the Contract Documents and assembled by Contractor; and
- (iv) Make recommendations to City for issuance of final payment upon Contractor's compliance with the requirements of the Contract Documents.

4.1.9 City, with the assistance of recommendations from the Design Consultant and/or Construction Manager, shall be the ultimate interpreter of the requirements of the Contract Documents and the judge of performance thereunder by Contractor. Such decisions by City will be final and binding upon Contractor.

## **4.2 CLAIMS**

4.2.1 If a Claim involves an adjustment to the Contract Sum or to the Contract Time due to Extra Work, then the Claim arises upon issuance of a decision denying, in whole or in part, Contractor's Change Order Request. All other Claims arise when Contractor discovers, or should have discovered, the circumstances giving rise to the Claim (even if Contractor has not yet been damaged or delayed).

4.2.2 A Claim that does not involve an adjustment to the Contract Sum or Contract Time for Extra Work may be asserted if, and only if, Contractor gives written notice of intent to file the Claim within five (5) Days of the date the Claim arises under Article 4.2.1. A written notice of intent to file a Claim shall be valid if, and only if, it identifies the event or condition giving rise to the Claim, states its probable effect, if any, with respect to Contractor's entitlement to an adjustment of the Contract Sum or Contract Time, and complies with the requirements of Article 4.2.3.

4.2.3 A Claim must include the following:

- .1 A statement that it is a Claim and a request for a decision on the Claim;
- .2 A detailed description of the act, error, omission, Differing Site Condition, event or other circumstance giving rise to the Claim; and
- .3 If the Claim involves an adjustment to the Contract Sum or Contract Time for Extra Work, a statement demonstrating that a Change Order Request was submitted in a timely manner as required by Article 7.2. If the Claim does not involve an adjustment to the Contract Sum or Contract Time for Extra Work, a statement demonstrating that a notice of intent to file the Claim was submitted in a timely manner as required by Article 4.2.2.
- .4 A detailed justification for any remedy or relief sought by the Claim, including, without limitation:
  - a. A detailed cost breakdown in the form required for submittal of Change Order Requests and subject to the prohibition in Article 7.2.14 relating to calculations based on total cost methodology.
  - b. Copies of actual job cost records demonstrating that the costs have been incurred.
  - c. If the Claim is based on an error, omission, conflict or ambiguity in the Contract Documents: (i) a sworn statement by Contractor and any Subcontractors or Sub-subcontractors involved in the Claim, to the effect that the error, omission, conflict or

ambiguity was not discovered prior to submission of the Bid, or (ii) if not discovered, a statement demonstrating that the error, omission, conflict or ambiguity could not have been discovered by Contractor, its Subcontractors or Sub-subcontractors in exercise of the degree of care required of them under the Contract Documents for review of the Bid Documents prior to submission of the Bid.

.5 If the Claim involves a request for adjustment of the Contract Time, written documentation demonstrating that Contractor has complied with the requirements of the Contract Documents pertaining to proving the right to an extension of time and demonstrating that Contractor is entitled to an extension of time under the Contract Documents.

.6 A written certification signed by a responsible managing officer of Contractor's organization, who has the authority to sign subcontracts and purchase orders on behalf of Contractor and who has personally investigated and confirmed the truth and accuracy of the matters set forth in such certification, in the following form:

*"I hereby certify under penalty of perjury under the laws of the State of California that I am a managing officer of ( Contractor's name ) and that I have reviewed the Claim presented herewith on Contractor's behalf and/or on behalf of (Subcontractor's/Sub-subcontractor's name(s) ) and that the following statements are true and correct.*

(i) *The facts alleged in or that form the basis for the Claim are true and accurate; and,*

(ii) *Contractor does not know of any facts or circumstances, not alleged in the Claim, that by reason of their not being alleged render any fact or statement alleged in the Claim materially misleading; and,*

(iii) *Contractor has, with respect to any request for money or damages alleged in or that forms the basis for the Claim, reviewed the job cost records (including those maintained by Contractor and by any Subcontractor or Sub-subcontractor, of any Tier, that is asserting all or any portion of the Claim) and confirmed with reasonable certainty that the Losses or damages suffered by Contractor and/or such Subcontractor or Sub-subcontractor were in fact suffered in the amounts and for the reasons alleged in the Claim; and,*

(iv) *Contractor has, with respect to any request for extension of time or claim of Delay, disruption, hindrance or interference alleged in or that forms the basis for the Claim, reviewed the job schedules (including those maintained by Contractor and by any Subcontractor or Sub-subcontractor, of any Tier, that is asserting all or any portion of the Claim) and confirmed on an event-by-event basis that the delays or disruption suffered by Contractor and /or such Subcontractor or Sub-subcontractor were in fact experienced for the durations, in the manner, and with the consequent effects on the time and/or sequence of performance of the Work, as alleged in the Claim; and,*

(v) Contractor has not received payment from City for, nor has Contractor previously released City from, any portion of the Claim.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Date: \_\_\_\_\_

4.2.4 Failure to submit any of the information, documentation or certifications required by Article 4.2.3 shall result in the Claim being returned to Contractor without any decision.

4.2.5 Claims shall be first submitted to City via the Construction Manager for decision by City.

4.2.6 Notwithstanding the making of any Claim or the existence of any dispute regarding any Claim, unless otherwise directed by City, Contractor shall not delay, slow or stop performance of the Work, but shall diligently proceed with performance in accordance with the Contract Documents and City will continue to make payments as required by the Contract Documents.

4.2.7 All Claims and supporting documentation and certifications must be filed within thirty (30) Days after the Claim arises. No Claims shall be filed after the final payment has been issued.

4.2.8 No Claim may be asserted unless Contractor has strictly complied with the requirements of Article 4.2, which shall be considered conditions precedent to Contractor's rights to assert the Claim and to initiate the Contract Dispute Resolution Process set forth in the Contract with respect to such Claim.

4.2.9 Claims less than \$50,000 shall be responded to by City in writing within forty-five (45) Days of receipt of the Claim, unless City requests additional information or documentation of the Claim within thirty (30) Days of receipt of the Claim, in which case City shall respond to the Claim within fifteen (15) Days after receipt of the further information or documentation or within a period of time no greater than that taken by Contractor in producing the additional information or documentation, whichever is greater.

4.2.10 Claims of \$50,000 or greater shall be responded to by City in writing within sixty (60) Days of receipt of the Claim, unless City requests additional information or documentation of the Claim within thirty (30) Days of receipt of the Claim, in which case City shall respond to the Claim within fifteen (15) Days after receipt of the further

information or documentation or within a period of time no greater than that taken by Contractor in producing the additional information or documentation, whichever is greater.

4.2.11 If Contractor disputes City's response, or if City fails to respond within the prescribed time set forth in Articles 4.2.9 and 4.2.10, Contractor may so notify City, in writing, within fifteen (15) Days of City's response or within fifteen (15) Days of City's failure to respond, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon demand, City shall schedule a meet and confer conference within thirty (30) Days for discussion of settlement of the dispute.

4.2.12 If Contractor disputes City's decision it shall commence the Contract Dispute Resolution Process by filing a Statement of Contract Dispute within thirty (30) Days after receipt of City's response. If Contractor fails to do so, City's response will become final and binding upon Contractor.

## **ARTICLE 5 – SUBCONTRACTORS**

### **5.1 CONTRACTOR'S AWARD OF SUBCONTRACTS**

5.1.1 Contractor shall perform, with its own employees, Work amounting to at least 50 percent of the Contract Sum except that any designated "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed may be deducted from the Contract Sum before computing the amount required to be performed by Contractor with its own employees. "Specialty Items" are identified in the Bid Documents. Where an entire item is subcontracted, the value of Work subcontracted will, where no prices are provided, be based on the unit price and when a portion of an item is subcontracted, the value of Work subcontracted will be based on the estimated percentage of the unit price. Such percentages will be determined from information submitted by Contractor, and subject to approval by the Construction Manager.

5.1.2 Unless otherwise stated in the Contract Documents, Contractor shall submit in writing, prior to entering into any subcontract agreements, the company name, address, telephone and facsimile numbers, point-of-contact and contractor's license number of all Subcontractors proposed for the Work that are changed from those previously listed in Contractor's Bid. Any Subcontractor may be disqualified if City or the Construction Manager determines that such Subcontractor fails to meet the requirements of the Contract Documents or for any other appropriate reason. If City or the Construction Manager has reasonable objections to a person or entity proposed by Contractor, Contractor shall propose an alternate party to whom City and the Construction Manager have no reasonable objection.

5.1.3 Contractor shall comply with the Subletting and Subcontracting Fair Practices Act, California Public Contract Code, Sections 4100 through 4114. Nothing herein shall be deemed to entitle Contractor, without the written approval of City, to substitute other Subcontractors for those named in Contractor's List of Subcontractors contained in the completed Bid; and, except with such approval, no such substitution shall be made.

Should Contractor violate any of the provisions of the Subletting and Subcontracting Fair Practices Act, such violation shall be deemed a violation of the Construction Contract, entitling City, without limitation to any other rights or remedies under the law, to suspend or terminate the Construction Contract.

5.1.4 Except as hereinafter provided, any increase in the cost of the Work resulting from the replacement or substitution of a Subcontractor, shall be borne solely by Contractor and without any adjustment in Contract Sum or Contract Time. However, if a replacement or substitution of any Subcontractor is made as a result of a request of City or the Construction Manager for any reason other than failure of such Subcontractor to meet the requirements of the Contract Documents or a request by Contractor for substitution, the Contract Sum only, and not the Contract Time, shall be subject to adjustment pursuant to the Change Order provisions of the Contract Documents for the amount of the increase or decrease in the original subcontract amount, with no additional sum for Contractor Markup. In such cases and at the request of City, the replacement Subcontractor shall be selected through a competitive bidding process acceptable to City.

5.1.5 Where a hearing is held pursuant to the provisions of the California Public Contract Code Division 2, Part 1 – Chapter 4 (commencing with Subparagraph 4100), by the awarding authority or a duly appointed hearing officer, City's representative shall prepare and certify a statement of all costs incurred by City for investigation and conduct of the hearing, including the costs of any hearing officer and reporter appointed. The statement shall then be sent to Contractor who shall reimburse City for such costs. If not paid separately, such reimbursement may be deducted from any money due and owing to Contractor.

## **5.2 SUBCONTRACTUAL RELATIONS**

5.2.1 Prior to the execution of each subcontract agreement, Contractor shall make available to each proposed Subcontractor, copies of the Contract Documents to which the Subcontractor will be bound, including the provisions for dispute resolution. Within thirty (30) Days of the Notice To Proceed, Contractor shall provide City with a complete listing of all Subcontractors, which shall include, but not be limited to, the Work contracted for, Subcontractor's name, address, telephone and facsimile numbers, form for doing business (i.e., sole proprietor, corporation, partnership), point-of-contact and Subcontractor's license classification and number.

5.2.2 Any part of the Work performed for Contractor by a first Tier Subcontractor shall be pursuant to a written subcontract. Each such subcontract shall require that the Subcontractor:

- (i) Perform the Work in accordance with the terms of the Contract Documents.
- (ii) Assume toward Contractor all the obligations and responsibilities which Contractor assumes towards City by the Contract Documents.

(iii) Preserve and protect the rights of City under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights.

(iv) Waive all rights that the Subcontractor may have against City for damages caused by fire or other perils covered by builder's risk property insurance carried by Contractor or City, except for such rights Subcontractor may have to the proceeds of such insurance held by City under Article 11 of these General Conditions.

(v) Afford City and entities and agencies designated by City the same rights and remedies with respect to access to and the right to audit and the right to copy at City's cost all of the Subcontractor's books, records, contracts, correspondence, instructions, drawings, receipts, vouchers, purchase orders and memoranda relating to the Work and requiring the Subcontractor to preserve all such records and other items for a period of at least three (3) years after Final Completion.

(vi) Recognize the rights of City under Article 5.3, Contingent Assignment of Subcontracts, including, without limitation, City's right to elect to accept assignment of the subcontract and to retain Subcontractor pursuant to the terms of the subcontract, to complete the unperformed obligations under the subcontract and, if requested by City, to execute a written agreement on terms acceptable to City confirming that the Subcontractor is bound to City under the terms of the subcontract.

(vii) Submit Applications for payment, requests for Change Orders and extensions of time and Claims, and to comply with all other notice and submission requirements of the Contract Documents, sufficiently in advance to allow Contractor time to comply with its obligations under the Contract Documents.

(viii) Purchase and maintain insurance in accordance with the requirements of the Contract Documents and reserving the right to Owner to purchase, in its sole discretion, such insurance pursuant to an Owner Controlled Insurance or other form of Wrap-Up Program.

(ix) Defend and indemnify the Indemnitees listed in Article 3.21 on the same terms.

(x) Agree to participate in the dispute resolution procedures specified in the Contract, at the election of City.

5.2.3 Contractor shall promptly, after execution, furnish to City true, complete, and executed copies of all subcontracts, change orders and modifications thereto. Progress payments shall not be made for items of Work for which City has not received executed subcontracts or Change Orders.

5.2.4 Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and City, except when, and only to the extent

that, City elects to accept the assignment of the subcontract with such Subcontractor pursuant to Article 5.3.

5.2.5 City and the Construction Manager shall have the right to communicate with Contractor's Subcontractors and Sub-subcontractors with respect to matters that are related to Contractor's performance of its obligations under the Contract Documents. Contractor shall be provided with a copy of all such written communications. Such communications shall not create or be interpreted as creating any contractual relationship between City or the Construction Manager and any such Subcontractor or Sub-subcontractor.

### **5.3 CONTINGENT ASSIGNMENT OF SUBCONTRACTS**

5.3.1 In the event of any suspension or termination of the Construction Contract, Contractor is hereby deemed to have assigned to City all its interest in contracts with Subcontractors now or hereafter entered into by Contractor for performance of any part of the Work. The assignment will be effective upon acceptance by City in writing and only as to those contracts which City designates in writing. City may accept, at its sole election, said assignment at any time during the course of the Work and prior to Final Completion in the event of a suspension or termination of Contractor's rights under the Contract Documents. Such assignment is part of the consideration to City for entering into the Contract with Contractor and may not be withdrawn prior to Final Completion.

## **ARTICLE 6 – CONSTRUCTION BY CITY OR BY SEPARATE CONTRACTORS**

### **6.1 CITY'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS**

6.1.1 City reserves the right to award separate contracts for, or to perform with its own forces, construction or operations related to the Work or other construction or operations at or affecting the Site, including portions of the Work which have been deleted by modification. Contractor shall cooperate with City's forces and Separate Contractors.

6.1.2 City shall provide coordination of the activities of City forces and of each Separate Contractor with the Work of Contractor. Contractor shall participate with City and Separate Contractors in joint review of construction schedules and Project requirements when directed to do so. Contractor shall make necessary revisions to the Construction Schedule after such joint review.

6.1.3 Without limitation upon any of the rights or remedies of City under the Contract Documents or under law arising from a default by Contractor, in the event that Contractor fails to have personnel on Site to supervise the Work, City shall have the right, in its sole discretion, but not the responsibility, upon twenty-four (24) hours' telephonic notice to Contractor, to provide such supervision on a temporary basis. Contractor shall, notwithstanding City's providing such temporary supervision, remain solely responsible for all actions of its personnel and Subcontractors and shall defend and indemnify City in

accordance with Article 3.21 against any Losses arising therefrom. City shall have the right, in its discretion, to deduct from the sums owing to Contractor the reasonable cost of such temporary supervision.

## **6.2 MUTUAL RESPONSIBILITY**

6.2.1 Contractor shall be responsible for affording Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities. Contractor shall schedule and coordinate its construction and operations with the construction and operations of Separate Contractors as required by the Contract Documents.

6.2.2 If a portion of the Work is dependent upon the proper execution or results of other construction or operations by Separate Contractors, Contractor shall inspect such other construction or operations before proceeding with that portion of the Work. Contractor shall promptly report to City apparent discrepancies or defects which render the other construction or operations unsuitable to receive the Work. Unless otherwise directed by City, Contractor shall not proceed with the portion of the Work affected until apparent discrepancies or defects have been corrected. Failure of Contractor to so report within a reasonable time after discovering such discrepancies or defects shall constitute an acknowledgment that the other construction or operations by City or Separate Contractors is suitable to receive the Work, except as to defects not then reasonably discoverable.

6.2.3 In the event of Delays, improperly timed activities or Defective Work, the costs of such occurrences shall be borne by the party responsible therefor.

6.2.4 If Contractor wrongfully causes damage to completed or partially completed construction or to property of City or Separate Contractors, Contractor shall promptly remedy damage as provided in Article.

6.2.5 If a dispute, or other matters in question arise between Contractor and a Separate Contractor, these occurrences shall be subject to the provisions of Section 14 (Dispute Resolution) of the Construction Contract. Contractor shall immediately notify the Construction Manager in writing and within seventy-two (72) hours of such occurrences.

## **6.3 CITY'S RIGHT TO CLEAN UP**

6.3.1 If a dispute arises between Contractor and Separate Contractors as to the responsibility under their respective contracts for maintaining the Site and surrounding areas free from waste materials and rubbish, City may clean up and allocate the cost between those firms it deems, in its sole discretion, to be responsible.

## ARTICLE 7 – CHANGES

### **7.1 CHANGES**

7.1.1 City may, at any time and without notice to Contractor's sureties, order Changes in the Work without invalidating the Construction Contract and without relieving sureties of their obligations to City.

7.1.2 City shall be entitled to a deductive adjustment in the Contract Sum for Changes that involve Deleted Work that result in a reduction in the cost of Contractor's performing the Work and shall be entitled to an adjustment reducing the Contract Time for Deleted Work that results in Contractor's being able to complete the Work earlier than the Contract Time.

7.1.3 Unless such rights have been waived and provided that Contractor has complied with the requirements of the Contract Documents with respect to, without limitation, complete and timely submission of all notices, requests and supporting documentation, Contractor shall be entitled to an additive adjustment to the Contract Sum for Changes that involve Extra Work and an adjustment extending the Contract Time for Delays for which Contractor is entitled under the Contract Documents to an extension of time.

7.1.4 City shall have the right to require performance of Changes that result in Extra Work on a lump sum basis, a unit price basis or a time and material basis, all as hereinafter more particularly described.

7.1.5 Changes may be ordered by City or the Construction Manager in writing by issuance of an agreed or unilateral Change Order or a Field Order. Contractor shall not be entitled to an adjustment of the Contract Sum or Contract Time for Changes that are not authorized by a Change Order or Field Order signed by City or Construction Manager. It is of essence to this agreement that all Changes in the Work that are the basis of an adjustment to the Contract Sum or Contract Time must be authorized in advance, in writing, by City or Construction Manager. Accordingly, no verbal directions, course of conduct between the parties or express or implied Acceptance of Changes or Work, and no claim that the Owner has been unjustly enriched (whether or not there has been such enrichment) shall be the basis for an adjustment to the Contract Sum or Contract Time if Contractor has not obtained advance written authorization to perform the Change in the manner required by this provision.

7.1.6 City reserves the absolute right to make whatever Changes that it determines in its sole discretion are necessary and in its best interests and under no circumstances shall the number (individual or cumulative value) or scope of Changes become a basis for Contractor to claim that the Construction Contract has been rescinded, terminated, abandoned or should be reformed nor shall such circumstances be the basis for Contractor, or any Subcontractor or Sub-subcontractor, of any Tier, to recover any compensation or damages not permitted by, or in excess of that allowed under, the Contract Documents.

7.1.7 City shall have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order, and shall be binding on City and Contractor. Contractor shall carry out such written orders promptly.

## **7.2 CHANGE ORDERS AND CHANGE ORDER REQUESTS**

7.2.1 Contractor may request adjustments to the Contract Sum or Contract Time if, and only if, Contractor follows the procedures specified in the Contract Documents, including, without limitation, the procedures set forth in this Article 7.2. If requested by City or Construction Manager, or if Contractor believes that it is entitled to an adjustment of the Contract Sum or Contract Time due to Extra Work, Contractor shall submit to City and the Construction Manager a Change Order Request in writing within seven (7) Days after the occurrence of the circumstances giving rise thereto setting forth the circumstances that are the basis of the Change and Contractor's estimate of the additional Allowable Costs associated with the Extra Work in the form required by the General Conditions, Special Provisions and Technical Specifications and Contractor's proposed adjustments of the Contract Sum and the Contract Time, if any, for performing the Extra Work. If Contractor's Change Order Request includes a request for adjustment to the Contract Time, it shall include such information as required by the General Conditions and/or Special Provisions and Technical Specifications, including but not limited to a "Fragnet" or "time impact analysis," which identifies all critical and non-critical activities affected by the Change Order Request and showing logic ties into all existing affected activities noted on the latest approved, updated Construction Schedule.

7.2.2 In the event that the parties are unable to agree as to the reasonable cost and time to perform a Change to the Work based upon Contractor's Change Order Request and City does not elect to have the Change in the Work performed on a time and material basis, City may, in its discretion, either order performance of the Work by Field Order or make a unilateral determination of the reasonable additions or savings in cost and time attributable to the Change in the Work, based upon City's estimate, Contractor's submission or a combination thereof. A Change Order shall be issued for the amounts of cost and time determined by City and shall be promptly performed by Contractor. City's unilateral determination shall become binding upon Contractor unless Contractor submits a Claim in writing to City within twenty-one (21) Days of the issuance of the Change Order. No dispute, disagreement, nor failure of the parties to reach agreement regarding the amount, if any, of any adjustment to the Contract Sum or Contract Time due to a Change in the Work, shall relieve Contractor from the obligation to proceed with performance of the Work, including, without limitation, performance of the Change, promptly and expeditiously.

7.2.3 Changes involving Extra Work that City elects to have performed on a time and material basis shall be performed, whether by Contractor's forces or the forces of Subcontractors or Sub-Subcontractors, based on actual Allowable Costs in performing

the Change in the Work and with mark-ups in accordance with Section 7.3 of the Contract. Contractor shall submit on a daily basis to the Construction Manager daily time and material tickets to include the identification number assigned to the Change; the location and description of the Change; the classification of labor employed (and names and social security numbers if requested); the materials used; the equipment rented (not tools); and such other evidence of cost as the Construction Manager may require. The Construction Manager may require authentication of all time and material tickets and invoices by persons designated by the Construction Manager for such purpose. The failure of Contractor to secure any required authentication shall, if City elects to treat it as such, constitute a waiver by Contractor of any right to adjustment of the Contract Sum for the cost of all or that portion of the Extra Work covered by a non-authenticated ticket or invoice. The adjustment to the Contract Sum for the Extra Work will be based on the accumulation of Allowable Costs as provided in Article 7.2.5 below. It is Contractor's responsibility to review the Change Order Request invoicing of Contractor and Subcontractors and Sub-subcontractors for accuracy of Subcontractor Markups as defined in Section 7.3 (Compensation to Contractor) of the Construction Contract.

7.2.4 Adjustments to the Contract Sum for Changes for which Contractor is entitled to an adjustment of the Contract Sum by Change Order shall be computed at City's sole election on the basis of one or more of the following:

- (i) Unit prices stated in the Contract Documents or agreed upon by City and Contractor, which unit prices shall be deemed to include Contractor Markup and Subcontractor/Sub-subcontractor Markups permitted by Section 7.3 (Compensation for Extra or Deleted Work) of the Construction Contract.
- (ii) A lump sum agreed upon by City and Contractor, based on the estimated Allowable Costs and Contractor Markup and Subcontractor/Sub-Subcontractor Markup computed in accordance with Section 7.3 (Compensation for Extra or Deleted Work) of the Construction Contract.
- (iii) Contractor's Allowable Costs, plus Contractor Markup and Subcontractor/Sub-subcontractor Markups applicable to such Extra Work computed in accordance with Section 7.3 (Compensation for Extra or Deleted Work) of the Construction Contract.

7.2.5 Allowable Costs shall mean only those costs listed in, and substantiated and documented in accordance with, this provision and that are not disallowed pursuant to Articles 7.2.6, 7.2.11 or other provisions of the Contract Documents. Allowable Costs are the actual costs necessarily incurred by Contractor and all Subcontractors and Sub-subcontractors, of every Tier, that actually perform the Extra Work caused by the Change(s) and that are incurred in the direct performance of the Extra Work or that are saved by reason of Deleted Work, and are strictly limited to the following:

**.1** Labor. The actual straight-time (and the premium time portion of overtime, if approved in writing in advance by City or the Construction Manager) wages or salaries for employees employed at the Site, or at fabrication sites off the Site, plus employer

payments collectively referred to as "Fringe Benefits and Payroll Taxes," of payroll, taxes and insurance, health and welfare pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. The use of a labor classification, which would increase the Allowable Costs will not be permitted unless Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be payable under this provision only when such costs are not included in the invoice for equipment rental.

.2 Material. The cost of materials and consumable items which are furnished and incorporated into the Work at invoice or lowest current price at which such materials are locally available and delivered to the Site in the quantities involved, plus sales tax, freight and delivery. City reserves the right to approve materials and sources of supply, or to supply materials to Contractor, if necessary, for the Work. No markup shall be applied to any material provided by City. Material re-stocking charges shall be limited to 5% of the amount of material. All discounts, rebates and refunds from the sale of surplus materials and consumable items shall accrue to City, and Contractor shall make provision so that they may be obtained.

.3 Tool and Equipment Rental. Rental charges for necessary machinery and equipment, whether owned or hired, as authorized in writing by City or the Construction Manager, exclusive of hand tools. No payment will be made for the use of tools that have a replacement value of \$500 or less. When the equipment is owned by Contractor, the rental rate shall be as listed for such equipment in the California Department of Transportation publication entitled "Labor Surcharge and Equipment Rental Rates," which is in effect on the date the Work is accomplished. When equipment is not listed in said publication, the rate to be paid shall be as herein defined, or a suitable rental rate for such equipment will be established by the Construction Manager. Regardless of ownership, the rates to be used in determining equipment rental cost shall not exceed listed rates prevailing locally at equipment rental agencies or distributors at the time the work is performed. The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance and all incidentals. If equipment is used intermittently, when not in use it shall be returned to its rental source unless Contractor elects to keep it at the Site at no expense to City. The reported rental time for equipment already at the Site shall be the duration of its use on the Extra Work, commencing at the time it is first put into actual operation on the Extra Work, plus the time required to move it from its previous site and back, or to a closer site.

.4 Royalties and Permits. Costs of royalties and permits solely related to the Extra or Deleted Work.

.5 Insurance and Bonds. Additional costs of insurance and bonds, not to exceed two percent (2%) of the total of Parts .1 through .4, above.

7.2.6 Extra Work Costs shall not include any of the following, which are construed to be included in Contractor's Markup:

- (i) Superintendent(s).
- (ii) Assistant Superintendent(s).
- (iii) Project Engineer(s).
- (iv) Project Manager(s).
- (v) Scheduler(s).
- (vi) Estimator(s).
- (vii) Drafting or detailing.
- (viii) Small tools (with a replacement value under \$500).
- (ix) Home or field office expenses, including staff, materials, and supplies.
- (x) Trailer or storage rental and expense, whether on the Site or off the Site.
- (xi) Data processing personnel and equipment.
- (xii) Site fencing.
- (xiii) Utilities, including, without limitation, gas, electric, sewer, water, telephones.
- (xiv) Telephone, facsimile, e-mail and copier.
- (xv) Overhead, administrative, or general expenses of any kind.
- (xvi) Loss of efficiency or productivity, or other impact cost due to the effect of the Extra Work on the performance of other Work or the Work of other trades on the Project.
- (xvii) Capital expenses, including interest on capital employed in connection with Extra Work.
- (xviii) Legal costs.
- (xix) Federal, State, or local income and franchise taxes.
- (xx) Profit.

(xxi) Any Extra Work Costs incurred more than twenty (20) Days prior to submission by Contractor of its Change Order Request pursuant to Article 7.2.1.

(xxii) Cost of any item not specifically and expressly included in the items described in Article 7.2.5.

7.2.7 The term "Contractor Markup" shall mean the full amount of compensation for all costs and expenses including overhead and profit not included in the Allowable Costs, whether or not referred to in Article 7.2.5. Contractor Markup shall be computed as provided in Section 7.3 (Compensation for Extra or Deleted Work) of the Construction Contract.

7.2.8 For Work to be omitted by Change Order, the reduction of the Contract Sum shall be computed on the basis of one or more of the following:

(i) Unit prices stated in the Contract Documents or agreed upon by City and Contractor.

(ii) A lump sum agreed upon by City and Contractor, based upon the estimated Allowable Costs that would have been incurred in performing the Deleted Work, plus Contractor Markup provided for in the Construction Contract.

(iii) A sum unilaterally determined by City, if City and Contractor cannot agree upon one or both of the methods described in paragraphs (i) or (ii), above.

7.2.9 No Claim by Contractor for adjustment of the Contract Sum shall be allowed if asserted after final payment under the Construction Contract.

7.2.10 If any one Change involves both Extra Work and Deleted Work in the same portion of the Work, the Contractor Markup to be added or credited will be based on the net difference between amount allowed for the Extra Work and Deleted Work.

7.2.11 The Contract Sum will be adjusted for Delay only if and to the extent allowed by the Contract for Compensable Delay. Contractor agrees to accept such adjustments in its compensation as its sole and exclusive remedy and recovery for Delay, disruption, hindrance, interference, loss of productivity, labor or material cost escalations, inefficiency, acceleration, impact costs associated with the effect of the Changes on the Work, extended or extraordinary overhead (direct or indirect) or other Losses or damages due to Delay, of any kind.

7.2.12 City has the right to increase or decrease the quantity of any unit price item for which an estimated quantity is stated in the Bid Documents.

7.2.13 The signing of a Change Order indicates that the parties have reached a full resolution, settlement and accord and satisfaction with respect to all Claims for cost and extensions of time that were asserted, or that could have been asserted, in connection

with the Change, whether known or unknown at the time of execution of the Change Order, and that are related to the subject matter of the Change Order, including, without limitation, all Claims, costs or damages for Delay, disruption, hindrance, interference, extended or extraordinary direct and indirect overhead, multiplicity of Changes, loss of productivity, labor or material cost escalations, inefficiency, the impact of the Change on the Work, legal expenses, consultant costs, interest, lost profits or revenue, bond or insurance costs, currency fluctuations, changes in taxes or other related Claims, costs or damages. Change Orders shall be executed by Contractor without any express reservation of rights by Contractor to reserve for the future the right to assert or recover from City any such Claims, costs or damages.

7.2.14 Contractor's cost breakdowns submitted with its Change Order Requests (including, without limitation, requests for cost reimbursement for Delay, disruption, hindrance and interference associated with extras, Changes, additions or deletions) shall be itemized in a manner that, with mathematical certainty and without reliance upon probabilities or inferences, segregates the direct, actual reimbursable costs associated with each individual extra, Change, addition, deletion and (on an event-by-event basis) each individual Delay or disruption event. Change Order Requests shall not be based, in whole or in part, upon any methodology (such as total cost or modified total cost methodologies) that purports to calculate Contractor's additional costs of performance of the extra, Change, addition or deletion (including, without limitation, the additional costs of Delay, disruption or other impact) based on the difference between Contractor's total actual Project or line item costs and its original bid estimate for the Project or any original bid estimate line item. In connection with the foregoing, Contractor represents and warrants that it has the ability to generate and maintain complete and accurate cost accounting records that will reflect:

- (i) The actual Allowable Costs incurred or saved for each individual item of Extra Work or Deleted Work and
- (ii) On an event-by-event basis, the effect of each Delay that forms the basis of each request for extension of time, regardless of their scope, number, complexity, cumulative effect or time of issuance or occurrence.

7.2.15 As a further condition of Contractor's right to an adjustment of the Contract Sum for Extra Work, Contractor must keep daily, detailed and accurate records itemizing each element of Extra Work Cost and shall provide substantiating records and documentation, including time cards, invoices and delivery tickets listing all labor, materials, and equipment involved for that day. Failure to submit such records daily shall waive any rights for recovery of Allowable Costs for that day. Such records and documentation shall be submitted to and Approved by Construction Manager on a daily basis.

### **7.3 FIELD ORDERS**

7.3.1 Upon receipt of a Field Order, Contractor shall, within a reasonable time, proceed with the Work described in the Field Order. If the Field Order involves Extra Work and

sets forth a determination for adjustment of the Contract Sum or Contract Time with which Contractor disagrees, Contractor shall advise City of its agreement or disagreement in writing within seven (7) Days of such receipt. Failure by Contractor to provide such written notice shall result in its waiving any right to adjustment of the Contract Sum or Contract Time on account thereof.

#### **7.4 DISPUTES REGARDING CHANGES**

Provided that City pays to Contractor all undisputed sums due under the Contract Documents for Work performed under Change Orders, Contractor shall not delay, slow, interrupt, or suspend the performance of any Work or any Change because of a dispute between the parties with respect to an adjustment in the Contract Sum or Contract Time.

### **ARTICLE 8 – CONTRACT TIME**

#### **8.1 COMMENCEMENT OF THE WORK**

8.1.1 Commencement of the Work shall begin on the date specified in the Notice to Proceed.

#### **8.2 PROGRESS AND COMPLETION**

8.2.1 By signing the Contract, Contractor represents to City that the Contract Time is reasonable for performing the Work and that Contractor is able to perform the Work within the Contract Time.

.1 The Construction Schedule may reflect a period of performance that is shorter than the Contract Time; provided however, that the difference shall be deemed as float and nothing in this provision or in any other provision of the Contract Documents shall be construed as creating any contractual right, express or implied, on the part of Contractor to finish the Project earlier than the Contract Time and under no circumstances shall City be liable to Contractor for any costs, damages or compensation due to the inability of Contractor to complete the Work earlier than the Contract Time, regardless of the cause, including, without limitation, acts or omissions (intentional or negligent) of City.

.2 Contractor has included in its Bid price the costs of all Contractor and Subcontractor overhead (direct and indirect) and Special Provisions and Technical Specifications, including but not limited to all Project staff, temporary facilities, temporary utilities, and home office overhead for the entire duration of the Contract Time. The above costs must be included in Contractor's Bid notwithstanding Contractor's anticipation of completion in fewer days than established by the Contract Time.

.3 No increase in the Contract Sum shall be made or granted for Compensable Delay if, for any reason including but not limited to Delay caused by City, Contractor completes the Work before expiration of the Contract Time.

.4 No reduction in the Contract Sum shall be made nor will Contractor be required to remain on the Project Site if the Work is completed before expiration of the Contract Time.

.5 The Construction Manager will schedule and hold weekly progress meetings and other meetings to be required by progress of the Work as determined by the Construction Manager. Contractor and/or Contractor's designee shall be present at each meeting. Contractor may also be required to request attendance by representatives of its suppliers, manufacturers and Subcontractors.

8.2.2 Except by agreement or instruction of City in writing, Contractor shall not commence operations on the Site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by Contractor. Contractor's obligations to commence the Work and to complete the Work within the Contract Time shall not be changed by the effective date of such insurance.

8.2.3 Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time. If City determines and notifies Contractor that Contractor's progress is such that Contractor will not complete the Work within the Contract Time, Contractor shall, immediately and at no additional cost to City, take all measures necessary, including working such overtime and additional shifts (other than City's normal working hours of 8:00 AM to 6:00 PM, Monday through Friday and 9:00 AM to 5:00 PM on Saturday), to ensure that the Work is Substantially Completed within the Contract Time. Upon receipt of such notice from City, Contractor shall immediately respond in writing setting forth a detailed plan for accelerating the Work in a manner acceptable to City. Contractor shall not be entitled to any reimbursement or payment of costs, expenses or damages incurred as a result of an acceleration of the Work that is performed pursuant to this provision. City may also take all necessary measures to ensure no further Delays to the Substantial Completion of the Work within the Contract Time. Contractor shall reimburse City, or City may withhold from payment due to Contractor, sums expended by City to perform such measures.

8.2.4. During unfavorable weather, wet ground or other unsuitable construction conditions, Contractor shall confine the operations to Work that will not be affected adversely by such conditions. No portion of the Work shall be constructed under conditions which would affect adversely the quality thereof or be detrimental to the quality of water discharges, unless special means or precautions are taken by Contractor to perform the Work in a proper and satisfactory manner.

### **8.3 DELAY**

8.3.1 Contractor may make a Claim for an extension of the Contract Time, for an Excusable Delay or a Compensable Delay, subject to the following:

.1 In order to avoid double counting concurrent Delays, if an Excusable Delay and a Compensable Delay occur concurrently, the maximum extension of the Contract Time

shall be the number of days from the commencement of the first Delay to the cessation of the Delay which ends last.

.2 If an Unexcused Delay occurs concurrently with either an Excusable Delay or a Compensable Delay, the maximum extension of the Contract Time shall be the number of Days, if any, by which the Excusable Delay or the Compensable Delay exceeds the Unexcused Delay.

.3 If an Unexcused Delay occurs concurrently with both an Excusable Delay and a Compensable Delay, the maximum extension of the Contract Time shall be the number of Days, if any, by which the number of Days determined pursuant to Article 8.3.1.2 exceeds the number of Days of the Unexcused Delay.

8.3.2 As a condition precedent to Contractor's right to an extension of Time adjusting the Contract Time and the Contract Sum for Compensable Delay, it must provide written notice to City within seven (7) Days of the date that Contractor learned of the Delay or should have learned of the Delay in exercise of diligence and reasonable care, setting forth:

- (i) A description of the Delay;
- (ii) A statement that the Delay is critical to completion; and
- (iii) The probable effect of the Delay in terms of the number of Days' extension Contractor believes are required to the Contract Time.

It is agreed that the form, content and timeliness of the written notice required by Article 8.3.2 is of the essence to City's ability to adequately monitor the progress of the Work, to differentiate between critical and non-critical Delays, and to prioritize its actions in a manner that is appropriately targeted to mitigate the effect of delays. Accordingly, Contractor agrees that failure to provide written notice in the manner required by Article 8.3.2 shall be conclusively deemed a waiver of the right to an adjustment of the Contract Sum and Contract Time on account thereby, regardless of whether the circumstances of the Delay may have been known or suspected by City or the Construction Manager and that no other form of notice (including, without limitation, meeting minutes, log entries or schedule updates) shall suffice as constituting notice to City in accordance with Article 8.3.2.

8.3.3 For a Compensable Delay, Contractor shall be entitled to an adjustment in the Contract Sum in a daily amount equal to Contractor's per diem amount as stated in the Contract multiplied by the number of Days of extension for Compensable Delay, if any, permitted under the Contract Documents. Such per diem amount shall be Contractor's sole and exclusive right and compensation to cover all costs and damages to Contractor and to its Subcontractors and Sub-subcontractors, of every Tier, for Compensable Delays and all other Claims for costs, acceleration, expenses, Losses, damage or compensation, of any kind, for additional supervision, administration, extended or extraordinary overhead

(direct or home office), additional insurance or bond costs, loss of productivity, inefficiency, labor, wage, material or equipment escalation, or other costs, expenses or damages due to Delay, interruption, hindrance, compression, disruption, or the impact or ripple effect of Delays on the Work, are conclusively waived.

8.3.4 The parties agree that City's exercise of its rights to order Changes, whether or not resulting in Extra Work, regardless of the extent and number of Changes, or to suspend the Work, is within the contemplation of the parties.

8.3.5 The determination of whether a Delay is an Excusable Delay, Compensable Delay or Unexcused Delay shall not be affected by the fact that any earlier Delay occurred, regardless of fault or causation.

8.3.6 All time limits stated in the Contract Documents are of the essence.

## **ARTICLE 9 – PAYMENTS AND COMPLETION**

### **9.1 SCHEDULE OF VALUES**

9.1.1 Within thirty (30) Days after signing the Contract, but in any event a maximum of ten (10) Days of receipt of the Notice to Proceed, Contractor shall submit to City through the Construction Manager a Schedule of Values reflecting cost breakdown of the Contract Sum in a form approved by the Construction Manager. The Schedule of Values shall itemize as separate line items the cost of each scheduled Work activity and all other costs, including warranties, Record Documents, insurance, bonds, overhead and profit, the total of which shall equal the Contract Sum and shall be made out in a form approved by the Construction Manager. The Schedule of Values, when approved by City, shall become the basis for determining the cost of Work requested on Contractor's Applications For Payment. Contractor shall submit a statement based upon this breakdown, and if required, itemized in such form and supported by such evidence as the Construction Manager may direct, showing Contractor's right to the payment claimed.

### **9.2 PROGRESS PAYMENT**

9.2.1 Subject to City's right of withholding under Article 9.4.2, City agrees to pay to Contractor within thirty (30) Days of receipt of an undisputed and properly submitted Application for Payment an amount equal to ninety-five percent (95%) of the sum of the following:

- (i) Construction Manager's determination of the value, expressed as a percentage of the Contract Sum, of the Work in permanent place that has been tested as of the end of the preceding month.
- (ii) Plus Construction Manager's determination of the value of materials suitably stored but not yet incorporated into the Work, subject to Article 9.3.6.

(iii) Less amounts previously paid.

9.2.2 At any Time after 50% of the Work has been determined by City to be completed, if City determines in its sole discretion that satisfactory progress on the Work is being made, City may, in its sole discretion, make any of the remaining progress payments in accordance with the calculation in Article 9.2.1 based on 100% of City's determination of the value of the Work in place and of stored materials not incorporated.

9.2.3 Progress payments shall not be construed as City's Acceptance of any or all of the Work and shall not be a waiver of any or all rights City has under the Contract Documents.

### 9.3 APPLICATION FOR PAYMENT

#### SPECIAL REQUIREMENTS FOR SUBMITTING PROGRESS PAYMENT

There are 12 applications as indicated in the table below. Contractor must submit **separate** progress payment for each application. Each progress payment shall contain the following information:

Invoice Number

Application Number

UPN number

Date

App No.	UPN	HPSV 50	HPSV 70	HPSV 100	HPSV 150	HPSV 200	HPSV 250	HPSV 310	HPSV 360	HPSV 400	TOTAL
1	356-14-0500620064	1	26	48	20	35	120	0	5	4	259
2	356-14-0500626158	0	0	30	0	19	78	3	0	7	137
3	356-14-0500630802	0	0	16	0	10	35	0	0	0	61
4	356-14-0500624533	0	0	14	0	7	18	0	0	14	53
5	356-14-0500625458	0	0	0	1	0	22	0	0	0	23
6	356-14-0500622333	0	0	0	0	6	14	0	0	5	25
7	356-14-0500619813	0	0	6	0	0	25	0	0	0	31
8	356-14-0500619968	0	0	86	7	50	54	11	0	2	210
9	356-14-0500626253	0	0	29	8	24	57	2	0	0	120
10	356-14-0500626157	0	0	27	0	35	54	7	4	0	127
11	356-14-0500620152	0	0	1	8	85	61	7	0	2	164
12	356-14-0500617471	0	0	0	0	40	21	0	0	0	61
	<b>TOTAL</b>	<b>1</b>	<b>26</b>	<b>257</b>	<b>44</b>	<b>311</b>	<b>559</b>	<b>30</b>	<b>9</b>	<b>34</b>	<b>1271</b>

9.3.1 At the end of each month, Contractor shall submit to City an itemized Application for Payment, requesting payment for Work as of the end of that month that is calculated in accordance with the formula for payment set forth in Article 9.2.1. The Application for Payment shall be prepared:

(i) Utilizing the format as designated by City or the Construction Manager.

(ii) Itemized in accordance with the Schedule of Values.

(iii) Including such data substantiating Contractor's right to payment as City may reasonably require, such as invoices, certified payrolls, daily time and material records, and, if securities are deposited in lieu of retention pursuant to Article 9.5, a certification

of the market value of all such securities as of a date not earlier than five (5) Days prior to the date of the Application for Payment.

(iv) Showing itemized amounts for Change Orders, Modifications and retention.

9.3.2 Applications for Payment shall not include requests for payment on account of Changes which have not been authorized by Change Orders or amounts Contractor does not intend to pay a Subcontractor because of a dispute or other reason.

9.3.3 If required by City, an Application for Payment shall be accompanied by all of the following:

(i) A summary showing payments that will be made to Subcontractors covered by such application.

(ii) Conditional waivers and releases of claims and stop notices from Contractor and each Subcontractor and Sub-subcontractor, of every Tier, listed in the current Application for Payment covering sums requested in the current Application for Payment.

(iii) Unconditional waivers and releases of claims and stop notices, from Contractor and each Subcontractor and Sub-subcontractor, of every Tier, listed in the preceding Application for Payment covering sums disbursed pursuant to that preceding Application for Payment.

9.3.4 Contractor warrants that, upon submittal of an Application for Payment, all Work for which Certificates for Payment have been previously issued and payment has been received from City, shall be free and clear of all claims, stop notices, security interests and encumbrances in favor of Contractor, Subcontractors, Sub-subcontractors, of every Tier, or other persons or firms entitled to make claims by reason of having provided labor, materials or equipment relating to the Work.

9.3.5 The making of final payment shall constitute a waiver of all Claims by City except those arising from unsettled liens, faulty or Defective Work, failure of the Work to comply with the requirements of the Contract Documents or terms of any special guarantees required by the Contract Documents.

9.3.6 At the sole discretion of City, the Construction Manager may approve for inclusion in Contractor's Application for Payment the cost of materials to be incorporated in the Work but not yet incorporated in the Work and already delivered and suitably stored either at the Site or at some other appropriate location acceptable to City. In such case, Contractor shall furnish evidence satisfactory to City:

(i) Of the cost of such materials.

(ii) That such materials are under the exclusive control of Contractor, or if not, that title to the materials is in City, free of any lien or encumbrance and that the materials are safely and suitably stored in a bonded warehouse with appropriate insurance coverage satisfactory to City to cover any Loss.

Any payment pursuant to this provision shall not be construed as an inspection or acceptance of the materials nor shall it relieve Contractor of its continuing and sole responsibility for the care and protection of such materials nor shall it relieve Contractor from sole responsibility for any loss or damage to the materials from any cause whatsoever nor act as a waiver of the right of City to require strict fulfillment by Contractor with all terms of the Contract Documents.

9.3.7 City shall have the right, in its sole discretion, to make payments of monies owing to Contractor by means of direct payment to Subcontractors or Sub-subcontractors, of any Tier of any unpaid work performed by any Subcontractor or Sub-subcontractor of any Tier, or by joint payment to Contractor and to Subcontractors or Sub-subcontractors, of any Tier. The making of such payments shall not be construed as the assumption of any obligation on the part of City or as creating any contractual relationship between City and any Subcontractor or Sub-subcontractor and shall not relieve Contractor of any of its obligations under the Contract Documents.

#### **9.4 CERTIFICATE FOR PAYMENT**

9.4.1 If Contractor has made an Application for Payment in accordance with Article 9.3, the Construction Manager will, not later than seven (7) Days after the date of receipt of an Application for Payment prepared and submitted in accordance with the Contract Documents, issue to City, with copy to Contractor, a Certificate for Payment in such amount as the Construction Manager determines is due.

If Construction Manager determines that Contractor's Application for Payment has not been properly prepared or submitted, then Construction Manager, within the seven (7) Day period provided for in Article 9.4.1, notify Contractor in writing of the reasons why the Application for Payment is being rejected.

9.4.2 Approval of all or any part of an Application for Payment may be withheld, a Certificate For Payment may be withheld or all or part of a previous Certificate For Payment may be nullified and that amount withheld from a current Certificate For Payment in order to protect City against actual or threatened loss as a result of any of the following:

- (i) Defective Work not remedied.
- (ii) Third-party claims against Contractor or City arising from the acts or omissions of Contractor, Subcontractors, or Sub-subcontractor, of any Tier.
- (iii) Stop notices.

- (iv) Failure of Contractor to make timely payments due Subcontractors for material or labor.
- (v) A reasonable doubt that the Work can be completed for the balance of the Contract Sum then unpaid.
- (vi) Damage to City or Separate Contractor for which Contractor is responsible.
- (vii) Reasonable evidence that the Work will not be completed within the Contract Time.
- (viii) Failure of Contractor to maintain and update As-Built or Record Documents.
- (ix) Failure of Contractor to submit schedules, reports, or their updates as required by the Contract Documents.
- (x) Performance of Work by Contractor without approved Submittals.
- (xi) Liquidated or actual damages assessed in accordance with the Construction Contract.
- (xii) Any other failure of Contractor to perform an obligation under the Contract Documents.

9.4.3 Subject to the withholding provisions of Article 9.4.2 and when any or all of the noted deficiencies or others have been removed, City shall pay Contractor the amount set forth in the Certificate for Payment in accordance with its normal disbursement procedures.

9.4.4 Neither City nor the Construction Manager shall have an obligation to pay or to see to the payment of money to a Subcontractor or Sub-subcontractors, of any Tier, except as may otherwise be required by Law.

9.4.5 Neither a Certificate for Payment nor any payment (progress or final) shall be construed as a waiver of any rights arising from Defective Work.

## **9.5 DEPOSIT OF SECURITIES IN LIEU OF RETENTION AND DEPOSIT OF RETENTION INTO ESCROW**

9.5.1 At the request and expense of Contractor, a substitution of securities may be made as found in the California Government Code, Section 16430, and as authorized by the California Public Contract Code, Section 22300, in lieu of monies retained by City under Article 9.2 to ensure performance under the Contract Documents. Securities equivalent in value to the retention amount required by the Contract Documents for each Certificate For Payment shall be deposited by Contractor with a state or federally chartered bank in the State of California ("Escrow Agent"), which shall hold such securities pursuant to the

escrow agreement referred to in Article 9.5.3 until final payment is due in accordance with Article 9.8. Securities shall be valued as often as conditions of the securities market warrant, but in no case less than once per month. Contractor shall deposit additional securities so that the current market value of the total of all deposited securities shall be at least equal to the total required amount of retention.

9.5.2 Alternatively to Article 9.5.1, and at the request and expense of Contractor, City shall deposit retention directly with the Escrow Agent. Contractor may direct the investment of such deposited retention into interest bearing accounts or securities, and such deposits or securities shall be held by the Escrow Agent upon the same terms provided for securities deposited by Contractor.

9.5.3 A prerequisite to the substitution of securities in lieu of retention or the deposit of retention into escrow shall be the execution by Contractor, City, and the Escrow Agent of an Escrow Contract for Deposit of Securities in Lieu of Retention and Deposit of Retention forms provided by City. The terms of such escrow agreement are incorporated into the requirements of Article 9.5.

9.5.4 Release of funds or securities from escrow shall be made with Contractor's final payment.

## **9.6 BENEFICIAL OCCUPANCY**

9.6.1 City reserves the right, at its option and convenience, to occupy or otherwise make use of all or any part of the Work, at any time prior to issuing the Certificate of Substantial Completion, upon thirty (30) Days notice to Contractor. Such occupancy or use is herein referred to as "Beneficial Occupancy." Beneficial Occupancy shall be subject to the following conditions:

.1 City, Design Consultant and Construction Manager will make an inspection of the portion of the Work to be beneficially occupied and prepare a list of items to be completed or corrected prior to Substantial Completion.

.2 Beneficial Occupancy by City shall not be construed by Contractor as Acceptance by City of that portion of the Work which is to be occupied. City may, however, at its sole option, relieve Contractor of Contract requirements to protect Work being beneficially occupied by City where such relief is specifically designated by City in writing.

.3 Beneficial Occupancy by City shall not constitute a waiver of existing Claims of City or Contractor against each other.

.4 Contractor shall provide, in the areas beneficially occupied and on a continual basis (if required), utility services, heating, and cooling for systems which are in operable condition at the time of Beneficial Occupancy. All responsibility for the operation and maintenance of equipment shall remain with Contractor while the equipment is so

operated. Contractor shall submit to City an itemized list of each piece of equipment so operated with the date operation commences.

.5 The Guarantee to Repair Periods, as defined in Article 12.2, will commence upon the first dates of actual occupancy or use of portions of the Work actually occupied and equipment or systems fully utilized.

.6 City shall pay all normal operating and maintenance costs resulting from its use of equipment in areas beneficially occupied.

.7 City shall pay all utility costs which arise out of the Beneficial Occupancy.

.8 Contractor shall not be responsible for providing security in areas beneficially occupied.

.9 City shall use its best efforts to prevent its Beneficial Occupancy from interfering with the conduct of Contractor's remaining Work.

.10 Contractor shall not be required to repair damage caused by City in its Beneficial Occupancy.

.11 Except as provided in Article 9.6, there shall be no added cost to City due to Beneficial Occupancy.

.12 Contractor shall continue to maintain all insurance required by the Contract in full force and effect.

## **9.7 SUBSTANTIAL COMPLETION**

9.7.1 When Contractor gives notice to City that the Work, or portion thereof designated by City for separate delivery, is Substantially Complete, unless City determines that the Work or designated portion thereof is not sufficiently complete to warrant an inspection to determine Substantial Completion, City will inspect the Work, or such designated portion thereof, and prepare and give to Contractor a comprehensive list of items, if any, to be completed or corrected before establishing Substantial Completion. Contractor shall promptly proceed to complete and correct items on the list. Failure to include an item on such list does not alter the responsibility of Contractor to complete all Work in accordance with the Contract Documents. City will then make a further inspection to determine whether the Work or such designated portion thereof is Substantially Complete. If City's inspection discloses any item, whether or not included on the list, which must be completed or corrected before Substantial Completion, Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item. Contractor shall then submit a request for another inspection by City to determine Substantial Completion.

9.7.2 When City determines that the Work or such designated portion thereof is Substantially Complete, City will prepare a Certificate of Substantial Completion on City's form, which when signed by City shall establish the date of Substantial Completion and the responsibilities of City and Contractor for security, maintenance, heat, utilities, insurance, completion of minor items and correction or repair of the Work or such designated portion thereof. Unless otherwise provided in the Certificate of Substantial Completion, the Guarantee To Repair Period for the Work (which is defined in Article 12.2.1), or such designated portion thereof covered by the Certificate of Substantial Completion, excluding any systems provided by Separate Contractors which are not yet fully operational or accepted by City, shall commence on the date of Substantial Completion of the Work or such designated portion thereof. The Guarantee To Repair Period for systems which become fully operational or Accepted subsequent to Substantial Completion will begin on the later of the date they are operational or Acceptance of the Project by City.

## **9.8 FINAL COMPLETION AND FINAL PAYMENT**

9.8.1 Upon receipt of notice from Contractor that the Work is ready for final inspection, City will make such inspection. City will file a notice of completion within ten (10) Days after Acceptance by City. After receipt of the Final Application for Payment, if City determines that Final Completion is achieved, City will issue a Certificate for final payment.

9.8.2 Without limitation to any other provisions of the Contract Documents, before final payment for Work under this Construction Contract is authorized, the Work has been completed in accordance with the Contract Documents and all applicable standards of care and the following requirements of the Contract Documents must be fulfilled by Contractor:

- (i) The submittal of an Application for Final Payment, together with supporting documentation, as required by Article 9.3.
- (ii) Completion and delivery by Contractor to City of all required written guarantees, warranties, operation and maintenance manuals, As-Built Documents and other Record Documents and such other documents as required by the Contract Documents.
- (iii) Delivery by Contractor to City of an affidavit, signed under penalty of perjury, stating that all workers and persons employed, all firms supplying the materials, and all Subcontractors and Sub-subcontractors, of every Tier, have been paid in full; and that there are no bills outstanding against the Work for either labor or materials, except certain items, to be set forth in such affidavit covering disputed claims or items in connection with which notices to withhold have been filed under the provisions of the statutes of the State of California.
- (iv) Completion of all construction work in a manner acceptable to City.

(v) Submission of conditional releases of claims and stop notices upon final payment from Contractor and its Subcontractors and Sub-subcontractors, of every Tier, with no reservation of rights for disputed claims or amounts. Contractor shall pay or cause to be paid to Subcontractors and Sub-Subcontractors, of every Tier, the amount stated in the conditional releases within five (5) Days after receipt of the final payment, and shall promptly thereafter furnish evidence of such payment to City.

9.8.3 Acceptance of final payment by Contractor shall constitute a waiver of all Claims, except those previously made in writing and identified by Contractor as unsettled at the time of the Application for Final Payment.

9.8.4 City shall have the right, in its sole discretion, to make payment of amounts retained from progress payments on the Work of any Subcontractor at any time prior to Final Completion. The making of such early payment of retention shall not be construed as creating any obligation on the part of City nor shall it relieve Contractor of any of its obligations under the Contract Documents.

## **ARTICLE 10 – PROTECTION OF PERSONS AND PROPERTY**

### **10.1 SAFETY PRECAUTIONS AND PROGRAMS**

10.1.1 Contractor shall be solely and completely responsible for initiating, maintaining and supervising all safety precautions and programs on the Site in connection with the performance of the Construction Contract, including safety of all persons for the duration of the Work, on a 24-hour day, 7-day week basis.

10.1.2 Prior to the start of construction, Contractor shall submit to City a copy of Contractor's safety program for the Project. A copy of this program shall be maintained on Site at all times. The safety program shall include, at a minimum:

- (i) Management policy, illness and injury prevention program (as described below).
- (ii) Safety meetings.
- (iii) Accident investigation.
- (iv) Basic accident causes.
- (v) Safety inspection check list.
- (vi) Fire prevention and control.
- (vii) Report forms.
- (viii) Employee safety manual.

10.1.3 Prior to the start of construction, Contractor shall submit to City a copy of an illness and injury prevention program as required by law. This program must be submitted prior to issuance by City of Notice to Proceed. It must include provisions for Contractor reviewing and monitoring all Subcontractor safety programs.

## **10.2 SAFETY OF PERSONS AND PROPERTY**

10.2.1 Precaution shall be exercised at all times for the protection of persons and property. Contractor shall have available at the Site, copies or suitable extracts of "Construction Safety Orders" and "General Industrial Safety Orders" issued by the State Division of Industrial Safety. Contractor shall comply with provisions of these and all other applicable laws, ordinances, and regulations.

10.2.2 Contractor shall immediately respond to notice from City of unsafe conditions, shall take adequate precautions for safety of persons on the Site, and shall provide adequate protection to prevent injury or Loss to the following:

- (i) Employees involved in the Work and other persons who may be affected thereby.
- (ii) The Work in place and materials and equipment to be incorporated therein, whether in storage on or off the Site, under care, custody, or control of Contractor, Subcontractors, or Sub-subcontractors.
- (iii) Other property at the Site and adjoining property(ies).

10.2.3 Contractor shall promptly remedy damage and Loss (other than damage or Loss insured under property insurance required by the Contract Documents) to property caused in whole or in part by Contractor or its Subcontractors or Sub-subcontractors, of any Tier, or anyone for whose acts they may be liable and for which Contractor is responsible. An exception is Loss attributable to acts of the Construction Manager, City or Design Consultant or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of Contractor or its Subcontractors or Sub-subcontractors, of any Tier.

10.2.4 Contractor shall erect and maintain, as required by existing conditions and performance of the Work, adequate safeguards for safety and protection, including providing adequate lighting and ventilation, posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.

10.2.5 When use or storage of hazardous materials, equipment, or unusual methods are necessary for execution of the Work, Contractor shall exercise the utmost care and carry on such activities only under the supervision of properly qualified personnel.

10.2.6 Contractor shall be required to provide at the Site a member of Contractor's organization, typically the Superintendent, whose responsibility it shall be to provide

instruction to persons present on the Site about prevention of accidents and overall jobsite safety. If Contractor has another individual responsible for these activities, Contractor shall notify City in writing.

10.2.7 Contractor shall be responsible for locating, providing, and coordinating the storage and staging of materials and equipment on-Site and off-Site and shall not load/store or permit any part of the Work on the Site to be loaded/stored so as to endanger the safety of persons or property.

10.2.8 Contractor shall protect its materials and the Work from damage in a manner satisfactory to City and shall make good, without charge to City, all damage due to negligence in providing proper protection.

10.2.9 Contractor shall take necessary precautions to guard against and eliminate possible fire hazards and to prevent damage to the Work, building materials, equipment, temporary field offices, storage sheds and public and private property.

10.2.10 Contractor shall not permit the possession or use of alcohol or controlled substances on the Site.

10.2.11 Explosives may be used only when authorized in writing by City. Explosives shall be handled, used and stored in accordance with applicable regulations.

### **10.3 EMERGENCIES**

In an emergency affecting the safety of persons or property, Contractor shall immediately act to prevent or minimize damage, injury or loss. Contractor shall immediately notify the Construction Manager and City, which notice may be oral, followed within twenty-four (24) hours after occurrence of the incident by written confirmation, of the occurrence of such an emergency and Contractor's action.

## **ARTICLE 11 – INSURANCE AND BONDS**

### **11.1 CONTRACTOR'S INSURANCE**

11.1.1 Prior to commencing the Work, Contractor shall procure and maintain at Contractor's own cost and expense, insurance as required in the Construction Contract between Contractor and City against claims for injuries to persons or damages to property which may arise out of or result from the performance of the Work by Contractor, its Subcontractors or Sub-subcontractors, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

### **11.2 BOND REQUIREMENTS**

11.2.1 Within ten (10) Days after the issuance of the Notice of Award and prior to commencing Work on the Project, Contractor shall file with City good and sufficient Labor

and Material Payment and Performance Bonds each in the amount of 100% of the Contract Sum. The bonds shall be signed by both Contractor and Surety and properly notarized on the City's forms or such other forms as required by City. Should any bond required hereunder or any surety on such bond become or be determined by City to be insufficient, it shall be replaced within ten (10) Days by a bond that fully complies with the requirements of Article 11.2. No further payments to Contractor for Work performed shall be made or due until Contractor has fully complied with the requirements of Article 11.2.

11.2.2 The Payment Bond shall remain in effect until Acceptance of the Work and payment of all Claims by Contractor, Subcontractors, or Sub-subcontractors, of any Tier, have been satisfied. The Performance Bond provided by Contractor shall remain in effect for the duration of the period of all warranties required by the Contract Documents and shall assure faithful performance of all Contractor's obligations under the Contract Documents, including, without limitation, all obligations that survive Final Completion or termination, such as, but not limited to, Contractor's warranty and indemnity obligations.

11.2.3 Contractor shall promptly furnish such additional security as may be required by City to protect its interests and those interests of persons or firms supplying labor or materials to the Work.

11.2.4 Surety companies used by Contractor shall be, on the date the Contract is signed by City and at all times while the bonds are in effect, either California Admitted Sureties or listed in the latest published United States Treasury Department list of Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies and either have a current A.M. Best A VIII rating or be an admitted surety that meets the requirements of the California Code of Civil Procedure, Section 995.660.

11.2.5 The premiums for all Bonds are included in the Contract Sum and shall be paid by Contractor.

11.2.6 The bonds shall name City as obligee.

11.2.7 Change Orders, Field Orders, Modifications, Changes in the Work and adjustments in the scope of Work Contract Sum or Contract Time shall in no way release or exonerate Contractor or its sureties from their obligations and notice thereof shall be waived by such sureties.

11.2.8 City and the Construction Manager shall have the right to communicate with Contractor's sureties with respect to matters that are related to Contractor's performance of its obligations under the Contract Documents. Contractor shall be provided with a copy of all such written communications. Such communications shall not create or be interpreted as creating any contractual relationship between City or the Construction Manager and any such surety.

11.2.9 In the event of a significant (15% or more) increase in Contract Sum, replacement bonds totaling the new Construction Contract amount may be required by City.

## **ARTICLE 12 – DEFECTIVE WORK**

### **12.1 UNCOVERING OF WORK**

12.1.1 If a portion of the Work is covered contrary to City's request or direction, or contrary to the requirements of the Contract Documents, it must, if required in writing by City, be uncovered for City's observation and be replaced at Contractor's expense without adjustment of the Contract Time or the Contract Sum.

12.1.2 If a portion of the Work has been covered, which is not required by the Contract Documents to be observed or inspected prior to its being covered and which City has not specifically requested to observe prior to its being covered, City may request to see such Work and it shall be uncovered and replaced by Contractor. If such Work is in accordance with the Contract Documents, the costs of uncovering and replacing the Work shall be added to the Contract Sum by Change Order; and if the uncovering and replacing of the Work extends the Contract Time, an appropriate adjustment of the Contract Time shall be made by Change Order. If such Work is not in accordance with the Contract Documents, Contractor shall pay such costs and shall not be entitled to an adjustment of the Contract Time or the Contract Sum.

### **12.2 CORRECTION OF DEFECTIVE WORK AND GUARANTEE TO REPAIR PERIOD**

12.2.1 Besides guarantees required elsewhere, Contractor shall guarantee in writing all Work for a period of one (1) year. This guarantee termed "Guarantee To Repair Period," is a period of one (1) year, unless a longer period of time is specified in the Special Provisions and Technical Specifications, commencing as follows:

- (i) For any Work not described as incomplete in the Certificate of Substantial Completion, on the date of Substantial Completion.
- (ii) For space beneficially occupied or for separate systems fully utilized prior to Substantial Completion pursuant to Article 9.6, from the first date of such Beneficial Occupancy or actual use, as established an appropriate written authorization for Beneficial Occupancy.
- (iii) For all Work other than (i) or (ii) above, from the date of filing of notice of completion pursuant to Article 9.8.

12.2.2 Contractor shall (i) correct Defective Work that becomes apparent during the progress of the Work or during the Guarantee To Repair Period and (ii) replace, repair,

or restore to City's satisfaction any other parts of the Work and any other real or personal property which is damaged or destroyed as a result of Defective Work or the correction of Defective Work, without any expense whatsoever to City. City will give notice of observed Defective Work with reasonable promptness, and Contractor shall promptly commence such correction, replacement, repair or restoration upon notice from City, but in no case later than seven (7) Days after receipt of such notice. Contractor shall diligently and continuously prosecute such correction to completion. Contractor shall bear all costs of such correction, replacement, repair, or restoration and all Losses resulting from such Defective Work, including additional testing, inspection and compensation for City's or City's services and expenses. Contractor shall perform corrective Work at such times that are acceptable to City and in such a manner as to avoid, to the extent practicable, disruption to City's activities. Ordinary wear and tear, unusual abuse or neglect are excepted from this guarantee. Contractor shall notify City upon completion of repairs.

12.2.3 If immediate correction of Defective Work is required for life safety or the protection of property or, if in the opinion of City, Defective Work creates a dangerous condition or requires immediate corrections or attention to prevent further Loss to City or to prevent interruption of operations of City, City will attempt to give immediate notice to Contractor. If Contractor cannot be contacted or does not comply with City's request for correction within a reasonable time as determined by City, City or Separate Contractors under City's direction, may, notwithstanding the provisions of this Article, proceed to make such corrections or provide such attention; and the costs of such correction or attention shall be charged against Contractor. Such action by City will not relieve Contractor of the guarantees provided in this Article or elsewhere in the Construction Contract. Contractor shall replace, repair or restore to City's satisfaction any other parts of the Work and any other real or personal property, which is damaged or destroyed as a result of such Defective Work or the correction of such Defective Work.

12.2.4 Contractor shall promptly remove from the Site those portions of the Work and materials which are not in accordance with the Contract Documents and which are neither corrected by Contractor nor accepted by City.

12.2.5 If Contractor fails to commence correction of Defective Work within seven (7) Days after notice from City or fails to diligently prosecute such correction to completion, City may correct the Defective Work in accordance with Article 2.4; and, in addition, City may remove the Defective Work and store salvageable materials and equipment at Contractor's expense.

12.2.6 If Contractor fails to pay the costs of such removal and storage as required by Articles 12.2.4 and 12.2.5 within seven (7) Days after written demand, City may, without prejudice to other remedies, sell such materials at auction or at private sale or otherwise dispose of such material. Contractor shall be entitled to the proceeds of such sale, if any, in excess of the costs and damages for which Contractor is liable to City, including compensation for City's services and expenses. If such proceeds of sale do not cover costs and damages for which Contractor is liable to City, the Contract Sum shall be reduced by such deficiency. If there are no remaining payments due Contractor or the

remaining payments are insufficient to cover such deficiency, Contractor shall promptly pay the difference to City.

12.2.7 Contractor's obligations under this Article are in addition to and not in limitation of its warranty under Article 3.5 or any other obligation of Contractor under the Contract Documents. Enforcement of Contractor's express warranties and guarantees to repair contained in the Contract Documents shall be in addition to and not in limitation of any other rights or remedies City may have under the Contract Documents or at law or in equity for Defective Work. Nothing contained in this Article shall be construed to establish a period of limitation with respect to other obligations of Contractor under the Contract Documents, which may be longer specified periods. Establishment of the Guarantee To Repair Period relates only to the specific obligation of Contractor to correct the Work and in no way limits either Contractor's liability for Defective Work or the time within which proceedings may be commenced to enforce Contractor's obligations under the Contract Documents.

### **12.3 ACCEPTANCE OF DEFECTIVE WORK**

12.3.1 Notwithstanding the provisions of Article 12.2 of these General Conditions, City shall have the option, at its sole discretion and by notice to Contractor, to accept Defective Work instead of requiring its removal or correction, in which case the Contract Sum shall be reduced by an amount equal to the difference between the value to City the Work would have had were it complete, correct and in conformity with the Contract Documents and the value to City of such Defective Work. Such option shall be exercised solely by notice to Contractor and shall not be implied from any act or omission by City or Construction Manager. If there are no remaining payments of the Contract Sum to be made to Contractor, or if the remaining payments and retention are insufficient to cover the amount of the reduction of the Contract Sum, Contractor shall promptly pay to City the amount of any such deficiency.

## **ARTICLE 13 – STATUTORY REQUIREMENTS**

### **13.1 NONDISCRIMINATION/EQUAL OPPORTUNITY**

13.1.1 For purposes of this Article, the term Subcontractor shall not include suppliers, manufacturers, or distributors, except those who will actually perform work on the Site.

13.1.2 Contractor shall comply and shall ensure that all Subcontractors comply with the California Government Code, Section 12900, and the applicable sections that follow

13.1.3 Contractor agrees as follows during the performance of the Work:

.1 Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, ancestry, national origin, local custom, habit, sexual orientation, handicap, veteran's status, medical condition (as defined in the California Government Code, Section 12926), marital status, or citizenship.

All applicants for employment and employees are to be treated without regard to their race, color, religion, sex, age, ancestry, national origin, local custom, habit, sexual orientation, handicap, veteran's status, medical condition (as defined in the California Government Code, Section 12926), marital status, or citizenship. Such equal treatment shall apply, but not be limited to:

- (i) Employment, upgrading, demotion, or transfer.
- (ii) Recruitment or recruitment advertising.
- (iii) Layoff or termination.
- (iv) Rates of pay or other forms of compensation.
- (v) Selection for training, including apprenticeship.

Contractor agrees to post in conspicuous places, available to employees and applicants for employment, the Notice of Equal Employment Opportunity (EEO) setting forth this provision.

.2 Contractor shall send to each labor union, with which it has a collective bargaining agreement or other contract or understanding, the letter of Concurrence and the Notice of Equal Employment Opportunity (EEO) advising them of Contractor's commitments under this provision; and Contractor shall post copies of the Notice of Equal Employment Opportunity (EEO) in conspicuous places available to employees and applicants for employment. The Notice of Equal Employment Opportunity (EEO) shall be in English and other applicable languages.

.3 Contractor and all Subcontractors will permit access to their records of employment, employment advertisements, application forms, and other pertinent data and records by City or any appropriate City of the State of California designated by City for the purposes of investigation to ascertain compliance with this provision. The outcome of the investigation may result in the following:

- a. A finding of willful violation of the provisions of this Construction Contract or of the Fair Employment Practices Act may be regarded by City as either of the following:
  - (i) A basis for determining that Contractor is not a "responsible bidder" as to future contracts for which such Contractor may submit bids.
  - (ii) A basis for refusing to accept or consider the bids of Contractor for future contracts.
- b. City may deem a finding of willful violation of the Fair Employment Practices Act to have occurred upon receipt of written notice from the Fair Employment Practices Commission that it has done both of the following:

(i) Investigated and determined that Contractor has violated the Fair Employment Practices Act.

(ii) Issued an order under the California Government Code, Section 12970, or obtained an injunction under the California Government Code Section 12973.

c. Upon receipt of such written notice from the Fair Employment Practices Commission, City may notify Contractor that, unless it demonstrates to the satisfaction of City within a stated period that the violation has been corrected, Contractor's bids on future projects will not be considered.

.4 Contractor agrees that, should City determine that Contractor has not complied with this provision, Contractor shall forfeit to City, as a penalty, for each day or portion thereof, for each person who was denied employment as a result of such non-compliance, the penalties provided in Article 13.3 for violation of prevailing wage rates. Such penalty amounts may be recovered from Contractor; and City may deduct any such penalty amounts from the Contract Sum.

.5 Nothing contained in this provision shall be construed in any manner so as to prevent City from pursuing any other remedies that may be available at law.

.6 Contractor shall meet the following standards for affirmative compliance and provide City with satisfactory evidence of such compliance upon City's request, which shall be evaluated in each case by City:

a. Contractor shall notify its Superintendent and other supervisory personnel of the nondiscrimination requirements of the Contract Documents and their responsibilities thereunder.

b. Contractor shall notify all sources of employee referrals (including unions, employment agencies, and the State of California Department of Employment) of the nondiscrimination requirements of the Contract Documents by sending to such sources and by posting the Notice of Equal Employment Opportunity (EEO).

c. Contractor or its representative shall, through all unions with whom it may have agreements, develop agreements that:

(i) Define responsibilities for nondiscrimination in hiring, referrals, upgrading, and training.

(ii) Implement an affirmative nondiscrimination program, in terms of the unions' specific areas of skill and geography, such that qualified minority women, non-minority women, and minority men shall be available and given an equal opportunity for employment.

d. Contractor shall notify City of opposition to the nondiscrimination requirements of the Contract Documents by individuals, firms or organizations during the term of the Contract.

.7 Contractor shall include the provisions of the foregoing Articles 13.1.3.1 through 13.1.3.6 in all subcontracts with Subcontractors, so that such provisions will be binding upon each such Subcontractor.

## **13.2 STATE LABOR LAW**

13.2.1 Contractor, its agents, and employees shall be bound by and comply with all applicable provisions of the Labor Code and such federal, state and local laws which affect the conduct of the Work.

13.2.2 Contractor shall strictly adhere to the provisions of the Labor Code regarding the employment of apprentices; minimum wages; payment of wages; alien labor, the eight-hour day; overtime, Saturday, Sunday and holiday work; registration with the Department of Industrial Relations to maintain eligibility to work on public works; and nondiscrimination because of race, color, national origin, age, marital status, sexual orientation, disability, sex or religion. Contractor shall forfeit to City the penalties prescribed in the Labor Code for violations.

13.2.3 In accordance with the provisions of the Santa Monica Municipal Code, Chapter 7.28, City has ascertained that the general prevailing rate of wages and employer payments for health and welfare, vacation, pensions, and similar purposes applicable to the locality in which the Work is to be done are as set forth in that certain document entitled, "Prevailing Wage Scale," as indicated in the California Labor Code Part 7, Chapter 1 – Article 2, as determined by the Director of Industrial Relations. Applicable Prevailing Wage Rates and related information not listed are to be obtained from the State of California by Contractor. Contractor shall post a copy of applicable exhibits/wage rates at each Site. Contractor to whom the Construction Contract is awarded and any Subcontractor agree to pay wages and benefits not less than said specified rates to all workers employed by them in the execution of the Construction Contract. A person or concern who fails to do so shall be subject to withholding of contract payments equal to the underpayment of required wages and benefits and subject to the penalties provided for in the California Labor Code, Section 1775. Contractor and each Subcontractor shall prepare and certify their payrolls on forms satisfactory and in accordance with instructions to be furnished by City.

13.2.4 In accordance with the Labor Code, prevailing wage rate determinations for the work to be done on this Project are maintained by the City.

13.2.5 In the event there is a determination that Contractor is in violation of prevailing wage requirements, Contractor shall reimburse City for all investigative costs incurred in addition to any other remedies provided under the Contract Documents.

### 13.3 PAYROLL RECORDS

13.3.1 Contractor and all Subcontractors shall keep an accurate payroll record, showing the name, address, social security number, job classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journey worker, apprentice worker, or other employee employed in connection with the Work. All payroll records shall be certified as being true and correct by Contractor or Subcontractors keeping such records; and the payroll records shall be available for inspection at all reasonable hours at the principal office of Contractor on the following basis:

.1 A certified copy of an employee's payroll record shall be made available for inspection or furnished to such employee or the employee's authorized representative upon request.

.2 A certified copy of all Contractor and Subcontractor payroll records shall be made available for inspection upon request to City, the State of California Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the State of California Division of Industrial Relations. A certified copy of all payroll records shall be furnished to City or its representatives upon request.

.3 A certified copy of all payroll records shall be made available upon request by the public for inspection or copies thereof made; provided, however, that the request by the public shall be made to either City, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. The public shall not be given access to such records at the principal offices of Contractor or Subcontractors. Any copy of the records made available for inspection as copies and furnished upon request to the public or any public entity by City shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of Contractor awarded the Construction Contract or performing the Construction Contract shall not be marked or obliterated.

.4 As of April 1, 2015: contractors and subcontractors must furnish electronic certified payroll records to the Labor Commissioner (State of California, Division of Labor Standards Enforcement).

13.3.2 Contractor and all Subcontractors shall file a certified copy of the payroll records with the entity that requested the records within ten (10) Days after receipt of a written request. Contractor shall inform City of the location of such payroll records for the Project, including the street address, city, and county; and Contractor shall, within ten (10) days, provide notice of change of location of such records. In the event of noncompliance with the requirements of Article 13.3 or with the California Labor Code Section 1776, Contractor and its Subcontractors shall have ten (10) Days in which to comply following receipt of a notice specifying in what respects Contractor must comply. Should non-compliance still be evident after the ten (10) Day period, Contractor shall forfeit to City, as a penalty, one hundred dollars (\$100.00) for each Day, or portion thereof, for each worker, until strict compliance is accomplished. Such forfeiture amounts may be

deducted from the Contract Sum. Contractor shall include stipulations in all of its subcontracts to ensure that Subcontractors comply with Section 13.3.

### **13.4 APPRENTICES**

13.4.1 Attention is directed to the California Labor Code, Sections 1777.5, 1777.6, and 1777.7 and the California Code of Regulations, Title 8, Section 200, and the applicable sections that follow. To ensure compliance and complete understanding of the law requiring apprentices, and specifically the required ratio thereunder, Contractor or Subcontractors should, where some question exists, contact the State of California Division of Apprenticeship Standards prior to commencement of the Work. Responsibility for compliance with these requirements lies with Contractor.

### **13.5 WORK DAY**

13.5.1 Contractor shall not permit any worker to labor more than eight (8) hours during any one (1) Day or more than forty (40) hours during any one (1) calendar week, except as permitted by law and in such cases only upon such conditions as are provided by law. Contractor shall forfeit to City, as a penalty, fifty dollars (\$50.00) for each worker employed in the execution of this Construction Contract by Contractor, or any Subcontractor, for each Day during which such worker is required or permitted to Work more than eight (8) hours in any one (1) Day and forty (40) hours in any one (1) calendar week in violation of the terms of this provision or in violation of the provisions of any law of the State of California. Such forfeiture amounts may be deducted from the Contract Sum. Contractor and each Subcontractor shall keep, or cause to be kept, an accurate record showing the actual hours worked each Day and each calendar week by each worker employed on the Project, which record shall be kept open at all reasonable hours to the inspection of City, its officers and agents, and to the inspection of the appropriate enforcement agency or representative and the State of California.

## **END OF GENERAL CONDITIONS**



## LABOR AND MATERIAL PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the City of Santa Monica, by motion adopted \_\_\_\_\_, 2016, has awarded to **Name of Contractor/Consultant** (hereinafter designated as the "Principal") a Contract for **Name of Project** ("Contract"); and

WHEREAS, Principal is required by the Contract to furnish a good and sufficient payment bond to secure the claims to which reference is made in Title 15 (commencing with Section 3082) of Part 4 of Division 3 of the Civil Code of the State of California.

NOW THEREFORE, we **Name of Contractor/Consultant**, as Principal, and, **Name of Surety**, as Surety, are held and firmly bound unto the City of Santa Monica (hereinafter called the "City") and all contractors, subcontractors, laborers, materialmen and all other persons employed in the performance of the Contract and referred to in the aforesaid portion of the Civil Code, in the sum of **Written** Dollars (**\$Numeric**), for materials and equipment furnished and labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect thereto, and that said Surety will pay the same in or to an amount not exceeding the amount herein above set forth, and also will pay in case suit is brought upon this bond, such reasonable attorney's fees as shall be fixed by the Court, awarded and taxed as costs and included in the judgment therein rendered.

This bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under Title 15 (commencing with Section 3082 of Part 4 of Division 4 of the California Civil Code) so as to give a right of action to them or their assigns in any suit upon this bond.

Should the condition of this bond be fully performed, then this obligation shall be void, otherwise it shall remain in full force and effect.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or modification of the Contract or of the work to be performed thereunder shall in any way affect its obligations on this bond and it does hereby waive notice of such change, extension of time, alteration or modification of the Contract or of work to be performed thereunder.

The obligations set forth herein shall be binding upon Surety and its heirs, executors, administrators, successors, and assigns, jointly and severally.

IN WITNESS WHEREOF three (3) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety herein named on the \_\_\_\_\_ day of \_\_\_\_\_, 2016 the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

\_\_\_\_\_  
Principal

\_\_\_\_\_  
By

\_\_\_\_\_  
Surety

\_\_\_\_\_  
By



## PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the City of Santa Monica, by motion adopted **Date**, 200#, has awarded to **Name of Contractor/Consultant** (the "Principal"), with its principal office in the City of **Name of City**, State of **Name of State**, a Contract for **Name of Project** ("Contract"), including without limitation all incorporated documents, exhibits and other documents defined for the Contract as the "Contract Documents" for the Project, the Contract being hereby incorporated into this bond and by this reference made a part hereof;

WHEREAS, said Principal is required by the Contract to furnish a bond for the faithful performance of the Contract;

NOW THEREFORE, we **Name of Contractor/Consultant**, as Principal, and **Name of Surety**, as Surety ("Surety") are held and firmly bound unto the City of Santa Monica (hereinafter called "City), in the sum of **Written** Dollars (**\$Numeric**) for the payment whereof we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the Principal, and Principal's heirs, executors, administrators, successors, or assigns shall in all things stand to and abide by and well and truly keep and perform all the undertakings, terms, covenants, conditions and agreements in the Contract (including without limitation any change,, modification or alteration thereof or in the work to be performed thereunder), which obligations include without limitation any warranty or indemnity obligations under the Contract, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

SURETY, for value received hereby stipulates and agrees that no change, extension of time, alteration or modification of the Contract or of the work to be performed thereunder shall in any way affect its obligations on this bond and it does hereby waive notice of such change, extension of time, alteration or modification of the Contract or of work to be performed thereunder.

IN WITNESS WHEREOF three (3) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety named herein, on the **##** day of **Month**, 200#, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

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Principal

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By

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Surety

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By

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**SECTION 01000 - GENERAL REQUIREMENTS**

**PART 1 - ADDITIONS TO THE GENERAL CONDITIONS:**

**1.1 USE OF THE PROJECT SITE AND CLEAN UP.**

- A. The Contractor's operations shall cause no unnecessary inconvenience. The access rights of the public shall be considered at all time. Unless otherwise authorized, traffic shall be permitted to pass through the Work, or an approved detour shall be provided.
- B. Safe and adequate pedestrian and vehicular access shall be provided and maintained to: fire hydrants; commercial and industrial establishments; churches, schools and parking lots; services stations and motels; hospitals; police and fire stations; and establishments of similar nature. Access to these facilities shall be continuous and unobstructed.
- C. Safe and adequate pedestrian zones and public transportation stops, as well as pedestrian crossings of the Work at intervals not exceeding 300 feet, shall be maintained unless otherwise approved by the Engineer. Vehicular access to residential driveways shall be maintained.
- D. Construction materials and equipment shall not be stored in the public right-of-way.
- E. Contractor shall notify the City of Santa Monica if the adjacent property and utilities may be affected by prosecution of the Work.
- F. When it is necessary to temporarily deny access to property, or when any utility service connection must be interrupted, Contractor shall give notices sufficiently in advance, but not less than 2 weeks, to enable the affected persons to provide for their needs. Notices shall conform to any and all applicable local ordinance and, whether delivered orally or in writing, shall include appropriate information concerning the interruption and instructions on how to limit inconvenience caused thereby.
- G. Sufficient time shall be allowed so that utilities and other concerned agencies can be notified at least 48 hours prior to excavating streets or other traffic areas or excavating near underground utilities or pole lines.
- H. Unless otherwise authorized, work shall be performed in only one-half the roadway at one time. One-half shall be kept open and unobstructed until the opposite side is ready for use. If one-half a street only is being improved, the other half shall be conditioned and maintained as a detour.
- I. The Contractor shall cooperate with the various parties involved in the delivery of mail and the collection and removal of trash and garbage to maintain existing schedules for these services.

1.2 COMMENCEMENT OF THE WORK

- A. Construction work shall be performed between the hours of 8:00 AM to 6:00 PM, Monday through Friday. No work shall be performed on Saturdays without prior authorization. If Saturday work is authorized, work shall be performed between 9:00 AM to 5:00 PM.
- B. Construction work is not allowed: (1) before 8 a.m. or after 6 p.m. on Monday through Friday; (2) before 9 a.m. or after 5 p.m. on Saturday; (3) all day on Sunday; (4) all day on New Year's Day, Martin Luther King's Birthday, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.
- C. A permit may be issued authorizing construction activity during the times prohibited by this Section whenever it is found to be in the public interest. The person obtaining the permit shall provide notification to persons occupying property within a perimeter of five hundred feet of the site of the proposed construction activity prior to commencing work pursuant to the permit. The form of the notification shall be approved by the City and contain procedures for the submission of comments prior to the approval of the permit. Applications for such permit shall be in writing, shall be accompanied by an application fee and shall set forth in detail facts showing that the public interest will be served by the issuance of such permit. No permit shall be issued unless the application is first approved by the Director of Public Works, the Building Officer, the Chief of Police and the Director of Planning and Community Development.

1.3 SAFETY OF PERSONS AND PROPERTY (NOT USED)

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01000

**SECTION 01100 - SUMMARY**

**PART 1 - GENERAL**

**1.1 WORK COVERED BY CONTRACT DOCUMENTS**

- A. Project Description: The project would entail the replacement of existing High Pressure Sodium (HPS) street lighting luminaires with Light Emitting Diode (LED) street lighting luminaires throughout the City of Santa Monica. All replacement luminaires used on this project shall be from one manufacturer and shall be uniform throughout the project.
- B. Project Location: Various locations in the City of Santa Monica as follows:
- C. The work consists of but is not limited to:
  - 1. Remove and replace existing High Pressure Sodium (HPS) street light luminaires with Light Emitting Diode (LED) street light luminaires.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION 01100**

**SECTION 01140 - WORK RESTRICTIONS**

PART 1 – GENERAL

1.1 RESTRICTIONS

- A. Contractor shall submit work sequencing and phasing plan to the Engineer for approval prior to starting any field work. All construction work shall be done in conformance with phasing plan.
- B. The Contractor shall work on one location/Project at a time and complete all work associated with that location/Project, before beginning construction at the next location/Project unless otherwise approved by the Engineer.
- C. The existing street light system shall be maintained in effective operation by the Contractor during the progress of the work.
- D. The Contractor can occupy only one side of the street - two blocks at the time. Subsequently, after one block is finished the Contractor can move to the next block unless approved by the Engineer.

1.2 PUBLIC NOTICING (NOT USED)

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01140

## SECTION 01210 - ALLOWANCES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements governing allowances.
  - 1. Certain materials and equipment are specified in the Contract Documents by allowances. In some cases, these allowances include installation. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.
- B. Types of allowances include the following:
  - 1. Contingency allowances.

#### 1.2 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed by Construction Manager for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B. Contractor's overhead, profit, and other related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.
- C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins as specified in General Provisions.
- D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

### PART 2 - PRODUCTS (Not Used)

### PART 3 – EXECUTION

#### 3.1 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.2 SCHEDULE OF ALLOWANCES

Allowances shall be as specified in Section 01270 – Unit Prices.

END OF SECTION 01210

## SECTION 01270 - UNIT PRICES

### PART 1 - GENERAL

#### 1.1 DEFINITIONS

- A. Unit price is a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.
- B. When an item of work is designated as a Final Pay Quantity in the list of unit prices and/or shown as (F) on the Bid Form, the estimated quantity for that item of work shall be the **final pay quantity**, unless the dimensions of any portion of that item are revised by the Engineer, or the item or any portion of the item is eliminated. If the dimensions of any portion of the item are revised, and the revisions result in an increase or decrease in the estimated quantity of that item of work, the final pay quantity for the item will be revised in the amount represented by the changes in the dimensions. If a final pay item is eliminated, the estimated quantity for the item will be eliminated. If a portion of a final pay item is eliminated, the final pay quantity will be revised in the amount represented by the eliminated portion of the item of work.
- C. The estimated quantity for each item of work designated as (F) on the Bid Form shall be considered as approximate only, and no guarantee is made that the quantity which can be determined by computations, based on the details and dimensions shown on the plans, will equal the estimated quantity. No allowance will be made in the event that the quantity based on computations does not equal the estimated quantity.
- D. In case of discrepancy between the quantity shown on the Bid Form for a final pay item and the quantity or summation of quantities for the same item shown on the plans, payment will be based on the quantity shown on the Bid Form.
- E. The Contractor shall accept the compensation provided in the contract as full payment for furnishing all labor, materials, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced under the contract; also for loss or damage arising from the nature of the work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the work until the acceptance by the City and for all risks of every description connected with the prosecution of the work, also for all expenses incurred in consequence of the suspension or discontinuance of the work as provided in the contract; and for completing the work according to the plans and specifications. Neither the payment of any estimate nor of any retained percentage shall relieve the Contractor of any obligation to make good any defective work or material. No compensation will be made in any case for loss of anticipated profits.

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### 1.2 PROCEDURES

- A. All work to be paid for at a contract price per unit of measurement will be measured by the Engineer in accordance with the U.S. Customary units of measurement.
- B. Whenever pay quantities of material are determined by weighing, the scales shall be operated by a weighmaster licensed in conformance with the requirements in the California Business and Professions Code, Division 5, Chapter 7. The Contractor shall furnish a Public weighmasters certificate or certified daily summary weigh sheets. A representative of the City may, at the discretion of the Engineer, be present to witness the weighing and to check and compile the daily record of the scale weights.

### PART 2 - PRODUCTS (NOT USED)

### PART 3 – EXECUTION

#### 3.1 LIST OF UNIT PRICES

##### A. **Item No. 1-9**

**Description:** Remove existing cobrahead luminaire and photoelectric unit and replace with new equivalent LED Street Light Luminaire and photoelectric unit as indicated

**Measurement:** The quantity of remove and replace street light luminaire, photoelectric unit and other associated work will be paid for as units determined from actual count.

**Payment:** The contract unit price paid for remove and replace street light luminaire, photoelectric unit and other associated work shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing and installing, modifying, or removing the street light luminaire as specified in these technical specifications, and as directed by the Engineer, including any necessary traffic control; salvaging existing materials; and making all required tests. Full compensation for all additional materials and labor, not specified, which are necessary to complete the installation, shall be considered as included in the unit prices paid, and no additional compensation will be allowed therefor.

##### B. **Item No. 10**

**Description:** Allowance for traffic control plans prepared by a traffic engineer registered in the State of California.

**Measurement:** Traffic control plans to be provided will be paid for as described in section 01210 – Allowances of the Technical Specifications.

**Payment:** The contract price paid for traffic control plans shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in providing traffic control plans as specified in these technical specifications, and as directed by the Engineer. Full compensation for all additional materials and labor, not shown on the plans or specified, which are necessary, shall be

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considered as included in the lump sum price paid, and no additional compensation will be allowed therefor.

END OF SECTION 01270

**SECTION 01770 - RECORD DOCUMENTS**

**PART 1 - GENERAL**

1.1 PROJECT RECORD DOCUMENTS – “AS-BUILT CONSTRUCTION PLANS” (NOT USED)

1.2 WARRANTIES

- A. Submittal Time: Submit written warranties for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties of the Work that is completed.
- C. Organize warranty documents into an orderly sequence based on the table of contents of the Special Provisions and Technical Specifications (SPTS).
  - 1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (115-by-280-mm) paper.
  - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01770

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**SECTION 02231 - ROOT PRUNING AND TREE PROTECTION**

PART 1: GENERAL

- 1.1 RELATED DOCUMENTS: The General Contract Conditions and Division - 1 Specification sections apply to Work of this section.

PART 2: PRODUCTS - Not Used

PART 3: EXECUTION – Not Used

## SECTION 02761 – TEMPORARY TRAFFIC CONTROL

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Temporary Traffic Control shall consist of furnishing, installing, maintaining and removing temporary traffic handling devices including construction area signs, flashing arrow signs, portable delineators, barricades, telescoping flag trees, traffic cones and other traffic handling equipment and devices in accordance with the Caltrans Traffic Manual; California Manual on Uniform Traffic Control Devices (MUTCD); Work Area Traffic Control Handbook (WATCH); California Manual of Temporary Traffic Controls for Construction and Maintenance Work Zones; California Vehicle Code; and City of Santa Monica Municipal Code.
- B. The cost for Temporary Traffic Control shall be considered included in the contract price paid for by various items of work requiring temporary traffic control.
- C. The Contractor shall conduct his operations as to offer the least possible obstruction and inconvenience to the public and shall have under construction no greater length or amount of work than can prosecute properly with due regard to the rights of the public.
- D. If required by the Engineer, the Contractor shall provide temporary traffic control plans in accordance with the City of Santa Monica's Transportation Management Division requirements. The plans shall be prepared by a Civil or Traffic Engineer registered in the State of California. The cost of preparing temporary traffic control plans shall be authorized by the Engineer in accordance with Section 01210 – Allowances and Section 01270 – Unit Prices of these specifications.

### PART 2 - PRODUCTS

#### 2.1 USE OF TRAFFIC LANES

- A. All temporary traffic delineation used shall be either eighteen inches (18") tall minimum height traffic cones or twenty-four inches (24") tall minimum height traffic delineators
- B. Use of "lighted arrow boards" and illuminated traffic delineators will be required during the hours of darkness or inclement weather.

### PART 3 – EXECUTION

#### 3.1 USE OF TRAFFIC LANES

- A. Delineation shall be smooth.
- B. When vehicular traffic is moved out of its normal path due to a partial or complete lane closure, a taper (or transition) must always be provided for a smooth and safe lane change. The taper or transition length depends upon the offset and speed at the work area.

## On-Bill Financed LED Streetlight Replacement Project SP2372

- C. Traffic delineators or cones shall be spaced at fifteen foot (15') intervals in the transition areas where traffic is being shifted and not more than twenty foot (20') intervals at other locations unless otherwise specified.
- D. A traffic lane's minimum width is ten feet (10') clear. "Clear" means the distance between the cone or delineator bases, not their centers.
- E. Complete lane closures are required if the partially closed traffic lane is less than ten feet (10') and require a separate permit from the City of Santa Monica Transportation Management Division

### 3.2 USE OF ALLEYS

- A. An eleven foot (11') wide traffic lane must be maintained in alleys for fire trucks at all times unless approval is given for a complete alley closure.
- B. A loading area for all delivery vehicles shall be provided directly adjacent to the delivery site that does not encroach into the eleven foot (11') wide traffic lane.
- C. The Contractor must notify all impacted businesses and residents a minimum of seventy-two (72) hours in advance of proposed work activities in alleys.
- D. Appropriate signs along the alley at each entrance point (cross streets, driveways, and parking areas, etc.) shall be provided in addition to signs at the work area, barricades, flagmen, or other warning devices.
- E. Special signs for affected parking stalls/garages, and for traffic entering the alley if the one-way alley is closed off at the work area (temporarily converted to two-way traffic) shall be provided.

### 3.3 USE OF SIDEWALKS

- A. The Contractor shall maintain a minimum four foot (4') wide pedestrian walkway, if work activities encroach into existing walkways.
- B. Temporary walkways shall not encroach into any traffic lanes. However, they may be allowed to encroach into the curb parking lanes, if approved.
- C. Signs shall be placed in accordance with the sign posting guidelines for sidewalk closure published by the City's Transportation Management Division.

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### 3.4 USE OF CURB PARKING LANE

- A. The use of curb parking lanes for the storage of equipment, materials, dumpsters, or any other activities is subject to the approval of the Transportation Management Division and Public Works Division.

### 3.5 USE OF RED ZONES

- A. The use of red zones is prohibited unless special circumstances warrant their use and specific authorization is given by the City Parking and Traffic Engineer.
- B. If the use of a red zone results in the temporary relocation of a bus stop, the Contractor is required to make all necessary arrangements with the appropriate bus company (MTA or Santa Monica Municipal Bus Lines) to relocate the bus stop bench, install special signs, etc.

### 3.6 USE OF PARKING SPACES

- A. Temporary "NO PARKING" signs provide the means to prohibit vehicles from blocking a work area.
- B. Temporary "NO PARKING" signs must be purchased at the Transportation Management Division Office.
- C. The sign-posting instructions are as follows:
  - 1) The day, date and effective hours must be written on the black background of each sign that is posted.
  - 2) The sales receipt number must be written in the upper right-hand corner of the white background (adjacent to the word "NO") of each sign posted.
  - 3) Temporary "NO PARKING" signs must be posted by the Contractor and inspected by the Santa Monica Police Department a minimum of twenty-four (24) hours prior to the date and time they are to take effect (per California Vehicle Code Section #22651M).
  - 4) The Contractor shall contact the Santa Monica Police Department Parking Enforcement Office at (310) 458-8466, Monday through Friday, 7:30 A.M. to 6:00 P.M. IMMEDIATELY AFTER THE SIGNS ARE POSTED. THE POLICE DEPARTMENT CHECKS TO SEE THAT THE SIGNS ARE PROPERLY POSTED.
  - 5) Temporary "NO PARKING" signs shall not cover or obscure existing signs or parking meters.
  - 6) Temporary "NO PARKING" sign maintenance is the responsibility of the Contractor.

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- 7) All signs must be removed upon completion of the project by the Contractor. Signs which are not removed will be removed by City crews and a charge will be made against the Contractor.

D. Prohibiting Parking at Metered Spaces

- 1) Each meter post must have one temporary "NO PARKING" sign posted and inspected as described above. Permission to use metered parking spaces may be obtained from the Transportation Management Division Office after submitting the appropriate permits, any written authorization required, and a list of the meters to be used. Individual parking meter numbers are stamped on metal tags on the parking meters

END OF SECTION 02761

**SECTION 16010 – BASIC ELECTRICAL REQUIREMENTS**

**PART 1 – GENERAL**

**1.1 Regulations and Code**

- A. All electrical equipment shall conform to the standards of the National Electrical Manufacturers Association (NEMA), the Underwriters' Laboratories Inc. (UL), the Electrical Testing Laboratories (ETL), the National Electrical Testing Association, Inc. (NETA), or the Electronic Industries Association (EIA), wherever applicable. In addition to the requirements of the plans, these specifications, and the special provisions, all materials and workmanship shall conform to the requirements of the National Electrical Code, hereinafter referred to as the Code; California Administrative Code, Title 8, Subchapter 5, Electrical Safety Orders; Rules for overhead Electrical Line Construction, General Order No. 95 of the Public Utilities Commission; Standards of the American Society for Testing and Materials (ASTM); American National Standards Institute (ANSI); the Insulated Power Cable Engineers Association; and any local ordinances which may apply.

**1.2 Maintenance of Existing Systems**

- A. Existing electrical systems, or temporary replacements thereof, shall be maintained in effective operation by the Contractor during the progress of the work unless authorized by the Engineer.

**PART 2 – PRODUCTS (Not Used)**

**PART 3 – EXECUTION (Not Used)**

**END OF SECTION 16010**

**SECTION 16050 - MATERIALS AND INSTALLATION**

**PART 1 – GENERAL**

- 1.1 EXCAVATING AND BACKFILLING (NOT USED)
- 1.2 REMOVING AND REPLACING IMPROVEMENTS (NOT USED)
- 1.3 SAFETY PRECAUTIONS
  - A. Prior to starting work on existing series street light circuits, Contractor must obtain daily safety circuit clearance from the City.
  - B. No work will be allowed without first posting approved "NO PARKING" signs in the work area 48 hours prior to starting work, as directed by the Traffic Engineer of the City's Transportation Management Division.
- 1.4 INSPECTION
  - A. All material shall be subject to inspection after delivery to the site and during installation of the work.
  - B. Failure of the Engineer to note faulty material or workmanship during construction shall not relieve the Contractor of any responsibility for removing or replacing, at his own expense, any such material.
- 1.5 FOUNDATIONS (NOT USED)
- 1.6 STANDARDS AND POSTS (NOT USED)
- 1.7 PULL BOXES (NOT USED)

**PART 2 – PRODUCTS**

- 2.1 GENERAL (NOT USED)

**PART 3 – EXECUTION**

- 3.1 GENERAL (NOT USED)
- 3.2 STANDARDS AND POSTS (NOT USED)
- 3.3 PULL BOXES (NOT USED)

END OF SECTION 16050

## SECTION 16509 – GENERAL LIGHTING

### PART 1 – GENERAL

#### 1.1 Photoelectric Controls

- A. Photoelectric controls, as specified in the special provisions shall be capable of switching multiple lighting systems directly.

#### 1.2 Type

- A. The type of photoelectric control shall be Type IV and shall consist of a photoelectric unit that plugs into an EEI-NEMA twist lock receptacle integral with the luminaire.

#### 1.3 Photoelectric Units

- A. The photoelectric unit shall provide an output in response to changing light levels. The response level shall remain stable throughout the life of the control unit. Components of the unit shall not require periodic replacement.
- B. Units for roadway lighting shall have a "turn-on" between on and 5 foot-candles and a "turn-off" at between 1-1/2 and 5 times "turn-on."
- C. Measurements shall be by the procedures set forth in EEI-NEMA Standards for Physical and Electrical Interchangeability of Light-Sensitive Control Devices Used in the Control of Roadway Lighting. Photoelectric units shall be screened to prevent artificial light from causing cycling.
- D. The photoelectric unit shall also conform to the following:
  - 1. The supply voltage rating shall be 60Hz, 105-130, 210-240, or 105-240 volts, as specified.
  - 2. The load rating shall be 800 watts minimum, high-pressure sodium.
  - 3. The operating temperature range shall be from minus 29 degrees C. to 65 degrees C.
  - 4. The power consumption shall be less than 10 watts.
  - 5. The unit shall be housed in a weatherproof enclosure.
  - 6. The base of the unit shall be provided with a 3-prong, EEI-NEMA standard, twist-lock plug mounting. Mounted in the luminaire.

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PART 2 – PRODUCTS

1.1 City of Los Angeles LED Fixtures

- A. See Appendix for the City of Los Angeles approved LED fixture list. The latest list can also be found at the following link:

<http://bsl.lacity.org/led-contractors-vendors.html>

PART 3 – EXECUTION (Not Used)

END OF SECTION 16509

**SECTION 17000**

**APPENDIX 1**

**PART 1 - CITY OF LOS ANGELES LED FIXTURES**

# LED Fixtures



City of Los Angeles  
 Department of Public Works  
 Bureau of Street Lighting



**Bold is the latest approved from each manufacturer**

These products have been tested and approved by the Energy Efficiency Division. This chart will be updated as new technology becomes available. The HPS equivalent size is based on similar roadway illumination levels. The nominal value of the HPS equivalent only represents the lamp size and not the total power consumed. It is recommended that designers use the lowest wattage that meets lighting criteria.

Locked .ies files should be used for final design purposes.

Local Streets: Type II	Approved Luminaires	Catalog Number	Power	
Local Streets: Type II	Cree Ledway 200	BXSL9434JA& STR-LWY-25-HT-02-D-UL-SV-350-N-R-7PM-40K	25 W	
	100W HPS	Cree Ledway 30E	BXSL9405JA& STR-LWY-25-HT-03-E-UL-SV-350-N-R-7PM-40K	36 W
		Leontek GreenCobra 20F	GCL-20F-MV-NW-2-GY-530-PCR7	35 W
	150W HPS	Leontek GreenCobra Jr	GCL-20G-MV-NW-2-GY-580-PCR7	38 W
		Phillips StreetView 30W16	SVPM-30M16LED4K-R-LE2-UMV-DMG-RCD7-SP1-WC10-GY3	35 W
		Hadco 32	HX13212NAMIRIAN	52 W
		Leontek GreenCobra 30E (superseded)	GCL-30E-MV-NW-2-GY-350-PCR7	36 W
	Collector Streets: Type II	Cree Ledway 300 (superseded)	BXSL9215JA& STR-LWY-25-HT-03-D-UL-SV-525-N-R-40K	35 W
		Cree Ledway 50E	BXSL9406JA& STR-LWY-2M-HT-05-E-UL-SV-525-N-R-7PM-40K	86W
		Cree XSP2 @ E (mid-block)	BXSP9147LAS-E BXSPA03ME - USQR-7PM	64 W
Leontek GreenCobra 30F		GCL-30F-MV-NW-2-GY-700-PCR7	70 W	
Phillips StreetView 60W32		SVPM-60W32LED4K-R-LE2-UMV-DMG-RCD7-SP1-WC10-GY3	70 W	
Leontek GreenCobra 40E (superseded)		GCL-40E-MV-NW-2-GY-700-PCR7	95 W	
Collector Streets: Type II	Leontek GreenCobra 40E W/DCM (superseded)	GCL-40E-MV-MW-2-GY-700-PCR7DCM	95 W	
	Cree Ledway 500 (superseded)	BXSL9184JA& STR-LWY-2M-HT-05-D-UL-SV-525-N-R-40K	84 W	

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Major Streets: Type III				
200W HPS	Oree Ledway 60E Leontek Erodra 11M Oree XSP2 @ C (mid-block) Leontek GreenCobra 40F American Electric 40B @ 700mA Leontek GreenCobra 60E (superseded) Leontek GreenCobra 60E w/DOM (superseded) Oree Ledway 60D @ 700mA Oree Ledway 60D @ 700mA w/DOM (superseded) Leontek Erodra 14M @ 530mA Oree XSP2 @ A (mid-block) Leontek GreenCobra 60F @ 530mA Leontek GreenCobra 90E (superseded)	BXSL9408LA& STR-LWY-3M-HT-06-E-UL-SV-525-N-R-7PWN-40K EC3-11M-MV-NW-3-GY-650-PCR7 BXSP9147LA&-C BXSPA03HC - USQR-7PWN GC1-40F-MV-NW-3-GY-700-PCR7 ATR2 40BLED70 INVOLT R3 P7 GCL-60E-MV-NW-3-GY-700-PCR7 GCL-60E-MV-NW-3-GY-700-PCR7DOM BXSL9191LA& STR-LWY-3M-HT-06-D-UL-SV-700-N-R-40K BXSL9174LA& STR-LWY-3M-HT-06-D-UL-SV-700-N-R-40K-ROAM EC1-14M-MV-NW-3-GY-530-PCR7 BXSP9147LA&-A BXSPA03HA - USQR-7PWN GCL-60F-MV-NW-3-GY-530-PCR7 GC2-90E-MV-NW-3-GY-530-PCR7	100 W 89 W 82 W 92 W 94 W 136 W 136 W 139 W 139 W 98 W 101 W 101 W 159 W	
250W HPS	Oree Ledway 80E Leontek Erodra 18M @530mA Oree XSP2L @ O (mid-block) Leontek GreenCobra 60F @ 700mA Leontek GreenCobra 100E (superseded) Oree Ledway 90D (superseded)	BXSL9408LA& STR-LWY-3M-HT-06-E-UL-SV-525-N-R-7PWN-40K EC7-18M-MV-NW-3-GY-530-PCR7 BXSP91808-O BXSPA03HO - USQR-7PWN GCL-60F-MV-NW-3-GY-700-PCR7 GC2-100E-MV-NW-3-GY-530-PCR7 BXSL9192LA& STR-LWY-3M-HT-08-D-UL-SV-525-N-R-40K	139W 122 W 114 W 133W 175 W 149 W	
310W HPS	Oree Ledway 100E Leontek Erodra 18M @700mA Leontek GreenCobra 90F Oree XSP2L @ L (mid-block) Hadco RX 120 Leontek GreenCobra 120E (superseded) Oree Ledway 120D (superseded)	BXSL9408LA& STR-LWY-3M-HT-10-E-UL-SV-525-N-R-7PWN-40K EC7-18M-MV-NW-3-GY-700-PCR7 GC2-90F-MV-NW-3-GY-530-PCR7 BXSP91808-L BXSPA03HL - USQR-7PWN RC2120ENASRMAN GC2-120E-MV-NW-3-GY-530-PCR7 BXSL9183LA& STR-LWY-3M-HT-12-D-UL-SV-525-N-R-40K	167W 163 W 150W 168 W 208 W 207 W 195 W	
400W HPS+	Leontek Erodra 30M American Electric 80B @1000mA Hadco RX 160	EC3-30M-MV-NW-3-GY-700-PCR7 ATR2 80BLED10 INVOLT R3 4K P7 RC2160ENASRMAN	260 W 284 W 275 W	

Updated 9/11/15

## BUREAU OF STREET LIGHTING

### General Specifications for Solid State Lighting LED Roadway Luminaires LED Equivalent Replacement for 70 W and 100 W HPS

**Issue Date: 07/28/2011**

<b>Luminaire Requirements:</b>	
Correlated Color Temperature (CCT)	<u>Nominal CCT (°K)</u> 4000 ± 275K
Color Rendering Index (CRI)	Luminaires shall have a minimum CRI of 65.
Off-state Power Consumption	The power draw of the luminaire (including PE or remote control devices) shall not exceed 2.50 watts when in the off state.
On-state Power Consumption	Shall not consume more than 53 W (not including optional monitoring/control device).
Warranty	A warranty must be provided for the full replacement of the luminaire due to any failure for six (6) years. The warranty shall provide for the repair or replacement of defective electrical parts (including light source and power supplies/drivers) for a minimum of eight (8) years from the date of purchase.
Weight	Luminaire shall not weigh more than 22 pounds.
Operating Environment	Luminaire shall be able to operate normally in temperatures from -20° C to 50° C.
Cooling System	Shall consist of a heat sink with no fans, pumps, or liquids, and shall be resistant to debris buildup that does not degrade heat dissipation performance.
Dimensions (Approx.)	26" long x 15" wide x 6" tall
Housing	Shall be primarily constructed of metal. Finish shall be gray in color, powder coated and rust resistant. Driver must be mounted internally and be replaceable. Driver must be accessible without tools. All screws shall be stainless steel. Captive screws are needed on any components that require maintenance after installation. No parts shall be constructed of polycarbonate unless it is UV stabilized (lens discoloration shall be considered a failure under warranty). Ingress Protection shall be rated a minimum of IP54.
Lighting Controls	NA
IESNA Luminaire Classification	Cutoff or using TM-15: B1 U1 G1
Mounting Arm Connection	Luminaires shall mount on 2.375" O.D. horizontal tenon with no more than four 9/16-inch hex bolts and two piece clamp with vertical tilt adjustment range of ± 5%.
PE Cell Receptacle	Luminaires shall have a 3-prong twist-lock photo-control receptacle in accordance with ANSI C136.10. The PE socket needs to be able to rotate, so that the PE window can always be positioned to face the North direction.
House Shield	Shall provide option for house side light control.

<b>Equipment Identification Requirements:</b>	
Bar Code (Recommended)	Each Luminaire must have a Bar Code identifying its Catalog number, Wattage and Current settings of 700 mA, 525mA, or 350mA. Bar code to be attached on the inside of housing door and must be easily visible once door is opened.

<b>LED Module/Array Requirements:</b>	
Lumen Depreciation of LED Light Sources and Ingress Protection	LED module(s)/array(s) shall deliver at least 70% of initial lumens, when installed for a minimum of 50,000 hours. Assembly shall be rated a minimum of IP66.
Light Distribution	Should be in accordance with IESNA Type 2 S Lighting Distribution. Type II designated 2X is also acceptable.

<b>Power Supply/Driver Requirements:</b>	
Power Factor	Power supply should have a minimum Power Factor of 0.90.
Max amperage at LED	Maximum rating DC Forward Current at T <sub>A</sub> 25° C should be 1,500 mA. Maximum amperage at LED must not exceed driver current to meet Lumen Depreciation value described above but shall not exceed 1,000 mA per mm <sup>2</sup> of chip. Standard factory setting shall be 525 mA, as delivered from the factory. The Driver and LED arrays shall be designed for multi-current input operation, with switchable ratings at 350 mA, 525 mA and 700 mA.
Transient Protection	Per IEEE C.62.41-2 - 2002, Class A operation. The line transient shall consist of seven strikes of a 100k HZ ring wave, 10 KV level, for both common mode and differential mode. It should also meet test procedure in accordance with IEEE C62.45.
Operating Temperature	Power Supply shall operate between -20° C and 50° C.
Frequency	Output operating frequency must be ≥ 120 Hz (to avoid visible flicker) and input operating frequency of 60 Hz.
Interference	Power supplies shall meet FCC 47 CFR Part 15/18.
Noise and Ingress Protection	Power supply shall have a Class A sound rating per ANSI Standard C63.4. Assembly or compartment shall be rated a minimum of IP54.

<b>Roadway Application Requirements:</b>	
Minimum Light Output	Luminaire shall deliver a minimum of 3900 lumens (initial).
Luminaire Efficacy	$= \frac{\text{Luminaire Light Output (includes fixture efficiency and thermal effects)}}{\text{Luminaire Input Power}}$
Minimum Luminaire Efficacy	75 lm/W

<b>Measurement/Performance/Safety Standards:</b>	
<b>ANSI C78.377.2008</b>	Specifications for the Chromaticity of Solid State Lighting Products.
<b>IESNA LM-79-08</b>	IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
<b>IESNA LM-80-08</b> (Recommended)	IESNA Approved Method for Measuring Lumen Maintenance of LED Lighting Sources.
<b>UL Standards</b> (Latest Approved)	<ul style="list-style-type: none"> <li>• <b>8750</b> Light-Emitting Diode (LED) Light Sources for Use in Lighting Products</li> <li>• <b>1598</b> Luminaires</li> <li>• <b>1012</b> Power Units Other Than Class 2</li> <li>• <b>1310</b> Class 2 Power Units</li> <li>• <b>2108</b> Low Voltage Lighting Systems</li> <li>• All components shall be UL approved</li> </ul>

<b>Pre-qualifications for Bidding:</b>
<ol style="list-style-type: none"> <li>1. The following fixture has been pre-approved in the City’s LED Pilot Project: (This information will not be displayed at this time)</li> <li>2. Before the contract can be awarded, the winning bidder shall provide three production samples to the City at no cost for final testing.</li> <li>3. Upon delivery, quality control testing will be performed by the Bureau of Street Lighting. Testing will be done in accordance with the City’s “Special Specifications for the Construction of Street Lighting Systems” (The Blue Book).</li> </ol>

<b>Delivery &amp; Ordering:</b>
<p>Subsequent orders placed in response to this bid must comply with the following deliveries and quantities:</p> <p><u>Delivery time after orders are placed must not exceed 8 weeks</u></p> <p>The City of Los Angeles reserves the right to order additional fixtures (up to 20,000) with this contract, with the option to renegotiate the unit price as the cost of LED fixtures are reduced in the market place.</p>

<b>Penalties:</b>
<p>If the units are not delivered per the above delivery requirements, a penalty of \$100 per day per unit will be assessed. If the bidder cannot deliver, the City will have the right to cancel the contract and go to the next qualified bidder.</p>

**BUREAU OF STREET LIGHTING**  
**General Specifications for Solid State Lighting LED Roadway Luminaires**  
**LED Equivalent Replacement for 150 W HPS**  
**Issue Date: 1/28/2011**

<b>Luminaire Requirements:</b>	
Correlated Color Temperature (CCT)	<u>Nominal CCT (°K)</u>  4000 +/-275
Color Rendering Index (CRI)	Luminaires shall have a minimum CRI of 65.
Off-state Power Consumption	The power draw of the luminaire (including PE or remote control devices) shall not exceed 2.50 watts when in the off state.
On-state Power Consumption	Shall not consume more than (not including optional monitoring/control device): - 115 W for Equivalent Replacement of 150 W HPS
Warranty	A warranty must be provided for the full replacement of the luminaire due to any failure for six (6) years. The warranty shall provide for the repair or replacement of defective electrical parts (including light source and power supplies/drivers) for a minimum of eight (8) years from the date of purchase.
Weight	Luminaire shall not weigh more than 22 pounds.
Operating Environment	Luminaire shall be able to operate normally in temperatures from -20° C to 50° C.
Cooling System	Shall consist of a heat sink with no fans, pumps, or liquids, and shall be resistant to debris buildup that does not degrade heat dissipation performance.
Dimensions (Approx.)	26" long x 16" wide x 7" tall
Housing	Shall be primarily constructed of metal. Finish shall be gray in color, powder coated and rust resistant. Driver must be mounted internally and be replaceable. Driver must be accessible without tools. All screws shall be stainless steel. Captive screws are needed on any components that require maintenance after installation. No parts shall be constructed of polycarbonate unless it is UV stabilized (lens discoloration shall be considered a failure under warranty). Ingress Protection shall be rated a minimum of IP54.
IESNA Luminaire Classification	Using TM-15: B2 U2 G2
Mounting Arm Connection	Luminaires shall mount on 2.375" O.D. horizontal tenon with no more than four 9/16" hex bolts and two piece clamp with vertical tilt adjustment range of +/- 5%.
PE Cell Receptacle	Luminaires shall have a 3-prong twist-lock photo-control receptacle in accordance with ANSI C136.10. The PE socket needs to be able to rotate, so that the PE window can always be positioned to face the North direction.
House Shield	Shall provide option for house side light control.

<b>LED Module/Array Requirements:</b>	
Lumen Depreciation of LED Light Sources	LED module(s)/array(s) shall deliver at least 70% of initial lumens, when installed for a minimum of 50,000 hours. Assembly shall be rated a minimum of IP66.
Light Distribution	Should be in accordance with IESNA Type II Medium Lighting Distribution.

<b>Power Supply/Driver Requirements:</b>	
Power Factor	Power supply should have a minimum Power Factor of .90
Max amperage at LED	Maximum rating DC Forward Current at T <sub>A</sub> 25° C should be 1000 mA. Maximum amperage at LED must not exceed driver current to meet Lumen Depreciation value described above and initial lumen values required below, and shall not exceed 700 mA per mm <sup>2</sup> of chip. Standard factory setting shall be 525 mA, as delivered from the factory. The Driver and LED arrays shall be designed for multi-current input operation, with switchable ratings at 350 mA, 525 mA and 700 mA.
Transient Protection	Per IEEE C.62.41-2-2002, Class A operation. The line transient shall consist of seven strikes of a 100k HZ ring wave, 10 kV level, for both common mode and differential mode. It should also meet test procedure in accordance with IEEE C62.45.
Operating Temperature	Power Supply shall operate between -20° C and 50° C.
Frequency	Output operating frequency must be ≥ 120 Hz (to avoid visible flicker) and input operating frequency of 60 Hz.
Interference	Power supplies shall meet FCC 47 CFR Part 15/18 (Consumer Emission Limits).
Noise and Ingress Protection	Power supply shall have a Class A sound rating per ANSI Standard C63.4. Assembly or compartment shall be rated a minimum of IP54.

<b>Roadway Application Requirements:</b>	
Minimum Light Output	For Equivalent Replacement of 150 W HPS, LED luminaire shall deliver a minimum of 5950 lumens (initial)
Luminaire Efficacy	$\frac{\text{Luminaire Light Output (includes fixture efficiency and thermal effects)}}{\text{Luminaire Input Power}}$
Minimum Luminaire Efficacy	55 lm/W

<b>Measurement/Performance/Safety Standards:</b>	
<b>ANSI C78.377.2008</b>	Specifications for the Chromaticity of Solid State Lighting Products.
<b>IESNA LM-79-08</b>	IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
<b>IESNA LM-80-08</b> (Recommended)	IESNA Approved Method for Measuring Lumen Maintenance of LED Lighting Sources.
<b>UL Standards</b> (Latest Approved)	<ul style="list-style-type: none"> <li>• <b>8750</b> Light-Emitting Diode (LED) Light Sources for Use in Lighting Products</li> <li>• <b>1598</b> Luminaires</li> <li>• <b>1012</b> Power Units Other Than Class 2</li> <li>• <b>1310</b> Class 2 Power Units</li> <li>• <b>2108</b> Low Voltage Lighting Systems</li> <li>• All components shall be UL approved</li> </ul>

<b>Pre-qualifications for Bidding:</b>
<ol style="list-style-type: none"> <li>1. The following fixtures have been pre-approved in the City's LED Pilot Project: (This information will not be displayed at this time)</li> <li>2. Before the contract can be awarded, the winning bidder shall provide three production samples to the City at no cost for final testing.</li> <li>3. Upon delivery, quality control testing will be performed by the Bureau of Street Lighting. Testing will be done in accordance with the City's "Special Specifications for the Construction of Street Lighting Systems" (The Blue Book).</li> </ol>

<b>Delivery Requirements:</b>
<p>Subsequent orders placed in response to this bid must comply with the following deliveries and quantities:</p> <p><u>Delivery time after orders are placed must not exceed 8 weeks</u></p> <p>The City of Los Angeles reserves the right to order additional fixtures (up to 20,000 units) with this contract, with the option to renegotiate the unit price as the cost of LED fixtures are reduced in the market place.</p>

<b>Penalties:</b>
<p>If the units are not delivered per the above delivery requirements, a penalty of \$100 per day per unit will be assessed. If the bidder cannot deliver, the City will have the right to cancel the contract and go to the next qualified bidder.</p>

**BUREAU OF STREET LIGHTING**  
**Requirements for Solid State Lighting LED Roadway Luminaires**  
**200 W Equivalent without control**  
**Issue Date: 03/2012**

<b>Luminaire Requirements:</b>	
Correlated Color Temperature (CCT)	<u>Nominal CCT (°K)</u> 4000 ± 275K
Color Rendering Index (CRI)	Luminaires shall have a minimum CRI of 65.
Off-state Power Consumption	The power draw of the luminaire (including PE or remote control devices) shall not exceed 2.50 watts when in the off state.
On-state Power Consumption	Shall not consume more than 140 W (not including optional monitoring/control device).
Warranty	A warranty must be provided for the full replacement of the luminaire due to any failure for six (6) years. The warranty shall provide for the repair or replacement of defective electrical parts (including light source and power supplies/drivers) for a minimum of eight (8) years from the date of purchase. Reduction of lighting output by more than 10% of the LED package within 6 years constitutes luminaire failure.
Weight	Luminaire shall not weigh more than 22 pounds.
Operating Environment	Luminaire shall be able to operate normally in temperatures from -20° C to 50° C.
Cooling System	Shall consist of a heat sink with no fans, pumps, or liquids, and shall be resistant to debris buildup that does not degrade heat dissipation performance.
Dimensions (Approx.)	26" long x 15" wide x 6" tall
Housing	Shall be primarily constructed of metal. Finish shall be gray in color, powder coated and rust resistant. Driver must be mounted internally and be replaceable. Driver must be accessible without tools. All screws shall be stainless steel. Captive screws are needed on any components that require maintenance after installation. No parts shall be constructed of polycarbonate unless it is UV stabilized (lens discoloration shall be considered a failure under warranty). Ingress Protection shall be rated a minimum of IP54.
Lighting Controls	NA
IESNA Luminaire Classification	Cutoff or using TM-15: B2 U1 G2
Mounting Arm Connection	Luminaires shall mount on 2.375" O.D. horizontal tenon with no more than four 9/16-inch hex bolts and two piece clamp with vertical tilt adjustment range of ± 5%.
PE Cell Receptacle	Luminaires shall have a 3-prong twist-lock photo-control receptacle in accordance with ANSI C136.10. The PE socket needs to be able to rotate, so that the PE window can always be positioned to face the North direction.
House Shield	Shall provide option for house side light control.

<b>Equipment Identification Requirements:</b>	
Bar Code (Recommended)	Each Luminaire must have a Bar Code identifying its Catalog number, Wattage and Current settings of 700 mA, 525mA, or 350mA. Bar code to be attached on the inside of housing door and must be easily visible once door is opened.
Lighting Facts	Sticker is desirable as recommended by the DOE/SSL. Information on the sticker should follow recommendations as described in the Label Reference Guide at <a href="http://www.lightingfacts.com">www.lightingfacts.com</a>

<b>LED Module/Array Requirements:</b>	
Lumen Depreciation of LED Light Sources and Ingress Protection	LED module(s)/array(s) shall deliver at least 70% of initial lumens, when installed for a minimum of 50,000 hours. Assembly shall be rated a minimum of IP66.
Light Distribution	Should be in accordance with IESNA Type III Lighting Distribution.
LED S/P Ratio	The S/P ratio for the specific color temperature, as specified by the LED chip manufacturer, used in this fixture shall be the same as the one provided during evaluation, testing and approval of the unit

<b>Power Supply/Driver Requirements:</b>	
Power Factor	Power supply should have a minimum Power Factor of 0.90.
Max amperage at LED	Maximum rating DC Forward Current at T <sub>A</sub> 25° C should be 1,500 mA. Maximum amperage at LED must not exceed driver current to meet Lumen Depreciation value described above but shall not exceed 1,000 mA per mm <sup>2</sup> of chip. Standard factory setting shall be 700 mA, as delivered from the factory. The Driver and LED arrays shall be designed for multi-current input operation, with switchable ratings at 350 mA, 525 mA and 700 mA.
Transient Protection	Per IEEE C.62.41-2 - 2002, Class A operation. The line transient shall consist of seven strikes of a 100k HZ ring wave, 10 KV level, for both common mode and differential mode. It should also meet test procedure in accordance with IEEE C62.45.
Operating Temperature	Power Supply shall operate between -20° C and 50° C.
Frequency	Output operating frequency must be ≥ 120 Hz (to avoid visible flicker) and input operating frequency of 60 Hz.
Interference	Power supplies shall meet FCC 47 CFR Part 15/18.
Noise and Ingress Protection	Power supply shall have a Class A sound rating per ANSI Standard C63.4. Assembly or compartment shall be rated a minimum of IP54.

<b>Roadway Application Requirements:</b>	
Minimum Light Output	Luminaire shall deliver a minimum of 9,909 lumens (initial).
Luminaire Efficacy	$= \frac{\text{Luminaire Light Output (includes fixture efficiency and thermal effects)}}{\text{Luminaire Input Power}}$
Minimum Luminaire Efficacy	65 lm/W

<b>Measurement/Performance/Safety Standards:</b>	
<b>ANSI C78.377.2008</b>	Specifications for the Chromaticity of Solid State Lighting Products.
<b>IESNA LM-79-08</b>	IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
<b>IESNA LM-80-08</b> (Recommended)	IESNA Approved Method for Measuring Lumen Maintenance of LED Lighting Sources.
<b>UL Standards</b> (Latest Approved)	<ul style="list-style-type: none"> <li>• <b>8750</b> Light-Emitting Diode (LED) Light Sources for Use in Lighting Products</li> <li>• <b>1598</b> Luminaires</li> <li>• <b>1012</b> Power Units Other Than Class 2</li> <li>• <b>1310</b> Class 2 Power Units</li> <li>• <b>2108</b> Low Voltage Lighting Systems</li> <li>• All components shall be UL approved</li> </ul>

<b>Pre-qualifications for Bidding:</b>
<ol style="list-style-type: none"> <li>1. The following fixtures have been pre-approved in the City's LED Pilot Project: General Specification.</li> <li>2. Upon intent to purchase, the City has the right to request that the manufacturer provide three production samples at no cost to the City for final testing.</li> <li>3. Upon intent to purchase, the City has the right to conduct a site visit at the manufacture facility. In the event that the City exercises this right, the manufacturer shall be responsible for all costs.</li> <li>4. Upon delivery, quality control testing will be performed by the Bureau of Street Lighting. Testing will be done in accordance with the City's "Special Specifications for the Construction</li> </ol>

<b>Delivery &amp; Ordering:</b>
<p>Subsequent orders placed in response to this bid must comply with the following deliveries and quantities:</p> <p><u>Delivery time after orders are placed must not exceed 8 weeks</u></p> <p>The City of Los Angeles reserves the right to order additional fixtures (up to 20,000) with this contract, with the option to renegotiate the unit price as the cost of LED fixtures are reduced in the market place.</p>

<b>Penalties:</b>
<p>If the units are not delivered per the above delivery requirements, a penalty of \$100 per day per unit will be assessed. If the bidder cannot deliver, the City will have the right to cancel the contract and go to the next qualified bidder.</p>

**BUREAU OF STREET LIGHTING**  
**Requirements for Solid State Lighting LED Roadway Luminaires**  
**310 W Equivalent Without Dimming Controls**  
**Issue Date:03 /2012**

<b>Luminaire Requirements:</b>	
Correlated Color Temperature (CCT)	<u>Nominal CCT (°K)</u>  4000 +/- 275
Color Rendering Index (CRI)	Luminaires shall have a minimum CRI of 65.
Off-state Power Consumption	The power draw of the luminaire (including PE or remote control devices) shall not exceed .50 watts when in the off state.
On-state Power Consumption	Luminaire shall not consume more than 150 W (not including optional monitoring/control device).
Warranty	A warranty must be provided for the full replacement of the luminaire due to any failure for five (6) years. The warranty shall provide for the repair or replacement of defective electrical parts (including light source and power supplies/drivers) for a minimum of eight (8) years from the date of purchase. Reduction of lighting output by more than 10% of the LED package within 6 years constitutes luminaire failure.
Weight	Luminaire shall not weigh more than 25 pounds.
Operating Environment	Luminaire shall be able to operate normally in temperatures from -20° C to 50° C.
Cooling System	Shall consist of a heat sink with no fans, pumps, or liquids, and shall be resistant to debris buildup that does not degrade heat dissipation performance.
Dimensions (Approx.)	27" long x 11" wide x 5" tall
Housing	Shall be primarily constructed of metal. Finish shall be gray in color, powder coated and rust resistant. Driver must be mounted internally and be replaceable. Driver must be accessible without tools. All screws shall be stainless steel. Captive screws or use of latches are needed on any components that require maintenance after installation. No parts shall be constructed of polycarbonate unless it is UV stabilized (lens discoloration shall be considered a failure under warranty). Ingress Protection shall be rated a minimum of IP54.
IESNA Luminaire Classification	Cutoff or TM-15: B3 U3 G3
Mounting Arm Connection	Luminaire shall mount on standard 2.375" O.D. horizontal tenon with no more than four 9/16-inche hex bolts and two piece clamp with vertical tilt adjustment range of +/- 5%.
PE Cell Receptacle	Luminaires shall have a 3-prong twist-lock photo-control receptacle in accordance with ANSI C136.10. The PE socket needs to be able to rotate, so that the PE window can always be positioned to face the North direction.
House Shield	Shall provide option for house side light control.

<b>Equipment Identification Requirements:</b>	
Bar Code	Each Luminaire must have a Bar Code identifying its Catalog number, Wattage and Current settings of 700 mA, 525mA, or 350mA. Bar code to be attached on the inside of housing door and must be easily visible once door is opened.
Lighting Facts	Sticker is desirable as recommended by the DOE/SSL. Information on the sticker should follow recommendations as described in the Label Reference Guide at <a href="http://www.lightingfacts.com">www.lightingfacts.com</a>

<b>LED Module/Array Requirements:</b>	
Lumen Depreciation of LED Light Sources	LED module(s)/array(s) shall deliver at least 70% of initial lumens, when installed for a minimum of 50,000 hours.
Light Distribution	Should be in accordance with IESNA Type III Medium Lighting Distribution.
LED S/P Ratio	The S/P ratio for the specific color temperature, as specified by the LED chip manufacturer, used in this fixture shall be the same as the one provided during evaluation, testing and approval of the unit

<b>Power Supply/Driver Requirements:</b>	
Power Factor	Power supply should have a minimum Power Factor of .90
Max amperage at LED	Maximum rating DC Forward Current at T <sub>A</sub> 25° C should be 1,500 mA. Maximum amperage at LED must not exceed driver current to meet Lumen Depreciation value described above but shall not exceed 1,000 mA per mm <sup>2</sup> of chip. Standard factory setting shall be 525 mA, as delivered from the factory. The Driver and LED arrays shall be designed for multi-current input operation, with switchable ratings at 350 mA, 525 mA and 700 mA.. Rated LED current should be at least 1 Amp.
Transient Protection	Per IEEE C.62.41-1991, Class A operation. The line transient shall consist of seven strikes of a 100k HZ ring wave, Min. 6 kV level, for both common mode and differential mode.
Operating Temperature	Power Supply shall operate between -20° C and 50° C.
Frequency	Output operating frequency must be ≥ 120 Hz (to avoid visible flicker) and input operating frequency of 60 Hz.
Interference	Power supplies shall meet FCC 47 CFR Part 15/18 (Consumer Emission Limits)
Noise	Power supply shall have a Class A sound rating per ANSI Standard C63.4.

<b>Roadway Application Requirements:</b>	
Minimum Light Output	Luminaire shall deliver a minimum of 10,458 lumens (initial).
Luminaire Efficacy	$= \frac{\text{Luminaire Light Output (includes fixture efficiency and thermal effects)}}{\text{Luminaire Input Power}}$
Minimum Luminaire Efficacy	68 lm/W

<b>Measurement/Performance/Safety Standards:</b>	
<b>ANSI C78.377.2008</b>	Specifications for the Chromaticity of Solid State Lighting Products.
<b>IESNA LM-79-08</b>	IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
<b>UL Standards</b> (Latest Approved)	<ul style="list-style-type: none"> <li>• <b>8750</b> Light-Emitting Diode (LED) Light Sources for Use in Lighting Products</li> <li>• <b>1598</b> Luminaires</li> <li>• <b>1012</b> Power Units Other Than Class 2</li> <li>• <b>1310</b> Class 2 Power Units</li> <li>• <b>2108</b> Low Voltage Lighting Systems</li> </ul>

<b>Pre-qualifications for Bidding:</b>
<ol style="list-style-type: none"> <li>1. The following fixtures have been pre-approved in the City's LED Pilot Project: General Specification.</li> <li>2. Upon intent to purchase, the City has the right to request that the manufacturer provide three production samples at no cost to the City for final testing.</li> <li>3. Upon intent to purchase, the City has the right to conduct a site visit at the manufacture facility. In the event that the City exercises this right, the manufacturer shall be responsible for all costs.</li> <li>4. Upon delivery, quality control testing will be performed by the Bureau of Street Lighting. Testing will be done in accordance with the City's "Special Specifications for the Construction of Street Lighting Systems" (The Blue Book).</li> </ol>

<b>Delivery Requirements:</b>
<p>Subsequent orders placed in response to this bid must comply with the following deliveries and quantities:</p> <p><u>Delivery time after orders are placed must not exceed 8 weeks</u></p> <p>The City of Los Angeles reserves the right to order additional fixtures (up to 20,000) with this contract, with the option to renegotiate the unit price as the cost of LED fixtures are reduced in the market place.</p>

<b>Penalties:</b>
<p>If the units are not delivered per the above delivery requirements, a penalty of \$100 per day per unit will be assessed. If the bidder cannot deliver, the City will have the right to cancel the contract and go to the next qualified bidder.</p>

**BUREAU OF STREET LIGHTING**  
**Requirements for Solid State Lighting LED Roadway Luminaires**  
**400 W Equivalent without control**

**Issue Date: 03/2012**

<b>Luminaire Requirements:</b>	
Correlated Color Temperature (CCT)	<u>Nominal CCT (°K)</u> 4000 ± 275K
Color Rendering Index (CRI)	Luminaires shall have a minimum CRI of 65.
Off-state Power Consumption	The power draw of the luminaire (including PE or remote control devices) shall not exceed 2.50 watts when in the off state.
On-state Power Consumption	Shall not consume more than 210 W (not including optional monitoring/control device).
Warranty	A warranty must be provided for the full replacement of the luminaire due to any failure for six (6) years. The warranty shall provide for the repair or replacement of defective electrical parts (including light source and power supplies/drivers) for a minimum of eight (8) years from the date of purchase. Reduction of lighting output by more than 10% of the LED package within 6 years constitutes luminaire failure.
Weight	Luminaire shall not weigh more than 26 pounds.
Operating Environment	Luminaire shall be able to operate normally in temperatures from -20° C to 50° C.
Cooling System	Shall consist of a heat sink with no fans, pumps, or liquids, and shall be resistant to debris buildup that does not degrade heat dissipation performance.
Dimensions (Approx.)	31" long x 16" wide x 7" tall
Housing	Shall be primarily constructed of metal. Finish shall be gray in color, powder coated and rust resistant. Driver must be mounted internally and be replaceable. Driver must be accessible without tools. All screws shall be stainless steel. Captive screws are needed on any components that require maintenance after installation. No parts shall be constructed of polycarbonate unless it is UV stabilized (lens discoloration shall be considered a failure under warranty). Ingress Protection shall be rated a minimum of IP54.
Lighting Controls	NA
IESNA Luminaire Classification	Cutoff or using TM-15: B3 U3 G3
Mounting Arm Connection	Luminaires shall mount on 2.375" O.D. horizontal tenon with no more than four 9/16-inch hex bolts and two piece clamp with vertical tilt adjustment range of ± 5%.
PE Cell Receptacle	Luminaires shall have a 3-prong twist-lock photo-control receptacle in accordance with ANSI C136.10. The PE socket needs to be able to rotate, so that the PE window can always be positioned to face the

	North direction.
House Shield	Shall provide option for house side light control.
<b>Equipment Identification Requirements:</b>	
Bar Code (Recommended)	Each Luminaire must have a Bar Code identifying its Catalog number, Wattage and Current settings of 700 mA, 525mA, or 350mA. Bar code to be attached on the inside of housing door and must be easily visible once door is opened.
Lighting Facts	Sticker is desirable as recommended by the DOE/SSL. Information on the sticker should follow recommendations as described in the Label Reference Guide at <a href="http://www.lightingfacts.com">www.lightingfacts.com</a>

<b>LED Module/Array Requirements:</b>	
Lumen Depreciation of LED Light Sources and Ingress Protection	LED module(s)/array(s) shall deliver at least 70% of initial lumens, when installed for a minimum of 50,000 hours. Assembly shall be rated a minimum of IP66.
Light Distribution	Should be in accordance with IESNA Type III Lighting Distribution.
LED S/P Ratio	The S/P ratio for the specific color temperature, as specified by the LED chip manufacturer, used in this fixture shall be the same as the one provided during evaluation, testing and approval of the unit

<b>Power Supply/Driver Requirements:</b>	
Power Factor	Power supply should have a minimum Power Factor of 0.90.
Max amperage at LED	Maximum rating DC Forward Current at $T_A$ 25° C should be 1,500 mA. Maximum amperage at LED must not exceed driver current to meet Lumen Depreciation value described above but shall not exceed 1,000 mA per mm <sup>2</sup> of chip. Standard factory setting shall be 525 mA, as delivered from the factory. The Driver and LED arrays shall be designed for multi-current input operation, with switchable ratings at 350 mA, 525 mA and 700 mA.
Transient Protection	Per IEEE C.62.41-2 - 2002, Class A operation. The line transient shall consist of seven strikes of a 100k HZ ring wave, 10 KV level, for both common mode and differential mode. It should also meet test procedure in accordance with IEEE C62.45.
Operating Temperature	Power Supply shall operate between -20° C and 50° C.
Frequency	Output operating frequency must be $\geq$ 120 Hz (to avoid visible flicker) and input operating frequency of 60 Hz.
Interference	Power supplies shall meet FCC 47 CFR Part 15/18.
Noise and Ingress Protection	Power supply shall have a Class A sound rating per ANSI Standard C63.4. Assembly or compartment shall be rated a minimum of IP54.

<b>Roadway Application Requirements:</b>	
Minimum Light Output	Luminaire shall deliver a minimum of 13,989 lumens (initial).
Luminaire Efficacy	$= \frac{\text{Luminaire Light Output (includes fixture efficiency and thermal effects)}}{\text{Luminaire Input Power}}$
Minimum Luminaire Efficacy	68 lm/W

<b>Measurement/Performance/Safety Standards:</b>	
<b>ANSI C78.377.2008</b>	Specifications for the Chromaticity of Solid State Lighting Products.
<b>IESNA LM-79-08</b>	IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
<b>IESNA LM-80-08</b> (Recommended)	IESNA Approved Method for Measuring Lumen Maintenance of LED Lighting Sources.
<b>UL Standards</b> (Latest Approved)	<ul style="list-style-type: none"> <li>• <b>8750</b> Light-Emitting Diode (LED) Light Sources for Use in Lighting Products</li> <li>• <b>1598</b> Luminaires</li> <li>• <b>1012</b> Power Units Other Than Class 2</li> <li>• <b>1310</b> Class 2 Power Units</li> <li>• <b>2108</b> Low Voltage Lighting Systems</li> <li>• All components shall be UL approved</li> </ul>

<b>Pre-qualifications for Bidding:</b>
<ol style="list-style-type: none"> <li>1. The following fixtures have been pre-approved in the City’s LED Pilot Project: General Specification.</li> <li>2. Before the contract can be awarded, the winning bidder shall provide three production samples to the City at no cost for final testing.</li> <li>3. Upon delivery, quality control testing will be performed by the Bureau of Street Lighting. Testing will be done in accordance with the City’s “Special Specifications for the Construction of Street Lighting Systems” (The Blue Book).</li> </ol>

<b>Delivery &amp; Ordering:</b>
<p>Subsequent orders placed in response to this bid must comply with the following deliveries and quantities:</p> <p><u>Delivery time after orders are placed must not exceed 8 weeks</u></p> <p>The City of Los Angeles reserves the right to order additional fixtures (up to 20,000) with this contract, with the option to renegotiate the unit price as the cost of LED fixtures are reduced in the market place.</p>

<b>Penalties:</b>
<p>If the units are not delivered per the above delivery requirements, a penalty of \$100 per day per unit will be assessed. If the bidder cannot deliver, the City will have the right to cancel the contract and go to the next qualified bidder.</p>

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# **APPENDIX 2**

## **STREET LIGHT LOCATIONS**

### Application 1

HPSV50	HPSV70	HPSV100	HPSV150	HPSV200	HPSV250	HPSV310	HPSV360	HPSV400	M17	UNK	FIXTURE TOTAL
1	26	48	20	35	120	0	5	4	2	4	265

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET NAME	ZIP CODE		
1 (Unmatch Lamp)	8499	7569	H7	N/A	SEQUOIA	70 WATT HPS	1916	3RD ST	90405		
1	17223	7587	H40	M400	GE	400 WATT HPS	1310	3RD STREET PROMENADE	90401		
1 (Unmatch Lamp)	8825	9362	H20	M250	SEQUOIA	200 WATT HPS	2525	4TH ST	90405		
1 (Unmatch Lamp)	12662	7324	H25				1776	4TH ST	90401		
1 (Unmatch Lamp)	12659	7169	H25				1707	4TH ST	90401		
1 (Unmatch Lamp)	38	7450	H7	N/A	SEQUOIA	70 WATT HPS	2002	4TH ST NO 106	90405		
1	17355	7077	H25	M-400A	GE	250 WATT HPS	1554	5TH ST	90401		
1	18129	12209	H25	M400	GE	250 WATT HPS	1636	5TH ST	90401		
1	18130	12209	H25	M400	GE	250 WATT HPS	1636	5TH ST	90401		
1	18121	12211	H25	M400	GE	250 WATT HPS	1640	5TH ST	90401		
1	18125	12210	H25	M400	GE	250 WATT HPS	1640	5TH ST	90401		
1	18126	12210	H25	M400	GE	250 WATT HPS	1640	5TH ST	90401		
1	7835	5690	H25	M400	GE	250 WATT HPS	1450	10TH ST	90401		
1 (Unmatch Lamp)	17156	5498	H15	M250A	SEQUOIA	150 WATT HPS	1830	11TH ST	90404		
1 (Unmatch Lamp)	17159	5379	H15	M250A	SEQUOIA	150 WATT HPS	1813	11TH ST	90404		
1 (Unmatch Lamp)	17154	5384	H15	M250A	SEQUOIA	150 WATT HPS	1843	11TH ST	90404		
1	8969	5501	H25	M400	GE	250 WATT HPS	1802	11TH ST	90404		
1 (Unmatch Lamp)	17173	5402	H36	M400	SEQUOIA	360 WATT HPS	1745	11TH ST	90404		
1	8967	5401	H25	M400	GE	250 WATT HPS	1757	11TH ST NO 3	90404		
1	7815	5068	H25	M400	GE	250 WATT HPS	1457	12TH ST	90401		
1	16739	4610	H15	M250	SEQUOIA	150 WATT HPS	1939	14TH ST	90404		
1	16746	4608	H15	M250	SEQUOIA	150 WATT HPS	1897	14TH ST	90404		
1	16751	4606	H15	M250	SEQUOIA	150 WATT HPS	1859	14TH ST	90404		
1	16753	4711	H15	M250	SEQUOIA	150 WATT HPS	1826	14TH ST	90404		
1	16737	4714	H15	M250	SEQUOIA	150 WATT HPS	1950	14TH ST	90404		
1	16748	4713	H15	M250	SEQUOIA	150 WATT HPS	1848	14TH ST	90404		
1	16743	4712	H15	M250	SEQUOIA	150 WATT HPS	1914	14TH ST	90404		
1	7784	4579	H25	M400	GE	250 WATT HPS	1453	14TH ST	90404		
1	7789	4760	H25	M400	GE	250 WATT HPS	1458	14TH ST	90404		
1	16937	4754	H25	M400	GE	250 WATT HPS	1762	14TH ST	90404		
1 (Unmatch Lamp)	3111	4675	H36	M400	GE	360 WATT HPS	1302	14TH ST	90404		
1 (Unmatch Lamp)	149	4589	H36	M400	GE	360 WATT HPS	1251	14TH ST NO 107	90404		
1	156	4369	H10	M250	GE	100 WATT HPS	1537	15TH ST	90404		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET NAME	ZIP CODE		
1	6204	4378	H10	M250	GE	100 WATT HPS	1524	15TH ST	90404		
1 (Unmatch Lamp)	20151	4345	H10	MDCL10S1M22F	GE	100 WATT HPS	445	15TH ST	90402		
1	12676	4424	H7	N/A	SEQUOIA	70 WATT HPS	1260	15TH ST	90404		
1	20312	3975	H7	N/A	SEQUOIA	70 WATT HPS	503	16TH ST	90402		
1	7729	3909	H25	M400	GE	250 WATT HPS	1450	17TH ST	90404		
1	7725	3795	H25	M400	GE	250 WATT HPS	1447	17TH ST	90404		
1	7732	3720	H25	M400	GE	250 WATT HPS	1501	17TH ST	90404		
1	20492	3750	H7	N/A	SEQUOIA	70 WATT HPS	635	17TH ST	90402		
1	20474	3753	H7	N/A	SEQUOIA	70 WATT HPS	501	17TH ST	90402		
1	20479	3748	H7	N/A	SEQUOIA	70 WATT HPS	527	17TH ST	90402		
1	20490	3849	H7	N/A	SEQUOIA	70 WATT HPS	620	17TH ST	90402		
1	20481	3847	H7	N/A	SEQUOIA	70 WATT HPS	536	17TH ST	90402		
1	15202	3533	H10	M-250A2	GE	100 WATT HPS	1433	18TH ST	90404		
1	15195	3602	H10	M-250A2	GE	100 WATT HPS	1438	18TH ST APT C	90404		
1	15111	2989	H10	M-250A2	GE	100 WATT HPS	1255	20TH ST	90404		
1	2920	3084	H15	M-250A2	GE	150 WATT HPS	1301	20TH ST	90404		
1	2922	3078	H15	M-250A2	GE	150 WATT HPS	1339	20TH ST	90404		
1	2924	3082	H15	M-250A2	GE	150 WATT HPS	1339	20TH ST	90404		
1	2926	3083	H15	M-250A2	GE	150 WATT HPS	1339	20TH ST	90404		
1	315	3085	H25	M400	GE	250 WATT HPS	1243	20TH ST	90404		
1	313	3091	H25	M400	GE	250 WATT HPS	1255	20TH ST	90404		
1	314	3007	H25	M400	GE	250 WATT HPS	1301	20TH ST	90404		
1	331	3339	H25	M-250A2	GE	250 WATT HPS	2601	20TH ST	90405		
1	2057	3445	H25	M-250A2	GE	250 WATT HPS	2522	20TH ST	90405		
1	16554	3065	H7	N/A	SEQUOIA	70 WATT HPS	1809	20TH ST	90404		
1	16562	3067	H7	N/A	SEQUOIA	70 WATT HPS	1835	20TH ST	90404		
1	16558	3133	H7	N/A	SEQUOIA	70 WATT HPS	1824	20TH ST G	90404		
1	15098	2743	H10	M-250A2	GE	100 WATT HPS	1328	22ND ST	90404		
1	15104	2844	H10	M-250A2	GE	100 WATT HPS	1328	22ND ST	90404		
1	13554	1927	H7	N/A	SEQUOIA	70 WATT HPS	357	24TH ST	90402		
1	13556	1973	H7	N/A	SEQUOIA	70 WATT HPS	372	24TH ST	90402		
1	13513	1757	H7	N/A	SEQUOIA	70 WATT HPS	334	25TH ST	90402		
1	14182	1573	H25	M400	GE	250 WATT HPS	1260	26TH ST	90404		
1	14503	10084	H25	M400	GE	250 WATT HPS	1458	26TH ST	90404		
1	13148	1414	H15	M-250A2	GE	150 WATT HPS	2800	28TH ST SUITE 30	90405		
1	13153	1284	H15	M-250A2	GE	150 WATT HPS	2800	28TH ST SUITE 30	90405		
1	18591	1250	H15	M-250A2	GE	150 WATT HPS	2800	28TH ST SUITE 30	90405		
1	13138	711	H25	M-400A2	GE	250 WATT HPS	2900	31ST ST	90405		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET NAME	ZIP CODE		
1	12882	9007	H10				1701	APPIAN WAY	90401		
1	15106	2903	H10	M-250A2	GE	100 WATT HPS	2021	ARIZONA AVE	90404		
1	15100	2798	H10	M-250A2	GE	100 WATT HPS	2107	ARIZONA AVE	90404		
1	15095	2711	H10	M-250A2	GE	100 WATT HPS	2125	ARIZONA AVE	90404		
1	316	3164	H25	M400	GE	250 WATT HPS	1925	ARIZONA AVE	90404		
1	317	3120	H25	M400	GE	250 WATT HPS	1916	ARIZONA AVE	90404		
1	12007	1310	H25	M400	GE	250 WATT HPS	2601	ARIZONA AVE	90404		
1	12010	1311	H25	M400	GE	250 WATT HPS	2602	ARIZONA AVE	90404		
1 (Unmatch Lamp)	3119	4518	H36	M400	GE	360 WATT HPS	1402	ARIZONA AVE	90404		
1	17229	7633	H40	M400	GE	400 WATT HPS	225	ARIZONA AVE	90401		
1	17226	7562	H40	M400	GE	400 WATT HPS	301	ARIZONA AVE	90401		
1 (Unmatch Lamp)	3116	4753	H36	M400	GE	360 WATT HPS	1325	ARIZONA AVE NO 101	90404		
1	14185	1565	H25	M400	GE	250 WATT HPS	2502	ARIZONA AVE NO 6	90404		
1 (Unmatch Lamp)	8507	7537	H7	N/A	SEQUOIA	70 WATT HPS	300	BAY ST	90405		
1	477	565	H10	M250R	GE	100 WATT HPS	830	BERKELEY ST	90403		
1	10411	555	H10	M250R	GE	100 WATT HPS	819	BERKELEY ST	90403		
1 (Unmatch Lamp)	8737	6641	H20	M250	SEQUOIA	200 WATT HPS	2535	BEVERLEY AVE	90405		
1	99	5831	H20	M400	GE	200 WATT HPS	910	BROADWAY	90401		
1	7769	4420	H25	M400	GE	250 WATT HPS	1431	BROADWAY	90404		
1	7819	5239	H25	M400	GE	250 WATT HPS	1119	BROADWAY	90401		
1	7822	5328	H25	M400	GE	250 WATT HPS	1101	BROADWAY	90401		
1	7826	5377	H25	M400	GE	250 WATT HPS	1101	BROADWAY	90401		
1	7829	5511	H25	M400	GE	250 WATT HPS	1027	BROADWAY	90401		
1	7840	5712	H25	M400	GE	250 WATT HPS	919	BROADWAY	90401		
1	7833	5612	H25	M400	GE	250 WATT HPS	1013	BROADWAY	90401		
1	7866	5745	H25	M400	GE	250 WATT HPS	920	BROADWAY	90401		
1	7852	5329	H25	M400	GE	250 WATT HPS	1102	BROADWAY	90401		
1	7855	5488	H25	M400	GE	250 WATT HPS	1032	BROADWAY	90401		
1	7858	5513	H25	M400	GE	250 WATT HPS	1032	BROADWAY	90401		
1	7861	5660	H25	M400	GE	250 WATT HPS	1002	BROADWAY	90401		
1	7850	5286	H25	M400	GE	250 WATT HPS	1124	BROADWAY	90401		
1	7847	5140	H25	M400	GE	250 WATT HPS	1208	BROADWAY	90404		
1	7792	4724	H25	M400	GE	250 WATT HPS	1326	BROADWAY	90404		
1	7786	4511	H25	M400	GE	250 WATT HPS	1400	BROADWAY	90404		
1	7739	3859	H25	M400	GE	250 WATT HPS	1620	BROADWAY	90404		
1	14502	1404	H25	M400	GE	250 WATT HPS	2601	BROADWAY	90404		
1	6206	4368	H10	M250	GE	100 WATT HPS	1502	BROADWAY 104	90404		
1	7766	4332	H25	M400	GE	250 WATT HPS	1502	BROADWAY 104	90404		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET NAME	ZIP CODE		
1 (Unmatch Lamp)	16859	7353	H25	M400	GE	250 WATT HPS	329	CALIFORNIA AVE	90403		
1 (Unmatch Lamp)	16865	7261	H25	M400	GE	250 WATT HPS	330	CALIFORNIA AVE	90403		
1 (Unmatch Lamp)	16856	7225	H25	M400	GE	250 WATT HPS	401	CALIFORNIA AVE NO 1	90403		
1	491	57	H7	N/A	SEQUOIA	70 WATT HPS	1055	CENTINELA AVE	90403		
1	490	63	H7	N/A	SEQUOIA	70 WATT HPS	970	CENTINELA AVE	90403		
1	2402	56	H7	N/A	SEQUOIA	70 WATT HPS	1035	CENTINELA AVE	90403		
1	2404	68	H7	N/A	SEQUOIA	70 WATT HPS	1050	CENTINELA AVE	90403		
1	155	4379	H10	M250	GE	100 WATT HPS	1431	COLORADO AVE	90404		
1	10112	4930	H10	M250	GE	100 WATT HPS	1301	COLORADO AVE	90404		
1	10110	4993	H20	M400	GE	200 WATT HPS	1291	COLORADO AVE	90404		
1	447	2282	H20	KIM EKG 401	GE	200 WATT HPS	2501	COLORADO AVE	90404		
1	10108	5031	H20	M400	GE	100 WATT HPS	1100	COLORADO AVE	90401		
1	13730	883	H20	M400	GE	200 WATT HPS	2834	COLORADO AVE	90404		
1 (Unmatch Lamp)	6132	8616	H20		ESTINGHOU	200 WATT HPS	89	COLORADO AVE	90401		
1 (Unmatch Lamp)	16835	5337	H20	M400	SEQUOIA	200 WATT HPS	1100	COLORADO AVE	90401		
1	12056	9539	H25	M400	GE	250 WATT HPS	2834	COLORADO AVE	90404		
1	12854	12207	H25	M400	GE	250 WATT HPS	430	COLORADO AVE	90401		
1	15216	5486	H25	M400	GE	250 WATT HPS	1020	COLORADO AVE	90401		
1	15220	5494	H25	M400	GE	250 WATT HPS	1020	COLORADO AVE	90401		
1	16838	5383	H25	M400	GE	250 WATT HPS	1101	COLORADO AVE	90401		
1	16847	5590	H25	M400	GE	250 WATT HPS	1020	COLORADO AVE	90401		
1	18003	6908	H25	M-400A	GE	250 WATT HPS	502	COLORADO AVE	90401		
1 (Unmatch Lamp)	16842	5514	H25	M400	GE	250 WATT HPS	1025	COLORADO AVE	90401		
1	13130	696	H25	M-400A2	GE	250 WATT HPS	2800	DONALD DOUGLAS LOOP NORTH	90405		
1	13135	703	H25	M-400A2	GE	250 WATT HPS	2800	DONALD DOUGLAS LOOP NORTH	90405		
1	11460	659	H10	M250	GE	100 WATT HPS	2109	DORCHESTER AVE	90404		
1 (Unmatch Lamp)	12771	8389	H20	M-400A	GE	200 WATT HPS	1635	E OCEAN AVE	90401		
1	12765	8560	H25				1622	E OCEAN AVE	90401		
1	10123	4926	H10	M250	GE	100 WATT HPS	1505	EUCLID ST	90404		
1	10114	4944	H10	M250	GE	100 WATT HPS	1544	EUCLID ST	90404		
1	10118	4945	H10	M250	GE	100 WATT HPS	1512	EUCLID ST	90404		
1	10116	4927	H10	M250	GE	100 WATT HPS	1533	EUCLID ST	90404		
1	14587	4896	H7	N/A	SEQUOIA	70 WATT HPS	551	EUCLID ST	90402		
1	14574	4955	H7	N/A	SEQUOIA	70 WATT HPS	502	EUCLID ST	90402		
1	14585	4959	H7	N/A	SEQUOIA	70 WATT HPS	560	EUCLID ST	90402		
1	14592	5020	H7	N/A	SEQUOIA	70 WATT HPS	560	EUCLID ST	90402		
1	13689	979	H20	M400	GE	200 WATT HPS	2805	EXPOSITION BLVD	90404		
1	13168	5636	H10	M250R	GE	100 WATT HPS	117	FOXTAIL DR	90402		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET NAME	ZIP CODE		
1	13170	5609	H10	M250R	GE	100 WATT HPS	117	FOXTAIL DR	90402		
1	8479	1052	H10		GE	100 WATT HPS	2711	KANSAS AVE	90404		
1	17726	5995	H10	M250	SEQUOIA	100 WATT HPS	2515	LINCOLN BLVD	90405		
1	18809	12193	H20	M400	GE	200 WATT HPS	1801	LINCOLN BLVD	90404		
1	18798	12191	H20	M-400A	GE	200 WATT HPS	1757	LINCOLN BLVD	90404		
1	18812	12194	H20	M400	GE	200 WATT HPS	1804	LINCOLN BLVD	90404		
1	18801	12195	H20	M400	GE	200 WATT HPS	1758	LINCOLN BLVD	90404		
1	15573	6742	H7	N/A	SEQUOIA	70 WATT HPS	532	MARGUERITA AVE	90402		
1 (Unmatch Lamp)	18905	6066	H10		GE	100 WATT HPS	810	MARINE ST	90405		
1 (Unmatch Lamp)	12887	9026					98	MARINE TERRACE	90401		
1	17165	5592	H15	M250A	SEQUOIA	150 WATT HPS	1021	MICHIGAN AVE	90404		
1 (Unmatch Lamp)	17162	5307	H15	M250A	SEQUOIA	150 WATT HPS	1112	MICHIGAN AVE	90404		
1	16926	4517	H25	M400	GE	250 WATT HPS	1412	MICHIGAN AVE	90404		
1	8973	5334	H25	M400	GE	250 WATT HPS	1112	MICHIGAN AVE	90404		
1	16934	4531	H25	M400	GE	250 WATT HPS	1413	MICHIGAN AVE	90404		
1	16929	4703	H25	M400	GE	250 WATT HPS	1358	MICHIGAN AVE	90404		
1	18829	6841	H10		GE	100 WATT HPS	631	NAVY ST	90405		
1	172	5169	H10		SEQUOIA	100 WATT HPS	1227	OAK ST # 4	90405		
1 (Unmatch Lamp)	12775	8563	H20	M-400A	GE	200 WATT HPS	1646	OCEAN AVE	90401		
1 (Unmatch Lamp)	18744	8567	H20	M-400A	GE	200 WATT HPS	1602	OCEAN AVE	90401		
1	18680	8380	H25	M-400A	GE	250 WATT HPS	1551	OCEAN AVE	90401		
1 (Unmatch Lamp)	5475	11590					1738	OCEAN FRONT WALK	90401		
1 (Unmatch Lamp)	5476	11589					1724	OCEAN FRONT WALK	90401		
1 (Unmatch Lamp)	5481	11584					1668	OCEAN FRONT WALK	90401		
1 (Unmatch Lamp)	12865	8986	H10				1659	OCEAN FRONT WALK	90401		
1 (Unmatch Lamp)	13742	9230	H20	M400A	SEQUOIA	200 WATT HPS	2606	OCEAN FRONT WALK	90405		
1 (Unmatch Lamp)	13810	9227	H20	M400A	SEQUOIA	200 WATT HPS	2606	OCEAN FRONT WALK	90405		
1	17673	4784	H10	M250	SEQUOIA	100 WATT HPS	1343	OCEAN PARK BLVD	90405		
1 (Unmatch Lamp)	18162	714	H10	M-250A2	GE	100 WATT HPS	3015	OCEAN PARK BLVD	90405		
1	8724	6365	H20	M250	SEQUOIA	200 WATT HPS	753	OCEAN PARK BLVD	90405		
1	8726	6433	H20	M250	SEQUOIA	200 WATT HPS	711	OCEAN PARK BLVD	90405		
1	8731	6569	H20	M250	SEQUOIA	200 WATT HPS	649	OCEAN PARK BLVD	90405		
1	8730	6559	H20	M250	SEQUOIA	200 WATT HPS	650	OCEAN PARK BLVD	90405		
1	8720	6351	H20	M250	SEQUOIA	200 WATT HPS	724	OCEAN PARK BLVD	90405		
1	8719	6397	H20	M250	SEQUOIA	200 WATT HPS	702	OCEAN PARK BLVD	90405		
1 (Unmatch Lamp)	8752	7127	H20	M250	SEQUOIA	200 WATT HPS	501	OCEAN PARK BLVD	90405		
1 (Unmatch Lamp)	8828	9367	H20	M250	SEQUOIA	200 WATT HPS	420	OCEAN PARK BLVD	90405		
1 (Unmatch Lamp)	8729	6624	H20	M250	SEQUOIA	200 WATT HPS	632	OCEAN PARK BLVD	90405		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET NAME	ZIP CODE		
1	18553	1897	H25	M-400A2	GE	250 WATT HPS	2498	OCEAN PARK BLVD	90405		
1	18559	1733	H25	M-400A2	GE	250 WATT HPS	2632	OCEAN PARK BLVD	90405		
1	18561	1663	H25	M-400A2	GE	250 WATT HPS	2690	OCEAN PARK BLVD	90405		
1	486	1200	H25	M-400A2	GE	250 WATT HPS	2801	OCEAN PARK BLVD	90405		
1	487	1168	H25	M-400A2	GE	250 WATT HPS	2900	OCEAN PARK BLVD	90405		
1	2049	3254	H25	M-250A2	GE	250 WATT HPS	2020	OCEAN PARK BLVD	90405		
1	2042	3241	H25		GE	250 WATT HPS	2025	OCEAN PARK BLVD	90405		
1	2037	9413	H25		GE	250 WATT HPS	1750	OCEAN PARK BLVD	90405		
1	2038	3487	H25		GE	250 WATT HPS	1750	OCEAN PARK BLVD	90405		
1	13082	677	H25	M-400A2	GE	250 WATT HPS	3101	OCEAN PARK BLVD	90405		
1	13084	556	H25	M-400A2	GE	250 WATT HPS	3127	OCEAN PARK BLVD	90405		
1	13074	337	H25	M-400A2	GE	250 WATT HPS	3320	OCEAN PARK BLVD	90405		
1	13072	280	H25	M-400A2	GE	250 WATT HPS	3340	OCEAN PARK BLVD	90405		
1	13070	157	H25	M-400A2	GE	250 WATT HPS	3360	OCEAN PARK BLVD	90405		
1	13078	533	H25	M-400A2	GE	250 WATT HPS	3200	OCEAN PARK BLVD	90405		
1	13080	553	H25	M-400A2	GE	250 WATT HPS	3200	OCEAN PARK BLVD	90405		
1	13049	37	H25	M-400A2	GE	250 WATT HPS	3420	OCEAN PARK BLVD	90405		
1	13063	27	H25	M-400A2	GE	250 WATT HPS	3420	OCEAN PARK BLVD	90405		
1	13067	101	H25	M-400A2	GE	250 WATT HPS	3420	OCEAN PARK BLVD	90405		
1	13114	1315	H25	M-400A2	GE	250 WATT HPS	2701	OCEAN PARK BLVD	90405		
1	13121	1636	H25	M-400A2	GE	250 WATT HPS	2701	OCEAN PARK BLVD	90405		
1	13116	9267	H25	M-400A2	GE	250 WATT HPS	2717	OCEAN PARK BLVD	90405		
1	13099	869	H25	M-400A2	GE	250 WATT HPS	3040	OCEAN PARK BLVD	90405		
1	13145	653	H25	M-400A2	GE	250 WATT HPS	3200	OCEAN PARK BLVD	90405		
1	13140	687	H25	M-400A2	GE	250 WATT HPS	3330	OCEAN PARK BLVD	90405		
1	13108	1096	H25	M-400A2	GE	250 WATT HPS	2900	OCEAN PARK BLVD	90405		
1	13143	688	H25	M-400A2	GE	250 WATT HPS	3100	OCEAN PARK BLVD	90405		
1	18569	1218	H25	M-400A2	GE	250 WATT HPS	2717	OCEAN PARK BLVD	90405		
1	18543	1949	H25	M-400A2	GE	250 WATT HPS	2507	OCEAN PARK BLVD	90405		
1	18165	732	H25	M-250A2	GE	100 WATT HPS	3015	OCEAN PARK BLVD	90405		
1	18604	33	H25	M-400A2	GE	250 WATT HPS	3435	OCEAN PARK BLVD	90405		
1	18574	1236	H25	M-400A2	GE	250 WATT HPS	2716	OCEAN PARK BLVD	90405		
1	18228	1033	H25	M-400A2	GE	250 WATT HPS	2901	OCEAN PARK BLVD	90405		
1	18231	939	H25	M-400A2	GE	250 WATT HPS	2901	OCEAN PARK BLVD	90405		
1	18234	900	H25	M-400A2	GE	250 WATT HPS	2901	OCEAN PARK BLVD	90405		
1	18571	1204	H25	M-400A2	GE	250 WATT HPS	2900	OCEAN PARK BLVD	90405		
1	18576	1222	H25	M-400A2	GE	250 WATT HPS	2900	OCEAN PARK BLVD	90405		
1 (Unmatch Lamp)	2041	3159	H25		GE	250 WATT HPS	2100	OCEAN PARK BLVD	90405		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET NAME	ZIP CODE		
1 (Unmatch Lamp)	2040	3169	H25		GE	250 WATT HPS	2101	OCEAN PARK BLVD	90405		
1	2053	3340	H25	M-250A2	GE	250 WATT HPS	1818	OCEAN PARK BLVD APT 000B	90405		
1	2055	3383	H25	M-250A2	GE	250 WATT HPS	1818	OCEAN PARK BLVD APT 000B	90405		
1	12842	6616	H25	M400	GE	250 WATT HPS	601	OLYMPIC BLVD	90401		
1	12846	12212	H25	M400	GE	250 WATT HPS	505	OLYMPIC BLVD	90401		
1	12849	7052	H25	M400	GE	250 WATT HPS	505	OLYMPIC BLVD	90401		
1 (Unmatch Lamp)	9493	5517	H15	M250	SEQUOIA	150 WATT HPS	1102	PACIFIC ST	90405		
1 (Unmatch Lamp)	19694	2883	M17	M250	GE	175 WATT MH	2101	PICO BLVD	90405		
1 (Unmatch Lamp)	13165	5731	H5	FP-199	GE	50 WATT HPS	939	SAN VICENTE BLVD	90402		
1	15109	2973	H10	M-250A2	GE	100 WATT HPS	2021	SANTA MONICA BLVD	90404		
1	14968	1408	H25	M400	GE	250 WATT HPS	2615	SANTA MONICA BLVD	90404		
1	14963	1314	H25	M400	GE	250 WATT HPS	2602	SANTA MONICA BLVD	90404		
1	14971	1582	H25	M400	GE	250 WATT HPS	2505	SANTA MONICA BLVD	90404		
1	14977	1569	H25	M400	GE	250 WATT HPS	2520	SANTA MONICA BLVD	90404		
1	17220	7528	H40	M400	GE	400 WATT HPS	1301	SANTA MONICA BLVD	90401		
1 (Unmatch Lamp)	14444	1514	H7	N/A	SEQUOIA	70 WATT HPS	2520	SANTA MONICA BLVD	90404		
1	2541	632	H10	M250R	GE	100 WATT HPS	902	STANFORD ST	90403		
1	2546	634	H10	M250R	GE	100 WATT HPS	840	STANFORD ST	90403		
1	11893	612	H10	M250R	GE	100 WATT HPS	810	STANFORD ST UNIT 3	90403		
1 (Unmatch Lamp)	15792	923	H10	M250R	GE	100 WATT HPS	1630	STEWART ST	90404		
1	13718	873	H20	M400	GE	200 WATT HPS	1706	STEWART ST	90404		
1	13703	863	H20	M400	GE	200 WATT HPS	1740	STEWART ST	90404		
1	13712	875	H20	M400	GE	200 WATT HPS	1740	STEWART ST	90404		
1	13716	897	H20	M400	GE	200 WATT HPS	1660	STEWART ST	90404		
1	13720	906	H20	M400	GE	200 WATT HPS	1660	STEWART ST	90404		
1	13725	908	H20	M400	GE	200 WATT HPS	1660	STEWART ST	90404		
1	13733	910	H20	M400	GE	200 WATT HPS	1630	STEWART ST	90404		
1 (Unmatch Lamp)	19701	2592	M17	M250	GE	175 WATT MH	2208	VIRGINIA AVE	90404		
1	16733	588	H10	M250	GE	100 WATT HPS	2963	VIRGINIA AVE	90404		
1	14565	777	H10	M-250A2	GE	100 WATT HPS	2828	WILSHIRE BLVD	90403		
1	2913	3081	H25	M400	GE	250 WATT HPS	2002	WILSHIRE BLVD	90403		
1	16868	7183	H25	M400	GE	250 WATT HPS	401	WILSHIRE BLVD	90401		
1	16870	7184	H25	M400	GE	250 WATT HPS	401	WILSHIRE BLVD	90401		
1	13176	4628	H10	M250R	GE	100 WATT HPS	873	WOODACRES RD	90402		
1	13180	4895	H10	M250R	GE	100 WATT HPS	846	WOODACRES RD	90402		
1	13173	4633	H10	M250R	GE	100 WATT HPS	878	WOODACRES RD	90402		
1	13190	4817	H10	M250R	GE	100 WATT HPS	843	WOODACRES RD	90402		
1	13188	4977	H10	M250R	GE	100 WATT HPS	825	WOODACRES RD	90402		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_ MF	BALLAST MODEL	HOUSE NUMBER	STREET NAME	ZIP CODE		
1	13178	4772	H10	M250R	GE	100 WATT HPS	858	WOODACRES RD	90402		
1	2674	794	H10	M-250A2	GE	100 WATT HPS	1240	YALE ST	90404		
1	11960	792	H10	M-250A2	GE	100 WATT HPS	1240	YALE ST	90404		
1	14568	778	H10	M-250A2	GE	100 WATT HPS	1220	YALE ST 4	90404		

## Application 2

HPSV50	HPSV70	HPSV100	HPSV150	HPSV200	HPSV250	HPSV310	HPSV360	HPSV400	M17	UNK	FIXTURE TOTAL
0	0	30	0	19	78	3	0	7	0	0	137

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
2	7580	7988	H10	M250	GE	100 WATT HPS	850	2ND ST	90403		
2	10955	7524	H25	M400	GE	250 WATT HPS	1201	3RD ST	90401		
2	10934	7556	H25	M400	GE	250 WATT HPS	1137	3RD ST	90403		
2	10932	7580	H25	M400	GE	250 WATT HPS	1118	3RD ST NO 101	90403		
2	10959	7583	H25	M400	GE	250 WATT HPS	1202	3RD STREET PROMENADE	90401		
2	10961	7630	H25	M400	GE	250 WATT HPS	1202	3RD STREET PROMENADE	90401		
2	10963	7734	H25	M400	GE	250 WATT HPS	1202	3RD STREET PROMENADE	90401		
2	10915	7265	H25	M400	GE	250 WATT HPS	1204	1/2 4TH ST	90401		
2	10917	7316	H25	M400	GE	250 WATT HPS	1204	1/2 4TH ST	90401		
2	16976	6787	H20	M400A	GE	200 WATT HPS	1518	6TH ST	90401		
2	17538	6477	H25	M400	GE	250 WATT HPS	1633	7TH ST	90401		
2	17556	6481	H25	M400	GE	250 WATT HPS	1600	7TH ST	90401		
2	17527	6459	H25	M400	GE	250 WATT HPS	1653	7TH ST	90401		
2	17534	6457	H25	M400	GE	250 WATT HPS	1653	7TH ST	90401		
2	17013	9344	H25	M400	GE	250 WATT HPS	1422	7TH ST	90401		
2	17021	6473	H25	M400	GE	250 WATT HPS	1448	7TH ST	90401		
2	17018	6460	H25	M400	GE	250 WATT HPS	1437	7TH ST	90401		
2	17010	6476	H25	M400	GE	250 WATT HPS	1518	7TH ST	90401		
2	17549	6454	H25	M400	GE	250 WATT HPS	1557	7TH ST	90401		
2	17002	6478	H25	M400	GE	250 WATT HPS	1540	7TH ST	90401		
2	17000	6505	H25	M400A	GE	250 WATT HPS	1502	7TH ST	90401		
2	9774	6469	H10	M250	GE	100 WATT HPS	1012	7TH ST NO 2	90403		
2	13954	3530	H10	M-250A2	GE	100 WATT HPS	1119	18TH ST	90403		
2	13957	3554	H10	M-250A2	GE	100 WATT HPS	1130	18TH ST	90403		
2	2817	3488	H10	M-250A2	GE	100 WATT HPS	1031	18TH ST UNIT 3	90403		
2	13962	3333	H10	M-250A2	GE	100 WATT HPS	1143	19TH ST	90403		
2	13968	3353	H10	M-250A2	GE	100 WATT HPS	1128	19TH ST	90403		
2	13965	3334	H10	M-250A2	GE	100 WATT HPS	1115	19TH ST NO 3	90403		
2	13934	3243	H10	M-250A2	GE	100 WATT HPS	1102	20TH ST	90403		
2	13928	3165	H10	M-250A2	GE	100 WATT HPS	1060	20TH ST	90403		
2	7699	10080	H25	M400	GE	250 WATT HPS	1502	20TH ST	90404		
2	7676	3095	H25	M400	GE	250 WATT HPS	1493	20TH ST	90404		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
2	7678	3094	H25	M400	GE	250 WATT HPS	1473	20TH ST	90404		
2	7681	3104	H25	M400	GE	250 WATT HPS	1436	20TH ST NO 5	90404		
2	12050	2808	H10	M-250A2	GE	100 WATT HPS	1453	21ST ST	90404		
2	12046	2801	H10	M-250A2	GE	100 WATT HPS	1433	21ST ST	90404		
2	12044	2807	H10	M-250A2	GE	100 WATT HPS	1414	21ST ST	90404		
2	12048	2809	H10	M-250A2	GE	100 WATT HPS	1466	21ST ST	90404		
2	11169	5903	H10	M250	GE	100 WATT HPS	815	ASHLAND AVE	90405		
2	11184	9287	H10	M250	GE	100 WATT HPS	1028	ASHLAND AVE	90405		
2	11172	5809	H10	M250	GE	100 WATT HPS	836	ASHLAND AVE	90405		
2	11174	5787	H10	M250	GE	100 WATT HPS	836	ASHLAND AVE	90405		
2	11181	9288	H10	M250	GE	100 WATT HPS	1000	ASHLAND AVE	90405		
2	10686	9004	H25	M400	GE	250 WATT HPS	3355	BARNARD WAY	90405		
2	10688	8969	H25	M400	GE	250 WATT HPS	3558	BARNARD WAY	90405		
2	6070	11842	H20	M400A	GE	200 WATT HPS	530	BROADWAY	90401		
2	16966	11841	H20	M400A	GE	200 WATT HPS	501	BROADWAY	90401		
2	16987	11843	H20	M400	GE	200 WATT HPS	609	BROADWAY	90401		
2	16992	6573	H20	M400A	GE	200 WATT HPS	626	BROADWAY	90401		
2	7673	3013	H25	M400	120/240	2001	2005	BROADWAY	90404		
2	7684	10085	H25	M400	GE	250 WATT HPS	1925	BROADWAY	90404		
2	7694	3019	H25	M400	GE	250 WATT HPS	2010	BROADWAY	90404		
2	7661	12119	H25	M400A	GE	250 WATT HPS	2050	BROADWAY	90404		
2	16970	6747	H25	M400	GE	250 WATT HPS	525	BROADWAY	90401		
2	16973	6805	H25	M400	GE	250 WATT HPS	525	BROADWAY	90401		
2	16985	6692	H25	M400A	GE	250 WATT HPS	609	BROADWAY	90401		
2	17007	6458	H25	M400	GE	250 WATT HPS	710	BROADWAY	90401		
2	16979	6754	H25	M400	GE	250 WATT HPS	530	BROADWAY	90401		
2	16982	6640	H25	M400A	GE	250 WATT HPS	606	BROADWAY	90401		
2	13944	3455	H10	M-250A2	GE	100 WATT HPS	1826	CALIFORNIA AVE	90403		
2	13948	3513	H10	M-250A2	GE	100 WATT HPS	1802	CALIFORNIA AVE	90403		
2	13931	3270	H10	M-250A2	GE	100 WATT HPS	1903	CALIFORNIA AVE	90403		
2	13937	3354	H10	M-250A2	GE	100 WATT HPS	1827	CALIFORNIA AVE	90403		
2	13940	3302	H10	M-250A2	GE	100 WATT HPS	1902	CALIFORNIA AVE 101	90404		
2	13950	3553	H10	M-250A2	GE	100 WATT HPS	1730	CALIFORNIA AVE NO 2	90403		
2	10356	6657	H25	M400	GE	250 WATT HPS	608	COLORADO AVE	90401		
2	17565	6804	H25	M400	GE	250 WATT HPS	532	COLORADO AVE	90401		
2	17562	6807	H25	M400	GE	250 WATT HPS	525	COLORADO AVE	90401		
2	17552	6544	H25	M400	GE	250 WATT HPS	631	COLORADO AVE	90401		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
2	17559	6680	H25	M400	GE	250 WATT HPS	609	COLORADO AVE	90401		
2	17541	6456	H25	M400	GE	250 WATT HPS	700	COLORADO AVE	90401		
2	17546	6426	H25	M400	GE	250 WATT HPS	700	COLORADO AVE	90401		
2	10097	4932	H10	M250	GE	100 WATT HPS	1621	EUCLID ST	90404		
2	8003	9116	H25	M400A	GE	250 WATT HPS	110	HOLLISTER AVE	90405		
2	19247	9107	H25	M400A	GE	250 WATT HPS	126	HOLLISTER AVE	90405		
2	19250	9119	H25	M400A	GE	250 WATT HPS	126	HOLLISTER AVE	90405		
2	19244	9102	H25	M400A	GE	250 WATT HPS	127	HOLLISTER AVE	90405		
2	11188	5974	H31	M400	GE	310 WATT HPS	2807	LINCOLN BLVD	90405		
2	11164	5924	H31	M400	GE	310 WATT HPS	2903	LINCOLN BLVD	90405		
2	17875	5991	H31	M400	GE	310 WATT HPS	2800	LINCOLN BLVD	90405		
2	10170	8196	H25	M400	GE	250 WATT HPS	2101	MAIN ST	90405		
2	10173	8142	H25	M400	GE	250 WATT HPS	2101	MAIN ST	90405		
2	10176	8140	H25	M400	GE	250 WATT HPS	2021	MAIN ST	90405		
2	10178	8183	H25	M400	GE	250 WATT HPS	2021	MAIN ST	90405		
2	10168	8205	H25	M400	GE	250 WATT HPS	2104	MAIN ST	90405		
2	10181	8248	H25	M400	GE	250 WATT HPS	2000	MAIN ST	90405		
2	10183	8200	H25	M400	GE	250 WATT HPS	2000	MAIN ST	90405		
2	10693	8962	H25	M400	GE	250 WATT HPS	3100	MAIN ST	90405		
2	10695	8944	H25	M400	GE	250 WATT HPS	3100	MAIN ST	90405		
2	10697	8868	H25	M400	GE	250 WATT HPS	3100	MAIN ST	90405		
2	7989	8966	H10	M250	GE	100 WATT HPS	2203	OCEAN AVE NO 104	90405		
2	8056	12134	H20	M400A	GE	200 WATT HPS	2203	OCEAN AVE NO 104	90405		
2	11103	4444	H25	M400	GE	250 WATT HPS	1515	OCEAN PARK BLVD	90405		
2	11102	4323	H25	M400	GE	250 WATT HPS	1585	OCEAN PARK BLVD	90405		
2	11098	4294	H25	M400	GE	250 WATT HPS	1602	OCEAN PARK BLVD	90405		
2	17532	6480	H25	M400	GE	250 WATT HPS	623	OLYMPIC BLVD	90401		
2	7058	2895	H20	M250	GE	200 WATT HPS	2108	1/2 PICO BLVD	90405		
2	7119	2699	H20	M250	GE	200 WATT HPS	2217	PICO BLVD	90405		
2	7049	2984	H20	M250	GE	200 WATT HPS	2020	PICO BLVD	90405		
2	7108	2820	H20	M250	GE	200 WATT HPS	2115	PICO BLVD	90405		
2	7014	3000	H20	M250	GE	200 WATT HPS	2001	PICO BLVD	90405		
2	7029	2906	H20	M250	GE	200 WATT HPS	2029	PICO BLVD	90405		
2	7467	11453	H20	M-400A	GE	200 WATT HPS	3102	PICO BLVD	90405		
2	7531	278	H20	M-400A	GE	200 WATT HPS	3202	PICO BLVD	90405		
2	7560	48	H20	M-400A	GE	200 WATT HPS	3322	PICO BLVD	90405		
2	7480	312	H20	M-400A	GE	200 WATT HPS	3211	PICO BLVD	90405		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
2	7497	202	H20	M-400A	GE	200 WATT HPS	3229	PICO BLVD	90405		
2	7453	501	H20	M250	GE	200 WATT HPS	3115	PICO BLVD	90405		
2	7507	81	H20	M-400A	GE	200 WATT HPS	3321	PICO BLVD	90405		
2	5141	140	H25	M-400A	GE	250 WATT HPS	3238	PICO BLVD	90405		
2	5143	11446	H25	M-400A	GE	250 WATT HPS	3238	PICO BLVD	90405		
2	5138	10905	H25	M-400A	GE	250 WATT HPS	3304	PICO BLVD	90405		
2	7142	2441	H25	M400	GE	250 WATT HPS	2233	PICO BLVD	90405		
2	7501	158	H25	M-400A	GE	250 WATT HPS	3301	PICO BLVD	90405		
2	7522	105	H25	M-400A	GE	250 WATT HPS	3307	PICO BLVD	90405		
2	7038	3101	H40	M250	GE	400 WATT HPS	2008	PICO BLVD	90405		
2	7071	2745	H40	M400	GE	400 WATT HPS	2128	PICO BLVD	90405		
2	7082	2587	H40	M400	GE	400 WATT HPS	2218	PICO BLVD	90405		
2	7010	3080	H40	M400	GE	400 WATT HPS	2001	PICO BLVD	90405		
2	12602	31	H40	M-400A	GE	400 WATT HPS	3322	PICO BLVD	90405		
2	12606	12410	H40	M-400A	GE	400 WATT HPS	3322	PICO BLVD	90405		
2	12605	23	H40	M-400A	GE	400 WATT HPS	3402	PICO BLVD	90405		
2	10690	8951	H25	M400	GE	250 WATT HPS	170	PIER AVE	90405		
2	12042	2799	H10	M-250A2	GE	100 WATT HPS	2200	SANTA MONICA BLVD	90404		
2	13960	3350	H10	M-250A2	GE	100 WATT HPS	1801	WILSHIRE BLVD	90403		
2	10913	7172	H25	M400	GE	250 WATT HPS	412	WILSHIRE BLVD	90401		
2	10925	7446	H25	M400	GE	250 WATT HPS	320	WILSHIRE BLVD	90401		
2	10911	7117	H25	M400	GE	250 WATT HPS	401	WILSHIRE BLVD	90401		
2	10919	7229	H25	M400	GE	250 WATT HPS	401	WILSHIRE BLVD	90401		
2	10923	7171	H25	M400	GE	250 WATT HPS	401	WILSHIRE BLVD	90401		
2	10949	7533	H25	M400	GE	250 WATT HPS	311	WILSHIRE BLVD	90401		
2	10951	7549	H25	M400	GE	250 WATT HPS	311	WILSHIRE BLVD	90401		
2	10936	7582	H25	M400	GE	250 WATT HPS	233	WILSHIRE BLVD	90401		
2	10954	7637	H25	M400	GE	250 WATT HPS	233	WILSHIRE BLVD	90401		
2	10921	7317	H25	M400	GE	250 WATT HPS	317	WILSHIRE BLVD	90401		
2	10947	7467	H25	M400	GE	250 WATT HPS	315	WILSHIRE BLVD	90401		
2	11178	5789	H10	M250	GE	100 WATT HPS	833	WILSON PL	90405		

### Application 3

HPSV50	HPSV70	HPSV100	HPSV150	HPSV200	HPSV250	HPSV310	HPSV360	HPSV400	M17	UNK	FIXTURE TOTAL
0	0	16	0	10	35	0	0	0	0	0	<u>61</u>

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
3	12092	9329	H10	M-250A2	GE	100 WATT HPS	1011	11TH ST	90403		
3	12094	9330	H10	M-250A2	GE	100 WATT HPS	1011	11TH ST	90403		
3	12091	5392	H10	M-250A2	GE	100 WATT HPS	957	11TH ST	90403		
3	12085	5457	H10	M-250A2	GE	100 WATT HPS	918	11TH ST	90403		
3	12098	9331	H10	M-250A2	GE	100 WATT HPS	1008	11TH ST	90403		
3	12096	9328	H25	M400	GE	250 WATT HPS	1033	11TH ST	90403		
3	11284	5622	H25	M400	GE	250 WATT HPS	2602	11TH ST	90405		
3	12087	5394	H10	M-250A2	GE	100 WATT HPS	933	11TH ST 4	90403		
3	12089	5456	H10	M-250A2	GE	100 WATT HPS	944	11TH ST NO 7	90403		
3	15225	4638	H10	M250A2	GE	100 WATT HPS	1114	14TH ST	90403		
3	11265	4758	H25	M400	GE	250 WATT HPS	2601	14TH ST	90405		
3	11267	4762	H25	M400	GE	250 WATT HPS	2525	14TH ST NO 2	90405		
3	14318	9333	H25	M400A	GE	250 WATT HPS	848	17TH ST	90403		
3	14490	1652	H25	M400	GE	250 WATT HPS	1681	26TH ST	90404		
3	14480	1441	H25	M400	GE	250 WATT HPS	1655	26TH ST	90404		
3	14469	1567	H25	M400	GE	250 WATT HPS	1620	26TH ST	90404		
3	14486	1631	H25	M400	GE	250 WATT HPS	1620	26TH ST	90404		
3	13807	9198	H25	M400	GE	250 WATT HPS	2701	BARNARD WAY	90405		
3	12826	8420	H25	M-400A	GE	250 WATT HPS	120	BROADWAY	90401		
3	14832	1263	H25	M400A	GE	250 WATT HPS	2602	BROADWAY	90404		
3	18692	8419	H25	M-400A	GE	250 WATT HPS	101	BROADWAY	90401		
3	12026	471	H20	M400	GE	200 WATT HPS	3022	COLORADO AVE	90404		
3	12024	281	H20	M400	GE	200 WATT HPS	3102	COLORADO AVE	90404		
3	14463	1412	H25	M400	GE	250 WATT HPS	2601	COLORADO AVE	90404		
3	14460	1333	H25	M400	GE	250 WATT HPS	2700	COLORADO AVE	90404		
3	14466	1600	H25	M400	GE	250 WATT HPS	2501	COLORADO AVE	90404		
3	12083	5393	H10	M-250A2	GE	100 WATT HPS	1102	IDAHO AVE	90403		
3	13197	1446	H10	M-250A2	GE	100 WATT HPS	2524	LA MESA DR	90402		
3	13191	9479	H10	M-250A2	GE	100 WATT HPS	2515	LA MESA WAY	90402		
3	13195	1450	H10	M-250A2	GE	100 WATT HPS	2515	LA MESA WAY	90402		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
3	11320	6489	H10	M250	GE	100 WATT HPS	625	MONTANA AVE	90403		
3	15376	5395	H10	M-250A2	GE	100 WATT HPS	1101	MONTANA AVE STE A	90403		
3	18686	8372	H20	M-400A	GE	200 WATT HPS	1415	OCEAN AVE	90401		
3	18683	8373	H20	M-400A	GE	200 WATT HPS	1431	OCEAN AVE	90401		
3	18684	8410	H20	M-400A	GE	200 WATT HPS	1401	OCEAN AVE	90401		
3	18675	8377	H20	M-400A	GE	200 WATT HPS	1515	OCEAN AVE	90401		
3	18677	8378	H20	M-400A	GE	200 WATT HPS	1537	OCEAN AVE	90401		
3	13844	9191	H25	M400A	GE	250 WATT HPS	101	OCEAN PARK BLVD	90405		
3	13853	9193	H25	M400A	GE	250 WATT HPS	101	OCEAN PARK BLVD	90405		
3	11279	5630	H25	M400	GE	250 WATT HPS	1047	OCEAN PARK BLVD	90405		
3	11282	5604	H25	M400	GE	250 WATT HPS	1103	OCEAN PARK BLVD	90405		
3	11269	4797	H25	M400	GE	250 WATT HPS	1343	OCEAN PARK BLVD	90405		
3	11275	12264	H25	M400	GE	250 WATT HPS	1100	OCEAN PARK BLVD	90405		
3	11271	4787	H25	M400	GE	250 WATT HPS	1352	OCEAN PARK BLVD	90405		
3	13060	17	H25	M-400A2	GE	250 WATT HPS	3435	OCEAN PARK BLVD	90405		
3	13846	9180	H25	M400A	GE	250 WATT HPS	117	OCEAN PARK BLVD	90405		
3	13858	9182	H25	M400A	GE	250 WATT HPS	10	OCEAN PARK BLVD 1	90405		
3	13631	51	H25	M400	GE	250 WATT HPS	3200	OLYMPIC BLVD	90404		
3	14493	1702	H25	M400	GE	250 WATT HPS	2425	OLYMPIC BLVD	90404		
3	14496	1870	H25	M400	GE	250 WATT HPS	2425	OLYMPIC BLVD	90404		
3	14499	1842	H25	M400	GE	250 WATT HPS	2425	OLYMPIC BLVD	90404		
3	14190	617	H10	M-250A2	GE	100 WATT HPS	2933	SANTA MONICA BLVD	90404		
3	11431	12270	H20	M400	GE	200 WATT HPS	3021	SANTA MONICA BLVD	90404		
3	11428	12269	H20	M400	GE	200 WATT HPS	3102	SANTA MONICA BLVD	90404		
3	12081	3125	H20	M400	GE	200 WATT HPS	1920	SANTA MONICA BLVD	90404		
3	11436	12272	H25	M400	GE	250 WATT HPS	3105	SANTA MONICA BLVD	90404		
3	11438	12273	H25	M400	GE	250 WATT HPS	3105	SANTA MONICA BLVD	90404		
3	11424	12221	H25	M400	GE	250 WATT HPS	3028	SANTA MONICA BLVD	90404		
3	11433	12271	H25	M400	GE	250 WATT HPS	3028	SANTA MONICA BLVD	90404		
3	15276	3079	H25	M400	GE	250 WATT HPS	2020	SANTA MONICA BLVD	90404		
3	15372	4900	H10	M-250A2	GE	100 WATT HPS	1308	WASHINGTON AVE	90403		

### Application 4

HPSV50	HPSV70	HPSV100	HPSV150	HPSV200	HPSV250	HPSV310	HPSV360	HPSV400	M17	UNK	FIXTURE TOTAL
0	0	14	0	7	18	0	0	14	0	0	53

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
4	16614	7452	H10	M250	GE	100 WATT HPS	904	4TH ST	90403		
4	16619	7251	H10	M250	GE	100 WATT HPS	904	4TH ST	90403		
4	17477	7248	H20	M400	GE	200 WATT HPS	1528	4TH ST	90401		
4	17460	7205	H20	M400	GE	200 WATT HPS	1541	4TH ST	90401		
4	17474	7202	H20	M400	GE	200 WATT HPS	1501	4TH ST	90401		
4	17466	7204	H20	M400	GE	200 WATT HPS	1527	4TH ST	90401		
4	17497	10882	H25	M400	GE	250 WATT HPS	1506	4TH ST	90401		
4	17490	11830	H25	M400	GE	250 WATT HPS	1460	4TH ST	90401		
4	17493	11833	H25	M400	GE	250 WATT HPS	1501	4TH ST	90401		
4	17455	7134	H25	M400	GE	250 WATT HPS	1555	4TH ST	90401		
4	17458	7222	H25	M400	GE	250 WATT HPS	1555	4TH ST	90401		
4	16371	6969	H10	M250	GE	100 WATT HPS	911	5TH ST NO 101	90403		
4	16368	6992	H10	M250	GE	100 WATT HPS	924	5TH ST NO 2	90403		
4	16496	6744	H25	M400	GE	250 WATT HPS	1144	6TH ST	90403		
4	16506	6683	H10	M250	GE	100 WATT HPS	1033	6TH ST APT 0110	90403		
4	16433	4651	H25	M400	GE	250 WATT HPS	1620	14TH STREET	90404		
4	16436	4653	H25	M400	GE	250 WATT HPS	1620	14TH STREET	90404		
4	17320	10273	H25	M400	GE	250 WATT HPS	1671	20TH ST	90404		
4	17322	12184	H25	M400	GE	250 WATT HPS	1671	20TH ST	90404		
4	17326	3162	H25	M400	GE	250 WATT HPS	1674	20TH ST	90404		
4	15999	2845	H10	M250	GE	100 WATT HPS	1711	21ST ST	90404		
4	16022	2654	H10	M250	GE	100 WATT HPS	1760	22ND ST	90404		
4	16010	2706	H10	M250	GE	100 WATT HPS	1704	22ND ST	90404		
4	16017	2650	H10	M250	GE	100 WATT HPS	1704	22ND ST	90404		
4	16019	2647	H10	M250	GE	100 WATT HPS	1728	22ND ST	90404		
4	16025	2655	H10	M250	GE	100 WATT HPS	1756	22ND ST	90404		
4	16014	2648	H10	M250	GE	100 WATT HPS	1706	22ND ST	90404		
4	17487	10879	H25	M400	GE	250 WATT HPS	401	BROADWAY	90401		
4	16796	6175	H40	M400	GE	400 WATT HPS	804	BROADWAY	90401		
4	17463	7245	H20	M400	GE	200 WATT HPS	315	COLORADO AVE	90401		
4	16422	4501	H25	M400	GE	250 WATT HPS	1410	COLORADO AVE	90404		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
4	16419	4591	H25	M400	GE	250 WATT HPS	1415	COLORADO AVE	90404		
4	16425	4759	H25	M400	GE	250 WATT HPS	1323	COLORADO AVE	90404		
4	16429	4654	H25	M400	GE	250 WATT HPS	1100	COLORADO AVE	90401		
4	16817	10893	H40	M400	GE	400 WATT HPS	718	COLORADO AVE	90401		
4	16798	6213	H40	M400	GE	400 WATT HPS	1532	LINCOLN BLVD	90401		
4	16787	6185	H40	M400	GE	400 WATT HPS	1431	LINCOLN BLVD	90401		
4	16803	6179	H40	M400	GE	400 WATT HPS	1533	LINCOLN BLVD	90401		
4	16814	6183	H40	M400	GE	400 WATT HPS	1601	LINCOLN BLVD	90404		
4	16822	6176	H40	M400	GE	400 WATT HPS	1637	LINCOLN BLVD	90404		
4	16832	6218	H40	M400	GE	400 WATT HPS	1670	LINCOLN BLVD	90404		
4	16829	6217	H40	M400	GE	400 WATT HPS	1650	LINCOLN BLVD	90404		
4	16791	6211	H40	M400	GE	400 WATT HPS	1444	LINCOLN BLVD	90401		
4	16784	6219	H40	M400	GE	400 WATT HPS	1418	LINCOLN BLVD	90401		
4	16807	6210	H40	M400	GE	400 WATT HPS	1560	LINCOLN BLVD	90401		
4	16825	6171	H40	M400	GE	400 WATT HPS	1669	LINCOLN BLVD	90404		
4	17329	10227	H25	M400	GE	250 WATT HPS	2008	OLYMPIC BLVD	90404		
4	17333	3102	H25	M400	GE	250 WATT HPS	1920	OLYMPIC BLVD	90404		
4	16004	2826	H10	M250	E	100 WATT HPS	2119	PENNSYLVANIA AVE	90404		
4	16007	2773	H10	M250	GE	100 WATT HPS	2153	PENNSYLVANIA AVE	90404		
4	17518	7197	H20	M400	GE	200 WATT HPS	406	SANTA MONICA BLVD	90401		
4	16781	6214	H40	M400	GE	400 WATT HPS	718	SANTA MONICA BLVD	90401		
4	17471	7243	H20	M400	GE	200 WATT HPS	395	SANTA MONICA PLACE	90401		

**Application 5**

HPSV50	HPSV70	HPSV100	HPSV150	HPSV200	HPSV250	HPSV310	HPSV360	HPSV400	M17	UNK	FIXTURE TOTAL
0	0	0	1	0	22	0	0	0	0	0	23

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
5	18582	1231	H25	M-400A2	GE	250 WATT HPS	2901	28TH ST	90405		
5	18586	1224	H25	M-400A2	GE	250 WATT HPS	2951	28TH ST BLDG V	90405		
5	18584	1249	H25	M-400A2	GE	250 WATT HPS	2800	28TH ST SUITE 30	90405		
5	13133	726	H25	M-400A2	GE	250 WATT HPS	2950	31ST ST	90405		
5	13151	1268	H15	M-250A2	GE	150 WATT HPS	2800	DONALD DOUGLAS LOOP NORTH	90405		
5	18556	1832	H25	M-400A2	GE	250 WATT HPS	2572	OCEAN PARK BLVD	90405		
5	488	1062	H25	M-400A2	GE	250 WATT HPS	2900	OCEAN PARK BLVD	90405		
5	485	722	H25	M-400A2	GE	250 WATT HPS	3100	OCEAN PARK BLVD	90405		
5	13076	499	H25	M-400A2	GE	250 WATT HPS	3250	OCEAN PARK BLVD	90405		
5	13089	664	H25	M-400A2	GE	250 WATT HPS	3150	OCEAN PARK BLVD	90405		
5	13053	28	H25	M-400A2	GE	250 WATT HPS	3420	OCEAN PARK BLVD	90405		
5	13057	30	H25	M-400A2	GE	250 WATT HPS	3420	OCEAN PARK BLVD	90405		
5	13065	52	H25	M-400A2	GE	250 WATT HPS	3420	OCEAN PARK BLVD	90405		
5	13104	966	H25	M-400A2	GE	250 WATT HPS	2940	OCEAN PARK BLVD	90405		
5	13102	922	H25	M-400A2	GE	250 WATT HPS	3000	OCEAN PARK BLVD	90405		
5	13160	1223	H25	M-400A2	GE	250 WATT HPS	2716	OCEAN PARK BLVD	90405		
5	13112	1122	H25	M-400A2	GE	250 WATT HPS	2900	OCEAN PARK BLVD	90405		
5	13097	743	H25	M-400A2	GE	250 WATT HPS	3100	OCEAN PARK BLVD	90405		
5	18563	1605	H25	M-400A2	GE	250 WATT HPS	2716	OCEAN PARK BLVD	90405		
5	18565	1281	H25	M-400A2	GE	250 WATT HPS	2716	OCEAN PARK BLVD	90405		
5	18567	1246	H25	M-400A2	GE	250 WATT HPS	2716	OCEAN PARK BLVD	90405		
5	18579	1251	H25	M-400A2	GE	250 WATT HPS	2716	OCEAN PARK BLVD	90405		
5	18547	1942	H25	M-400A2	GE	250 WATT HPS	2470	OCEAN PARK BLVD	90405		

**Application 6**

HPSV50	HPSV70	HPSV100	HPSV150	HPSV200	HPSV250	HPSV310	HPSV360	HPSV400	M17	UNK	FIXTURE TOTAL
0	0	0	0	6	14	0	0	5	0	0	25

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
6	14512	1318	H25	M400	GE	250 WATT HPS	2601	BROADWAY	90404		
6	14517	1307	H25	M400	GE	250 WATT HPS	2602	BROADWAY	90404		
6	14507	1572	H25	M400	GE	250 WATT HPS	2500	BROADWAY	90404		
6	14509	1419	H25	M400	GE	250 WATT HPS	2500	BROADWAY	90404		
6	8255	10271	H25	M400	GE	250 WATT HPS	1644	CLOVERFIELD BLVD	90404		
6	8256	10270	H25	M400	GE	250 WATT HPS	1644	CLOVERFIELD BLVD	90404		
6	8257	10269	H25	M400	GE	250 WATT HPS	1644	CLOVERFIELD BLVD	90404		
6	15888	2084	H25	M400	GE	250 WATT HPS	1601	CLOVERFIELD BLVD	90404		
6	15893	2155	H40	M400	GE	400 WATT HPS	1601	CLOVERFIELD BLVD	90404		
6	15897	10215	H40	M400	GE	400 WATT HPS	1601	CLOVERFIELD BLVD	90404		
6	15895	2382	H40	M400	GE	400 WATT HPS	1644	CLOVERFIELD BLVD	90404		
6	8254	10272	H25	M400	GE	250 WATT HPS	2200	COLORADO AVE	90404		
6	11398	8503	H25	M400	GE	250 WATT HPS	100	MONTANA AVE	90403		
6	18628	8532	H20	M-400A	GE	200 WATT HPS	850	OCEAN AVE	90403		
6	18630	8533	H20	M-400A	GE	200 WATT HPS	885	OCEAN AVE	90403		
6	16959	8337	H20	M-400A	GE	200 WATT HPS	815	OCEAN AVE	90403		
6	18627	8339	H20	M-400A	GE	200 WATT HPS	849	OCEAN AVE	90403		
6	18632	8338	H20	M-400A	GE	200 WATT HPS	849	OCEAN AVE	90403		
6	11394	8333	H25	M400	GE	250 WATT HPS	757	OCEAN AVE NO 103	90402		
6	16961	8398	H20	M-400A	GE	200 WATT HPS	801	OCEAN AVE NO 205	90403		
6	11397	8287	H25	M400	GE	250 WATT HPS	801	OCEAN AVE NO 205	90403		
6	15882	2011	H25	M400	GE	250 WATT HPS	2425	OLYMPIC BLVD	90404		
6	15885	2049	H25	M400	GE	250 WATT HPS	2425	OLYMPIC BLVD	90404		
6	15904	2231	H40	M400	GE	400 WATT HPS	2308	OLYMPIC BLVD	90404		
6	15901	2339	H40	M400	GE	400 WATT HPS	2296	OLYMPIC BLVD	90404		

**Application 7**

HPSV50	HPSV70	HPSV100	HPSV150	HPSV200	HPSV250	HPSV310	HPSV360	HPSV400	M17	UNK	FIXTURE TOTAL
0	0	6	0	0	25	0	0	0	0	0	31

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
7	7912	11815	H25	M400	GE	250 WATT HPS	220	BROADWAY	90401		
7	11311	8676	H25	M400	GE	250 WATT HPS	2654	MAIN ST	90405		
7	11307	12268	H25	M400	GE	250 WATT HPS	2635	NEILSON WAY	90405		
7	11317	12266	H25	M400	GE	250 WATT HPS	2623	NEILSON WAY	90405		
7	11318	12266	H25	M400	GE	250 WATT HPS	2623	NEILSON WAY	90405		
7	11308	8809	H25	M400	GE	250 WATT HPS	2657	NEILSON WAY	90405		
7	5585	11632	H25	M400	GE	250 WATT HPS	1176	OCEAN FRONT	90401		
7	5594	11635	H25	M400	GE	250 WATT HPS	1100	OCEAN FRONT	90401		
7	5625	11631	H25	M400	GE	250 WATT HPS	1199	OCEAN FRONT	90401		
7	5626	11631	H25	M400	GE	250 WATT HPS	1199	OCEAN FRONT	90401		
7	5586	11632	H25	M400	GE	250 WATT HPS	1176	OCEAN FRONT	90401		
7	5588	11633	H25	M400	GE	250 WATT HPS	1160	OCEAN FRONT	90401		
7	5589	11633	H25	M400	GE	250 WATT HPS	1160	OCEAN FRONT	90401		
7	5591	11634	H25	M400	GE	250 WATT HPS	1130	OCEAN FRONT	90401		
7	5592	11634	H25	M400	GE	250 WATT HPS	1130	OCEAN FRONT	90401		
7	5595	11635	H25	M400	GE	250 WATT HPS	1100	OCEAN FRONT	90401		
7	18425	11623	H10	M250	GE	100 WATT HPS	1326	OCEAN FRONT WALK	90401		
7	18426	11623	H10	M250	GE	100 WATT HPS	1326	OCEAN FRONT WALK	90401		
7	18419	11622	H10	M250	GE	100 WATT HPS	1455	OCEAN FRONT WALK	90401		
7	18420	11622	H10	M250	GE	100 WATT HPS	1455	OCEAN FRONT WALK	90401		
7	18422	11621	H10	M400	GE	100 WATT HPS	1318	OCEAN FRONT WALK	90401		
7	18423	11621	H10	M250	GE	100 WATT HPS	1318	OCEAN FRONT WALK	90401		
7	11314	8606	H25	M400	GE	250 WATT HPS	184	OCEAN PARK BLVD	90405		
7	5616	11625	H25	M400	GE	250 WATT HPS	1200	PALISADES BEACH RD	90401		
7	5617	11625	H25	M400	GE	250 WATT HPS	1200	PALISADES BEACH RD	90401		
7	5618	11626	H25	M400	GE	250 WATT HPS	1200	PALISADES BEACH RD	90401		
7	5619	11626	H25	M400	GE	250 WATT HPS	1200	PALISADES BEACH RD	90401		
7	5621	11629	H25	M400	GE	250 WATT HPS	1200	PALISADES BEACH RD	90401		
7	5622	11629	H25	M400	GE	250 WATT HPS	1200	PALISADES BEACH RD	90401		
7	5623	11630	H25	M400	GE	250 WATT HPS	1200	PALISADES BEACH RD	90401		
7	5624	11630	H25	M400	GE	250 WATT HPS	1200	PALISADES BEACH RD	90401		

### Application 8

HPSV50	HPSV70	HPSV100	HPSV150	HPSV200	HPSV250	HPSV310	HPSV360	HPSV400	M17	UNK	FIXTURE TOTAL
0	0	86	7	50	54	11	0	2	0	0	210

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
8	20	7932	H10	M250	GE	100 WATT HPS	1047	2ND ST	90403		
8	11422	7873	H10	M250	GE	100 WATT HPS	1109	2ND ST	90403		
8	18	7937	H15	M250	GE	150 WATT HPS	1137	2ND ST	90403		
8	11406	7933	H15	M250	GE	150 WATT HPS	1111	2ND ST	90403		
8	27	7198	H20	M400	GE	200 WATT HPS	1443	4TH ST	90401		
8	17516	7290	H20	M400	GE	200 WATT HPS	1412	4TH ST	90401		
8	17505	7288	H20	M400	GE	200 WATT HPS	1440	4TH ST	90401		
8	17510	7259	H25	M400	GE	250 WATT HPS	1422	4TH ST	90401		
8	17508	7226	H25	M400	GE	250 WATT HPS	1427	4TH ST	90401		
8	160	4430	H10	M250	GE	100 WATT HPS	1762	15TH ST	90404		
8	8099	4416	H10	M250	GE	100 WATT HPS	1754	15TH ST	90404		
8	164	4240	H10	M250	GE	100 WATT HPS	1848	16TH ST	90404		
8	163	4201	H10	M250	GE	100 WATT HPS	1848	16TH ST	90404		
8	323	3972	H10	M250	GE	100 WATT HPS	1847	16TH ST	90404		
8	8113	4051	H10	M250	GE	100 WATT HPS	1759	16TH ST	90404		
8	8115	3982	H10	M250	GE	100 WATT HPS	1759	16TH ST	90404		
8	11760	4183	H20	M400	GE	200 WATT HPS	1214	16TH ST	90404		
8	325	4048	H25	M400	GE	250 WATT HPS	1847	16TH ST	90404		
8	8125	4182	H25	M400	GE	250 WATT HPS	1838	16TH ST	90404		
8	8118	4050	H25	M400	GE	250 WATT HPS	1811	16TH ST	90404		
8	8120	4179	H25	M400	GE	250 WATT HPS	1818	16TH ST	90404		
8	8106	4184	H10	M250	GE	100 WATT HPS	1748	16TH ST UNIT B	90404		
8	8123	4049	H25	M400	GE	250 WATT HPS	1827	16TH STREET 105	90404		
8	327	3952	H10	M250	GE	100 WATT HPS	1802	17TH ST	90404		
8	321	3669	H10	M250	GE	100 WATT HPS	1802	18TH ST	90404		
8	322	3591	H10	M250	GE	175 WATT MH	1802	18TH ST	90404		
8	330	3610	H10	M250	GE	100 WATT HPS	1760	18TH ST	90404		
8	8152	3546	H10	M250	GE	175 WATT MH	1847	18TH ST	90404		
8	8154	3491	H10	M250	GE	100 WATT HPS	1847	18TH ST	90404		
8	8150	3594	H10	M250	GE	175 WATT MH	1838	18TH ST	90404		
8	8155	3589	H10	M250	GE	100 WATT HPS	1902	18TH ST	90404		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
8	8176	3545	H10	M250	GE	175 WATT MH	1811	18TH ST	90404		
8	8145	3586	H10	M250	GE	100 WATT HPS	1944	18TH ST	90404		
8	8151	3544	H10	M250	GE	175 WATT MH	1827	18TH ST	90404		
8	8173	3596	H10	M250	GE	175 WATT MH	1822	18TH ST	90404		
8	8143	3584	H10	M250	GE	100 WATT HPS	1964	18TH ST	90404		
8	8156	3542	H10	M250	GE	100 WATT HPS	1927	18TH ST	90404		
8	8134	3540	H10	M250	GE	100 WATT HPS	1953	18TH ST	90404		
8	8165	3543	H10	M250	GE	100 WATT HPS	1913	18TH ST	90404		
8	8139	3582	H10	M250	GE	100 WATT HPS	2016	18TH ST	90404		
8	8141	3539	H10	M250	GE	100 WATT HPS	2005	18TH ST	90404		
8	20001	3580	H10	M250	GE	100 WATT HPS	1748	18TH ST	90404		
8	15627	3063	H25	M400	GE	250 WATT HPS	1634	18TH ST	90404		
8	8167	3588	H10	M250	GE	100 WATT HPS	1922	18TH ST NO 4	90404		
8	8193	3361	H10	M250	GE	100 WATT HPS	1824	19TH ST	90404		
8	8210	3362	H10	M250	GE	100 WATT HPS	1838	19TH ST	90404		
8	8180	3310	H10	M250	GE	100 WATT HPS	1807	19TH ST	90404		
8	8181	3313	H10	M250	GE	100 WATT HPS	1827	19TH ST	90404		
8	8237	3360	H10	M250	GE	100 WATT HPS	2024	19TH ST	90404		
8	8232	3324	H10	M250	GE	100 WATT HPS	2019	19TH ST	90404		
8	8200	3462	H10	M250	GE	100 WATT HPS	1904	19TH ST	90404		
8	8202	3355	H10	M250	GE	100 WATT HPS	1904	19TH ST	90404		
8	8201	3356	H10	M250	GE	100 WATT HPS	1918	19TH ST	90404		
8	8223	3357	H10	M250	GE	100 WATT HPS	1938	19TH ST	90404		
8	8222	3359	H10	M250	GE	100 WATT HPS	1958	19TH ST	90404		
8	8221	3322	H10	M250	GE	100 WATT HPS	2001	19TH ST	90404		
8	8216	3332	H10	M250	GE	100 WATT HPS	1907	19TH ST	90404		
8	8230	3358	H10	M250	GE	100 WATT HPS	2004	19TH ST	90404		
8	8214	3303	H10	M250	GE	100 WATT HPS	1901	19TH ST	90404		
8	8228	3327	H10	M250	GE	100 WATT HPS	1947	19TH ST	90404		
8	8218	3330	H10	M250	GE	100 WATT HPS	1923	19TH ST	90404		
8	8183	3401	H10	M250	GE	100 WATT HPS	1760	19TH ST	90404		
8	19886	3276	H10	M250	GE	100 WATT HPS	1801	19TH ST	90404		
8	8208	3256	H10	M250	GE	100 WATT HPS	1900	20TH ST	90404		
8	15608	3046	H25	M400	GE	250 WATT HPS	1595	20TH ST	90404		
8	15633	3051	H25	M400	GE	250 WATT HPS	1653	20TH ST	90404		
8	15611	3156	H25	M400	GE	250 WATT HPS	1556	20TH ST	90404		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
8	15630	3119	H25	M400	GE	250 WATT HPS	1634	20TH ST	90404		
8	15635	3121	H25	M400	GE	250 WATT HPS	1668	20TH ST	90404		
8	2931	2705	H25	M400	GE	250 WATT HPS	1328	22ND ST	90404		
8	2743	1397	H10	M250R	GE	100 WATT HPS	1545	26TH ST	90404		
8	2744	1373	H10	M250R	GE	100 WATT HPS	2602	BROADWAY	90404		
8	11412	8050	H10	M250	GE	100 WATT HPS	123	CALIFORNIA AVE	90403		
8	11414	8250	H15	M250	GE	150 WATT HPS	101	CALIFORNIA AVE APT 0206	90403		
8	11409	7939	H10	M250	GE	100 WATT HPS	211	CALIFORNIA AVE NO 403	90403		
8	11411	7759	H10	M250	GE	100 WATT HPS	211	CALIFORNIA AVE NO 403	90403		
8	444	1910	H20	M400	GE	200 WATT HPS	1197	CHELSEA AVE	90403		
8	8304	12168	H10	M250	GE	100 WATT HPS	1720	CLOVERFIELD BLVD	90404		
8	8307	12169	H10	M250	GE	100 WATT HPS	1742	CLOVERFIELD BLVD	90404		
8	8319	12172	H10	M250	GE	100 WATT HPS	1707	CLOVERFIELD BLVD	90404		
8	8311	12170	H10	M250	GE	100 WATT HPS	1752	CLOVERFIELD BLVD	90404		
8	8325	12173	H10	M250	GE	100 WATT HPS	1723	CLOVERFIELD BLVD	90404		
8	8315	12171	H10	M250	GE	100 WATT HPS	1776	CLOVERFIELD BLVD	90404		
8	8303	12168	H31	M400	GE	310 WATT HPS	1728	CLOVERFIELD BLVD	90404		
8	8306	12169	H31	M400	GE	310 WATT HPS	1742	CLOVERFIELD BLVD	90404		
8	457	2387	H31	M400	GE	310 WATT HPS	1776	CLOVERFIELD BLVD	90404		
8	8318	12172	H31	M400	GE	310 WATT HPS	1707	CLOVERFIELD BLVD	90404		
8	8310	12170	H31	M400	GE	310 WATT HPS	1752	CLOVERFIELD BLVD	90404		
8	8295	2234	H31	M400	GE	310 WATT HPS	1819	CLOVERFIELD BLVD	90404		
8	8296	2333	H31	M400	GE	310 WATT HPS	1802	CLOVERFIELD BLVD	90404		
8	8300	2296	H31	M400	GE	310 WATT HPS	1751	CLOVERFIELD BLVD	90404		
8	8329	12174	H31	M400	GE	310 WATT HPS	1751	CLOVERFIELD BLVD	90404		
8	8324	12173	H31	M400	GE	310 WATT HPS	1723	CLOVERFIELD BLVD	90404		
8	8314	12171	H31	M400	GE	310 WATT HPS	1776	CLOVERFIELD BLVD	90404		
8	500	107	H20	M-250A2	GE	200 WATT HPS	3212	COLORADO AVE	90404		
8	2829	1258	H20	M400	GE	200 WATT HPS	2615	COLORADO AVE	90404		
8	3079	9527	H25	M400	GE	250 WATT HPS	2220	COLORADO AVE	90404		
8	8368	9605	H25	M400	GE	250 WATT HPS	2220	COLORADO AVE	90404		
8	15595	2891	H25	M400	GE	250 WATT HPS	2120	COLORADO AVE	90404		
8	15599	2974	H25	M400	GE	250 WATT HPS	2100	COLORADO AVE	90404		
8	15605	3014	H25	M400	GE	250 WATT HPS	2100	COLORADO AVE	90404		
8	15623	3025	H25	M400	GE	250 WATT HPS	2100	COLORADO AVE	90404		
8	15616	3122	H25	M400	GE	250 WATT HPS	1920	COLORADO AVE	90404		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
8	15620	3123	H25	M400	GE	250 WATT HPS	1920	COLORADO AVE	90404		
8	15587	9525	H25	M400	GE	250 WATT HPS	2200	COLORADO AVE	90404		
8	15590	9524	H25	M400	GE	250 WATT HPS	2200	COLORADO AVE	90404		
8	324	3990	H10	M250	GE	100 WATT HPS	1618	DELAWARE AVE	90404		
8	8198	3269	H10	M250	GE	100 WATT HPS	1901	DELAWARE AVE	90404		
8	8199	3317	H10	M250	GE	100 WATT HPS	1901	DELAWARE AVE	90404		
8	8212	3404	H10	M250	GE	100 WATT HPS	1821	DELAWARE AVE	90404		
8	8149	3668	H10	M250	GE	100 WATT HPS	1720	DELAWARE AVE	90404		
8	8169	12162	H10	M250	GE	100 WATT HPS	1727	DELAWARE AVE	90404		
8	8153	3515	H10	M250	GE	100 WATT HPS	1802	DELAWARE AVE	90404		
8	108	5867	H25	M-400A2	GE	250 WATT HPS	2601	LINCOLN BLVD	90405		
8	109	5929	H25	M-400A2	GE	250 WATT HPS	2601	LINCOLN BLVD	90405		
8	110	5761	H25	M-400A2	GE	250 WATT HPS	2601	LINCOLN BLVD	90405		
8	159	4356	H10	M250	GE	100 WATT HPS	1503	MICHIGAN AVE	90404		
8	161	4454	H10	M250	GE	100 WATT HPS	1413	MICHIGAN AVE	90404		
8	326	3998	H10	M250	GE	100 WATT HPS	1610	MICHIGAN AVE	90404		
8	8191	3257	H10	M250	GE	100 WATT HPS	1992	MICHIGAN AVE	90404		
8	320	3517	H10	M250	GE	100 WATT HPS	1810	MICHIGAN AVE	90404		
8	319	3538	H10	M250	GE	100 WATT HPS	1801	MICHIGAN AVE	90404		
8	329	3485	H10	M250	GE	100 WATT HPS	1801	MICHIGAN AVE	90404		
8	328	3907	H10	M250	GE	100 WATT HPS	1631	MICHIGAN AVE	90404		
8	162	4491	H10	M250	GE	100 WATT HPS	1413	MICHIGAN AVE	90404		
8	158	4296	H10	M250	GE	100 WATT HPS	1513	MICHIGAN AVE	90404		
8	8182	3363	H10	M250	GE	100 WATT HPS	1824	MICHIGAN AVE	90404		
8	8189	3459	H10	M250	GE	100 WATT HPS	1824	MICHIGAN AVE	90404		
8	8110	4198	H10	M250	GE	100 WATT HPS	1529	MICHIGAN AVE	90404		
8	8101	4366	H10	M250	GE	100 WATT HPS	1513	MICHIGAN AVE	90404		
8	8289	2427	H10	M250	GE	100 WATT HPS	2230	MICHIGAN AVE	90404		
8	8104	4228	H10	M250	GE	100 WATT HPS	1520	MICHIGAN AVE	90404		
8	8128	4177	H25	M400	GE	250 WATT HPS	1530	MICHIGAN AVE	90404		
8	17	7980	H15	M250	GE	150 WATT HPS	1133	OCEAN AVE	90403		
8	19	7978	H15	M250	GE	150 WATT HPS	1133	OCEAN AVE	90403		
8	11415	8113	H15	M250	GE	150 WATT HPS	1133	OCEAN AVE	90403		
8	11419	7991	H15	M250	GE	150 WATT HPS	1133	OCEAN AVE	90403		
8	6221	11934	H20	M250	GE	200 WATT HPS	1819	OCEAN AVE	90401		
8	6209	11930	H40	M400	GE	400 WATT HPS	1819	OCEAN AVE	90401		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
8	2051	3272	H25	M-250A2	GE	250 WATT HPS	2007	OCEAN PARK BLVD	90405		
8	8135	3541	H10	M250	GE	100 WATT HPS	1801	PICO BLVD	90405		
8	8234	3326	H10	M250	GE	100 WATT HPS	1905	PICO BLVD	90405		
8	6237	11938	H40	M400	GE	400 WATT HPS	144	PICO BLVD	90405		
8	2831	1110	H20	M400	GE	200 WATT HPS	1553	PRINCETON ST	90404		
8	17522	11846	H20	M400	GE	200 WATT HPS	332	SANTA MONICA BLVD	90401		
8	445	2487	H25	M400	GE	250 WATT HPS	2221	SANTA MONICA BLVD	90404		
8	2908	2419	H25	M400	GE	250 WATT HPS	2300	SANTA MONICA BLVD	90404		
8	2933	2698	H25	M400	GE	250 WATT HPS	2200	SANTA MONICA BLVD	90404		
8	11600	12284	H20	M250A2	GE	200 WATT HPS	2602	WASHINGTON AVE	90403		
8	11597	12283	H20	M250A2	GE	200 WATT HPS	2527	WASHINGTON AVE	90403		
8	11610	1474	H25	M250A2	GE	250 WATT HPS	2526	WASHINGTON AVE	90403		
8	11701	1802	H20	M400	GE	200 WATT HPS	2491	WILSHIRE BLVD	90403		
8	11704	1841	H20	M400	GE	200 WATT HPS	2465	WILSHIRE BLVD	90403		
8	482	1064	H20	M400	GE	200 WATT HPS	2730	WILSHIRE BLVD	90403		
8	480	926	H20	M400	GE	200 WATT HPS	2800	WILSHIRE BLVD	90403		
8	481	991	H20	M400	GE	200 WATT HPS	2800	WILSHIRE BLVD	90403		
8	443	1801	H20	M400	GE	200 WATT HPS	2460	WILSHIRE BLVD	90403		
8	2670	1235	H20	M400	GE	200 WATT HPS	2621	WILSHIRE BLVD	90403		
8	3138	3613	H20	M400	GE	200 WATT HPS	1730	WILSHIRE BLVD	90403		
8	11639	888	H20	M400	GE	200 WATT HPS	2811	WILSHIRE BLVD	90403		
8	11643	942	H20	M400	GE	200 WATT HPS	2811	WILSHIRE BLVD	90403		
8	11649	1097	H20	M400	GE	200 WATT HPS	2719	WILSHIRE BLVD	90403		
8	11646	1020	H20	M400	GE	200 WATT HPS	2729	WILSHIRE BLVD	90403		
8	11680	1183	H20	M400	GE	200 WATT HPS	2631	WILSHIRE BLVD	90403		
8	11652	1126	H20	M400	GE	200 WATT HPS	2711	WILSHIRE BLVD	90403		
8	11659	1116	H20	M400	GE	200 WATT HPS	2702	WILSHIRE BLVD	90403		
8	11664	1124	H20	M400	GE	200 WATT HPS	2702	WILSHIRE BLVD	90403		
8	11657	1027	H20	M-250A2	GE	200 WATT HPS	2730	WILSHIRE BLVD	90403		
8	11717	1260	H20	M400	GE	200 WATT HPS	2600	WILSHIRE BLVD	90403		
8	11714	1184	H20	M400	GE	200 WATT HPS	2636	WILSHIRE BLVD	90403		
8	11694	1638	H20	M400	GE	200 WATT HPS	2515	WILSHIRE BLVD	90403		
8	11697	1708	H20	M400	GE	200 WATT HPS	2501	WILSHIRE BLVD	90403		
8	11711	2037	H20	M400	GE	200 WATT HPS	2421	WILSHIRE BLVD	90403		
8	11708	1961	H20	M400	GE	200 WATT HPS	2425	WILSHIRE BLVD	90403		
8	11770	3684	H20	M400	GE	200 WATT HPS	1719	WILSHIRE BLVD	90403		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
8	11767	3608	H20	M400	GE	200 WATT HPS	1727	WILSHIRE BLVD	90403		
8	11747	3681	H20	M400	GE	200 WATT HPS	1730	WILSHIRE BLVD	90403		
8	11743	2071	H20	M400	GE	200 WATT HPS	2412	WILSHIRE BLVD	90403		
8	11735	1868	H20	M400	GE	200 WATT HPS	2444	WILSHIRE BLVD	90403		
8	11738	1911	H20	M400	GE	200 WATT HPS	2444	WILSHIRE BLVD	90403		
8	11741	1962	H20	M400	GE	200 WATT HPS	2424	WILSHIRE BLVD	90403		
8	11728	1669	H20	M400	GE	200 WATT HPS	2512	WILSHIRE BLVD	90403		
8	11731	1706	H20	M400	GE	200 WATT HPS	2504	WILSHIRE BLVD	90403		
8	11774	3964	H20	M400	GE	200 WATT HPS	1601	WILSHIRE BLVD	90403		
8	11777	4006	H20	M400	GE	200 WATT HPS	1601	WILSHIRE BLVD	90403		
8	11780	4186	H20	M400	GE	200 WATT HPS	1529	WILSHIRE BLVD	90403		
8	11752	3956	H20	M400	GE	200 WATT HPS	1620	WILSHIRE BLVD	90403		
8	11758	4031	H20	M400	GE	200 WATT HPS	1610	WILSHIRE BLVD	90403		
8	11764	4257	H20	M400	GE	200 WATT HPS	1524	WILSHIRE BLVD	90403		
8	11674	736	H25	M-400A2	GE	250 WATT HPS	2901	WILSHIRE BLVD	90403		
8	11676	762	H25	M-400A2	GE	250 WATT HPS	2901	WILSHIRE BLVD	90403		
8	11678	832	H25	M-400A2	GE	250 WATT HPS	2839	WILSHIRE BLVD	90403		
8	11685	1319	H25	M400	GE	250 WATT HPS	2601	WILSHIRE BLVD	90403		
8	11687	1407	H25	M400	GE	250 WATT HPS	2601	WILSHIRE BLVD	90403		
8	11666	833	H25	M-400A2	GE	250 WATT HPS	2828	WILSHIRE BLVD	90403		
8	11668	785	H25	M-400A2	GE	250 WATT HPS	2828	WILSHIRE BLVD	90403		
8	11671	739	H25	M-400A2	GE	250 WATT HPS	2910	WILSHIRE BLVD	90403		
8	11690	1561	H25	M400	GE	250 WATT HPS	2525	WILSHIRE BLVD	90403		
8	11333	3730	H25	M400	GE	250 WATT HPS	1700	WILSHIRE BLVD	90403		
8	11329	3799	H25	M400	GE	250 WATT HPS	1701	WILSHIRE BLVD	90403		
8	11331	3725	H25	M400	GE	250 WATT HPS	1701	WILSHIRE BLVD	90403		
8	11723	1562	H25	M400	GE	250 WATT HPS	2524	WILSHIRE BLVD	90403		
8	11725	1563	H25	M400	GE	250 WATT HPS	2524	WILSHIRE BLVD	90403		
8	11339	3893	H25	M400	GE	250 WATT HPS	1629	WILSHIRE BLVD	90403		
8	11335	3906	H25	M400	GE	250 WATT HPS	1626	WILSHIRE BLVD	90403		
8	11337	3807	H25	M400	GE	250 WATT HPS	1626	WILSHIRE BLVD	90403		
8	19343	500	H25	M400A2	GE	250 WATT HPS	3021	WILSHIRE BLVD	90403		
8	19346	467	H25	M400A2	GE	250 WATT HPS	3032	WILSHIRE BLVD	90403		
8	19352	353	H25	M400A2	GE	250 WATT HPS	3112	WILSHIRE BLVD	90403		
8	19349	384	H25	M400A2	GE	250 WATT HPS	3105	WILSHIRE BLVD	90403		

**Application 9**

HPSV50	HPSV70	HPSV100	HPSV150	HPSV200	HPSV250	HPSV310	HPSV360	HPSV400	M17	UNK	FIXTURE TOTAL
0	0	29	8	24	57	2	0	0	0	0	120

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
9	16085	12161	H20	M400	GE	200 WATT HPS	801	2ND ST	90403		
9	19339	8247	H25	M400	GE	250 WATT HPS	2420	2ND ST	90405		
9	16091	7588	H10	M250	GE	100 WATT HPS	814	3RD ST	90403		
9	10038	12160	H20	M400	GE	200 WATT HPS	802	3RD ST UNIT B	90403		
9	9904	6895	H15	M250	GE	150 WATT HPS	2498	6TH ST	90405		
9	9910	6900	H15	M250	GE	150 WATT HPS	2564	6TH ST	90405		
9	9918	6883	H15	M250	GE	150 WATT HPS	2428	6TH ST	90405		
9	9906	6892	H15	M250	GE	150 WATT HPS	2525	6TH ST	90405		
9	9912	6899	H15	M250	GE	150 WATT HPS	2547	6TH ST	90405		
9	9916	6876	H15	M250	GE	150 WATT HPS	2328	6TH ST	90405		
9	16675	3880	H10	M250	GE	100 WATT HPS	2070	17TH ST	90404		
9	16677	3878	H10	M250	GE	100 WATT HPS	2030	17TH ST	90404		
9	16685	3877	H10	M250	GE	100 WATT HPS	1986	17TH ST	90404		
9	16688	3874	H10	M250	GE	100 WATT HPS	1944	17TH ST	90404		
9	16695	3870	H10	M250	GE	100 WATT HPS	1900	17TH ST	90404		
9	8130	3689	H10	M250	GE	100 WATT HPS	1757	17TH ST	90404		
9	16712	3785	H10	M250	GE	100 WATT HPS	1833	17TH ST	90404		
9	16690	3780	H10	M250	GE	100 WATT HPS	1933	17TH ST	90404		
9	16719	3782	H10	M250	GE	100 WATT HPS	1813	17TH ST	90404		
9	16693	3789	H10	M250	GE	100 WATT HPS	1911	17TH ST	90404		
9	16679	3775	H10	M250	GE	100 WATT HPS	1963	17TH ST	90404		
9	16684	3778	H10	M250	GE	100 WATT HPS	1943	17TH ST	90404		
9	16724	3801	H10	M250	GE	100 WATT HPS	1757	17TH ST	90404		
9	16727	3872	H10	M250	GE	100 WATT HPS	1746	17TH ST	90404		
9	16709	3879	H10	M250	GE	100 WATT HPS	1844	17TH ST	90404		
9	16707	3901	H10	M250	GE	100 WATT HPS	1848	17TH ST	90404		
9	16717	3873	H10	M250	GE	100 WATT HPS	1802	17TH ST	90404		
9	16714	3882	H10	M250	GE	100 WATT HPS	1820	17TH ST	90404		
9	9920	6880	H15	M250	GE	150 WATT HPS	2454	BEVERLEY AVE	90405		
9	9913	6865	H15	M250	GE	150 WATT HPS	2428	BEVERLEY AVE	90405		
9	16730	3943	H10	M250	GE	100 WATT HPS	1662	DELAWARE AVE	90404		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
9	16701	3691	H10	M250	GE	100 WATT HPS	1711	DELAWARE AVE	90404		
9	16704	3787	H10	M250	GE	100 WATT HPS	1711	DELAWARE AVE	90404		
9	16697	3736	H10	M250	GE	100 WATT HPS	1702	DELAWARE AVE	90404		
9	8716	6138	H25	M400	GE	250 WATT HPS	1735	LINCOLN BLVD	90404		
9	8713	6252	H25	M400	GE	250 WATT HPS	1732	LINCOLN BLVD	90404		
9	8694	6058	H31	M400	GE	310 WATT HPS	2221	LINCOLN BLVD	90405		
9	8693	6178	H31	M400	GE	310 WATT HPS	2316	LINCOLN BLVD	90405		
9	19336	8279	H25	M400	GE	250 WATT HPS	2440	MAIN ST	90405		
9	16721	3735	H10	M250	GE	100 WATT HPS	1702	MICHIGAN AVE	90404		
9	11439	9538	H25	M400	GE	250 WATT HPS	2838	NEBRASKA AVE	90404		
9	13665	9537	H25	M400	GE	250 WATT HPS	2838	NEBRASKA AVE	90404		
9	13680	9531	H25	M400	GE	250 WATT HPS	2900	NEBRASKA AVE	90404		
9	13673	9532	H25	M400	GE	250 WATT HPS	2900	NEBRASKA AVE	90404		
9	7954	8787	H10	M250	GE	100 WATT HPS	2222	NEILSON WAY 102	90405		
9	12799	8652	H10	M250	GE	100 WATT HPS	1802	OCEAN AVE	90401		
9	8094	8352	H20	M-400A	GE	200 WATT HPS	1133	OCEAN AVE	90403		
9	8096	8351	H20	M-400A	GE	200 WATT HPS	1133	OCEAN AVE	90403		
9	18698	8354	H20	M-400A	GE	200 WATT HPS	1221	OCEAN AVE	90401		
9	18702	8357	H20	M-400A	GE	200 WATT HPS	1299	OCEAN AVE	90401		
9	18711	8356	H20	M-400A	GE	200 WATT HPS	1323	OCEAN AVE	90401		
9	17399	8479	H25	M400	GE	250 WATT HPS	1201	OCEAN AVE	90401		
9	17402	8476	H25	M250	GE	250 WATT HPS	1199	OCEAN AVE	90401		
9	17386	8052	H25	M400	GE	250 WATT HPS	1133	OCEAN AVE	90403		
9	17396	8159	H25	M400	GE	250 WATT HPS	1133	OCEAN AVE	90403		
9	17405	8395	H25	M-400A	GE	250 WATT HPS	1133	OCEAN AVE	90403		
9	17407	8312	H25	M-400A	GE	250 WATT HPS	1133	OCEAN AVE	90403		
9	18704	8403	H25	M-400A	GE	250 WATT HPS	1299	OCEAN AVE	90401		
9	18708	8353	H25	M-400A	GE	250 WATT HPS	1301	OCEAN AVE	90401		
9	11441	9534	H25	M400	GE	250 WATT HPS	2900	OLYMPIC BLVD	90404		
9	11444	9533	H25	M400	GE	250 WATT HPS	2900	OLYMPIC BLVD	90404		
9	13636	85	H25	M400	GE	250 WATT HPS	3142	OLYMPIC BLVD	90404		
9	13639	122	H25	M400	GE	250 WATT HPS	3030	OLYMPIC BLVD	90404		
9	13642	246	H25	M400	GE	250 WATT HPS	3022	OLYMPIC BLVD	90404		
9	13645	302	H25	M400	GE	250 WATT HPS	3014	OLYMPIC BLVD	90404		
9	13648	346	H25	M400	GE	250 WATT HPS	3004	OLYMPIC BLVD	90404		
9	13651	514	H25	M400	GE	250 WATT HPS	2990	OLYMPIC BLVD	90404		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
9	13654	544	H25	M400	GE	250 WATT HPS	2960	OLYMPIC BLVD	90404		
9	13657	661	H25	M400	GE	250 WATT HPS	2940	OLYMPIC BLVD	90404		
9	13660	706	H25	M400	GE	250 WATT HPS	2920	OLYMPIC BLVD	90404		
9	13663	730	H25	M400	GE	250 WATT HPS	2900	OLYMPIC BLVD	90404		
9	11447	9536	H25	M400	GE	250 WATT HPS	2800	OLYMPIC BLVD	90404		
9	13670	9535	H25	M400	GE	250 WATT HPS	2800	OLYMPIC BLVD	90404		
9	7242	1111	H20	M250	GE	200 WATT HPS	2720	PICO BLVD	90405		
9	7255	2069	H20	M250	GE	200 WATT HPS	2350	PICO BLVD	90405		
9	7264	1916	H20	M250	GE	200 WATT HPS	2410	PICO BLVD	90405		
9	7283	1817	H20	M250	GE	200 WATT HPS	2410	PICO BLVD	90405		
9	7169	2012	H20	M250	GE	200 WATT HPS	2411	PICO BLVD	90405		
9	7221	1123	H20	M250	GE	200 WATT HPS	2705	PICO BLVD	90405		
9	7184	1699	H20	M250	GE	200 WATT HPS	2509	PICO BLVD	90405		
9	7292	1645	H20	M250	GE	200 WATT HPS	2526	PICO BLVD	90405		
9	7304	1287	H20	M250	GE	200 WATT HPS	2608	PICO BLVD	90405		
9	7324	1213	H20	M250	GE	200 WATT HPS	2630	PICO BLVD	90405		
9 (Unmatch Lamp)	7212	1253	H20	M250	GE	200 WATT MH	2621	PICO BLVD	90405		
9	7302	1417	H25	M400	GE	250 WATT HPS	2608	PICO BLVD	90405		
9	7181	1855	H20	M250	GE	200 WATT HPS	2501	PICO BLVD FRONT	90405		
9	7156	2099	H20	M250	GE	200 WATT HPS	2301	PICO BLVD NO 35	90405		
9	19150	6461	H20	M400A	GE	200 WATT HPS	701	SANTA MONICA BLVD	90401		
9	18714	8366	H20	M-400A	GE	200 WATT HPS	101	SANTA MONICA BLVD	90401		
9 (Unmatch Lamp)	19176	5889	H20	M400A	GE	200 WATT HPS	888	SANTA MONICA BLVD	90401		
9	11347	6192	H25	M400	GE	250 WATT HPS	801	SANTA MONICA BLVD	90401		
9	11348	9394	H25	M400A	GE	250 WATT HPS	801	SANTA MONICA BLVD	90401		
9	11350	9395	H25	M400	GE	250 WATT HPS	800	SANTA MONICA BLVD	90401		
9	11353	6186	H25	M400	GE	250 WATT HPS	800	SANTA MONICA BLVD	90401		
9	11346	6261	H25	M400	GE	250 WATT HPS	731	SANTA MONICA BLVD	90401		
9	11354	9393	H25	M400	GE	250 WATT HPS	718	SANTA MONICA BLVD	90401		
9	12797	8862	H10	M250	GE	100 WATT HPS	17	VICENTE TER	90401		
9	8078	9015	H10	M250	GE	100 WATT HPS	3	VICENTE TER	90401		
9	12794	9036	H10	M250	GE	100 WATT HPS	3	VICENTE TER	90401		
9	17412	10812	H20	M-400A	GE	200 WATT HPS	100	WILSHIRE BLVD	90401		
9	10893	6471	H25	M400	GE	250 WATT HPS	626	WILSHIRE BLVD	90401		
9	10895	6530	H25	M400	GE	250 WATT HPS	626	WILSHIRE BLVD	90401		
9	10897	6580	H25	M400	GE	250 WATT HPS	626	WILSHIRE BLVD	90401		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
9	10891	6529	H25	M400	GE	250 WATT HPS	631	WILSHIRE BLVD	90401		
9	11325	5330	H25	M400	GE	250 WATT HPS	1101	WILSHIRE BLVD	90401		
9	15965	5378	H25	M400	GE	250 WATT HPS	1101	WILSHIRE BLVD	90401		
9	15967	5518	H25	M400	GE	250 WATT HPS	1025	WILSHIRE BLVD	90401		
9	15509	5345	H25	M400	GE	250 WATT HPS	1104	WILSHIRE BLVD	90401		
9	15969	5460	H25	M400	GE	250 WATT HPS	1020	WILSHIRE BLVD	90401		
9	15971	5523	H25	M400	GE	250 WATT HPS	1020	WILSHIRE BLVD	90401		
9	17384	7982	H25	M400	GE	250 WATT HPS	124	WILSHIRE BLVD	90401		
9	17389	7993	H25	M400	GE	250 WATT HPS	124	WILSHIRE BLVD	90401		
9	17392	8160	H25	M400	GE	250 WATT HPS	124	WILSHIRE BLVD	90401		
9	17410	8323	H25	M-400A	GE	250 WATT HPS	100	WILSHIRE BLVD	90401		
9	17381	7868	H25	M400	GE	250 WATT HPS	202	WILSHIRE BLVD	90401		
9	17372	7766	H25	M400	GE	250 WATT HPS	201	WILSHIRE BLVD	90401		
9	17375	7886	H25	M400	GE	250 WATT HPS	201	WILSHIRE BLVD	90401		
9	10901	6453	H25	M400	GE	250 WATT HPS	699	WILSHIRE BLVD	90401		
9	10903	6432	H25	M400	GE	250 WATT HPS	699	WILSHIRE BLVD	90401		
9	17377	7941	H25	M400	GE	250 WATT HPS	201	WILSHIRE BLVD	90401		

**Application 10**

HPSV50	HPSV70	HPSV100	HPSV150	HPSV200	HPSV250	HPSV310	HPSV360	HPSV400	M17	UNK	FIXTURE TOTAL
0	0	27	0	35	54	7	4	0	0	0	127

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
10	12439	7220	H25	M400A	GE	250 WATT HPS	1689	4TH ST	90401		
10	12650	12383	H25	M400A	GE	250 WATT HPS	1689	4TH ST	90401		
10	12444	12381	H25	M400A	GE	250 WATT HPS	1700	4TH ST	90401		
10	12654	12380	H25	M440A	GE	250 WATT HPS	1707	4TH ST	90401		
10	12982	6684	H25	M400	GE	250 WATT HPS	1349	6TH ST	90401		
10	12972	6750	H25	M400	GE	250 WATT HPS	1250	6TH ST	90401		
10	12975	6793	H25	M400	GE	250 WATT HPS	1250	6TH ST	90401		
10	12977	6759	H25	M400	GE	250 WATT HPS	1302	6TH ST	90401		
10	12979	6751	H25	M400	GE	250 WATT HPS	1338	6TH ST	90401		
10	12984	6749	H25	M400	GE	250 WATT HPS	1338	6TH ST	90401		
10	12948	6400	H25	M400	GE	250 WATT HPS	1307	7TH ST	90401		
10	12939	6472	H25	M400	GE	250 WATT HPS	1212	7TH ST	90401		
10	12942	6468	H25	M400	GE	250 WATT HPS	1212	7TH ST	90401		
10	12957	6475	H25	M400	GE	250 WATT HPS	1314	7TH ST	90401		
10	12945	6439	H25	M400	GE	250 WATT HPS	1295	7TH ST	90401		
10 (Unmatch Lamp)	15230	3857	H36	M400	GE	360 WATT HPS	1314	17TH ST APT 0011	90404		
10 (Unmatch Lamp)	15238	3715	H36	M400	GE	360 WATT HPS	1301	17TH ST APT 0103	90404		
10	15170	3570	H10	M-250A2	GE	100 WATT HPS	1558	18TH ST	90404		
10	15174	3666	H10	M-250A2	GE	100 WATT HPS	1558	18TH ST	90404		
10	12040	3532	H10	M-250A2	GE	100 WATT HPS	1333	18TH ST NO 1	90404		
10	14405	3335	H10	M-250A2	GE	100 WATT HPS	910	19TH ST UNIT 10	90403		
10	14896	2828	H20	M400	GE	200 WATT HPS	1155	21ST ST	90403		
10	14193	2851	H10	M-250A2	GE	100 WATT HPS	1118	21ST ST NO 105	90403		
10	15025	2572	H10	M-250A2	GE	100 WATT HPS	1328	22ND ST	90404		
10	15028	2637	H10	M-250A2	GE	100 WATT HPS	1328	22ND ST	90404		
10	15033	2449	H10	M-250A2	GE	100 WATT HPS	1328	22ND ST	90404		
10	15006	9337	H10	M-250A2	GE	100 WATT HPS	1218	23RD ST	90404		
10	15021	2458	H10	M-250A2	GE	100 WATT HPS	1260	23RD ST	90404		
10	15009	9338	H10	M-250A2	GE	100 WATT HPS	1233	23RD ST	90404		
10	15036	2434	H10	M-250A2	GE	100 WATT HPS	1303	23RD ST	90404		
10	15013	9336	H10	M-250A2	GE	100 WATT HPS	1248	23RD ST NO 1	90404		
10	13624	2005	H25	M-400A	GE	250 WATT HPS	754	24TH ST	90402		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
10	12969	6677	H25	M400	GE	250 WATT HPS	603	ARIZONA AVE	90401		
10	12951	6546	H25	M400	GE	250 WATT HPS	625	ARIZONA AVE	90401		
10	12954	6474	H25	M400	GE	250 WATT HPS	632	ARIZONA AVE	90401		
10	12960	6576	H25	M400	GE	250 WATT HPS	624	ARIZONA AVE	90401		
10	12966	6628	H25	M400	GE	250 WATT HPS	604	ARIZONA AVE	90401		
10 (Unmatch Lamp)	15241	3769	H36	M400	GE	360 WATT HPS	1707	ARIZONA AVE	90404		
10 (Unmatch Lamp)	15235	3914	H36	M400	GE	360 WATT HPS	1623	ARIZONA AVE	90404		
10	15017	9334	H10	M-250A2	GE	100 WATT HPS	2307	ARIZONA AVE UNIT 3	90404		
10	14656	320	H20	M400	GE	200 WATT HPS	1551	BERKELEY ST	90404		
10	14739	197	H25	M400	GE	250 WATT HPS	3121	BROADWAY	90404		
10	15069	1960	H25	M400A	GE	250 WATT HPS	2433	BROADWAY ST	90404		
10	12584	2272	H31	M400	GE	310 WATT HPS	1901	CLOVERFIELD BLVD	90404		
10	12594	2291	H31	M400	GE	310 WATT HPS	1819	CLOVERFIELD BLVD	90404		
10	12596	12167	H31	M400	GE	310 WATT HPS	1819	CLOVERFIELD BLVD	90404		
10	12582	12180	H31	M400	GE	310 WATT HPS	1818	CLOVERFIELD BLVD	90404		
10	12599	10213	H31	M400	GE	310 WATT HPS	1818	CLOVERFIELD BLVD	90404		
10	12590	2372	H31	M400	GE	310 WATT HPS	1902	CLOVERFIELD BLVD	90404		
10	12588	10214	H31	M400	GE	310 WATT HPS	1913	CLOVERFIELD BLVD	90405		
10	15178	3697	H10	M-250A2	GE	100 WATT HPS	1701	COLORADO AVE	90404		
10	15166	3502	H10	M-250A2	GE	100 WATT HPS	1805	COLORADO AVE	90404		
10	15160	3454	H10	M-250A2	GE	100 WATT HPS	1823	COLORADO AVE	90404		
10	15157	3342	H10	M-250A2	GE	100 WATT HPS	1831	COLORADO AVE	90404		
10	15152	3278	H10	M-250A2	GE	100 WATT HPS	1909	COLORADO AVE	90404		
10	14659	521	H20	M400	GE	200 WATT HPS	3017	COLORADO AVE	90404		
10	14671	671	H20	M250R	GE	200 WATT HPS	2929	COLORADO AVE	90404		
10	14662	545	H20	M250R	GE	200 WATT HPS	2944	COLORADO AVE	90404		
10	14666	718	H20	M250R	GE	200 WATT HPS	2930	COLORADO AVE	90404		
10	15696	9358	H10	M-250A2	GE	100 WATT HPS	725	LINCOLN BLVD	90402		
10	15711	9355	H10	M-250A2	GE	100 WATT HPS	663	LINCOLN BLVD	90402		
10	15716	6168	H10	M-250A2	GE	100 WATT HPS	603	LINCOLN BLVD	90402		
10	15708	9354	H10	M-250A2	GE	100 WATT HPS	612	LINCOLN BLVD	90402		
10	15703	9357	H10	M-250A2	GE	100 WATT HPS	638	LINCOLN BLVD	90402		
10	15700	9359	H10	M-250A2	GE	100 WATT HPS	728	LINCOLN BLVD NO A	90402		
10	13628	1953	H25	M-400A	GE	250 WATT HPS	2400	MONTANA AVE	90403		
10	12538	8717	H25	M400	GE	250 WATT HPS	1828	OCEAN AVE	90401		
10	12528	8426	H25	M400	GE	250 WATT HPS	1901	OCEAN AVE	90405		
10	12541	8303	H25	M400	GE	250 WATT HPS	1901	OCEAN AVE	90405		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
10	12532	8649	H25	M400	GE	250 WATT HPS	1906	OCEAN AVE	90405		
10	12523	8365	H25	M400	GE	250 WATT HPS	1819	OCEAN AVE	90401		
10	14178	836	H25	M400	GE	250 WATT HPS	2823	SANTA MONICA BLVD	90404		
10	14171	770	H25	M400	GE	250 WATT HPS	2906	SANTA MONICA BLVD	90404		
10	14175	783	H25	M400	GE	250 WATT HPS	2822	SANTA MONICA BLVD	90404		
10	14697	603	H10	M-250A2	GE	100 WATT HPS	1415	STANFORD ST	90404		
10	14227	2695	H10	M-250A2	GE	100 WATT HPS	2121	WILSHIRE BLVD	90403		
10	14284	2119	H20	M400	GE	200 WATT HPS	2403	WILSHIRE BLVD	90403		
10	14275	2311	H20	M400	GE	200 WATT HPS	2319	WILSHIRE BLVD	90403		
10	14279	2163	H20	M400	GE	200 WATT HPS	2325	WILSHIRE BLVD	90403		
10	14224	2708	H20	M400	GE	200 WATT HPS	2121	WILSHIRE BLVD	90403		
10	14221	2656	H20	M400	GE	200 WATT HPS	2201	WILSHIRE BLVD	90403		
10	14239	2555	H20	M400	GE	200 WATT HPS	2201	WILSHIRE BLVD	90403		
10	14232	2660	H20	M400	GE	200 WATT HPS	2200	WILSHIRE BLVD	90403		
10	14234	2586	H20	M400	GE	200 WATT HPS	2210	WILSHIRE BLVD	90403		
10	14229	2712	H20	M400	GE	200 WATT HPS	2122	WILSHIRE BLVD	90403		
10	14272	2392	H20	M400	GE	200 WATT HPS	2320	WILSHIRE BLVD	90403		
10	14281	2159	H20	M400	GE	200 WATT HPS	2320	WILSHIRE BLVD	90403		
10	14287	2118	H20	M400	GE	200 WATT HPS	2402	WILSHIRE BLVD	90403		
10	14905	2887	H20	M400	GE	200 WATT HPS	2033	WILSHIRE BLVD	90403		
10	14912	2979	H20	M400	GE	200 WATT HPS	2025	WILSHIRE BLVD	90403		
10	14893	2762	H20	M400	GE	200 WATT HPS	2111	WILSHIRE BLVD	90403		
10	14933	3258	H20	M400	GE	200 WATT HPS	1907	WILSHIRE BLVD	90403		
10	14939	3290	H20	M400	GE	200 WATT HPS	1901	WILSHIRE BLVD	90403		
10	14948	3370	H20	M400	GE	200 WATT HPS	1801	WILSHIRE BLVD	90403		
10	14951	3471	H20	M400	GE	200 WATT HPS	1801	WILSHIRE BLVD	90403		
10	14957	3514	H20	M400	GE	200 WATT HPS	1801	WILSHIRE BLVD	90403		
10	14945	3387	H20	M400	GE	200 WATT HPS	1824	WILSHIRE BLVD	90403		
10	14954	3466	H20	M400	GE	200 WATT HPS	1824	WILSHIRE BLVD	90403		
10	14960	3506	H20	M400	GE	200 WATT HPS	1808	WILSHIRE BLVD	90403		
10	14942	3284	H20	M400	GE	200 WATT HPS	1902	WILSHIRE BLVD	90403		
10	14936	3250	H20	M400	GE	200 WATT HPS	1932	WILSHIRE BLVD	90403		
10	14913	2975	H20	M400	GE	200 WATT HPS	2020	WILSHIRE BLVD	90403		
10	14899	2842	H20	M400	GE	200 WATT HPS	2110	WILSHIRE BLVD	90403		
10	14901	2805	H20	M400	GE	200 WATT HPS	2110	WILSHIRE BLVD	90403		
10	14908	2904	H20	M400	GE	200 WATT HPS	2030	WILSHIRE BLVD	90403		
10	14246	2418	H25	M400	GE	250 WATT HPS	2301	WILSHIRE BLVD	90403		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
10	14248	2442	H25	M400	GE	250 WATT HPS	2301	WILSHIRE BLVD	90403		
10	14237	2464	H25	M400	GE	250 WATT HPS	2227	WILSHIRE BLVD	90403		
10	14243	2447	H25	M400	GE	250 WATT HPS	2226	WILSHIRE BLVD	90403		
10	14244	2465	H25	M400	GE	250 WATT HPS	2226	WILSHIRE BLVD	90403		
10	14250	2440	H25	M400	GE	250 WATT HPS	2300	WILSHIRE BLVD	90403		
10	14917	3015	H25	M400	GE	250 WATT HPS	2001	WILSHIRE BLVD	90403		
10	14919	3086	H25	M400	GE	250 WATT HPS	2001	WILSHIRE BLVD	90403		
10	14930	3105	H25	M400	GE	250 WATT HPS	1933	WILSHIRE BLVD	90403		
10	14925	3111	H25	M400	GE	250 WATT HPS	1932	WILSHIRE BLVD	90403		
10	14928	3163	H25	M400	GE	250 WATT HPS	1932	WILSHIRE BLVD	90403		
10	15267	4272	H25	M400	GE	250 WATT HPS	1511	WILSHIRE BLVD	90403		
10	15256	4370	H25	M400	GE	250 WATT HPS	1501	WILSHIRE BLVD	90403		
10	15264	4363	H25	M400	GE	250 WATT HPS	1501	WILSHIRE BLVD	90403		
10	15247	4409	H25	M400	GE	250 WATT HPS	1433	WILSHIRE BLVD	90403		
10	15244	4458	H25	M400	GE	250 WATT HPS	1420	WILSHIRE BLVD	90403		
10	15250	4426	H25	M400	GE	250 WATT HPS	1420	WILSHIRE BLVD	90403		
10	15253	4371	H25	M400	GE	250 WATT HPS	1420	WILSHIRE BLVD	90403		
10	15259	4362	H25	M400	GE	250 WATT HPS	1502	WILSHIRE BLVD	90403		
10	15261	4355	H25	M400	GE	250 WATT HPS	1502	WILSHIRE BLVD	90403		
10	14922	3074	H25	M400	GE	250 WATT HPS	2002	WILSHIRE BLVD	90403		
10	14168	768	H25	M400	GE	250 WATT HPS	1349	YALE ST	90404		

**Application 11**

HPSV50	HPSV70	HPSV100	HPSV150	HPSV200	HPSV250	HPSV310	HPSV360	HPSV400	M17	UNK	FIXTURE TOTAL
0	0	1	8	85	61	7	0	2	0	0	164

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
11	10748	8245	H20	M400	SEQUOIA	200 WATT HPS	2420	2ND ST	90405		
11	16666	6745	H25	M400	GE	250 WATT HPS	1218	6TH ST	90401		
11	16654	6651	H25	M400	GE	250 WATT HPS	1211	6TH ST	90401		
11	16886	6464	H25	M400	GE	250 WATT HPS	1457	7TH ST	90401		
11	16904	5832	H20	M400	GE	200 WATT HPS	1455	9TH ST	90401		
11	16108	5364	H15	M250	GE	150 WATT HPS	1239	11TH ST	90401		
11	16189	3806	H25	M400	GE	250 WATT HPS	1651	16TH ST	90404		
11	16192	3808	H25	M400	GE	250 WATT HPS	1651	16TH ST	90404		
11	16195	3805	H25	M400	GE	250 WATT HPS	1651	16TH ST	90404		
11	16215	9315	H15	M250	GE	150 WATT HPS	1651	18TH ST	90404		
11	16211	9316	H15	M250	GE	150 WATT HPS	1634	18TH ST	90404		
11	17284	3107	H25	M400	GE	250 WATT HPS	1900	20TH ST	90404		
11	16909	5897	H20	M400	GE	200 WATT HPS	820	BROADWAY	90401		
11	16912	5941	H20	M400	GE	200 WATT HPS	820	BROADWAY	90401		
11	16906	5898	H20	M400	GE	200 WATT HPS	829	BROADWAY	90401		
11	16919	6103	H25	M400	GE	250 WATT HPS	804	BROADWAY	90401		
11	16901	6317	H25	M400	GE	250 WATT HPS	723	BROADWAY	90401		
11	16889	6411	H25	M400	GE	250 WATT HPS	710	BROADWAY	90401		
11	16892	6382	H20	M400	GE	200 WATT HPS	715	BROADWAY STE 320	90401		
11	15980	8350	H25	M-400A	GE	250 WATT HPS	101	CALIFORNIA AVE APT 0206	90403		
11	16946	8549	H20	M-400A	GE	200 WATT HPS	1097	E OCEAN AVE	90403		
11	16940	8544	H20	M-400A	GE	200 WATT HPS	1040	E OCEAN AVE	90403		
11	16943	8547	H20	M-400A	GE	200 WATT HPS	1077	E OCEAN AVE	90403		
11	16951	8542	H20	M-400A	GE	200 WATT HPS	1011	E OCEAN AVE	90403		
11	16955	8541	H20	M-400A	GE	200 WATT HPS	1001	E OCEAN AVE	90403		
11	18656	8539	H20	M-400A	GE	200 WATT HPS	979	E OCEAN AVE	90403		
11	18658	8538	H20	M-400A	GE	200 WATT HPS	927	E OCEAN AVE	90403		
11	18660	8535	H20	M-400A	GE	200 WATT HPS	917	E OCEAN AVE	90403		
11	16916	5963	H20	M400	GE	200 WATT HPS	1447	LINCOLN BLVD	90401		
11	16894	11844	H20	M400	GE	200 WATT HPS	1500	LINCOLN BLVD	90401		
11	17575	6260	H25	M400	GE	250 WATT HPS	1670	LINCOLN BLVD	90404		
11	17577	6340	H25	M400	GE	250 WATT HPS	1670	LINCOLN BLVD	90404		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
11	17568	12196	H25	M400	GE	250 WATT HPS	1669	LINCOLN BLVD	90404		
11	17572	6165	H25	M400	GE	250 WATT HPS	1669	LINCOLN BLVD	90404		
11	18503	6047	H31	M400	GE	310 WATT HPS	1907	LINCOLN BLVD	90405		
11	17851	5921	H31	M400	GE	310 WATT HPS	3113	LINCOLN BLVD	90405		
11	17847	5906	H31	M400	GE	310 WATT HPS	3101	LINCOLN BLVD	90405		
11	17844	5949	H31	M400	GE	310 WATT HPS	3204	LINCOLN BLVD	90405		
11	18506	6277	H31	M400	GE	310 WATT HPS	1912	LINCOLN BLVD	90405		
11	18509	6344	H31	M400	GE	310 WATT HPS	1866	LINCOLN BLVD	90404		
11	16922	6193	H40	M400	GE	400 WATT HPS	1447	LINCOLN BLVD	90401		
11	16898	6204	H40	M400	GE	400 WATT HPS	1500	LINCOLN BLVD	90401		
11	10799	8423	H20	M400	SEQUOIA	200 WATT HPS	2855	MAIN ST	90405		
11	10777	8406	H20	M400	SEQUOIA	200 WATT HPS	2626	MAIN ST	90405		
11	10778	8421	H20	M400	SEQUOIA	200 WATT HPS	2646	MAIN ST	90405		
11	10775	8396	H20	M400	SEQUOIA	200 WATT HPS	2606	MAIN ST	90405		
11	10752	8299	H20	M400	SEQUOIA	200 WATT HPS	2510	MAIN ST	90405		
11	10723	8230	H20	M400	SEQUOIA	200 WATT HPS	2321	MAIN ST	90405		
11	10866	8711	H20	M400	SEQUOIA	200 WATT HPS	3002	MAIN ST	90405		
11	520	8569	H20	M400	SEQUOIA	200 WATT HPS	3005	MAIN ST	90405		
11	10750	8252	H20	M400	SEQUOIA	200 WATT HPS	2515	MAIN ST	90405		
11	10729	8259	H20	M400	SEQUOIA	200 WATT HPS	2525	MAIN ST	90405		
11	10768	8270	H20	M400	SEQUOIA	200 WATT HPS	2615	MAIN ST	90405		
11	10786	8317	H20	M400	SEQUOIA	200 WATT HPS	2663	MAIN ST	90405		
11	10782	8298	H20	M400	SEQUOIA	200 WATT HPS	2665	MAIN ST	90405		
11	10764	8265	H20	M400	SEQUOIA	200 WATT HPS	2601	MAIN ST	90405		
11	10735	8226	H20	M400	SEQUOIA	200 WATT HPS	2409	MAIN ST	90405		
11	10882	8604	H20	M400	SEQUOIA	200 WATT HPS	3005	MAIN ST	90405		
11	10830	8687	H20	M400	SEQUOIA	200 WATT HPS	2942	MAIN ST	90405		
11	10772	8288	H20	M400	SEQUOIA	200 WATT HPS	2637	MAIN ST	90405		
11	10797	8408	H20	M400	SEQUOIA	200 WATT HPS	2801	MAIN ST	90405		
11	10793	8324	H20	M400	SEQUOIA	200 WATT HPS	2701	MAIN ST	90405		
11	10801	8292	H20	M400	SEQUOIA	200 WATT HPS	2701	MAIN ST	90405		
11	10795	8392	H20	M400	SEQUOIA	200 WATT HPS	2719	MAIN ST	90405		
11	10841	8502	H20	M400	SEQUOIA	200 WATT HPS	2929	MAIN ST	90405		
11	10879	8740	H20	M400	SEQUOIA	200 WATT HPS	3016	MAIN ST	90405		
11	10884	8770	H20	M400	SEQUOIA	200 WATT HPS	3016	MAIN ST	90405		
11	10730	8214	H20	M400	SEQUOIA	200 WATT HPS	2401	MAIN ST	90405		
11	10770	8277	H20	M400	SEQUOIA	200 WATT HPS	2627	MAIN ST	90405		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
11	10839	8478	H20	M400	SEQUOIA	200 WATT HPS	2909	MAIN ST	90405		
11	10835	8643	H20	M400	SEQUOIA	200 WATT HPS	2900	MAIN ST	90405		
11	10810	8597	H20	M400	SEQUOIA	200 WATT HPS	2810	MAIN ST	90405		
11	10808	8529	H20	M400	SEQUOIA	200 WATT HPS	2736	MAIN ST	90405		
11	10754	8316	H20	M400	SEQUOIA	200 WATT HPS	2522	MAIN ST	90405		
11	10705	8272	H20	M400	SEQUOIA	200 WATT HPS	2400	MAIN ST	90405		
11	10743	8267	H20	M400	SEQUOIA	200 WATT HPS	2400	MAIN ST	90405		
11	10813	8609	H20	M400	SEQUOIA	200 WATT HPS	2826	MAIN ST	90405		
11	10820	8658	H20	M400	SEQUOIA	200 WATT HPS	2826	MAIN ST	90405		
11	10806	8501	H20	M400	SEQUOIA	200 WATT HPS	2716	MAIN ST	90405		
11	10784	8428	H20	M400	SEQUOIA	200 WATT HPS	2654	MAIN ST	90405		
11	10788	8464	H20	M400	SEQUOIA	200 WATT HPS	2654	MAIN ST	90405		
11	10790	8511	H20	M400	SEQUOIA	200 WATT HPS	2654	MAIN ST	90405		
11	10745	8275	H20	M400	SEQUOIA	200 WATT HPS	2434	MAIN ST	90405		
11	10804	8470	H20	M400	SEQUOIA	200 WATT HPS	2702	MAIN ST	90405		
11	10712	8217	H20	M400	SEQUOIA	200 WATT HPS	2301	MAIN ST	90405		
11	10737	8220	H20	M400	SEQUOIA	200 WATT HPS	2327	MAIN ST	90405		
11	10716	8222	H20	M400	SEQUOIA	200 WATT HPS	2307	MAIN ST	90405		
11	10701	8211	H20	M400	SEQUOIA	200 WATT HPS	2219	MAIN ST	90405		
11	10719	8266	H20	M400	SEQUOIA	200 WATT HPS	2230	MAIN ST	90405		
11	10843	8524	H20	M400	SEQUOIA	200 WATT HPS	2943	MAIN ST	90405		
11	10875	8759	H20	M400	SEQUOIA	200 WATT HPS	3100	MAIN ST	90405		
11	10876	8751	H20	M400	SEQUOIA	200 WATT HPS	3100	MAIN ST	90405		
11	10837	8664	H20	M400	SEQUOIA	200 WATT HPS	2914	MAIN ST	90405		
11	10831	8677	H20	M400	SEQUOIA	200 WATT HPS	2934	MAIN ST	90405		
11	10823	8413	H20	M400	SEQUOIA	200 WATT HPS	2901	MAIN ST	90405		
11	10825	8462	H20	M400	SEQUOIA	200 WATT HPS	2901	MAIN ST	90405		
11	10816	8429	H20	M400	SEQUOIA	200 WATT HPS	2821	MAIN ST	90405		
11	10869	8646	H20	M400	SEQUOIA	200 WATT HPS	212	MARINE ST 209	90405		
11	10870	8618	H20	M400	SEQUOIA	200 WATT HPS	212	MARINE ST 209	90405		
11	10702	8273	H20	M400	SEQUOIA	200 WATT HPS	2303	NEILSON WAY	90405		
11	10703	8268	H20	M400	SEQUOIA	200 WATT HPS	2303	NEILSON WAY	90405		
11	10704	8280	H20	M400	SEQUOIA	200 WATT HPS	2303	NEILSON WAY	90405		
11	16949	8348	H20	M-400A	GE	200 WATT HPS	1045	OCEAN AVE	90403		
11	16953	8347	H20	M-400A	GE	200 WATT HPS	1017	OCEAN AVE	90403		
11	18669	8341	H20	M-400A	GE	200 WATT HPS	901	OCEAN AVE	90403		
11	18667	8342	H20	M-400A	GE	200 WATT HPS	923	OCEAN AVE	90403		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
11	16957	8345	H20	M-400A	GE	200 WATT HPS	951	OCEAN AVE 202	90403		
11	18665	8344	H20	M-400A	GE	200 WATT HPS	951	OCEAN AVE 202	90403		
11	18651	8346	H20	M-400A	GE	200 WATT HPS	1007	OCEAN AVE NO 202	90403		
11	10758	8330	H20	M400	SEQUOIA	200 WATT HPS	181	OCEAN PARK BLVD	90405		
11	16219	12441	H15	M250	GE	150 WATT HPS	1809	OLYMPIC BLVD	90404		
11	16198	9312	H15	M250	GE	150 WATT HPS	1749	OLYMPIC BLVD	90404		
11	16202	9313	H15	M250	GE	150 WATT HPS	1749	OLYMPIC BLVD	90404		
11	16205	9314	H15	M250	GE	150 WATT HPS	1749	OLYMPIC BLVD	90404		
11	16208	9317	H15	M250	GE	150 WATT HPS	1749	OLYMPIC BLVD	90404		
11	18501	6166	H31	M400	GE	310 WATT HPS	801	PICO BLVD	90405		
11	10861	8910	H20	M400	SEQUOIA	200 WATT HPS	170	PIER AVE	90405		
11	15762	3797	H25	M400	GE	250 WATT HPS	1715	SANTA MONICA BLVD	90404		
11	15995	4646	H25	M400	GE	250 WATT HPS	1329	SANTA MONICA BLVD	90404		
11	15992	4616	H25	M400	GE	250 WATT HPS	1401	SANTA MONICA BLVD	90404		
11	15765	3891	H25	M400	GE	250 WATT HPS	1631	SANTA MONICA BLVD	90404		
11	15989	4615	H25	M400	GE	250 WATT HPS	1402	SANTA MONICA BLVD	90404		
11	15767	3803	H25	M400	GE	250 WATT HPS	1630	SANTA MONICA BLVD	90404		
11	15986	4647	H25	M400	GE	250 WATT HPS	1330	SANTA MONICA BLVD	90404		
11	15771	3732	H25	M400	GE	250 WATT HPS	1710	SANTA MONICA BLVD	90404		
11	16313	5462	H25	M400	GE	250 WATT HPS	1020	SANTA MONICA BLVD	90401		
11	18514	3794	H10	M-250A2	GE	100 WATT HPS	1701	WILSHIRE BLVD	90403		
11	16293	6321	H25	M400	GE	250 WATT HPS	785	WILSHIRE BLVD	90401		
11	15739	4822	H25	M400	GE	250 WATT HPS	1301	WILSHIRE BLVD	90403		
11	15742	4929	H25	M400	GE	250 WATT HPS	1301	WILSHIRE BLVD	90403		
11	15744	4860	H25	M400	GE	250 WATT HPS	1301	WILSHIRE BLVD	90403		
11	15806	10106	H25	M400	GE	250 WATT HPS	1415	WILSHIRE BLVD	90403		
11	15815	4746	H25	M400	GE	250 WATT HPS	1317	WILSHIRE BLVD	90403		
11	15808	4535	H25	M400	GE	250 WATT HPS	1401	WILSHIRE BLVD	90403		
11	15812	4593	H25	M400	GE	250 WATT HPS	1401	WILSHIRE BLVD	90403		
11	15747	4978	H25	M400	GE	250 WATT HPS	1217	WILSHIRE BLVD	90403		
11	15825	4534	H25	M400	GE	250 WATT HPS	1402	WILSHIRE BLVD	90403		
11	15821	4650	H25	M400	GE	250 WATT HPS	1330	WILSHIRE BLVD	90403		
11	15823	4743	H25	M400	GE	250 WATT HPS	1330	WILSHIRE BLVD	90403		
11	15759	4905	H25	M400	GE	250 WATT HPS	1306	WILSHIRE BLVD	90403		
11	15751	5048	H25	M400	GE	250 WATT HPS	1234	WILSHIRE BLVD	90403		
11	15754	4999	H25	M400	GE	250 WATT HPS	1234	WILSHIRE BLVD	90403		
11	15756	4943	H25	M400	GE	250 WATT HPS	1234	WILSHIRE BLVD	90403		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
11	15818	4810	H25	M400	GE	250 WATT HPS	1318	WILSHIRE BLVD	90403		
11	16289	6096	H25	M400	GE	250 WATT HPS	805	WILSHIRE BLVD	90401		
11	16291	6134	H25	M400	GE	250 WATT HPS	805	WILSHIRE BLVD	90401		
11	16301	6050	H25	M400	GE	250 WATT HPS	808	WILSHIRE BLVD	90401		
11	16669	6848	H25	M400	GE	250 WATT HPS	520	WILSHIRE BLVD	90401		
11	16660	6792	H25	M400	GE	250 WATT HPS	530	WILSHIRE BLVD	90401		
11	16662	6748	H25	M400	GE	250 WATT HPS	530	WILSHIRE BLVD	90401		
11	16625	7004	H25	M400	GE	250 WATT HPS	432	WILSHIRE BLVD	90401		
11	16627	7001	H25	M400	GE	250 WATT HPS	432	WILSHIRE BLVD	90401		
11	16633	6918	H25	M400	GE	250 WATT HPS	504	WILSHIRE BLVD	90401		
11	16296	6209	H25	M400	GE	250 WATT HPS	720	WILSHIRE BLVD	90401		
11	16298	6330	H25	M400	GE	250 WATT HPS	720	WILSHIRE BLVD	90401		
11	16622	7110	H25	M400	GE	250 WATT HPS	424	WILSHIRE BLVD	90401		
11	16649	6681	H25	M400	GE	250 WATT HPS	601	WILSHIRE BLVD	90401		
11	16651	6656	H25	M400	GE	250 WATT HPS	601	WILSHIRE BLVD	90401		
11	16645	6609	H25	M400	GE	250 WATT HPS	611	WILSHIRE BLVD	90401		
11	16630	7003	H25	M400	GE	250 WATT HPS	431	WILSHIRE BLVD	90401		
11	16642	6857	H25	M400	GE	250 WATT HPS	507	WILSHIRE BLVD	90401		
11	16657	6790	H25	M400	GE	250 WATT HPS	525	WILSHIRE BLVD	90401		
11	16636	6983	H25	M400	GE	250 WATT HPS	501	WILSHIRE BLVD	90401		
11	16639	6917	H25	M400	GE	250 WATT HPS	501	WILSHIRE BLVD	90401		

**Application 12**

HPSV50	HPSV70	HPSV100	HPSV150	HPSV200	HPSV250	HPSV310	HPSV360	HPSV400	M17	UNK	FIXTURE TOTAL
0	0	0	0	40	21	0	0	0	0	0	61

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
12	18796	8155	H20	M-400A	GE	200 WATT HPS	1540	2ND ST	90401		
12	10676	8970	H20	M400	SEQUOIA	200 WATT HPS	3275	BARNARD WAY	90405		
12	10678	8983	H20	M400	SEQUOIA	200 WATT HPS	3275	BARNARD WAY	90405		
12	18789	7733	H20	M-400A	GE	200 WATT HPS	233	COLORADO AVE	90401		
12	18793	7880	H20	M-400A	GE	200 WATT HPS	215	COLORADO AVE	90401		
12	11365	7429	H20	M-400A	GE	200 WATT HPS	315	COLORADO AVE	90401		
12	11363	7397	H20	M-400A	GE	200 WATT HPS	302	COLORADO AVE	90401		
12	18007	7115	H20	M-400A	GE	200 WATT HPS	402	COLORADO AVE	90401		
12	18772	7815	H20	M-400A	GE	200 WATT HPS	120	COLORADO AVE	90401		
12	18775	7842	H20	M-400A	GE	200 WATT HPS	120	COLORADO AVE	90401		
12	18779	8180	H20	M-400A	GE	200 WATT HPS	120	COLORADO AVE	90401		
12	18759	7545	H20	M-400A	GE	200 WATT HPS	302	COLORADO AVE	90401		
12	18763	7627	H20	M-400A	GE	200 WATT HPS	302	COLORADO AVE	90401		
12	18765	7649	H20	M-400A	GE	200 WATT HPS	302	COLORADO AVE	90401		
12	18769	7669	H25	M-400A	GE	250 WATT HPS	312	COLORADO AVE	90401		
12	12052	928	H25	M400	GE	250 WATT HPS	2815	COLORADO AVE	90404		
12	12054	876	H25	M400	GE	250 WATT HPS	2834	COLORADO AVE	90404		
12	12851	12208	H25	M400	GE	250 WATT HPS	430	COLORADO AVE	90401		
12	12852	12208	H25	M400	GE	250 WATT HPS	430	COLORADO AVE	90401		
12	12855	12207	H25	M400	GE	250 WATT HPS	430	COLORADO AVE	90401		
12	11360	7375	H25	M-400A	GE	250 WATT HPS	315	COLORADO AVE	90401		
12	12059	918	H25	M400	GE	250 WATT HPS	2700	COLORADO AVE	90404		
12	12062	901	H25	M400	GE	250 WATT HPS	2700	COLORADO AVE	90404		
12	12064	1406	H25	M400	GE	250 WATT HPS	2700	COLORADO AVE	90404		
12	12066	1270	H25	M400	GE	250 WATT HPS	2700	COLORADO AVE	90404		
12	12068	1254	H25	M400	GE	250 WATT HPS	2700	COLORADO AVE	90404		
12	12070	1221	H25	M400	GE	250 WATT HPS	2700	COLORADO AVE	90404		
12	12072	1151	H25	M400	GE	250 WATT HPS	2700	COLORADO AVE	90404		
12	12074	1100	H25	M400	GE	250 WATT HPS	2700	COLORADO AVE	90404		
12	12076	1003	H25	M400	GE	250 WATT HPS	2700	COLORADO AVE	90404		
12	12078	1071	H25	M400	GE	250 WATT HPS	2700	COLORADO AVE	90404		

APP #	OBJECTID	POLE_ID	LAMP	LAMP MODEL	BALLAST_MF	BALLAST MODEL	HOUSE NUMBER	STREET	ZIP CODE		
12	17352	6966	H25	M-400A	GE	250 WATT HPS	501	COLORADO AVE	90401		
12	18749	7167	H25	M-400A	GE	250 WATT HPS	402	COLORADO AVE	90401		
12	11286	8729	H20	M400	SEQUOIA	200 WATT HPS	132	HILL ST	90405		
12	11287	8729	H20	M400	SEQUOIA	200 WATT HPS	132	HILL ST	90405		
12	11294	8788	H20	M400	GE	200 WATT HPS	2810	MAIN ST	90405		
12	11295	8788	H20	M400	SEQUOIA	200 WATT HPS	2810	MAIN ST	90405		
12	11290	8758	H20	M400	SEQUOIA	200 WATT HPS	2724	MAIN ST	90405		
12	11291	8758	H20	M400	SEQUOIA	200 WATT HPS	2724	MAIN ST	90405		
12	12621	12242	H20	M400	SEQUOIA	200 WATT HPS	2915	NEILSON WAY	90405		
12	12622	12242	H20	M400	SEQUOIA	200 WATT HPS	2915	NEILSON WAY	90405		
12	12614	12265	H20	M400	SEQUOIA	200 WATT HPS	2883	NEILSON WAY	90405		
12	12615	12265	H20	M400	SEQUOIA	200 WATT HPS	2883	NEILSON WAY	90405		
12	12929	8878	H20	M400	SEQUOIA	200 WATT HPS	2811	NEILSON WAY	90405		
12	12931	8854	H20	M400	SEQUOIA	200 WATT HPS	2743	NEILSON WAY	90405		
12	12629	8943	H20	M400	SEQUOIA	200 WATT HPS	2900	NEILSON WAY	90405		
12	12632	8936	H20	M400	SEQUOIA	200 WATT HPS	2700	NEILSON WAY	90405		
12	12927	8897	H20	M400	SEQUOIA	200 WATT HPS	2700	NEILSON WAY	90405		
12	12933	8913	H20	M400	SEQUOIA	200 WATT HPS	2700	NEILSON WAY	90405		
12	12935	8921	H20	M400	SEQUOIA	200 WATT HPS	2700	NEILSON WAY	90405		
12	12937	8929	H20	M400	SEQUOIA	200 WATT HPS	2700	NEILSON WAY	90405		
12	10655	12241	H25	M400	GE	250 WATT HPS	2695	NEILSON WAY	90405		
12	10656	12241	H25	M400	GE	250 WATT HPS	2695	NEILSON WAY	90405		
12	10664	8955	H20	M400	SEQUOIA	200 WATT HPS	2960	NEILSON WAY NO 102	90405		
12	10665	8964	H20	M400	SEQUOIA	200 WATT HPS	2960	NEILSON WAY NO 102	90405		
12	12626	8947	H20	M400	SEQUOIA	200 WATT HPS	2960	NEILSON WAY NO 102	90405		
12	10651	8858	H20	M400	SEQUOIA	200 WATT HPS	10	OCEAN PARK BLVD 1	90405		
12	12923	8876	H20	M400	SEQUOIA	200 WATT HPS	10	OCEAN PARK BLVD 1	90405		
12	12925	8884	H20	M400	SEQUOIA	200 WATT HPS	10	OCEAN PARK BLVD 1	90405		
12	10674	8937	H20	M400	SEQUOIA	200 WATT HPS	177	PIER AVE	90405		
12	18754	7527	H20	M-400A	GE	200 WATT HPS	395	SANTA MONICA PLACE	90401		



## CITY OF SANTA MONICA

### ADDENDUM No. 1

For

### ON-BILL FINANCED LED STREETLIGHT REPLACEMENT PROJECT (SP2372)

June 16, 2016

The contract documents for the above referenced project are hereby clarified or amended as follows:

#### **CONTRACTOR LICENSE REQUIREMENT:**

Bidding Documents may be obtained by logging onto the City's bidding website at: <http://www.smgov.net/planetbids/>. The Contractor is required to have a **Class A** or **C-10** license at the time of bid submission. Contractors wishing to be considered must submit Bids containing all information required pursuant to the City's Request for Bids.

#### **ACKNOWLEDGEMENT**

The above changes shall be noted by the bidder and certification below completed. **One copy of this Addendum on which the certification has been signed and filled out shall be enclosed with the bid package.** Failure to include this addendum with your bid package may result in the rejection of your bid.

#### **CERTIFICATION:**

The above changes have been noted by the undersigned

Lee Swain, P.E.  
City Engineer

\_\_\_\_\_  
Signature of Bidder



## CITY OF SANTA MONICA

### DEPARTMENT OF PUBLIC WORKS CIVIL ENGINEERING DIVISION

#### Request for Bids (RFB) for Contract Services On-Bill Financed LED Street light Project SP 2372 Addendum Number 2

**June 27, 2016**

All references are from the Request for Bids for Contract Services for the **On- Bill Financed LED Street light Project SP 2372** (Bids due: **June 30, 2016**).

This addendum is hereby made a part of the Request for Bids document and modifies the original document. Proposer shall acknowledge receipt of this addendum on their proposal by signing it and attaching this entire addendum to their bid.

Inquiries arose in reference to the Request for Bids for the subject project, and the questions and answers are supplied below.

### CLARIFICATIONS

- Item 1**      **Question 1:** Are there any plans for this project  
**Answer 1:** No
- Item 2**      **Question 2:** what is the required license for this project  
**Answer 2:** A or C-10
- Item 3**      **Question 3:** Are all the attachments (A-H) to be filled out and returned with the bid? (E-H) look like they are to be filled out during contract time.  
**Answer 3:** Yes. All attachments (A-H) need to be filled out, signed and returned along with the bid.
- Item 4**      **Question 4:** Traffic Control – The specification are pretty general but usually on a project like this a “rolling” operation is used where the bucket truck will never be stopped for more than 15 minutes so lane closers are not feasible. Usually it is a cone or two by the

vehicle and the amber lights flashing. So it is a fast operation moving through the City. Can you expand any more on what the City will expect as far as traffic control?

**Answer 4:** Traffic control will be per MUTCD latest edition.

**Item 5**      **Question 5:** I could not find a specific Labor warranty time in the Specifications? I am assuming 1 year? Fixture material cost is of course covered by the manufacturer.

**Answer 5:** Labor warranty is one year.

**Item 6**      Bidders shall make provisions to provide luminaires with correlated color temperature (CCT) of either 4000 Kelvin or 3000 Kelvin. Final selection of color temperature shall be made at the sole discretion of the City.

One signed copy of this addendum shall be enclosed with the Proposal and submitted on or before 3:00 p.m. on June 30, 2016. Failure to include a signed copy of this addendum with your proposal package may result in the rejection of your proposal.



FOR

\_\_\_\_\_  
Lee Swain, P.E.  
City Engineer

We acknowledge receipt of Addendum Number 2 for the above mentioned project and hereby accept its terms and conditions as part of our proposal.

COMPANY: \_\_\_\_\_

RECEIVED AND ACKNOWLEDGED BY (PRINT): \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

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

## Letter of Intent

**Whereas**, the City of Rialto, a California municipal corporation, ("City"), is contemplating a streetlight conversion program to decrease the total energy expenditure and maintenance costs of City's current streetlight infrastructure (the "Streetlight Project"); and

**Whereas**, the Streetlight Project will be comprised of the transfer of streetlight assets from Southern California Edison ("SCE") to City, and the procurement and installation of LED streetlight fixtures that will result in a minimum of \$73,000<sup>1</sup> of first-year, "initial" annual cost savings (the "Project Goal")<sup>2</sup>; and

**Whereas**, Siemens Industry, Inc., through its Road and City Mobility Unit and Logistics Division, ("Consultant"), has proposed to assist City in developing the Streetlight Project with the option of implementing the Streetlight Project; and

**Whereas**, Consultant is well qualified, experienced and suited to develop and implement the Streetlight Project for City; and

**Whereas**, City intends to enter into an Energy Savings Performance Contract to implement the Streetlight Project, (the "ESPC"), subject to Consultant developing the Streetlight Project, pursuant to the following terms and conditions:

The Streetlight Project development will be divided into two phases for which Consultant will be compensated on a time and materials basis (in accordance with hourly rates identified on Table 1, and actual material costs incurred), not to exceed the Guaranteed Maximum Price.

---

<sup>1</sup> The initial annual savings will be calculated as the total annual reduction in the billed cost of street light service from SCE less any debt service associated with the acquisition of the municipal street lights from SCE (reduced tariff costs), and the HPSV-to-LED retrofit (reduced energy costs). Savings shall exclude any street light maintenance costs, changes in the cost of capital and any SCE rebates.

<sup>2</sup> To the extent that all 4,738 of the SCE-owned municipal street lights in the City of Rialto are not eligible for the Streetlight Project, the Project Goal shall be equitably reduced by the proportion of the number street lights excluded from the Streetlight Project. In the event any grants, rebates or incentives are obtained, the initial annual savings to the City shall increase commensurate with the avoided debt service costs in using the grants, rebates, or incentives obtained. The Project Goal is contingent upon the City maintaining its current credit rating, and SCE tariffs and electric rates not changing by more than 5% from the July 1, 2013 rates.

Phase One Guaranteed Maximum Price: (\$15,000)

Consultant shall perform the following:

- Develop a representative sample of 100 street lights to be used by SCE for the initial Replacement Costs New Less Depreciation ("RCNLD") study. The representative sample shall fairly and accurately capture the age and condition of the City's street light system.
- Accompany SCE during their survey and study of the street light system to ensure that the agreed upon representative sample is used and that all parties agree on the facts associated with the initial SCE valuation.
- Develop and document an independent initial assessment of RCNLD valuation based on the City's audit data, information provided by SCE, PUC and public records.
- Validate and optimize cut-over costs from the SCE system.
- Identify over-lit areas of the City and recommend street light removals meeting minimum safe night-time lighting standards.
- Coordinate as necessary to ensure a successful acquisition of the street lighting system.

If Consultant, solely through its own fault, is unable to develop the Streetlight Project meeting the Project Goal, then it shall receive no payment for its efforts to develop the Streetlight Project and waives any exclusive right to the Streetlight Project. However, if Consultant is able to develop the Streetlight Project meeting the Project Goal, and City and SCE agree to proceed with Phase Two, then the costs associated with Phase One shall be incorporated into the price of the ESPC. If Consultant is able to develop the Streetlight Project meeting the Project Goal, and develops an ESPC that is acceptable to the City, and City elects not to proceed with the Streetlight Project, then City shall pay Consultant up to \$15,000 (Fifteen Thousand Dollars) within thirty (30) days of invoice for the Phase One services described above. City agrees that if the Streetlight Project does not proceed on the basis of a third party failure to perform, that Consultant shall have an exclusive right to develop and implement any future Streetlight Project for a period of three (3) years following the execution of this Letter of Intent.

Phase Two Guaranteed Maximum Price: (\$69,800)

Consultant shall perform the following:

- Perform an independent in-depth audit of the entire street light system used by SCE in its final valuation.
- Confirm the age, pole type and technology, fixture type and wattage, technology and condition of each street light.
- Develop a Geographic Information System (GIS) database of the entire street light system.
- Audit SCE street light billings for the prior three (3) years, identify inaccuracies and associated billing credits otherwise due to the City.
- Prepare an audit report, inventory and demand for credit for submittal to SCE for reimbursement of SCE street light charges, in accordance with SCE and PUC regulations.
- Validate and optimize cut-over costs from the SCE system.
- Develop a representative sample of types of poles with SCE to form the basis of the final RCNLD study that minimizes redundant effort.

- Accompany SCE during their final survey and study of the street light system to ensure that the agreed upon representative sample is used and that all parties agree on the facts associated with the final SCE valuation.
- Define service levels and type of service contract for a long-term street light maintenance agreement.
- Develop an initial financing overview.
- Identify alternative sources of funding, grants and rebates available to the City.
- Develop a draft ESPC establishing the terms and conditions of the turn-key capital improvement project to retrofit existing HPSV light fixtures to LED light fixtures.

If Consultant, solely through its own fault, is unable to develop the Streetlight Project meeting the Project Goal, then it shall receive no payment for its efforts to develop the Streetlight Project and waives any and all exclusive rights to the Streetlight Project. However, if Consultant is able to develop the Streetlight Project meeting the Project Goal, and the City and SCE agree to proceed with the Streetlight Project, then the costs associated with Phase Two will be incorporated into the price of the ESPC. If Consultant is able to develop the Streetlight Project meeting the Project Goal, and develops an ESPC that is acceptable to the City, and City elects not to proceed with the Streetlight Project, then City shall pay Consultant up to \$69,800 (Sixty Nine Thousand Eight Hundred Dollars) within thirty (30) days of invoice for the Phase Two Services described above. City agrees that if the Streetlight Project does not proceed on the basis of a third party failure to perform, that Consultant shall have an exclusive right to develop and implement any future Streetlight Project for a period of three (3) years following the execution of this Letter of Intent.

***[SIGNATURES ON NEXT PAGE]***

IN WITNESS WHEREOF, the City and Consultant have caused this Letter of Intent to be executed this 28th day of January, 2014.

CITY OF RIALTO, CALIFORNIA

Siemens Industry, Inc., through its  
Road and City Mobility Unit and  
Logistics Division

By   
Deborah Robertson  
Mayor

By   
Signature

ATTEST:

By   
Barbara A. McGee  
City Clerk

  
Chris Reyes / Area Manager  
Printed Name/Title

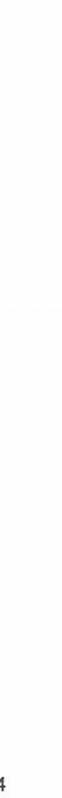
APPROVED AS TO FORM:

By   
Fred Galante  
City Attorney

By   
Signature

RECOMMENDED:

By   
Marcus L. Fuller  
Public Works Director/City Engineer

  
STEVEN TEAL / OPERATIONS MANAGER  
Printed Name/Title

**Table 1 – Hourly Rates by Job Category**

Job Category	Hourly Rate
Energy Engineer	\$180.00
Project Manager	\$130.00
Field Supervisor	\$110.00
General Foreman	\$98.00
Service Vehicle	\$20.00
Bucket Truck	\$30.00

**SERVICES AGREEMENT**  
**BETWEEN THE CITY OF RIALTO AND**  
**SIEMENS INDUSTRY, INC.**

THIS SERVICES AGREEMENT (herein "Agreement") is made and entered into this 8<sup>th</sup> day of November, 2016 by and between the City of Rialto, a municipal corporation ("City"), and Siemens Industry, Inc., a Delaware corporation ("Consultant"). City and Consultant are sometimes individually referred to as "Party" or collectively as "Parties".

**RECITALS**

A. City has sought, by issuance of a Request for Proposal, the performance of the services defined and described particularly in Article 1 of this Agreement.

B. Following the submission of a proposal or bid for the performance of the services defined and described particularly in Article 1 of this Agreement, Consultant was selected by the City to perform those services.

C. Pursuant to Chapter 2.48 of the Rialto Municipal Code, City has authority to enter into and execute this Agreement.

D. The Parties desire to formalize the selection of Consultant for the performance of those services defined and described particularly in Article 1 of this Agreement and desire that the terms of that performance be as particularly defined and described herein.

**OPERATIVE PROVISIONS**

NOW, THEREFORE, in consideration of the mutual promises and covenants made by the Parties and contained herein and other consideration, the value and adequacy of which are hereby acknowledged, the parties agree as follows:

**ARTICLE 1. SERVICES OF CONSULTANT**

1.1 Scope of Services.

In compliance with all terms and conditions of this Agreement, Consultant shall provide those services specified in the "Scope of Services" attached hereto as Exhibit "A" and incorporated herein by this reference, which services may be referred to herein as the "services" or "work" hereunder. As a material inducement for City to enter into this Agreement, Consultant represents and warrants that it has the qualifications, experience, and facilities necessary to properly perform the services required under this Agreement in a thorough, competent, and professional manner, it meets all local, state, and federal requirements in performing the services, and it is experienced in performing the work and services contemplated herein. Consultant shall at all times faithfully, competently, and to the best of its ability, experience, and talent, perform all services described

herein. Consultant covenants that it shall follow the highest professional standards in performing the work and services as laid out in its proposal, and that all materials will be of good quality, fit for the purpose intended as understood from the city's RFP. Siemens shall provide a one year warranty on workmanship and shall pass through to the City of Rialto the manufacturer's 10 year warranty.

## 1.2 Consultant's Proposal.

This Agreement shall include the Request for Proposal ("Contract Documents"), and the Scope of Services shall include Consultant's scope of work or Consultant's accepted bid proposal ("Accepted Bid"). The Contract Documents and Accepted Bid shall be incorporated herein by this reference as though fully set forth herein. In the event of any inconsistency between the Contract Documents, Accepted Bid, and/or this Agreement, the terms of this Agreement shall govern.

## 1.3 Compliance with Law.

Consultant shall keep itself informed concerning, and shall render all services hereunder in accordance with, all ordinances, resolutions, statutes, rules, and regulations of the City and any federal, state, or local governmental entity having jurisdiction in effect at the time service is rendered. If there is a change in applicable Law which would require Consultant to expend additional costs, effort or time to perform the services, in which case Consultant will notify the City and an equitable adjustment, accepted by both Parties, will be made to the Contract Price and schedule.

## 1.4 Licenses, Permits, Fees, and Assessments.

Consultant shall obtain, at its sole cost and expense, such licenses, permits, and approvals as may be required by law for the performance of the services required by this Agreement. Consultant shall have the sole obligation to pay for any fees, assessments, and taxes, plus applicable penalties and interest, which may be imposed by law and arise from or are necessary for the Consultant's performance of the services required by this Agreement, and shall indemnify, defend, and hold harmless City, its officers, employees or agents of City, against any such fees, assessments, taxes penalties, or interest levied, assessed, or imposed against City hereunder.

## 1.5 Familiarity with Work.

By executing this Agreement, Consultant warrants that Consultant (i) has thoroughly investigated and considered the scope of services to be performed, (ii) has carefully considered how the services should be performed, and (iii) fully understands the facilities, difficulties, and restrictions attending performance of the services under this Agreement. If the services involve work upon any site, Consultant warrants that Consultant has or will investigate the site and is or will be fully acquainted with the conditions there existing, prior to commencement of services hereunder. If Consultant discovers any latent or unknown conditions that will materially affect the performance of the services hereunder, then Consultant shall immediately inform the City of such fact and shall not proceed except at City's risk until written instructions are received from the

Contract Officer and an equitable adjustment can be made to the Contract Price and Schedule, accepted by both parties.

#### 1.6 Care of Work.

Consultant shall adopt reasonable methods during the life of the Agreement to furnish continuous protection to the work, and the equipment, materials, papers, documents, plans, studies, and/or other components thereof, to prevent losses or damages, and shall be responsible for all such damages to persons or property which are caused by the Consultant or their representatives, until acceptance of the work by City, except such losses or damages as may be caused by City's own negligence.

#### 1.7 Prevailing Wages.

Contractor is aware of the requirements of California Labor Code Section 1720, *et seq.* and 1770, *et seq.*, as well as California Code of Regulations, Title 8, Section 1600, *et seq.*, ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "Public Works" and "Maintenance" projects. Consultant understands that the Prevailing Wage Laws apply to this Agreement and Consultant shall be solely responsible for complying with such Prevailing Wage Laws. Contractor shall defend, indemnify, and hold City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

#### 1.8 Further Responsibilities of Parties.

Both Parties agree to use reasonable care and diligence to perform their respective obligations under this Agreement. Both Parties agree to act in good faith to execute all instruments, prepare all documents, and take all actions as may be reasonably necessary to carry out the purposes of this Agreement. Unless specified in this Agreement, neither Party shall be responsible for the service of the other.

#### 1.9 Additional Services.

City shall have the right at any time during the performance of the services, without invalidating this Agreement, to order extra work beyond that specified in the Scope of Services or make changes by altering, adding to, or deducting from said work. No such extra work or change may be undertaken unless a written order is first given by the Contract Officer to the Consultant, describing in detail the extra work or change and the reason(s) therefor and incorporating therein any adjustment in (i) the Contract Sum for the actual cost of the extra work or change, and/or (ii) the time to perform this Agreement, which said adjustments are subject to the written approval of Consultant. Any increase in compensation of up to ten percent (10%) of the Contract Sum or an amount not to exceed a total contract sum of Fifteen Thousand Dollars (\$15,000), whichever is less, or any increase in the time to perform of up to one hundred eighty (180) days, may be approved by the Contract Officer. Any greater increases, taken either separately or cumulatively must be approved by the City Council. Payment for additional services rendered by Consultant under this Agreement requires the submission of the actual costs

of Consultant's performance of the extra work with the invoice(s) for the extra work claim(s), as provided in Section 2.4. It is expressly understood by Consultant that the provisions of this Section shall not apply to services specifically set forth in the Scope of Services. Consultant hereby acknowledges that it accepts the risk that the services to be provided pursuant to the Scope of Services may be more costly or time consuming than Consultant anticipates and that Consultant shall not be entitled to additional compensation therefore, except as otherwise stated in this Agreement. City may in its sole and absolute discretion have similar work done by other contractors.

No claim for an adjustment under this Section for the amount or time for performance shall be valid unless the procedures established in this Section are followed.

#### 1.10 Special Requirements.

Additional terms and conditions of this Agreement, if any, which are made a part hereof are set forth in the "Special Requirements" attached hereto as Exhibit "B" and incorporated herein by this reference. In the event of a conflict between the provisions of Exhibit "B" and any other provisions of this Agreement, the provisions of Exhibit "B" shall govern.

## **ARTICLE 2. COMPENSATION AND METHOD OF PAYMENT**

#### 2.1 Contract Sum.

Subject to any limitations set forth in this Agreement, City agrees to pay Consultant the amounts specified in the "Schedule of Compensation" attached hereto as Exhibit "C" and incorporated herein by this reference. The total compensation, including reimbursement for actual expenses, shall not exceed One million, four hundred twenty thousand, two hundred thirty dollars and fifty four cents (\$1,420,230.54) (the "Contract Sum"), unless additional compensation is approved pursuant to Section 1.9.

#### 2.2 Method of Compensation.

The method of compensation shall be based upon the percentage of completion of the services as specified in the Schedule of Compensation

#### 2.3 Reimbursable Expenses.

Compensation may include reimbursement for actual and necessary expenditures for reproduction costs, telephone expenses, and travel expenses approved by the Contract Officer in advance, or actual subcontractor expenses of an approved subcontractor pursuant to Section 4.5, and only if specified in the Schedule of Compensation. The Contract Sum shall include the attendance of Consultant at all project meetings reasonably deemed necessary by the City. Coordination of the performance of the work with City is a critical component of the services. If Consultant is required to attend additional meetings to facilitate such coordination, Consultant shall not be entitled to any additional compensation for attending said meetings.

## 2.4 Invoices.

Each month Consultant shall furnish to City an original invoice for all work performed and expenses incurred during the preceding month in a form approved by City's Director of Finance. By submitting an invoice for payment under this Agreement, Consultant is certifying compliance with all provisions of the Agreement. The invoice shall be based upon the schedule of rates. Consultant shall not invoice City for any duplicate services performed by more than one person.

City may independently review each invoice submitted by the Consultant to determine whether the work performed and expenses incurred are in compliance with the provisions of this Agreement. Except as to any charges for work performed or expenses incurred by Consultant which are disputed by City, or as provided in Section 7.3, City will use its best efforts to cause Consultant to be paid within thirty (30) days of receipt of Consultant's correct and undisputed invoice; however, Consultant acknowledges and agrees that due to City warrant run procedures, the City cannot guarantee that payment will occur within this time period. In the event any charges or expenses are disputed by City, the original invoice shall be returned by City to Consultant for correction and resubmission.

## 2.5 No Waiver.

Review and payment by City to Consultant of any invoice for work performed by Consultant pursuant to this Agreement shall not be deemed a waiver of any defects in work performed by Consultant or of any rights or remedies provided herein or any applicable law.

# **ARTICLE 3. PERFORMANCE SCHEDULE**

## 3.1 Time of Essence.

Time is of the essence in the performance of this Agreement.

## 3.2 Schedule of Performance.

Consultant shall commence the services pursuant to this Agreement upon receipt of a written notice to proceed and shall perform all services within the time period(s) established in the "Schedule of Performance" attached hereto as Exhibit "D" and incorporated herein by this reference. When requested by the Consultant, extensions to the time period(s) specified in the Schedule of Performance may be approved in writing by the Contract Officer but not exceeding one hundred eighty (180) days cumulatively, pursuant to Section 1.9.

## 3.3 Force Majeure.

The time period(s) specified in the Schedule of Performance for performance of the services rendered pursuant to this Agreement shall be extended because of any delays due to unforeseeable causes beyond the control and without the fault or

negligence of the Consultant, including, but not restricted to, acts of God or of the public enemy, unusually severe weather, fires, earthquakes, floods, epidemics, quarantine restrictions, riots, strikes, freight embargoes, wars, litigation, and/or acts of any governmental agency, including the City, if the Consultant shall, within ten (10) days of the commencement of such delay, notify the Contract Officer in writing of the causes of the delay. The Contract Officer shall ascertain the facts and the extent of delay, and extend the time for performing the services for the period of the enforced delay when and if in the judgment of the Contract Officer such delay is justified. The Contract Officer shall extend the time for performance in accordance with the procedures set forth in Section 1.9. In no event shall Consultant be entitled to recover damages against the City for any delay in the performance of this Agreement under this section, however caused, Consultant's sole remedy being extension of the Agreement pursuant to this Section.

3.4 Term.

Unless earlier terminated in accordance with Article 7 of this Agreement, this Agreement shall continue in full force and effect until completion of the services but not exceeding one (1) year from the date hereof, except as otherwise provided in the Schedule of Performance (Exhibit "D").

**ARTICLE 4. COORDINATION OF WORK**

4.1 Representatives and Personnel of Consultant.

The following principals of Consultant ("Principals") are hereby designated as being the principals and representatives of Consultant authorized to act in its behalf with respect to the work specified herein and make all decisions in connection therewith:

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Title)

It is expressly understood that the experience, knowledge, capability, and reputation of the foregoing Principals were a substantial inducement for City to enter into this Agreement. Therefore, the Principals shall be responsible during the term of this Agreement for directing all activities of Consultant and devoting sufficient time to personally supervise the services hereunder. All personnel of Consultant, and any authorized agents, shall at all times be under the exclusive direction and control of the Principals, as it relates to the services described in the Scope of Service. For purposes of this Agreement, the Principals may not be replaced nor may their responsibilities be substantially reduced by Consultant without the express written approval of City. The foregoing shall not apply in the event the Principals voluntarily terminate their employment, or are not able to perform the services due to termination, death, disability or illness. Additionally, Consultant shall utilize only competent personnel to perform services pursuant to this Agreement. Consultant shall make every reasonable effort to

maintain the stability and continuity of Consultant's staff and subcontractors, if any, assigned to perform the services required under this Agreement. Consultant shall notify City of any changes in Consultant's staff and subcontractors, if any, assigned to perform the services required under this Agreement, prior to and during any such performance. In the event that City, in its sole discretion, at any time during the term of this Agreement, desires to reassign any staff or subcontractor of Consultant, Consultant shall, immediately upon a Reassign Notice from City of such desire of City, reassign such persons or persons.

#### 4.2 Status of Consultant.

Consultant shall have no authority to bind City in any manner, or to incur any obligation, debt or liability of any kind on behalf of or against City, whether by contract or otherwise, unless such authority is expressly conferred under this Agreement or is otherwise expressly conferred in writing by City. Consultant shall not at any time or in any manner represent that Consultant or any of Consultant's officers, employees, or agents are in any manner officials, officers, employees or agents of City. Neither Consultant, nor any of Consultant's officers, employees or agents, shall obtain any rights to retirement, health care, or any other benefits which may otherwise accrue to City's employees. Consultant expressly waives any claim Consultant may have to any such rights.

#### 4.3 Contract Officer.

The Contract Officer shall be the City Administrator or other such person designated by the City Administrator. It shall be the Consultant's responsibility to assure that the Contract Officer is kept informed of the progress of the performance of the services and the Consultant shall refer any decisions which must be made by City to the Contract Officer. Unless otherwise specified herein, any approval of City required hereunder shall mean the approval of the Contract Officer. The Contract Officer shall have authority, if specified in writing by the City Administrator, to sign all documents on behalf of the City required hereunder to carry out the terms of this Agreement.

#### 4.4 Independent Contractor.

Neither the City nor any of its employees shall have any control over the manner, mode, or means by which Consultant, its agents or employees, perform the services required herein, except as otherwise set forth herein. City shall have no voice in the selection, discharge, supervision or control of Consultant's employees, servants, representatives, or agents, or in fixing their number, compensation, or hours of service. Consultant shall perform all services required herein as an independent contractor of City and shall remain at all times as to City a wholly independent contractor with only such obligations as are consistent with that role. Consultant shall not at any time or in any manner represent that it or any of its agents or employees are agents or employees of City. City shall not in any way or for any purpose become or be deemed to be a partner of Consultant in its business or otherwise or a joint venturer or a member of any joint enterprise with Consultant.

#### 4.5 Prohibition Against Subcontracting or Assignment.

The experience, knowledge, capability, and reputation of Consultant, its principals and employees were a substantial inducement for the City to enter into this Agreement. Therefore, Consultant shall not contract with any other entity to perform in whole or in part the services required hereunder without the express written approval of the City. In addition, neither this Agreement nor any interest herein may be transferred, assigned, conveyed, hypothecated, or encumbered voluntarily or by operation of law, whether for the benefit of creditors or otherwise, without the prior written approval of City. Transfers restricted hereunder shall include the transfer to any person or group of persons acting in concert of more than twenty five percent (25%) of the present ownership and/or control of Consultant, taking all transfers into account on a cumulative basis. In the event of any such unapproved transfer, including any bankruptcy proceeding, this Agreement shall be void. No approved transfer shall release the Consultant or any surety of Consultant of any liability hereunder without the express consent of City. The foregoing shall not apply to a transfer to an affiliate of Consultant or transfers due to restructuring or reorganization of the Consultant.

### **ARTICLE 5. INSURANCE, INDEMNIFICATION AND BONDS**

#### 5.1 Insurance Coverages.

The Consultant shall procure and maintain, at its sole cost and expense, in a form and content satisfactory to City, during the entire term of this Agreement including any extension thereof, the following policies of insurance which shall cover all elected and appointed officers, employees, and agents of City:

(a) Commercial General Liability Insurance (Occurrence Form CG0001 or equivalent). A policy general liability insurance written on a per occurrence basis for bodily injury, personal injury, and property damage. The policy of insurance shall be in an amount not less than \$1,000,000.00 per occurrence or if a general aggregate limit is used, then the general aggregate limit shall be twice the occurrence limit. . If Consultant maintains higher limits than the specified minimum limits, City requires and shall be entitled to coverage for the higher limits maintained by contractor.

(b) Worker's Compensation Insurance. Worker's compensation insurance in such amount as will fully comply with the laws of the State of California and Employers Liability Insurance with limits of \$1,000,000 per Accident; \$1,000,000 Disease per employee; \$1,000,000 Disease per policy.

(c) Automotive Insurance (Form CA 0001 (Ed 1/87) including "any auto" and endorsement CA 0025 or equivalent). Automobile liability insurance written on a per occurrence for bodily injury and property damage in an amount not less than \$1,000,000 combined single limit per accident. Said policy shall include coverage for owned, non-owned, leased, and hired cars.

(d) Professional Liability. Professional liability insurance appropriate to the Consultant's profession. This coverage may be written on a "claims made" basis, and

must include coverage for contractual liability. The professional liability insurance required by this Agreement must be endorsed to be applicable to claims based upon, arising out of, or related to services performed under this Agreement. Coverage applicable to the work performed under this agreement shall be continued for five years after completion of the work. Such continuation coverage may be provided by one of the following: (1) renewal of the existing policy; (2) an extended reporting period endorsement; or (3) replacement insurance with a retroactive date no later than the commencement of the work under this agreement. Consultant shall annually and upon request of the City submit written evidence of this continuous coverage

(e) Additional Insurance. Policies of such other insurance, as may be required in the Special Requirements.

(f) Subcontractors. Consultant shall include all subcontractors as insureds under its policies or shall furnish separate certificates and certified endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

## 5.2 General Insurance Requirements.

All of the above policies of insurance shall be primary insurance and shall name the City, its elected and appointed officers, employees, and agents as additional insureds, and any insurance maintained by City or its officers, employees, or agents shall apply in excess of, and not contribute with, Consultant's insurance. The insurer is deemed hereof to waive all rights of subrogation and contribution it may have against the City, its officers, employees, and agents and their respective insurers. The insurance policy must specify that where the primary insured does not satisfy the self-insured retention, any additional insured may satisfy the self-insured retention. Consultant shall provide immediate written notice if (1) any of the required insurance policies is terminated; (2) the limits of any of the required policies are reduced; (3) or the deductible or self insured retention is increased. In the event of any cancellation or reduction in coverage or limits of any insurance, Consultant shall forthwith obtain and submit proof of substitute insurance. Should Consultant fail to immediately procure other insurance, as specified, to substitute for any canceled policy, the City may procure such insurance at Consultant's sole cost and expense

No work or services under this Agreement shall commence until the Consultant has provided the City with Certificates of Insurance or appropriate insurance binders evidencing the above insurance coverages and said Certificates of Insurance or binders are approved by the City.. Any failure to comply with the reporting or other provisions of the policies including breaches or warranties shall not affect coverage provided to City.

City, its respective elected and appointed officers, directors, officials, employees, agents and volunteers are to be covered as additional insureds as respects: liability arising out of activities Consultant performs; products and completed operations of Consultant; premises owned, occupied or used by Consultant; or automobiles owned, leased, hired or borrowed by Consultant. The coverage shall contain no special

limitations on the scope of protection afforded to City, and their respective elected and appointed officers, officials, employees or volunteers. Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

The Consultant agrees that the requirement to provide insurance shall not be construed as limiting in any way the extent to which the Consultant may be held responsible for the payment of damages to any persons or property resulting from the Consultant's activities or the activities of any person or persons for which the Consultant is otherwise responsible nor shall it limit the Consultant's indemnification liabilities as provided in Section 5.3.

In the event the Consultant subcontracts any portion of the work in compliance with Section 4.5 of this Agreement, the contract between the Consultant and such subcontractor shall require the subcontractor to maintain the same policies of insurance that the Consultant is required to maintain pursuant to Section 5.1, and such certificates and endorsements shall be provided to City.

### 5.3 Indemnification.

To the full extent permitted by law, Consultant agrees to indemnify, defend, and hold harmless the City, its officers, employees and agents ("Indemnified Parties") against any and all actions, either judicial, administrative, arbitration or regulatory claims, for damages to persons or property, including losses, costs, penalties, obligations, errors, omissions or liabilities arising there from, whether actual or threatened (herein "claims or liabilities") that may be asserted or claimed by any person, firm or entity arising out of or in connection with the negligent performance of the work, operations, or activities provided herein of Consultant, its officers, employees, agents, subcontractors, or invitees, or any individual or entity for which Consultant is legally liable ("indemnitors"), arising from Consultant's reckless or willful misconduct, or arising from Consultant's or indemnitors' negligent performance of or failure to perform any term, provision, covenant, or condition of this Agreement, and in connection therewith:

(a) Upon receipt of prompt notice of such claims and tender of sole defense of such claims to Consultant, the Consultant will defend any action or actions filed in connection with any of said claims or liabilities and will pay all costs and expenses, including legal costs and attorneys' fees incurred in connection therewith and the City will provide Consultant reasonable and necessary cooperation if requested by Consultant;

(b) Consultant will promptly pay any judgment rendered against the City, its officers, agents, or employees for any such claims or liabilities arising out of or in connection with the indemnity obligations set forth in this Agreement; and Consultant agrees to save and hold the City, its officers, agents, and employees harmless therefrom;

(c) In the event the City, its officers, agents or employees is made a party to any action or proceeding filed or prosecuted against Consultant for such damages or other claims arising out of or in connection with the indemnity obligations set forth under

this Agreement. Consultant agrees to pay to the City, its officers, agents, or employees, any and all reasonable costs and expenses incurred by the City, its officers, agents, or employees in such action or proceeding, including but not limited to, legal costs and attorneys' fees.

Consultant shall incorporate similar, indemnity agreements with its subcontractors and if it fails to do so Consultant shall be fully responsible to indemnify City hereunder therefore, and failure of City to monitor compliance with these provisions shall not be a waiver hereof. This indemnification includes claims or liabilities arising from any negligent or wrongful act, error or omission, or reckless or willful misconduct of Consultant in the performance of professional services hereunder. The provisions of this Section do not apply to claims or liabilities occurring as a result of City's sole negligence or willful acts or omissions, but, to the fullest extent permitted by law, shall apply to claims and liabilities resulting in part from City's negligence, except that design professionals' indemnity hereunder shall be limited to claims and liabilities arising out of the negligence, recklessness, or willful misconduct of the design professional. The indemnity obligation shall be binding on successors and assigns of Consultant and shall survive termination of this Agreement.

#### 5.4 Sufficiency of Insurer or Surety.

Insurance required by this Agreement shall be satisfactory only if issued by companies qualified to do business in California, rated "A" or better in the most recent edition of Best Rating Guide, The Key Rating Guide or in the Federal Register, and only if they are of a financial category Class VII or better, unless such requirements are waived by the Risk Manager of the City ("Risk Manager") due to unique circumstances. If this Agreement continues for more than 3 years duration, or in the event the Risk Manager determines that the work or services to be performed under this Agreement creates an increased or decreased risk of loss to the City, the Consultant agrees that the minimum limits of the insurance policies may be changed accordingly upon receipt of written notice from the Risk Manager Consultant.

### **ARTICLE 6. RECORDS, REPORTS, AND RELEASE OF INFORMATION**

#### 6.1 Records.

Consultant shall keep, and require subcontractors to keep, such ledgers books of accounts, invoices, vouchers, canceled checks, reports, studies or other documents relating to the disbursements charged to City and services performed hereunder (the "books and records"), as shall be necessary to perform the services required by this Agreement and enable the Contract Officer to evaluate the performance of such services. Any and all such documents shall be maintained in accordance with generally accepted accounting principles and shall be complete and detailed. The Contract Officer shall have full and free access to such books and records at all times during normal business hours of City, including the right to inspect, copy, audit and make records and transcripts from such records. Such records shall be maintained for a period of 3 years following completion of the services hereunder, and the City shall have access to such

records in the event any audit is required. In the event of dissolution of Consultant's business, custody of the books and records may be given to City, and access shall be provided by Consultant's successor in interest.

## 6.2 Reports.

Consultant shall periodically prepare and submit to the Contract Officer such reports concerning the performance of the services required by this Agreement as the Contract Officer shall require. Consultant hereby acknowledges that the City is greatly concerned about the cost of work and services to be performed pursuant to this Agreement. For this reason, Consultant agrees that if Consultant becomes aware of any facts, circumstances, techniques, or events that may or will materially increase or decrease the cost of the work or services contemplated herein or, if Consultant is providing design services, the cost of the project being designed, Consultant shall promptly notify the Contract Officer of said fact, circumstance, technique or event and the estimated increased or decreased cost related thereto and, if Consultant is providing design services, the estimated increased or decreased cost estimate for the project being designed.

## 6.3 Ownership of Documents.

All drawings, specifications, maps, designs, photographs, studies, surveys, data, notes, computer files, reports, records, documents and other materials (the "documents and materials") prepared by Consultant, its employees, subcontractors and agents solely in the performance of this Agreement shall be the property of City and shall be delivered to City upon request of the Contract Officer or upon the termination of this Agreement, and Consultant shall have no claim for further employment or additional compensation as a result of the exercise by City of its full rights of ownership use, reuse, or assignment of the documents and materials hereunder. Any use, reuse or assignment of such completed documents for other projects and/or use of uncompleted documents without specific written authorization by the Consultant will be at the City's sole risk and without liability to Consultant, and Consultant's guarantee and warranties shall not extend to such use, reuse or assignment. Consultant may retain copies of such documents for its own use. Consultant shall have the right to use the concepts embodied therein. All subcontractors shall provide for assignment to City any documents or materials prepared by them, and in the event Consultant fails to secure such assignment, Consultant shall indemnify City for all damages resulting therefrom.

## 6.4 Confidentiality and Release of Information.

(a) All information gained or work product produced by Consultant in performance of this Agreement shall be considered confidential, unless such information is in the public domain or already known to Consultant. Consultant shall not release or disclose any such information or work product to persons or entities other than City without prior written authorization from the Contract Officer.

(b) Consultant, its officers, employees, agents or subcontractors, shall not, without prior written authorization from the Contract Officer or unless requested by the City Attorney, voluntarily provide documents, declarations, letters of support, testimony at depositions, response to interrogatories or other information concerning the work performed under this Agreement. Response to a subpoena or court order shall not be considered “voluntary” provided Consultant gives City notice of such court order or subpoena.

(c) If Consultant, or any officer, employee, agent or subcontractor of Consultant, provides any information or work product in violation of this Agreement, then City shall have the right to reimbursement and indemnity from Consultant for any damages, costs and fees, including attorney’s fees, caused by or incurred as a result of Consultant’s conduct.

(d) Consultant shall promptly notify City should Consultant, its officers, employees, agents, or subcontractors be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions or other discovery request, court order or subpoena from any party regarding this Agreement and the work performed there under. City retains the right, but has no obligation, to represent Consultant or be present at any deposition, hearing or similar proceeding. Consultant agrees to cooperate fully with City and to provide City with the opportunity to review any response to discovery requests provided by Consultant. However, this right to review any such response does not imply or mean the right by City to control, direct, or rewrite said response.

## **ARTICLE 7. ENFORCEMENT OF AGREEMENT AND TERMINATION**

### **7.1 California Law.**

This Agreement shall be interpreted, construed, and governed both as to validity and to performance of the Parties in accordance with the laws of the State of California, without regard to conflict of law rules. Legal actions concerning any dispute, claim, or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of San Bernardino, State of California, or any other appropriate court in such county, and Consultant covenants and agrees to submit to the personal jurisdiction of such court in the event of such action. In the event of litigation in a U.S. District Court, venue shall lie exclusively in the Central District of California, Eastern Division.

### **7.2 Disputes; Default.**

In the event that Consultant is in default under the terms of this Agreement, the City shall first provide written notice to Consultant, including reasons for default. The notice shall include the timeframe in which Consultant may cure the default. At such time the Consultant shall cease work, other than addressing default. The City shall pay the Contractor for work that has been performed to City’s satisfaction, but shall not have any obligation or duty to continue compensating Consultant for any work performed after the

date of default. This timeframe is presumptively thirty (30) days, but may be extended, though not reduced, if circumstances warrant. In the alternative, the City may, in its sole discretion, elect to pay some or all of the outstanding invoices during the period of default. If Consultant does not cure the default, the City may take necessary steps to terminate this Agreement under this Article.

### 7.3 Retention of Funds.

Consultant hereby authorizes City to deduct from any amount payable to Consultant (whether or not arising out of this Agreement) (i) any amounts the payment of which may be in dispute hereunder or which are necessary to compensate City for any losses, costs, liabilities, or damages suffered by City, and (ii) all amounts for which City may be liable to third parties, by reason of Consultant's acts or omissions in performing or failing to perform Consultant's obligation under this Agreement. In the event that any claim is made by a third party, the amount or validity of which is disputed by Consultant, or any indebtedness shall exist which shall appear to be the basis for a claim of lien, City may withhold from any payment due, without liability for interest because of such withholding, an amount sufficient to cover such claim. The failure of City to exercise such right to deduct or to withhold shall not, however, affect the obligations of the Consultant to insure, indemnify, and protect City as elsewhere provided herein.

### 7.4 Waiver.

Waiver by any Party to this Agreement of any term, condition, or covenant of this Agreement shall not constitute a waiver of any other term, condition, or covenant. Waiver by any Party of any breach of the provisions of this Agreement shall not constitute a waiver of any other provision or a waiver of any subsequent breach or violation of any provision of this Agreement. Acceptance by City of any work or services by Consultant shall not constitute a waiver of any of the provisions of this Agreement. No delay or omission in the exercise of any right or remedy by a non-defaulting Party on any default shall impair such right or remedy or be construed as a waiver. Any waiver by either Party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement.

### 7.5 Rights and Remedies are Cumulative.

Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the Parties are cumulative and the exercise by either Party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other Party.

### 7.6 Legal Action.

In addition to any other rights or remedies, either Party may take legal action, in law or in equity, to cure, correct, or remedy any default, to recover damages for any default, to compel specific performance of this Agreement, to obtain declaratory or

injunctive relief, or to obtain any other remedy consistent with the purposes of this Agreement.

#### 7.7 Liquidated Damages

Since the determination of actual damages for any delay in performance of this Agreement would be extremely difficult or impractical to determine in the event of a breach of this Agreement, Consultant and its sureties shall be liable for and shall pay to City the sum of three thousand dollars (\$3,000.00) as liquidated damages for each working day of delay in the performance of any service required hereunder, as specified in the Schedule of Performance (Exhibit "D"), City may withhold from any monies payable on account of services performed by the Consultant any accrued liquidated damages.

#### 7.8 Termination Prior to Expiration of Term.

This Section shall govern any termination of this Agreement except as specifically provided in the following Section for termination for cause. City reserves the right to terminate this Agreement at any time, with or without cause, upon thirty (30) days' written notice to Consultant, except that where termination is due to the fault of the Consultant, the period of notice may be such shorter time as may be determined by the Contract Officer. In addition, the Consultant reserves the right to terminate this Agreement at any time, with or without cause, upon sixty (60) days' written notice to City, except that where termination is due to the fault of the City, the period of notice may be such shorter time as the Consultant may determine. Upon receipt of any notice of termination, Consultant shall immediately cease all services hereunder except such as may be specifically approved by the Contract Officer. Except where the Consultant has initiated termination, the Consultant shall be entitled to compensation for all services rendered prior to the effective date of the notice of termination, and for any services authorized by the Contract Officer thereafter in accordance with the Schedule of Compensation or such as may be approved by the Contract Officer, except as provided in Section 7.3. In the event the Consultant has initiated termination, the Consultant shall be entitled to compensation only for the reasonable value of the work product actually produced hereunder. In the event of termination without cause pursuant to this Section, the terminating Party need not provide the non-terminating Party with the opportunity to cure pursuant to Section 7.2.

#### 7.9 Termination for Default of Consultant.

If termination is due to the failure of the Consultant to fulfill its obligations under this Agreement, City may, after compliance with the provisions of Section 7.2, take over the work and prosecute the same to completion by contract or otherwise, and the Consultant shall be liable to the extent that the total cost for completion of the services required hereunder exceeds the compensation herein stipulated (provided that the City shall use reasonable efforts to mitigate such damages), and City may withhold any payments to the Consultant for the purpose of set-off or partial payment of the amounts owed the City as previously stated.

#### 7.10 Attorneys' Fees.

If either Party to this Agreement is required to initiate or defend or made a party to any action or proceeding in any way connected with this Agreement, the prevailing Party in such action or proceeding, in addition to any other relief which may be granted, whether legal or equitable, shall be entitled to reasonable attorney's fees. Attorney's fees shall include attorney's fees on any appeal, and in addition a Party entitled to attorney's fees shall be entitled to all other reasonable costs for investigating such action, taking depositions and discovery and all other necessary costs the court allows which are incurred in such litigation. All such fees shall be deemed to have accrued on commencement of such action and shall be enforceable whether or not such action is prosecuted to judgment.

### 7.11 Damages

Notwithstanding anything in this Agreement to the contrary, Consultant is not liable, whether based in contract, warranty, tort (including negligence), strict liability, indemnity or any other legal or equitable theory, for: loss of use, revenue, savings, profit, interest, goodwill or opportunity, costs of capital, costs of replacement or substitute use or performance, loss of information and data, loss of power, voltage irregularities or frequency fluctuation claims arising from the City's third party contracts, or for any type of indirect, special, liquidated, punitive, exemplary, collateral, incidental or consequential damages, or for any other loss or cost of a similar type. The City agrees that the exclusions and limitations in this section 7.11 will prevail over any conflicting terms and conditions in this agreement and must be given full force and effect, whether or not any or all such remedies are determined to have failed of their essential purpose. These limitations of liability are effective even if Consultant has been advised by the City of the possibility of such damages. The waivers and disclaimers of liability, releases from liability and limitations on liability expressed in this article 8 extend to Consultant's affiliates (and their employees), partners, principals, shareholders, directors, officers, employees, suppliers of any tier (and their employees), agents, and successors and assigns. Except for liabilities arising from personal injury or property damage resulting from Consultant's acts or omissions, Consultant's maximum liability under this Agreement is the actual purchase price received by Consultant for the equipment and services that gave rise to the claim.

## **ARTICLE 8. CITY OFFICERS AND EMPLOYEES: NON-DISCRIMINATION**

### 8.1 Non-liability of City Officers and Employees.

No officer or employee of the City shall be personally liable to the Consultant, or any successor in interest, in the event of any default or breach by the City or for any amount which may become due to the Consultant or to its successor, or for breach of any obligation of the terms of this Agreement.

### 8.2 Conflict of Interest.

Consultant covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, which would conflict in any manner with

the interests of City or which would in any way hinder Consultant's performance of services under this Agreement. Consultant further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent or subcontractor without the express written consent of the Contract Officer. Consultant agrees to at all times avoid conflicts of interest or the appearance of any conflicts of interest with the interests of City in the performance of this Agreement.

No officer or employee of the City shall have any financial interest, direct or indirect, in this Agreement nor shall any such officer or employee participate in any decision relating to the Agreement which effects his financial interest or the financial interest of any corporation, partnership or association in which he is, directly or indirectly, interested, in violation of any State statute or regulation. The Consultant warrants that it has not paid or given and will not pay or give any third party any money or other consideration for obtaining this Agreement.

### 8.3 Covenant Against Discrimination.

Consultant covenants that, by and for itself, its heirs, executors, assigns, and all persons claiming under or through them, there shall be no discrimination against or segregation of any person or group of persons on account of race, color, creed, religion, sex, gender, sexual orientation, marital status, national origin, ancestry, or other protected class in the performance of this Agreement. Consultant shall take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to their race, color, creed, religion, sex, marital status, national origin, ancestry, or other protected class.

### 8.4 Unauthorized Aliens.

Consultant hereby promises and agrees to comply with all of the provisions of the Federal Immigration and Nationality Act, 8 U.S.C.A. §§ 1101, *et seq.*, as amended, and in connection therewith, shall not employ unauthorized aliens as defined therein. Should Consultant so employ such unauthorized aliens for the performance of work and/or services covered by this Agreement, and should any liability or sanctions be imposed against City for such use of unauthorized aliens, Consultant hereby agrees to and shall reimburse City for the cost of all such liabilities or sanctions imposed, together with any and all costs, including attorney's fees, incurred by City.

## **ARTICLE 9. MISCELLANEOUS PROVISIONS**

### 9.1 Facilities and Equipment.

Except as otherwise provided, Consultant shall, at its own cost and expense, provide all facilities and equipment necessary to perform the services required by this Agreement. City shall make available to Consultant only physical facilities such as desks, filing cabinets, and conference space ("City Facilities"), as may be reasonably necessary for Consultant's use while consulting with City employees and reviewing records and the information in possession of City. The location, quality, and time of furnishing of City Facilities shall be in the sole discretion of City. In no event shall City be required to furnish

any facilities that may involve incurring any direct expense, including but not limited to computer, long distance telephone, network data, internet, or other communication charges, vehicles, and reproduction facilities.

## 9.2 Payment of Taxes.

Consultant is solely responsible for the payment of employment taxes incurred under this Agreement and any federal and state taxes.

## 9.3 Notices.

All notices or other communications required or permitted hereunder shall be in writing, and shall be personally delivered, sent by pre-paid First Class U.S. Mail, registered or certified mail, postage prepaid, return receipt requested, or delivered or sent by facsimile with attached evidence of completed transmission, and shall be deemed received upon the earlier of (i) the date of delivery to the address of the person to receive such notice if delivered personally or by messenger or overnight courier; (ii) three (3) business days after the date of posting by the United States Post Office if by mail; or (iii) when sent if given by facsimile. Any notice, request, demand, direction, or other communication sent by facsimile must be confirmed within forty-eight (48) hours by letter mailed or delivered. Other forms of electronic transmission such as e-mails, text messages, instant messages are not acceptable manners of notice required hereunder. Notices or other communications shall be addressed as follows:

If to City:                   City of Rialto  
150 S. Palm Ave.  
Rialto, CA 92376  
Attn: City Administrator  
Tel: (909) 820-2525  
Fax: (909) 820-2527

With copy to:               Aleshire & Wynder, LLP  
18881 Von Karman Ave., Suite 1700  
Irvine, CA 92612  
Attn: Fred Galante, City Attorney  
Tel: (949) 223-1170  
Fax: (949) 223-1180

If to Consultant:           Siemens Industry, Inc.  
9225 Bee Cave Road  
Building B, Suite 101  
Austin, TX 78733  
Attn: Steve Gitkin  
Tel: (512) 837-8300  
Fax: (512) 421-6617

With copy to: Siemens Industry, Inc.  
2200 West Oranewood Ave, Ste. 210  
Orange, CA 92868  
Attn: Steve Teal  
Tel: (714) 497-5043

Either Party may change its address by notifying the other Party of the change of address in writing.

#### 9.4 Interpretation.

The terms of this Agreement shall be construed in accordance with the meaning of the language used and shall not be construed for or against either Party by reason of the authorship of this Agreement or any other rule of construction which might otherwise apply.

#### 9.5 Counterparts.

This Agreement may be executed in counterparts, each of which shall be deemed to be an original, and such counterparts shall constitute one and the same instrument.

#### 9.6 Integration; Amendment.

This Agreement including the attachments hereto is the entire, complete and exclusive expression of the understanding of the Parties. It is understood that there are no oral agreements between the Parties hereto affecting this Agreement and this Agreement supersedes and cancels any and all previous negotiations, arrangements, agreements and understandings, if any, between the Parties, and none shall be used to interpret this Agreement. No amendment to or modification of this Agreement shall be valid unless made in writing and approved by the Consultant and by the City Council. The Parties agree that this requirement for written modifications cannot be waived and that any attempted waiver shall be void.

#### 9.7 Severability.

In the event that any one or more of the phrases, sentences, clauses, paragraphs, or sections contained in this Agreement shall be declared invalid or unenforceable by a valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining phrases, sentences, clauses, paragraphs, or sections of this Agreement which are hereby declared as severable and shall be interpreted to carry out the intent of the Parties hereunder unless the invalid provision is so material that its invalidity deprives either Party of the basic benefit of their bargain or renders this Agreement meaningless.

#### 9.8 Corporate Authority.

The persons executing this Agreement on behalf of the Parties hereto warrant that (i) such Party is duly organized and existing, (ii) they are duly authorized to execute and deliver this Agreement on behalf of said Party, (iii) by so executing this Agreement, such Party is formally bound to the provisions of this Agreement, and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which said Party is bound. This Agreement shall be binding upon the heirs, executors, administrators, successors and assigns of the Parties.

#### 9.9 Disclaimer of Warranties

The warranties in this Agreement are the consultant's sole and exclusive warranties and are subject to the limits of liability in section 7.11 above.

***[SIGNATURES ON FOLLOWING PAGE]***

**IN WITNESS WHEREOF**, the parties hereto have executed this Agreement on the date and year first-above written.

**CITY:**

CITY OF RIALTO, a municipal corporation

By: \_\_\_\_\_  
Deborah Robertson, Mayor

**ATTEST:**

By: \_\_\_\_\_  
Barbara A. McGee, City Clerk

**APPROVED AS TO FORM:**

ALESHIRE & WYNDER, LLP

By: \_\_\_\_\_  
Fred Galante, City Attorney

**CONSULTANT:**

SIEMENS INDUSTRY, INC.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**Two signatures are required if a corporation.**

**VENDOR**

By Siemens Industry, Inc., a Delaware corporation  
Firm/Company Name

By: \_\_\_\_\_  
Signature (notarized)

By: \_\_\_\_\_  
Signature (notarized)

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

(This Agreement must be signed in the above space by one of the following: Chairman of the Board, President or any Vice President)

(This Agreement must be signed in the above space by one of the following: Secretary, Chief Financial Officer or any Assistant Treasurer)

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

State of \_\_\_\_\_)

State of \_\_\_\_\_)

County of \_\_\_\_\_) ss

County of \_\_\_\_\_) ss

On \_\_\_\_\_

On \_\_\_\_\_

before me, \_\_\_\_\_

before me, \_\_\_\_\_

personally appeared \_\_\_\_\_

personally appeared \_\_\_\_\_

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signatures(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signatures(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

WITNESS my hand and official seal.

Notary  
Signature:

Notary  
Signature:

Notary Seal:

Notary Seal:

## EXHIBIT "A"

### SCOPE OF SERVICES

- I. **Consultant will perform the following Services:**
  - A. Provide street light asset cut over services per attached proposal.
  - B. Installation of LED street lights per attached proposal.
  - C. Deliver final database of installed fixtures in Microsoft Excel format.
  
- II. **As part of the Services, Consultant will prepare and deliver the following tangible work products to the City:**
  - A. LED fixtures, equipment and labor resources.
  - B. GIS database of installed LED fixtures. Including attributes as detailed in the Investment Grade Audit.
  
- III. **In addition to the requirements of Section 6.2, during performance of the Services, Consultant will keep the City apprised of the status of performance by delivering the following status reports:**
  - A. Progress reports to City Project Manager on a schedule determined in the project preconstruction meeting.
  
- IV. **All work product is subject to review and acceptance by the City, and must be revised by the Consultant without additional charge to the City until found satisfactory and accepted by City.**
  
- V. **Consultant will utilize the following personnel to accomplish the Services:**
  - A. Bryan Berlin- Project Manager
  - B. Michael Hutchens- Area Operations Manager
  - C. Richard O'Hearn- Senior Energy Engineer
  - D. Alex Valenti- Account Manager
  - E. (2) Street light Technicians (TBD)

**EXHIBIT "B"**

**SPECIAL REQUIREMENTS**

**(Superseding Contract Standard Language)**

**EXHIBIT "C"**

**SCHEDULE OF COMPENSATION**

I. Consultant shall perform street light installation services for the following street light types at the following rates:

**Base Scope: Street light fixtures to be acquired by City (Currently LS-1)**

<b>Fixture Type</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Extended Price</b>
<b>Cobrahead- 70W</b>	<b>2098</b>	<b>\$358.33</b>	<b>\$751,776.34</b>
<b>Cobrahead- 100W</b>	<b>1349</b>	<b>\$378.58</b>	<b>\$510,704.42</b>
<b>Cobrahead- 150W</b>	<b>199</b>	<b>\$419.09</b>	<b>\$83,398.91</b>
<b>Cobrahead- 200W</b>	<b>66</b>	<b>\$530.78</b>	<b>\$35,031.48</b>
<b>Cobrahead- 250W</b>	<b>3</b>	<b>\$592.51</b>	<b>\$1,777.53</b>
<b>Cobrahead- 400W</b>	<b>1</b>	<b>\$735.55</b>	<b>\$735.55</b>
<b>Double Cobrahead- 70W</b>	<b>4</b>	<b>\$358.33</b>	<b>\$1,433.32</b>
<b>Decorative- Gateway</b>	<b>38</b>	<b>\$469.73</b>	<b>\$17,849.74</b>
<b>Decorative- Post Top</b>	<b>40</b>	<b>\$438.08</b>	<b>\$17,523.20</b>
<b>Total</b>			<b>\$1,420,230.49</b>

**Optional Scope: Street light fixtures currently owned by City (Currently LS-2)**

<b>Fixture Type</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Extended Price</b>
<b>Cobrahead- 200W</b>	<b>37</b>	<b>\$582.06</b>	<b>\$21,536.22</b>
<b>Cobrahead- 250W</b>	<b>86</b>	<b>\$650.12</b>	<b>\$55,910.32</b>
<b>Cobrahead- 400W</b>	<b>2</b>	<b>\$807.06</b>	<b>\$1,614.12</b>
<b>Total</b>			<b>\$79,060.66</b>

- II. A retention of ten percent (10%) shall be held from each payment as a contract retention to be paid as part of the final payment upon satisfactory completion of services.**
- III. Within the budgeted amounts for each Task, and with the approval of the Contract Officer, funds may be shifted from one Task sub-budget to another so long as the Contract Sum is not exceeded per Section 2.1, unless Additional Services are approved per Section 1.9.**
- IV. The City will compensate Consultant for the Services performed upon submission of a valid invoice. Each invoice is to include:**
  - A. Line items for all personnel describing the work performed, the number of hours worked, and the hourly rate.
  - B. Line items for all materials and equipment properly charged to the Services.
  - C. Line items for all other approved reimbursable expenses claimed, with supporting documentation.
  - D. Line items for all approved subcontractor labor, supplies, equipment, materials, and travel properly charged to the Services.
- V. The total compensation for the Services shall not exceed \$\_\_\_\_\_ as provided in Section 2.1 of this Agreement.**

## **EXHIBIT "D"**

### **SCHEDULE OF PERFORMANCE**

- I. Consultant shall perform all Services timely in accordance with the schedule to be developed by Consultant and subject to the written approval of the Contract Officer and the City Attorney's office.**
- II. Consultant shall complete the project within 210 working days from the notice to proceed and deliver the following tangible work products to the City within the following time frames:**
  - A. Procurement of materials:** Within 14 weeks from Notice to Proceed
  - B. Installation:** With 24 weeks from the completion of the procurement of materials.
  - C. Close-out Activities:** 4 weeks from Notice of Substantial Completion.
- III. The Contract Officer may approve extensions for performance of the services in accordance with Section 3.2.**
- IV. Schedule is dependent on the performance of Southern California Edison (SCE) and SCE's contractors. Schedule extensions shall be granted based on any delay caused by SCE and SCE's contractors.**