



# ENGINEER'S REPORT

for

**Street Lighting District  
Fiscal Year 2017-18**

for the

**City of Garden Grove  
Orange County, California**

**May 31, 2017**



ENGINEER'S REPORT  
CITY OF GARDEN GROVE  
STREET LIGHTING DISTRICT  
FISCAL YEAR 2017-18

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**CITY OF GARDEN GROVE**

**FISCAL YEAR 2017-18**

**SYNOPSIS**

This Report as filed complies with the Landscaping and Lighting Act of 1972 (“Act”). Also part of this report, but not bound herein, is the assessment roll on file with the City Clerk which indicates each property’s City of Garden Grove Street Lighting District assessment for Fiscal Year 2017-18.

Following the passage of Proposition 218 in November 1996, the City has continued to levy assessments within the District at the current rate since Proposition 218 allowed certain exemptions for existing assessments. However, any increase in the assessment, including the addition of a CPI escalator, will require that a ballot be mailed to each property owner subject to the assessment, and that a majority of property owners (weighted by assessment amount) returning their ballot must approve of the increase in the assessment. In addition, any other changes needed to comply with the requirements of Proposition 218 would have to be made at that time.

The proposed lighting maintenance assessment for Fiscal Year 2017-18, as described in this Report, is approximately \$1,332,978. The typical homeowner’s assessment will be \$28.71, which is the same as that assessed for lighting prior to the passage of Proposition 218 and last year. The estimated fund balance at the end of Fiscal Year 2017-18 is expected to be zero.

**CITY OF GARDEN GROVE**  
**FISCAL YEAR 2017-18**  
**CURRENT FINANCIAL SUMMARY**

	<b>Fiscal Year 2017-18</b>	<b>Fiscal Year 2016-17</b>
<b>REVENUE</b>		
Uncommitted Fund Balance (as of July 1)	\$0	\$0
Estimated Assessment Revenue	\$1,332,978	\$1,331,824
General Fund Contribution	<u>\$408,337</u>	<u>\$412,828</u>
<i>Subtotal Est. Revenue</i>	<i>\$1,741,315</i>	<i>\$1,744,652</i>
<b>EXPENSES</b>		
Estimated Operating Expenses	\$1,741,315	\$1,744,652
Capital Improvements	<u>\$0</u>	<u>\$0</u>
<i>Subtotal Est. Expenses</i>	<i>\$1,741,315</i>	<i>\$1,744,652</i>
Estimated Uncommitted Fund Balance (as of June 30)	<b>\$0</b>	<b>\$0</b>

**CITY OF GARDEN GROVE**  
**FISCAL YEAR 2017-18**  
**ENGINEER'S REPORT**  
**PREPARED PURSUANT TO THE PROVISIONS OF THE**  
**LANDSCAPING AND LIGHTING ACT OF 1972**  
**SECTION 22500 THROUGH 22679**  
**OF THE CALIFORNIA STREETS AND HIGHWAYS CODE**

Pursuant to Part 2 of Division 15 of the Streets and Highways Code of the State of California, and in accordance with the Resolution of Initiation adopted by the City Council of the City of Garden Grove, State of California, in connection with the proceedings for:

**CITY OF GARDEN GROVE**  
**STREET LIGHTING DISTRICT**

Hereinafter referred to as the "Assessment District" or "District", I, K. Dennis Klingelhofer, P.E., the authorized representative of Harris & Associates, the duly appointed ASSESSMENT ENGINEER, submit herewith the "Report" consisting of five (5) parts as follows:

**PART A**  
**PLANS AND SPECIFICATIONS**

Plans and specifications for the existing and ultimate improvements are as set forth on the lists thereof, attached hereto, and are on file in the Office of the City Clerk and are incorporated herein by reference.

**PART B**  
**ESTIMATE OF COST**

An estimate of the costs of the maintenance and/or servicing of the existing and ultimate improvements for Fiscal Year 2017-18, including incidental costs and expenses in connection therewith.

**PART C**  
**METHOD OF APPORTIONMENT**

The method of apportionment of assessments indicates the proposed assessment of the net amount of the costs and expenses of the maintenance and/or servicing of the existing and ultimate improvements to be assessed upon the several lots and parcels of land within the Assessment District in proportion to the estimated special benefits to be received by such lots and parcels.

**PART D  
ASSESSMENT DIAGRAM**

The Assessment Diagram, which shows the exterior boundaries of the Assessment District, the boundaries of any zones within the Assessment District and the lines and dimensions of each lot or parcel of land within the Assessment District, is on file in the Office of the City Clerk and is incorporated herein by reference.

The lines and dimensions of each lot or parcel within the Assessment District are those lines and dimensions shown on the maps of the Assessor of the County of Orange for the fiscal year to which this Report applies. The Assessor's maps and records are incorporated by reference herein and made part of this Report.

**PART E  
ASSESSMENT ROLL**

An assessment of the estimated cost of maintenance and/or servicing of the existing improvements on each benefited lot or parcel of land within the Assessment District for the fiscal year to which this report applies are on file in the Office of the City Clerk and incorporated herein by reference.

The undersigned respectfully submits the enclosed report as directed by the City Council. The undersigned certifies that he is a Professional Engineer, registered in the State of California.

DATED: May 31, 2017

Harris & Associates

  
BY: K. Dennis Klingelhofer, P.E.  
R.C.E. No. 50255

**PART A**  
**PLANS AND SPECIFICATIONS**

The facilities, which have been constructed within the City of Garden Grove, and those which may be subsequently constructed, will be serviced and maintained as generally described as follows:

**DESCRIPTION OF IMPROVEMENTS  
FOR THE CITY OF GARDEN GROVE  
STREET LIGHTING DISTRICT  
FISCAL YEAR 2017-18**

**Street Lighting.** The plans for local lighting including alley lighting, and certain arterial lighting, consist of the lamp location list, the Diagram, and the County Assessor’s Maps, all of which are on file in the City Clerk’s office and are incorporated herein by reference.

The Diagram shows the existing District boundaries and includes all of the areas of the District with existing street lights. The lamp location list is a tabulated listing of every street in the District by street in alphabetical order. Included in the items listed for each lamp is the exact location by street address, number and lamp size. Lamps are not placed in specific zones, unless they clearly only benefit certain parcels (e.g., Main Street lights, which are funded through the Main Street Assessment District No. 1).

The County Assessor’s Maps show each parcel, including its parcel number and the dimension of each parcel in the District. Preceding the Assessor’s Maps is an information sheet, which gives instructions for finding an individual parcel’s street lighting assessments and for finding lamp locations. These maps are available for inspection in the Engineering Services Division of the Public Works Department.

Specifications for street lighting within the District are indicated within a previously executed contract dated July 22, 1958, by and between the City of Garden Grove and Southern California Edison Company, a copy of which is attached by reference to this report.

**Traffic Signals and Freeway Lighting.** Maps showing the location of traffic signals and freeway lighting within the District, and specifications showing the general nature, location and extent of proposed capital improvements, are on file in the office of the City Clerk and incorporated herein by reference.

**PART B**  
**ESTIMATE OF COST**

The City's budget for the installation, operation, maintenance and servicing of lighting details the estimated costs for Fiscal Year 2017-18 as available at the time of preparation of this report, and includes engineering fees, legal fees, printing, mailing, postage, publishing, and all other related costs identified with the District proceedings.

	Est. Costs	Allocated Engineering & Incidentals	Contributions from Other Funds	Total to Assessment
<b>Local Lighting Cost</b>				
(from Street Lighting Cost Table)	\$782,532			
<b>Total Local Lighting Cost</b>	<b>\$782,532</b>	\$237,407	(\$289,792)	\$730,147
<b>Alley Lighting Costs</b>				
(from Street Lighting Cost Table)	\$ 1,833.36			
<b>Total Alley Lighting Cost</b>	<b>\$1,833</b>	\$556	(\$906)	\$1,484
<b>Arterial Lighting Cost to All Assessable Properties:</b>				
Arterial Lighting Cost	\$304,158			
Signal Maintenance	\$243,117			
Freeway Underpass Lighting (LS3 Sched. incl. in Arterial Lights above)	\$4,356			
<b>Total Arterial Lighting Cost</b>	<b>\$551,631</b>	\$167,356	(\$117,639)	\$601,347
<b>Total Lighting Costs</b>	<b>\$1,335,996</b>	<b>\$405,319</b>	<b>(\$408,337)</b>	<b>\$1,332,978</b>
<u>Engineering and Incidentals</u>				
0020 Management - Regular Salaries	\$21,100			
3000 Public Works General Administration Regular Salaries	\$32,034			
3210 Street Lighting Regular Salaries	\$216,926			
3210 Overtime	\$1,499			
3210 Commodities	\$2,540			
3210 Insurance / Liability	\$41,945			
3210 Facilities Maint., Finance Mgmt., Operational and General Admin Support	\$62,900			
3210 Contractual Services	\$26,375			
7113 Capital Outlay	\$0			
<b>Total Engineering and Incidentals</b>	<b>\$405,319</b>			
<b>Starting Fund Balance (Fund Balance as of July 1, 2017)</b>	<b>\$0</b>			
<b>General Fund Contribution to balance budget</b>	<b>(\$408,337)</b>			
<b>Estimated Reserve (Fund Balance as of June 30, 2018)</b>	<b>\$0</b>			
<b>Total Estimated 2017-18 Assessment</b>	<b><u>\$1,332,978</u></b>			

The 1972 Act requires that a special fund be set-up for the revenues and expenditures of the District. Funds raised by assessment shall be used only for the purpose as stated herein. A contribution to the District by the City may be made to reduce assessments, as the City Council deems appropriate. Any balance or deficit remaining on July 1 must be carried over to the next fiscal year.

The detail of the estimated cost of operating, maintaining and servicing local and arterial street lighting including alleys and safety lights within the District for Fiscal Year 2017-18 is set forth below:

<b>STREET LIGHTING - EDISON OWNED</b>					
<b>Local Lighting:</b>					
<u>Lamp Size</u>	<u>Number</u>			<u>Cost</u>	
4,000 L	5	@ \$	9.96 x 12 mos.	\$ 597.60	
5,800 L	4,277	@	10.65 x 12 mos.	546,600.60	
9,500 L	1,695	@	11.57 x 12 mos.	235,333.80	
	<u>5,977</u>			<u>\$ 782,532.00</u>	\$ 782,532.00
<b>Alley Lighting:</b>					
<u>Lamp Size</u>	<u>Number</u>			<u>Cost</u>	
5,800 L	10	@ \$	10.65 x 12 mos.	\$ 1,278.00	
9,500 L	4	@	11.57 x 12 mos.	555.36	
	<u>14</u>			<u>\$ 1,833.36</u>	\$ 1,833.36
<b>Arterial Lighting:</b>					
<u>Lamp Size</u>	<u>Number</u>			<u>Cost</u>	
16,000 L	15	@ \$	14.02 x 12 mos.	\$ 2,523.60	
22,000 L	1,227	@	15.79 x 12 mos.	232,491.96	
27,500 L	54	@	17.66 x 12 mos.	11,443.68	
	<u>1,296</u>			<u>\$ 246,459.24</u>	\$ 246,459.24
<b>STREET LIGHTING - CITY OWNED (Arterial)</b>					
<u>Lamp Size</u>	<u>Number</u>			<u>Cost</u>	
5,800 L	62	@ \$	3.01 x 12 mos.	\$ 2,239.44	
7,900 L	8	@	6.63 x 12 mos.	636.48	
9,500 L	4	@	3.93 x 12 mos.	188.64	
16,000 L	3	@	6.00 x 12 mos.	216.00	
22,000 L	544	@	7.45 x 12 mos.	48,633.60	
27,500 L	52	@	9.27 x 12 mos.	5,784.48	
	<u>673</u>			<u>\$ 57,698.64</u>	\$ 57,698.64
<b>TOTAL</b>					<b>\$ 1,088,523.24</b>

## **PART C** **METHOD OF APPORTIONMENT**

### **GENERAL**

Part 2 of Division 15 of the Streets and Highways Code, the Landscaping and Lighting Act of 1972, permits the establishment of assessment districts by cities for the purpose of providing certain public improvements which include the maintenance and servicing of street lights, traffic signals, landscaping and park and recreational facilities.

Section 22573, of the Landscaping and Lighting Act of 1972 requires that maintenance assessments be levied according to benefit rather than according to assessed value. This Section states:

"The net amount to be assessed upon lands within an assessment district may be apportioned by any formula or method which fairly distributes the net amount among all assessable lots or parcels in proportion to the estimated benefits to be received by each such lot or parcel from the improvements."

The Act permits the designation of zones of benefit within any individual assessment district if "by reason of variations in the nature, location, and extent of the improvements, the various areas will receive different degrees of benefit from the improvements." (Sec. 22574). Thus, the 1972 Act requires the levy of a true "assessment" rather than a "special tax."

### **EXEMPTION FROM ARTICLES XIII C AND XIII D**

As a result of the passage of Proposition 218 by Voters on November 5, 1996, Articles XIII C and XIII D were added to the California Constitution. The new procedural and approval process outlined in these articles apply to those districts that do not qualify for an exemption as provided therein. There are several exemptions provided, including: 1) a district that received prior voter approval, 2) a district originated with a petition signed by 100 percent of the property owners in the district, or 3) a district complying with the requirements set forth in Section 5(a) of Article XIII D that states:

"...assessments existing on the effective date of this Article shall be exempt from the procedures and approval process set forth in Section 4 [if they were] imposed exclusively to finance the capital costs or maintenance and operation expenses for sidewalks, streets, sewers, water, flood control, drainage systems or vector control."

The street lighting assessment existed in Fiscal Year 1996-97 and funded improvements that are classified as street improvements. Street improvement as defined herein is based on the definitions provided by the Office of the Controller for the State of California in the *Guidelines Relating to Gas Tax Expenditures* published by the Division of Local Government Fiscal Affairs. The state's gas tax program is administered in city agencies, but audited by the Office of the State Controller. The proceeds of the gas tax are statutorily limited to expenditures for streets and roads. Because the funds are restricted to street and road costs, the State Controller has developed "Street Purpose Definitions and Guidelines" based on the *Manual of Uniform Highway Accounting and Financial Management Procedures* developed by the American Association of State Highway Officials. Street improvement, as it relates to this District, is defined as the construction, operation, or maintenance of facilities within the right-of-way used for street or road purposes including but not limited to the following:

- Installation or expansion of the street lighting system including replacement of old equipment with superior equipment, installation of traffic signals at intersections and railroad crossings, replacement of equipment as required for relocations for street purposes, and purchase and installation of traffic signal control equipment.
- Servicing lighting systems and street or road traffic control devices including repainting and repairing traffic signals and lighting standards; and furnishing of power for street and road lighting and traffic control devices.

Therefore, the assessments levied for street improvements as defined above are exempt from the Article XIID procedural and approval process.

### **SPECIAL BENEFIT ANALYSIS**

***Local Lighting.*** The installation, operation, maintenance and servicing of lighting along streets and alleys in close proximity to certain lots or parcels provides a special benefit to such lots or parcels, enhancing their value by providing illumination resulting in: 1) improved security of such lots or parcels, 2) improved ingress and egress from such lots or parcels by illuminating access after sunset, and 3) improved nighttime visibility for the local access of emergency vehicles. In the case of commercial lots or parcels, these local lights, by improving ingress and egress, facilitate the opening and operation of businesses after sunset.

***Arterial Lighting.*** The installation, operation, maintenance and servicing of arterial lighting (including traffic signals, intersection safety lighting, freeway underpass lighting, and lighting on arterial streets) provides a special benefit to each and every assessable lot or parcel within the District, enhancing their value by: 1) improved nighttime visibility for the access of emergency vehicles, and 2) improved safety and traffic circulation to and from parcels citywide.

### **METHODOLOGY**

#### ***Local Lighting Assessment***

The special benefit from operation, maintenance and servicing of local street lighting within the District only accrues to those parcels within the District located in areas where such lighting is provided. Therefore, parcels without local street lighting are not assessed for the cost of providing such lighting. Generally, a parcel is determined to have local lighting provided if a street light is within approximately 90 feet of the parcel.

The benefit from local lighting can be measured by increased safety to people and property, as well as the increased availability of lighting. In order to establish the proportionate share of local lighting benefit to any parcel of land in relation to the total special benefits to be received by local lighting, it is necessary to establish a benchmark to relate that one parcel to all others. The benchmark is called the Assessment Unit (AU). The District uses the Single Family Residence (SFR) as the benchmark AU. All other land uses will be compared to the benchmark of the Single Family Residence to gain a comparative Assessment Unit based on population and parcel size as described below. For parcels with local lighting, there exists the core benefit of available lighting for every parcel in the District near a street light. This “Availability” benefit is apportioned to parcels with local lighting in the District on a per parcel basis, and has been assigned one-fourth of the SFR Assessment Unit. In addition to this benefit, parcels in the District benefit from improved safety related to people who own or use the parcels in the District (“Safety to People”), which has been assigned one-half of the

SFR Assessment Unit. Parcels also benefit from improved safety related to the parcel itself (“Safety to Property”), which has been assigned one-fourth of the SFR Assessment Unit. The three benefit factors are then added together for a total of 1 AU per SFR.

$$\begin{array}{cccc} \text{Safety to People Benefit} & + & \text{Safety to Property Benefit} & + & \text{Availability Benefit} & = & \text{SFR Benefit} \\ 1/2 \text{ AU} & & 1/4 \text{ AU} & & 1/4 \text{ AU} & & 1 \text{ AU} \end{array}$$

### **Safety to People**

Assessment law requires that benefit be apportioned to parcels in the District based on the benefit the land receives. It is not, however, contradictory to relate the benefit property receives to the benefit people owning or using such property receive from improved safety as a result of the District’s improvements. The Safety to People benefit results in a benefit to land, especially in residential properties, because clearly what is good for people improves the property value of the land and the ability to sell homes, rent apartments, or mobile home spaces.

What is good for people is also important to the Nonresidential and Nonprofit properties in the District. Nonresidential properties receive Safety to People benefit from street lighting through the reduction in criminal acts to employees in their parking lots as well as related traffic safety of employees.

Therefore, the Safety to People benefit received by Nonresidential parcels is, at a minimum, that amount received by single family parcels for every portion of the Nonresidential property equal in size to a typical single family parcel. In addition, in order to distribute benefit between the Nonresidential parcels, the individual lot size of each Nonresidential parcel will be used to compute the parcel’s benefit points.

Nonprofit properties benefit from local street lighting through the reduction in criminal acts to members or visitors on property grounds as well as traffic safety to people traveling to and from the property. However, on an ongoing basis, nonprofit properties generally have an inconsistent number of people using the facilities on a day-to-day basis. Unlike an office, warehouse, or retail establishment, a typical nonprofit facility will have one or two days of intense use and more days of less intensive use where a small staff takes care of necessary duties. Therefore, the nonprofit parcels should be assessed at a lower level than other Nonresidential properties, with a minimum assessment equal to a single family residence.

The safety benefit as it relates to safety of the person is apportioned to properties in the District based on the following demographic population information for residential uses as provided by the City of Garden Grove Planning Department. The Nonresidential and Nonprofit uses are related to the residential uses utilizing the Single Family Residential average density of 7,200 square feet as shown on the following Table 1:

**TABLE 1 - POPULATION DEMOGRAPHICS (SAFETY TO PEOPLE)**

Land Use Description	Population per Unit	Rounded % of SFR	Safety to People Benefit (1/2)
Single Family Residential (SFR)	3.51/unit	100%	0.50
Condominium	3.02/unit	85%	0.43
Multiple Family Residential	3.38/unit	95%	0.45
Mobile Home	1.50/unit	40%	0.20
Nonresidential	3.51/7,200 sq. ft.	100%	0.50
Nonprofit	1.755/7,200 sq. ft.	50%	0.25
Vacant	0/parcel	0%	0.00

**Safety to Property**

Both Residential and Nonresidential properties, including Commercial, Industrial, Nonprofit and Vacant parcels, receive benefit from local lighting operation, maintenance and servicing related to the protection of buildings, personal property, business equipment, inventory, materials, etc. located on the property. The Safety to Property benefit is apportioned to properties in the District based on relative property size as available from the City of Garden Grove Planning Department for Residential uses and Assessor’s Parcel Maps for Nonresidential land uses.

For the Residential uses, an average density has been used to determine the per unit parcel size. The Nonresidential, Nonprofit and Vacant uses are related to the Residential uses utilizing the Single Family Residential average density of 7,200 square feet as shown in Table 2 below:

**TABLE 2 - AVERAGE DENSITY PER LAND USE (SAFETY TO PROPERTY)**

Land Use Description	Square Feet per Unit	Rounded % of SFR	Safety to Property Benefit (1/4)
Single Family Residential (SFR)	7,200 sf/unit	100%	0.25
Condominium	3,300 sf/unit	46%	0.12
Multiple Family Residential	2,600 sf/unit	36%	0.09
Mobile Home	3,700 sf/unit	51%	0.13
Nonresidential	7,200 sf/unit	100%	0.25
Nonprofit	7,200 sf/unit	100%	0.25
Vacant	7,200 sf/unit	100%	0.25

In determining the benefit for local lighting, larger properties do not necessarily receive benefit in proportion to their larger size, because a large share of the property may not be protected by the light on the street. In addition, these properties would typically have to provide their own privately funded lighting system in order to afford protection to their entire lot. To account for this, Safety to Property benefit points per unit will only be assigned up to 20 dwelling units or 20 times 7,200 square feet (144,000 square feet) for Nonresidential and Vacant properties. However, a lower maximum assessment, based on 5 dwelling units or 36,000 square feet, is appropriate for the nonprofit parcels, because these properties are less susceptible to criminal activity since the services provided on the premises are not for profit.

Table 3 below shows the breakdown of the Assessment Unit benefit points assigned to each land use for those properties located in areas with local street lights.

**TABLE 3 - LOCAL LIGHTING BENEFIT FACTORS**

Land Use Description	Safety to People	Safety to Property	Availability Benefit	Total AU's
Single Family Residential (SFR)	.50/unit	.25/unit	.25/parcel	1.00/parcel
Condominium	.43/unit	.12/unit	.25/parcel	.79/parcel
Multi-family up to 20 units	.45/unit	.09/unit	.25/parcel	.54/unit + .25/parcel
Multi-family more than 20 units	.45/unit	1.80/parcel	.25/parcel	.45/unit + 2.05/parcel
Mobile Home up to 20 units	.20/unit	.13/unit	.25/parcel	.33/unit + .25/parcel
Mobile Home more than 20 units	.20/unit	2.60/parcel	.25/parcel	.20/unit + 2.85/parcel
Nonresidential minimum 7,200sf *	.50/parcel	.25/parcel	.25/parcel	1.00/parcel
Nonresidential 7,200 to 144,000sf	.50/7,200sf	.25/7,200sf	.25/parcel	.75/7,200sf + .25/parcel
Nonresidential > 144,000sf	.50/7,200sf	5.00/parcel	.25/parcel	.50/7,200sf + 5.25/parcel
Nonprofit minimum 10,800sf *	.50/parcel	.25/parcel	.25/parcel	1.00/parcel
Nonprofit 10,800 to 36,000sf	.25/7,200sf	.25/7,200sf	.25/parcel	.50/7,200sf + .25/parcel
Nonprofit > 36,000sf	.25/7,200sf	1.25/parcel	.25/parcel	.25/7,200sf + 1.50/parcel
Vacant minimum 7,200sf	.00/7,200sf	.25/parcel	.25/parcel	.50/parcel
Vacant 7,200 to 144,000sf	.00/7,200sf	.25/7,200sf	.25/parcel	.25/7,200sf + .25/parcel
Vacant maximum > 144,000sf	.00/7,200sf	5.00/parcel	.25/parcel	5.25/parcel

\*Minimum assessment is equal to a single family residence

Table 4 below provides a summary of assessment units for the different land uses for local lighting benefit.

**TABLE 4 - LOCAL LIGHTING ASSESSMENT UNIT SUMMARY**

Land Use Description	Parcels	Dwellings	Square Ft	Total AU's
Single Family Residential	21,954	21,954	0	21,954.000
Condominium	5,861	5,902	0	4,662.580
Multiple Family Residential	1,066	12,562	0	6,656.770
Mobile Home	12	1,197	0	273.600
Nonresidential *	1,525	0	68,989,031	7,195.259
Nonprofit *	96	0	7,392,812	374.181
Vacant	52	0	775,089	41.827
<b>Totals</b>	<b>30,566</b>	<b>41,615</b>	<b>77,156,932</b>	<b>41,158.217</b>

\* Square feet shown are total square feet. Nonresidential and Nonprofit parcels are assessed a minimum of 1 AU.

The rate per AU is calculated by dividing the total budget amount by the total number of AU's:

$$\$730,147 / 41,158.217 \text{ AU's} = \$17.74 / \text{AU}$$

### *Arterial Lighting*

All parcels in the District receive a special benefit from the installation, operation, maintenance and servicing of traffic signals and freeway lighting as well as the operation, maintenance and servicing of safety lighting and street lighting on arterial streets. The arterial lighting, traffic signals, safety lighting, freeway lighting, and capital improvements (Arterial Lighting) are provided throughout the City and all properties in the City may easily access these improvements. In contrast to Local Lighting, Arterial Lighting benefits properties primarily because the properties, and the persons using the properties, are provided safe arterial street access. Therefore, Arterial Lighting benefit will be apportioned to Residential and Nonresidential parcels in the District on a per unit basis taking into account demographic population information.

Nonresidential and Nonprofit parcels rely in large part on the flow of through traffic to attract employees, members and customers, and therefore benefit from Arterial Lighting, at least as much as single family residential parcels. Accordingly, these parcels are assessed the minimum that would be assessed to a 7,200 square foot Residential parcel. Since larger parcels, which attract more employees, members and customers, derive a greater benefit from the traffic signals and safety lighting than smaller parcels, the assessment for a Nonresidential or Nonprofit parcel is calculated based on the square footage of the parcel.

Arterial Lighting benefit is based on the demographic population information shown in Table 1 (Population Demographics) above. All residential uses are related based on the average population for the respective land use. The Nonresidential and Nonprofit land uses have been assigned a minimum single family factor under the premise that regardless of the Nonresidential use, the minimum benefit to the parcel is that of a single family residence.

The single family factor of 1.0 benefit point per unit is assigned to every 7,200 square foot portion of a Nonresidential parcel with every parcel assigned a minimum of 7,200 square feet. The 7,200 square feet is based on the City of Garden Grove Planning Department information regarding typical zoning density for single family houses of six homes per acre as shown in Table 2 (Average Density Per Unit) above.

Nonprofit parcels benefit from safe arterial street access and the flow of through traffic to attract members. Because Nonprofit parcels are typically used less intensively than other Nonresidential uses, they are assessed at a lower rate than the Nonresidential uses. Nonprofit parcels are assessed at one-half the rate of the Nonresidential uses, with a minimum assessment equal to a single family residence.

Vacant properties, which have no people residing on the property, also benefit from arterial lighting because of the convenience associated with emergency vehicle access and other traffic that must use the arterial streets to service the Vacant properties in the District. Therefore, Vacant parcels are assigned a per parcel benefit point. Vacant parcels are assigned 0.25 benefit points per parcel, based on the core benefit attributable to every assessable parcel in the District from Arterial Lighting.

Table 5 below shows the breakdown of the Assessment Units assigned to each land use for all assessable property in the District.

**TABLE 5 - ARTERIAL LIGHTING BENEFIT**

Land Use Description	Total AU's
Single Family Residential (SFR)	1.00 / unit
Condominium	0.85 / unit
Multiple Family Residential	0.95 / unit
Mobile Home	0.40 / unit
Nonresidential	1.00 / 7,200 sf *
Nonprofit	0.50 / 7,200 sf *
Vacant	0.25 / parcel

\*Minimum assessment is equal to a Single Family Residence (SFR)

Table 6 below provides a summary of assessment units for the different land uses for arterial lighting benefit.

**TABLE 6 - ARTERIAL LIGHTING ASSESSMENT UNIT SUMMARY**

Land Use Description	Parcels	Dwellings	Square Ft	Total AU's
Single Family Residential (SFR)	26,225	26,207	0	26,207.000
Condominium	5,862	5,907	0	5,020.950
Multiple Family Residential	1,149	13,325	0	12,658.750
Mobile Home	14	1,559	0	623.600
Nonresidential *	1,549	0	69,862,910	9,764.374
Nonprofit *	96	0	7,392,812	524.967
Vacant	71	0	928,857	17.750
<b>Totals</b>	<b>34,966</b>	<b>46,998</b>	<b>78,184,579</b>	<b>54,817.391</b>

\* Square feet shown are total square feet. Nonresidential and Nonprofit parcels are assessed a minimum of 1 AU.

The rate per AU is calculated by dividing the total budget amount by the total number of AU's:

$$\$601,347 / 54,817.391 \text{ AU's} = \$10.97 / \text{AU}$$

***Alley Lighting***

Residential properties fronting alleys with local alley lighting are assessed for local alley lighting contiguous to such parcels in addition to any other lighting benefits. These properties receive a special and direct benefit from the local alley lighting. There are currently 58 single family residential parcels receiving this benefit, therefore the rate per parcel is calculated by dividing the total budget amount by the total number of parcels:

$$\$1,484 / 58 \text{ parcels} = \$25.59 / \text{Parcel}$$

***Engineering and Incidental Expenses***

All parcels within the District benefit from the ongoing operation of the District. Therefore, all parcels assessed in the District receive a share of the administrative costs for the District based on their lighting benefit.

***Total Assessment***

The total assessment for each parcel is the sum of its assessments for local lighting, alley lighting, arterial lighting, engineering and incidentals, and, if appropriate, its assessment for Main Street Lighting improvements.

**PART D**  
**ASSESSMENT DIAGRAM**

A diagram showing the exterior boundaries of the District and the area assessed for Main Street Lighting (nonresidential properties on Main Street between Acacia Parkway and Garden Grove Boulevard) is on file in the Office of the City Clerk and incorporated herein by reference.

The lines and dimensions of each lot or parcel within the District are those lines and dimensions shown on the maps of the Assessor of the County of Orange for the fiscal year to which this report applies. The Assessor's maps and records are incorporated by reference herein and made part of this report.

A reduced copy of the City of Garden Grove Street Lighting Maintenance District Map is provided on the following page.

**PART E**  
**ASSESSMENT ROLL**

The total proposed assessment for Fiscal Year 2017-18 and the amount of the total proposed assessment apportioned to each lot or parcel within the District, as shown on the latest assessment roll at the Orange County Assessor's Office, are contained in the Assessment Roll on file in the Office of the City Clerk of the City of Garden Grove, which is incorporated herein by reference.

The description of each lot or parcel is part of the records of the Assessor of the County of Orange and these records are, by reference, made part of this Report.

