



City of Glendora

Streetlight Maintenance District No. 1

FISCAL YEAR 2019/2020
ENGINEER'S REPORT

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ENGINEER'S REPORT AFFIDAVIT

Streetlight Maintenance District No. 1

City of Glendora

Los Angeles County, State of California

This Report describes the District and relevant zones therein including the improvements, budgets, parcels and assessments to be levied for Fiscal Year 2019/2020, as they existed at the time of the passage of the Resolution of Intention. Reference is hereby made to the Los Angeles County Assessor's maps for a detailed description of the lines and dimensions of parcels within the District. The undersigned respectfully submits the enclosed Report as directed by the City Council.

Dated this 3rd day of June, 2019.

Willdan Financial Services
Assessment Engineer
On Behalf of the City of Glendora

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I. OVERVIEW

A. INTRODUCTION

The Landscaping and Lighting Act of 1972 permits the establishment of assessment districts by the cities for the purpose of installing and/or constructing new public improvements or servicing and maintaining the certain existing public improvements within the proposed district.

In accordance with the 1972 Act, the City of Glendora created its first Landscape and Streetlight Maintenance District in 1976. Since then, city residents have funded a portion of public streetlights and landscape through the Maintenance District. The District has expanded over time through annexations.

This Report describes the District and services therein including the improvements, budgets, parcels and assessments to be levied for Fiscal Year 2019/2020, as those existed at the time of the passage of the Resolution of Intention. Reference is hereby made to the Los Angeles County Assessor's maps for a detailed description of the lots or parcels within the said Street Light Maintenance Assessment District, included as Exhibit 'B' and by reference made a part of this Report.

B. EFFECTS OF PROPOSITION 218

On November 5, 1996 California voters approved Proposition 218 which added Article XIIIID to the California Constitution. Proposition 218 establishes new procedural requirements for the formation and administration of assessment districts. It also requires the City to ballot property owners to obtain consent for the increased assessment exceeding the anticipated maximum permissible increase per assessment formula, for example CPI (Consumer Price Index) increase.

The Streetlight Maintenance District was re-formed in July 2006 under the requirements of Proposition 218 and Landscaping and Lighting Act of 1972. During District reformation, the property owners approved to adjust the assessment rate annually not exceeding the CPI. Such increase is not considered as a rate increase and the City Council can levy the annual assessment without further approval by the property owners.

In past years, Edison has increased the streetlight billing rates that far exceeded the CPI. Presently, Edison has several pending rate increase cases with the California Public Utilities Commission (CPUC). Therefore, expected future rate increases are built in the projected District expenditure estimate to fully reflect the financial impact.

Considering the actual Edison billing during FY 2018/2019, the District paid for all the expenses with no subsidy from the General Funds. For FY 2019/2020, no shortfall is anticipated. This amount may change if the CPUC decision is delayed or approved at rate lower than Edison's proposed rate increase.

On May 28, 2019, the City Council initiated the proceedings to levy annual assessment for FY 2019-20. For the coming fiscal year, the Council decided to levy the assessment not exceeding the maximum permissible rate.

II. PLANS AND SPECIFICATIONS

A. IMPROVEMENTS AUTHORIZED BY THE 1972 ACT

As applicable or may be applicable to this District, the 1972 Act defines improvements to mean one or any combination of the following:

- The installation or construction of public lighting facilities.
- The maintenance or servicing, or both, of any of the foregoing.
- The acquisition of any existing lighting improvement otherwise authorized pursuant to this section.
- Incidental expenses associated with the lighting improvements include, but are not limited to:
 - The cost of preparation of the report, including plans, specifications, estimates, diagram, and assessment;
 - The costs of printing, advertising, and the publishing, posting and mailing of notices;
 - Compensation payable to the County for collection of assessments;
 - Compensation of any engineer or attorney employed to render services;
 - Any other expenses incidental to the construction, installation, or maintenance and servicing of the lighting improvements;
 - Any expenses incidental to the issuance of bonds or notes pursuant to Section 22662.5.
 - Costs associated with any elections held for the approval of a new or increased assessment.

As generally defined by the 1972 Act, the improvements and the associated assessment for each Zone may include the following:

- The maintenance and operation of streets and sidewalks within the District, including the maintenance and servicing of street lights, traffic signals, and appurtenant facilities located in and along public streets, roadways and rights-of-way in the City.
- “Maintenance” means the furnishing of services and materials for the ordinary and usual maintenance, operation and servicing of the street lights, traffic signals and appurtenant facilities, including repair, removal or replacement of all or part of any street lights, traffic signals, or appurtenant facilities and the cleaning, sandblasting and painting of street lights, traffic signals, and appurtenant facilities to remove or cover graffiti.
- “Servicing” means the furnishing of electric current or energy, gas or other illuminating agent for the street lights, traffic signals, and appurtenant facilities.

B. IMPROVEMENTS AND SERVICES WITHIN THE DISTRICT

FACILITIES TO BE MAINTAINED AND SERVICED

1. Street Lights

Presently the street lights in the City of Glendora public streets can be classified into two types:

- i) Southern California Edison (SCE) owned system; and,
- ii) City owned system.

For both types, the service is provided by SCE. The rate structure for SCE owned street lights falls under LS-1 and the rate structure for the City owned street lights falls under LS-2 or LS-3; depending on whether the facilities are unmetered or metered, respectively. All the rate structures are generated by SCE and are subject to change.

Tables 2 & 3 summarize all public street lights in the City by lamp type and lumen. This information is based on the data given in SCE monthly bills and in the street lights map of SCE.

Both the street lighting maps of SCE and the City's records regarding public street lights are on file and available for public inspection at the Office of the City Clerk.

Table 2 shows the street lights in the City on an ownership basis (LS-1, LS-2 or LS-3). However, the cost of maintaining and furnishing the electricity for all the public street lights in the City are paid by the City to SCE. As shown in the table, only a small percentage (7.8%) of total public street lights are owned by the City.

Table 3 shows the street lights in the City on the location basis. This is done in order to classify the streets in the City by difference in use and by difference in the lumen power serving on the streets.

All currently operating public street lights within the City are included as facilities in connection with the District. Not included are: (i) private street lights, such as those provided by homeowner's associations within gated communities, (ii) public street lights that are obsolete and no longer in service (commonly known within the City as "Antique Streetlights") and (iii) safety lights positioned atop traffic signals.

The Improvements include all appurtenant facilities to each public streetlight.

TABLE 1

INVENTORY OF PUBLIC STREET LIGHTS – RATE BASED

Lamp Type	5HP	7HP	10 HP	15 HP	20 HP	25 HP	40 HP	17 MV	40 MV	70 MV	Incandescent 1000L	92W Series	485W Series	Total
Lumen	4000	5800	9500	16000	22000	27500	50000	7900	21000	41000	1000	1000	6000	
City owned – LS2	-	2	-	11	57	42	4	52	14	17	47	4	2	252
SCE owned – LS1	9	2,007	292	92	339	1	3	-	-	-	1	-	-	2,744
TOTAL	9	2,009	292	103	396	43	7	52	14	17	48	4	2	2,996

HP represents Sodium Vapor lamp. MV represents Mercury Vapor lamp.

TABLE 2

INVENTORY OF PUBLIC STREET LIGHTS – LOCATION BASED

Lamp Type	5HP	7HP	10 HP	15 HP	20 HP	25 HP	40 HP	17 MV	40 MV	70 MV	Incandescent 1000L	92W Series	485W Series	Total
Lumen	4000	5800	9500	16000	22000	27500	50000	7900	21000	41000	1000	1000	6000	
Local Streets	9	1968	243	67	76	17	-	52	-	-	48	4	-	2,484
Arterials / Main Streets	0	41	49	36	320	26	7	-	14	17	-	-	2	512
TOTAL	9	2,009	292	103	396	43	7	52	14	17	48	4	2	2,996

HP represents Sodium Vapor lamp. MV represents Mercury Vapor lamp.

2. Safety Lights

Safety lights are public lights positioned atop traffic signals at intersections for vehicular safety and related appurtenances. Costs for furnishing electric current for safety lights in the City are paid by the City to SCE. For regular maintenance, repairs and replacement, the City staff or sub-contractors are used.

3. Traffic Signals

Traffic signals are public lights at intersections that govern and facilitate the flow of traffic and related appurtenances. Costs for furnishing electricity for safety lights in the City are paid by the City to SCE. The City is responsible for regular maintenance, repairs and replacement. To provide better traffic follow and insure safety, the City conducts traffic studies and installs new traffic signals at intersections depending on congestion and warrant studies conducted per California Manual on Uniform Traffic Control Devices (MUTCD) guidelines.

TYPES OF MAINTENANCE AND SERVICING

1. Maintenance

Maintenance includes the furnishing of services and materials for the ordinary and usual maintenance, operation, and servicing of any Improvement, including repair, removal and replacement of all or part of any of the public lighting facilities after any incident, removal of graffiti, regular painting and general maintenance.

2. Servicing

Servicing includes the furnishing of electric current or energy for the public lighting facilities or for the lighting or operation of appurtenant facilities.

///. METHOD OF APPORTIONMENT

A. GENERAL

The 1972 Act permits the establishment of assessment districts by agencies for the purpose of providing certain public improvements which include the construction, maintenance and servicing of public lights, landscaping and appurtenant facilities. The 1972 Act further requires that the cost of these improvements be levied according to benefit rather than assessed value:

“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 assessable lots or parcels in proportion to the estimated benefits to be received by each such lot or parcel from the improvements.”

The formula used for calculating assessments in each Zone of the District should therefore reflect the composition of the parcels, and the improvements and services provided, to fairly apportion the costs based on benefit to each parcel.

In addition, pursuant to Article XIID Section 4 the proportionate special benefit derived by each identified parcel shall be determined in relationship to the entirety of the capital cost of a public improvement, the maintenance and operation expenses of a public improvement, or the cost of the property related service being provided. No assessment shall be imposed on any parcel which exceeds the reasonable cost of the proportional special benefit conferred on that parcel. Only special benefits are assessable, and an agency shall separate the general benefits from the special benefits conferred on a parcel. All District cost rather direct or indirect are assessable to the property owners including collection of additional proceeds to build a reserve. More detail information is provided on page 18 of this report.

B. BENEFIT ANALYSIS

CLASSIFICATION OF STREETS

In order to allocate special benefits from the Improvements to individual parcels, it is necessary to classify the streets in the City by difference in use and by difference in public street lighting, as described below.

1. Arterials

These are the part of the public streets that serve as the principal network for through-traffic flow in the City. The City of Glendora Community Plan 2025 under “Circulation Elements” defines arterials, as “The primary function of an arterial roadway is to provide for regional, sub regional and intercity travel”. Arterials take the substantial portion of the total traffic volume and operate at relatively high average speeds of travel.

In the City, eleven (11) streets or segments are classified as Arterials or main thoroughfares considering the traffic volume. These are listed in Table 3.

Considering the high traffic volume and relatively high-speed limits, these streets maintain the highest level of luminance. This Engineer’s Report uses the lumen yield of street lamps to approximate the total luminance. Table 8 shows the number of street lights on main thoroughfares by lamp type and lumen yield. As Table 8 shows the model public street lighting lamp on arterials in term of lumen yield is 20HP lamp. The current average lumen yield of a public street lighting lamp is 20,287 lumens.

TABLE 3

MAIN THOROUGHFARES / ARTERIALS

NAME	STRETCH
Route 66	Barranca to Cataract
Grand Avenue	Meda to Arrow
Arrow Highway	Barranca to Valley Center
Glendora Avenue	Route 66 to Bennett
Glendora Avenue	Arrow to Gladstone
Foothill Blvd.	Valencia to Vista Bonita
Lone Hill Avenue	Gladstone to Route 66
Auto Center Drive	Lone Hill to FWY 210
Sunflower Avenue	Arrow to Claraday
Bonnie Cove Ave	Arrow to Gladstone
Base Line Road	Grand to Fuchsia

TABLE 4

PUBLIC STREET LIGHT LAMPS ON MAIN THOROUGHFARES / ARTERIALS

Lamp Type	Number of Lamps	Lumen Yield per Lamp	Total Lumen Yield
5HP	0	4,000	0
7HP	41	5,800	237,800
10 HP	49	9,500	465,500
15 HP	36	16,000	576,000
20 HP	320	22,000	7,040,000
25 HP	26	27,500	715,000
40 HP	7	50,000	350,000
17 MV	0	7,900	0
40 MV	14	21,000	294,000
70 MV	17	41,000	697,000
Incandescent 1000L	0	1,000	0
92W Series	0	1,000	0
485W Series	2	6,000	12,000
TOTAL	512		10,387,300
AVERAGE LUMEN			20,287

HP represents Sodium Vapor lamp. MV represents Mercury Vapor lamp.

2. Local Streets

All the streets in the City other than those classified as arterials or main thoroughfares are classified as local streets. In general, these are the roadways used primarily for direct access to residential and non-residential property. In terms of the public lighting system, local streets maintain a lower level of luminance. This is consistent with the traffic volume and average speed of travel. Table 5 shows the number of street lights on local streets by lamp type and lumen yield. As Table 5 shows the model public street lighting lamp on main streets in terms of lumen yield is 7HP lamp. The current average lumen yield of a public street lighting lamp is 6,994 lumens.

TABLE 5

PUBLIC STREET LIGHT LAMPS ON LOCAL STREETS

Lamp Type	Number of Lamps	Lumen Yield per Lamp	Total Lumen Yield
5HP	9	4,000	36,000
7HP	1,965	5,800	11,397,000
10 HP	243	9,500	2,308,500
15 HP	60	16,000	960,000
20 HP	76	22,000	1,672,000
25 HP	17	27,500	467,500
40 HP	0	50,000	0

TABLE 5
PUBLIC STREET LIGHT LAMPS ON LOCAL STREETS

Lamp Type	Number of Lamps	Lumen Yield per Lamp	Total Lumen Yield
17 MV	5	7,900	410,800
40 MV	0	21,000	0
70 MV	0	41,000	0
Incandescent 1000L	48	1,000	48,000
92W Series	4	1,000	4,000
485W Series	-	6,000	0
TOTAL	2474		17,303,800
AVERAGE LUMEN			6,994

HP represents Sodium Vapor lamp. MV represents Mercury Vapor lamp.

BENEFITS OF IMPROVEMENTS

The benefits derived from the Improvements are discussed briefly as follows according to the type of facility.

1. Public Street Lights

Public street lights serving a property provide a variety of benefits to the property, as described below.

- Access Benefit

Public street lights improve ingress to and egress from properties by illuminating access to properties from dusk to dawn. Access Benefit is independent of actual use and is not related with the frequency of usage. It can be equated with the facility of emergency vehicles to access the properties, irrespective of whether the emergency vehicles use the access or not.

- Security Benefit

Public street lights help reduce vandalism against properties and criminal acts on properties between dusk to dawn. Police reports clearly show that more crimes are committed in darkness or relatively poorly illuminated areas.

- Traffic Benefit

Public street lights improve safety and facilitate the flow of traffic to and from properties between dusk to dawn. It is a well-accepted fact that traffic safety is considerably reduced in darkness. Various studies have concluded that good quality street lighting reduces the accident rate by increasing the visibility as vehicle headlights are inadequate for high speed traffic.

2. Safety Lights

Safety lights are located on top of traffic signals at intersections. These lights enhance traffic safety and facilitate smooth traffic flow, thus providing Traffic Benefit only.

3. Traffic Signals

Traffic signals are located on intersections only. Their function is to enhance traffic safety and facilitate smooth traffic flow, thus providing Traffic Benefit.

CATEGORIES OF BENEFITS

Proposition 218 requires that “Only special benefits are assessable, and an agency shall separate the general benefits from the special benefits conferred on a parcel.” Special Benefit is described as “... a particular and distinct benefit over and above general benefits conferred on real property located in the district or to the public at large.” It is therefore important to differentiate between General Benefit and Special Benefit in terms of the benefits derived from the Improvements.

As discussed earlier, local streets are mainly used for access to residential and non-residential properties located thereon. The benefits generated by the local street improvements directly benefit the properties on the Local Street. Therefore, the benefit from public street lights, safety lights and traffic signals on Local Streets are exclusively Special Benefit. No part of such benefit is allocable towards General Benefit.

Arterials, on the other hand, compose the principal network for through traffic for the entire City. At the same time, they serve the properties located along the street in a similar manner as local street. Therefore, the benefits generated by the public street lights, safety lights and traffic signals are not entirely a General Benefit. To facilitate the traffic flow and safety, on arterials, a high level of luminance is used. The portion of benefit which is allocated to General Benefit is directly proportional to the high level of luminance and illuminance provided on the arterials. It is appropriate to distribute the Improvement Benefit on the arterials between General and Special Benefits which is over and above the level of Traffic benefit provided by public street lights, safety lights and traffic signals on local streets.

Certain parcels included in the District are located within gated communities. The City does not provide public street lights within such communities. However, the City does provide perimeter public street lighting along streets that form the entry points to such communities. These properties receive the same types of access, security and traffic benefits as other parcels in the District, but obviously not to the same extent.

BENEFIT ZONES

Section 22574 of the 1972 Act permits the designation of benefit zones within any individual assessment district if “by reasons or variations in the nature, location, and extent of the improvements, the various areas will receive different degrees of benefit from the improvement.”

There are two benefit zones in the District. Benefit Zone “B” includes parcels within gated communities that are served by no public lighting other than perimeter lighting. All other parcels are included in Benefit Zone “A”.

Exhibit "A" includes an Assessment District Diagram for FY 2019/2020 showing the boundaries of the District.

ALLOCATION OF SPECIAL BENEFIT TO ASSESSED PARCELS

Section 22573 of the 1972 Act states that "The net amount to be assessed upon lands within an assessment district may be proportioned by any formula or method which fairly distributes the net amount among all assessable lots or parcels in proportion to the estimated benefit to be received by each such lot or parcel from the improvements."

For the purpose of preparing this Engineer's Report, land use and parcel size are considered together. Los Angeles County Assessor data was used to obtain the parcel size. Land use classification were taken from the Los Angeles County Assessor Data and was further categorized on the basis of the dwelling unit densities as described in the Glendora General Plan under "Housing Element Update 2008-2014".

As mentioned above, there are two distinct benefit zones in the Maintenance District depending on the degree of the benefit received from the improvements. Special Benefit is allocated to the parcels based on the number of Equivalent Benefit Units ("EBUs") assigned to each parcel. This section describes the methodology used to assign Equivalent Benefit Units ("EBUs") to the parcels in Benefit Zone "A" and Benefit Zone "B".

1. Allocation of Special Benefit to Parcels in Benefit Zone "A"

Special Benefit is composed of Access Benefit, Security Benefit and Traffic Benefit. All of these benefits can be related with parcel size as well as the land use. Special Benefit is allocated to all of the assessed parcels in terms of EBUs, reflecting the relative amount of Special Benefit allocable to each parcel.

Each parcel in Benefit Zone "A" on which a single-family residence (Low-Medium Dwelling Density) is located, is assigned a 1.000 EBU. To determine the corresponding amount of EBUs for multi-family residence, relative densities of all of the residential properties in the Assessment District were analyzed. At the time of district formation, on average each acre of land in the City devoted to Single Family Residential use contains 3.871 dwelling units, while each acre in Multi-Family use contains 13.136 dwelling units. By comparing the densities of Single family residence with the multi-family residence in the Assessment District designates an EBU of 0.295 to each multi-family residence in the District.

Any property other than residential is considered "Non-residential". This includes, but is not limited to, Commercial, Industrial, Manufacturing, Retail Businesses, Medical Facilities, Churches, Cemeteries, railroad properties, City owned properties, State or County owned properties and so on.

Parcels on non-residential properties are assigned EBUs based on parcel size in comparison with the EBUs assigned to residential properties. In Benefit Zone "A", a single-family residence is assigned 1.000 EBU, meaning that an acre developed in the average single-family density will contain 3.871 EBUs. To provide equivalency for the assessment against non-residential parcels, each parcel is assigned 3.871 EBUs per acre.

Undeveloped parcels will receive significantly less Special benefit than developed parcels. While such parcels receive Security Benefits, they typically have less need for protection from property crimes than developed parcels. Furthermore, Traffic Benefit and Access Benefit are reduced, due to minimal current use of

undeveloped parcels. Therefore, undeveloped parcels are assigned EBUs per acre equal to one-third of EBUs that would be assigned to developed parcel of similar size.

Pursuant to Proposition 218, no exemption is taken for the properties owned by the City, or by the State, or by the Federal government or by any other agency. Every parcel in the Maintenance District is assessed.

TABLE 6

EBUs BY LAND USE IN BENEFIT ZONE “A”

LAND USE	ASSIGNED EBUs
Single Family Residence	1.000 per Unit
Multi Family Residence	0.295 per Unit
Non-Residential	3.871 per Acre
Undeveloped	1.290 per Acre

2. Allocation of Special Benefit to Parcels in Benefit Zone “B”

As mentioned earlier, for the new developments, public street lights were installed outside the gated community as condition of development to provide extra access, security and traffic benefits to the properties located inside the gated communities. Such parcels are assigned to Benefit Zone “B”.

The parcels in Benefit Zone “B” derive the same types of benefits (access, security and traffic) from this perimeter lighting as parcels in Benefit Zone “A” derive from the public street lighting serving those parcels. However, because perimeter lighting is somewhat removed from the Zone “B” Parcels as compared with the lighting for Zone “A” Parcels, and because Zone “B” parcels are often served by privately owned and operated street lights located directly in front of the parcels, these benefits are less than those received by Zone “A” Parcels. We determine that a parcel in Zone “B” receive 5% of the special benefit as a similarly developed parcel in Zone “A”. The assigned EBUs for Benefit Zone B are summarized in Table 7.

TABLE 7

EBUs BY LAND USE IN BENEFIT ZONE B

LAND USE	Benefit Zone A EBUs	Benefit Zone B Percentage	Benefit Zone B EBUs
Single Family Residence	1.000/Unit	5.0 %	0.050 /Unit
Multi Family Residence	0.295/Unit	5.0 %	0.015 /Unit
Non-Residential	3.871/Acre	5.0 %	0.194 /Acre
Undeveloped	1.290/Acre	5.0 %	0.065 /Acre

C. ASSESSMENT RANGE FORMULA

MAXIMUM PERMISSIBLE ASSESSMENT

As approved by the property owners in July 2006, the maximum authorized assessment rate may increase annually, so that the ratio between the new authorized assessment rate and the rate for the initial year, is as high as the ratio between the then most recently published consumer price index for all urban consumers for the Los Angeles-Riverside-Orange County Area for All Urban Consumers and such index published in June 2006.

Restated: The maximum assessment rate may increase each fiscal year based on the annual change in the Consumer Price Index (CPI), during the preceding year, for All Urban Consumers, for the Los Angeles, Long Beach and Anaheim Areas, published by the United States Department of Labor, Bureau of Labor Statistics (or a reasonably equivalent index should the stated index be discontinued).

Based on the County due date of August each fiscal year it has been determined that a March CPI be utilized in place of June to allow enough time for the two required meeting dates (Intent Meeting and 10 day noticed Public Hearing). An analysis providing annual increase is available upon request. The CPI for the month of March 2019 is determined as 271.311, this results in a ratio of 1.02708. The maximum assessment rate for FY 2019/2020 is \$40.32 per EBU. The initial rate set for the District was \$31.47.

D. ASSESSMENT OF COSTS

This section describes the calculations used to determine the net amount to be assessed on each parcel within the Maintenance District in proportion to the Special Benefit received by such parcel.

DISTRIBUTION FOR GENERAL BENEFIT AND SPECIAL BENEFIT

1. Maintenance and Servicing of Public Street Lights

- Arterials and Local Streets

As discussed in Section III B, the public streets are divided into arterial/ main thoroughfares and local streets. The cost of maintaining and servicing public streetlights is estimated to be \$438,000 for the FY 2019/2020. This amount should be divided between local streets and arterials/main thoroughfares in proportion to the lumen yield. Refer Tables 4 & 5 in Section III B, where total lumen yield is calculated in detail considering the number and type of different street lamps. Table 8 shows the cost allocation for arterials and local streets.

TABLE 8
COST ALLOCATION FOR
MAINTAINING AND SERVICING PUBLIC STREET LIGHTS

Street Type	Total Lumen Yield	Percentage Allocated	Cost Allocation
Arterials / Main Thoroughfares	10,387,300	37.67%	\$164,995
Local Streets	17,303,850	62.33%	\$273,005
TOTAL	27,691,150	100.00%	\$438,000

- General Benefit and Special Benefit

1. Local Street:

As local streets provide only Special Benefit, all the costs of maintaining and servicing public street lights is allocable to the Special Benefit.

2. Arterial / Main Thoroughfares:

As discussed earlier, the properties located on the arterials are benefited by the public street lights in the same manner as the properties on the local streets are benefited by the public street lights. Therefore, the cost of maintaining and servicing arterial public street lights is partly Special Benefit.

In order to determine the amount of cost allocation to Special and General Benefit, the lumen yield is taken as the determining criteria. Table 5 shows that on Local Streets, most of the street light lamps are 10HP or less with the exception of some higher lumen lamps that are located on certain high traffic volume local streets. Accordingly, for the purpose of cost allocation, all the lamps with lumen yield of 9,500 or luminous intensity of 10HP are considered as Special Benefit only.

For the street lamps with luminous intensity greater than 10HP or 9,500 lumens, cost is allocated partly to General Benefit and partly to Special Benefit depending on the lumen ratio exceeding by 9,500 lumens. Table 10 shows the calculations for each type of lamp for lumens up to 9,500 and over 9,500 lumens.

The proportionate lumen yield up to 9,500 lumens is allocated to Special Benefit. The difference in lumens over 9,500 lumens is allocated to General Benefit. It should be noted that this allocation overestimates the General Benefit and allocates none of the benefits over 9,500 lumens to the Special Benefit. Table 9 shows the allocation of arterial public street lights to General Benefit and Special Benefit.

TABLE 9

ARTERIAL/ THOROUGHFARES PUBLIC STREETLIGHT LUMEN DISTRIBUTION

Lamp Type	Number of Lamps	Lumen Yield per Lamp	Total Lumen Yield	Lumen up to 9,500	Over 9,500 Lumen
5HP	0	4,000	0	0	0
7HP	41	5,800	237,800	237,800	0
10 HP	49	9,500	465,500	465,500	0
15 HP	36	16,000	576,000	342,000	234,000
20 HP	320	22,000	7,040,000	3,040,000	4,000,000
25 HP	26	27,500	715,000	247,000	468,000
40 HP	7	50,000	350,000	66,500	283,500
17 MV	0	7,900	0	0	0
40 MV	14	21,000	294,000	133,000	161,000
70 MV	17	41,000	697,000	161,500	535,500
Incandescent 1000L	0	1,000	0	0	0
92W Series	0	1,000	0	0	0
485W Series	2	6,000	12,000	12,000	0
TOTAL	512		10,387,300	4,705,300	5,682,000

HP represents Sodium Vapor lamp. MV represents Mercury Vapor lamp.

TABLE 10

ARTERIAL/ THOROUGHFARES BENEFIT CLASS DISTRIBUTION

Description	Total Lumen Yield	Percentage Distribution	Benefit Class
Lumen up to 9,500	4,705,300	45.30%	SPECIAL
Lumen over 9,500	5,682,000	54.70%	GENERAL
TOTAL	10,387,300	100.00%	

2. Maintenance and Servicing of Safety Lights and Traffic Signals

Safety lights and traffic signals are spread throughout the City. Most of those are located on the arterials. Some are located on local streets with higher traffic volumes. The benefit from safety lights and traffic signals is entirely Traffic Benefit. It can be allocated to Special Benefit on local streets and partially to General and partially to Special Benefit on arterials. For the purpose of this Engineer’s Report, all the benefit from the safety lights and traffic signals is allocated to General Benefit. This ensures that the amount of assessment to parcels in the Maintenance District is not overestimated.

The costs of maintaining and servicing safety lights and traffic signals for the FY 2019/2020 will be considered as General Benefit. None of it will be assessed on the parcels in the Maintenance District.

SUMMARY OF GENERAL BENEFIT AND SPECIAL BENEFIT

Based upon the above discussion, Table 11 summarizes the cost allocation of the improvements to General Benefit and Special Benefit.

TABLE 11

**COST ALLOCATION FOR IMPROVEMENTS TO
GENERAL BENEFIT AND SPECIAL BENEFIT**

Improvement Type	General Benefit	Special Benefit	Total Cost of Improvements
Maintenance and Servicing of Public Street Lights - SCE	\$90,200	\$347,800	\$438,000
Maintenance of Safety Lights and Traffic Signals	140,000	0	140,000
Servicing of Safety Lights and Traffic Signals - SCE	36,000	0	36,000
TOTAL	\$266,200	\$347,800	\$614,000

ASSESSMENT DISTRIBUTION AMONG THE PARCELS BY USE

Parcels to be included in the Streetlight Maintenance District No. 1 are identified from the last Fiscal Year (FY 2018/2019) Secured Property Tax Roll of the County of Los Angeles based upon the tax rate areas of the City. Any change in the parcel number and land use received from the County Assessor’s office from the no-match list will be corrected accordingly.

All the parcels are assigned to Benefit Zone “A” and Benefit Zone “B” on the basis as discussed earlier. Table 12 and 13 list the parcels in Benefit Zone “A” and Benefit Zone “B”, respectively, by land use and allocated EBUs.

TABLE 12

EBU ALLOCATION FOR PARCELS IN BENEFIT ZONE “A”

Land Use	Parcel Count	Residential Units	Acreage	EBUs
Single Family Residence	7,716	7,716	1,889.86	7,716.000
Multi-Family Residence	376	3,168	214.41	935.150
Non-Residential	526		465.58	1,802.273
Undeveloped	226		219.94	283.721
TOTAL	8,844		2,789.80	10,737.145

TABLE 13

EBU Allocation for Parcels in Benefit Zone “B”

Land Use	Parcel Count	Residential Units	Acreage	EBUs
Single Family Residence	670	670	92.2	33.500
Multi-Family Residence	10	10	2.78	0.150
Non-Residential	3	-	55.59	10.785
Undeveloped	0		0	0.000
TOTAL	683		150.57	44.435

CALCULATION OF ASSESSMENT AMOUNT

As summarized in Table 12 and Table 13 above, there are 10,781.58 EBUs in the Maintenance District. The total costs of improvements and District administration is comprised of maintenance and servicing of public streetlights and incidental expenses. These expenditures total to \$434,741 and require an assessment of \$40.32 per EBU.

Tables 14 show the resulting assessment rates by land use type.

TABLE 14

ASSESSMENT RATES IN BENEFIT ZONES A AND B

LAND USE	ASSESSMENT RATE	
	Benefit Zone “A”	Benefit Zone “B”
Single Family Residence	\$ 40.32 / Unit	\$ 2.02 / Unit
Multi-Family Residence	\$ 11.89 / Unit	\$ 0.60 / Unit
Non-Residential	\$ 156.08 / Acre	\$ 7.82 / Acre
Undeveloped	\$ 52.01 / Acre	\$ 2.62 / Acre
The amounts shown here are rounded to the nearest penny.		

IV. DISTRICT BUDGET

ESTIMATES OF COST

Section 22569 of the 1972 Act requires the Engineer's Report to contain an estimate of the costs of the Improvements to include the estimates of:

- total costs of improvements to be made that year, being the total costs of constructing or installing all proposed improvements and of maintaining and servicing all existing and proposed improvements, including all incidental expenses,
- a reserve which shall not exceed the estimated costs of maintenance and servicing to December 10 of the fiscal year or whenever the city expects to receive its apportionment of special assessments and tax collection from the county, whichever is later,
- the amount of the surplus to be carried over from a previous fiscal year,
- the amount of any contributions to be made from sources other than the assessment,
- The amount, if any, of the annual installment for the fiscal year where the legislative body has ordered an assessment for the estimated cost of any improvements to be levied and collected in annual installments.
- the net amount to be assessed within the Assessment District.

Estimates of these amounts are as follows:

A. COSTS OF IMPROVEMENTS

1. Cost of Improvements:

Presently the public street lights can be classified into two types: SCE owned system and City owned system. For both types, the service is provided by the SCE. The rate structure for these two types of services is different and is generated by SCE. The electricity for safety lights and traffic signals is provided by SCE and maintained by the City.

Table 15 shows the cost of Improvements for the Maintenance District in FY 2019/2020 by type of Improvement.

TABLE 15

COST OF IMPROVEMENTS

IMPROVEMENTS	COST ESTIMATES
Maintenance and Servicing of Public Street Lights – SCE	\$438,000
Maintenance of Safety Lights and Traffic Signals	140,000
Servicing of Safety Lights and Traffic Signals - SCE	36,000
TOTAL	\$614,000

The cost estimates for service charges are estimated on the basis of actual energy consumed in FY 2018/2019 and on SCE's rate structure with consideration that the CPUC approves pending rate increase cases in favor of SCE.

The cost estimates for the maintenance of safety lights and traffic signals are based on the projected actual costs incurred by the City during FY 2018/2019. It reflects only the costs the City pays to outside contractors and agencies.

2. Incidental Expenses:

Incidental expenses to be paid with assessment amounts of the Assessment District for FY 2019/2020 (“Incidental Expenses”) are included in the definition of “incidental expenses” as defined in Section 22526 of the 1972 Act.

Four types of incidental expenses will be included in the costs associated with the Maintenance District: (i) compensation for special counsel providing advice in connection with the establishment of the Maintenance District, (ii) costs of the preparation of this Report, including preparation of plans, specifications, estimates, diagram, and assessment (“Assessment Engineering”), (iii) costs associated with printing, advertising, and the giving of published, posted, and mailed notices, including the balloting required by Article XIIID of the California Constitution, and (iv) compensation payable to the County of Los Angeles for the collection of assessments. Table 16 shows the amounts of each of these incidental expenses for Fiscal Year 2019/2020.

TABLE 16

INCIDENTAL EXPENSES

INCIDENTAL EXPENSES	EXPENSE ESTIMATE
Assessment Engineering / Administration	\$9,865
Public Notices (Hearing)	700
Los Angeles County (Auditor-Controller)	2,435
TOTAL	\$13,000

B. GENERAL FUND CONTRIBUTION (FOR GENERAL BENEFITS)

The estimated general benefit for the FY 2019/2020 is expected to total \$266,200, as shown in detail in Table 17. This amount will be contributed by the City from the General Fund.

C. CONTRIBUTION FROM OTHER SOURCES

District pays all the expenses with no subsidy from any other source.

D. SURPLUS FROM THE LAST YEAR

The available reserves in the District funds at June 30, 2019 are projected at \$99,729.

E. ANNUAL INSTALLMENTS

The entire amount of the net assessment, as shown in Table 17, will be assessed in FY 2019/2020.

F. NET ASSESSMENT

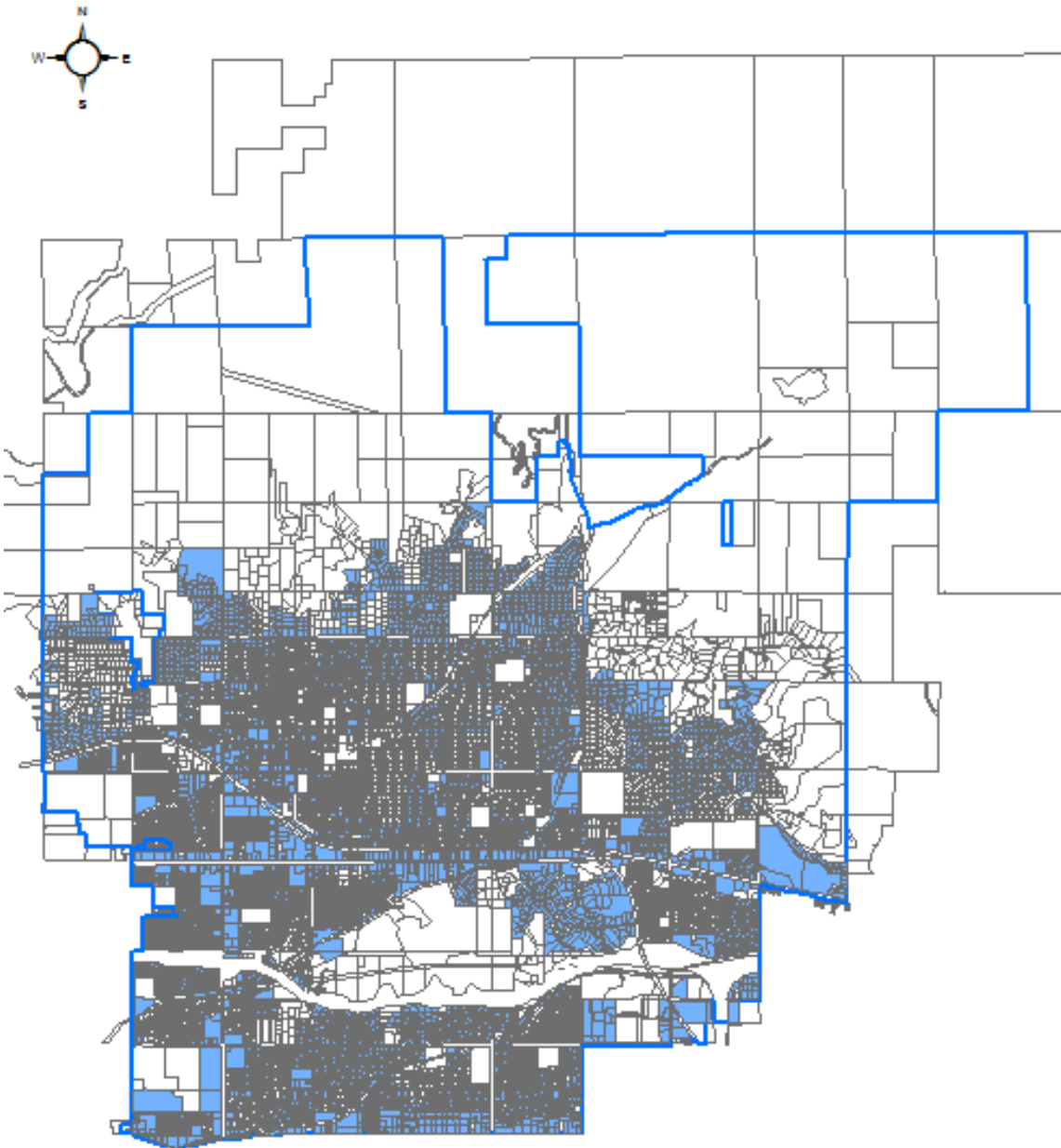
Table 17 shows the net amount to be assessed upon assessable parcels within the Maintenance District in the FY 2019/2020.

TABLE 17



NET ASSESSMENT FOR FY 2019/2020

DESCRIPTION	AMOUNT
Gross Cost of Improvements	\$614,000
Administrative City Expense	7,200
Reserve Fund Collection	66,741
City Contribution to General Benefit	<i>(266,200)</i>
<i>Net Cost of Improvements</i>	<i>\$421,741</i>
Incidental Expenses	\$13,000
<i>Net Assessments</i>	<i>\$434,741</i>
Reserve Fund Beginning Balance June 30 2018	\$99,729
Reserve Fund Ending Balance June 30 2019	\$166,470

V. DISTRICT BOUNDARY MAPS



Legend

-  Streetlight Maintenance District No. 1
-  City of Glendora Boundary

VI. 2019/2020 ASSESSMENT ROLL

Parcel identification, for each lot or parcel within the District, shall be the parcel as shown on the Los Angeles County Assessor's map for the year in which this Report is prepared.

The land use classification for each parcel has been based on the Los Angeles County Assessor's Roll. A listing of parcels assessed within this District, along with the proposed assessment amounts, has been submitted to the City Clerk, under a separate cover, and by reference is made part of this Report.