

Honorable Mayor and Members
of the City Council
City Hall
Torrance, California

Members of the Council:

SUBJECT: **City Manager** – Review options and provide direction on Southern California Edison metal streetlight replacement program

RECOMMENDATION

Recommendation of the City Manager that City Council review Options and give direction regarding the Southern California Edison proposal to replace all steel light standards in the City of Torrance with Marbelite light standards with overhead power feed.

FUNDING

None required for this action.

BACKGROUND

The City of Torrance has approximately three thousand two hundred steel streetlight poles. These poles have been in use from forty to seventy years and are rusted and in various states of repair. These types of streetlights are overhead fed for power. Southern California Edison (SCE) has determined that these types of poles, due to their metal base, and bolts need to be replaced as they pose potential risk of the bolts failing due to rust and metal fatigue based on their age and proximity to the damp ocean area.

SCE has approached the City of Torrance with a program to replace all the steel streetlights within the City of Torrance as part of their maintenance program and replace them with the more modern marbelite poles that are currently in use and installed when streets are upgraded or new development projects are built.

ANALYSIS

The SCE proposal is to replace the current steel poles with marbelite poles in a like for like pattern; meaning all poles would be installed with overhead feeds and within feet of the existing steel pole. Once the new streetlight is installed, the old steel pole would be removed. The cost of this program is approximately nine to eleven million dollars.

City staff has explored with SCE the feasibility of replacing these overhead fed poles with underground power as a method to clean up overhead lines in various neighborhoods. SCE has been resistive to this approach as their program has been developed to replace exactly what they have only with the new style poles. City staff has also requested the use of technology that would reduce energy consumption as a means to potentially reduce not only the cost of operation but to reduce the City's carbon footprint, again SCE is resistive to implementing this type of technology. When approached, City staff has been informed that SCE is exploring LED technology but has not committed to its use while they investigate cost, long term product duration and other attributes of LED lighting. SCE has test projects for LED in other communities. The City of Redondo Beach, who own several streetlights, are converting to LED technology for its light standards.

Staff has also explored the possibility of having underground stub outs installed on each of the new poles so that in the future it would be easier to convert the feed from overhead to underground. The cost of doing this type of install is \$100 per pole.

There are approximately 10,212 SCE streetlights operated in the City of Torrance. The following is a breakdown of the annualized cost to the City of Torrance:

	<u>%</u>	<u>\$ per year</u>	<u>\$ per street light</u>
Maintenance	14	\$218.2K	\$21.35
Cost of Ownership	44	699.7	68.46
Rate of Return	7	119.3	11.67
Power	30	477.8	46.76
Transmission	5	85.1	8.33
Other		2.1	0.21
<u>Total</u>		<u>1,600.3K</u>	<u>\$156.78</u>

The breakdown in costs is important to note. If a ten year snapshot is used with regard to the overall maintenance, cost of ownership and rate of return of the lights within Torrance, the City has paid roughly \$10.37 million in these costs with no real benefit (Maintenance + Cost of Ownership + Rate of Return x 10,212 poles x ten years). The investment being made by SCE is for light poles that are 40 – 70 years old meaning they have been paid for several times over without long term maintenance.

The item before you this evening is to explore options and receive direction from the City Council on how staff should proceed with the SCE request to secure permits for the replacement project.

OPTION 1: New Marbelite Streetlights as Proposed

This option would only replace the light standards with the more modern marbelite poles. It would aesthetically upgrade the general look of the streetlights but would not reduce any overhead blight as the power lines would still feed from overhead.

OPTION 2: New Marbelite Poles as Proposed with underground sweep

This is the same as Option 1 with the exception of paying for an underground sweep that will make conversion to underground feed easier in the future. This Option does not reduce overhead feed to poles as part of the project but allows for it in the future. The estimated cost is approximately \$320,000 and because it is not part of the SCE budgeted costs for this project, the City of Torrance would have to fund this aspect of the project. If the City Council would want to implement this Option the funds would have to be taken from a previously approved and funded Capital Project. If this is the direction of the City Council a subsequent item and discussion will follow with projects that would be de-funded.

OPTION 3: Use Rule 20A Underground Funds for specific areas

Rule 20A funds are a mechanism established by the Public Utilities Commission for Public Agencies to underground overhead utilities. The funds are calculated on the number of meters within the jurisdiction, funds are held by SCE for projects. The City's current annual allotment of Rule 20A funds are \$592,000 and the fund balance is approximately \$954,000. There is approximately 431,792 linear feet of overhead feed with an estimated cost of \$13 million to complete this type of project.

The City could identify areas in the City that have most utilities undergrounded and the streetlights remain. The down side to this type of focus is that the Hawthorne Corridor which

has a long range underground goal would be delayed as well as other Rule 20A projects in the City.

OPTION 4: SCE construct underground feeds to new streetlights

In reviewing the age of the overhead fed steel streetlights one could argue that the City of Torrance has paid for these poles several times over. If the funds collected annually for maintenance were not used within the City of Torrance, then those funds should flow back to the City for use in other SCE related projects. Using this logic, SCE should fund not only the purchase and installation of the new marbelite poles; they should also fund the undergrounding of those feeds. If this Option is selected the down side would be the delay of the project to replace all steel poles in the City of Torrance. This Option would require the City of Torrance to appeal the maintenance fees and the disposition of those fees with the Public Utilities Commission; this would effectively remove this project from the SCE timetable. SCE would like to commence this project the third calendar quarter of 2010.

RECOMMENDATION

At this time the only viable Options are One and Four. Due to the current budget issues, reallocating funds to construct the underground stub outs would further delay already approved and needed capital expenditures. Utilizing Rule 20A funds to declare underground utility districts for this type of project would move the City away from the long standing policy of creating projects on arterials.

Finally, if the City Council chooses to move forward, it is recommended that staff be directed to review the wattage of each light being replaced. This inventory will assist in making sure that the appropriate illumination is used for each streetlight. This could result in increased or decreased bulb wattage at each site.

Respectfully submitted,
LeROY J. JACKSON

By: 

Brian K. Sunshine
Assistant to the City Manager

CONCUR:



LeRoy J. Jackson
City Manager

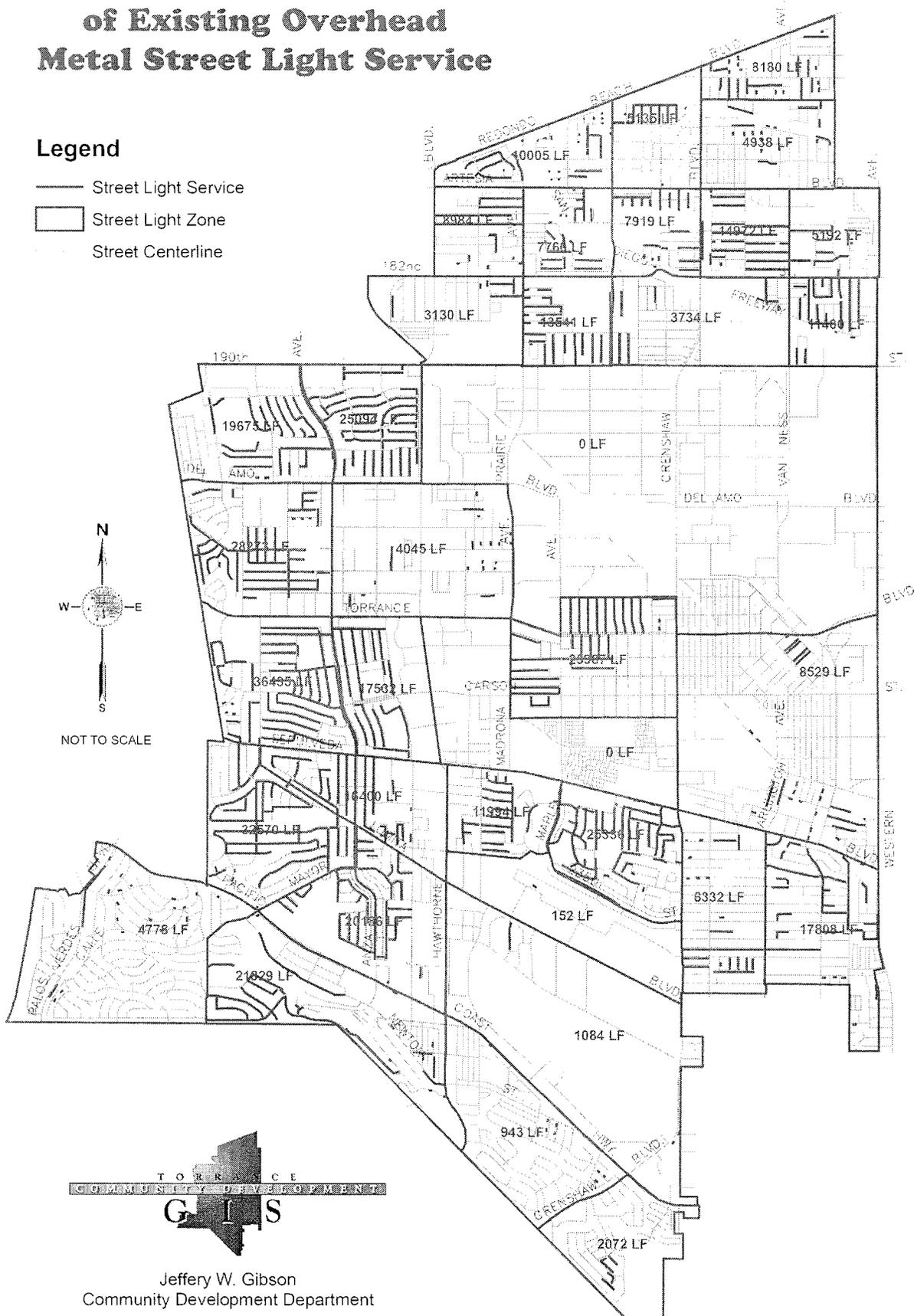
Attachments:

- A. Steel light standard map (steel poles)
- B. Estimated cost per zone to underground utility
- C. Picture: Steel Light Standard Overhead Feed
- D. Picture: Marbelite Pole Overhead Feed

Linear Footage of Existing Overhead Metal Street Light Service

Legend

-  Street Light Service
-  Street Light Zone
-  Street Centerline



Jeffery W. Gibson
Community Development Department

Steel Streetlight Utility Underground Cost

Estimated Construction Cost at \$30 per linear foot

Zone	Linear Footage	Cost
1	10,005	\$300,150
2	5,135	\$154,050
3	8,180	\$245,400
4	4,938	\$148,140
5	8,984	\$269,520
6	7,760	\$232,800
7	7,919	\$237,570
8	14,972	\$449,160
9	5,192	\$155,760
10	3,130	\$93,900
11	13,541	\$406,230
12	3,734	\$112,020
13	11,400	\$342,000
14	19,675	\$590,250
15	25,094	\$752,820
16	0	\$0
17	28,273	\$848,190
18	4,045	\$121,350
19	36,435	\$1,093,050
20	17,532	\$525,960
21	0	\$0
22	25,987	\$779,610
23	8,529	\$255,870
24	32,570	\$977,100
25	16,400	\$492,000
26	11,994	\$359,820
27	25,336	\$760,080
28	6,332	\$189,960
29	17,808	\$534,240
30	4,778	\$143,340
31	21,829	\$654,870
32	20,186	\$605,580
33	1,084	\$32,520
34	943	\$28,290
35	2,072	\$62,160
Total	431,792	\$12,953,760



