MEMORANDUM

DATE:	March 6, 2006
SUBJECT:	Street Lighting Program Issues, Recommendations follow-up Discussion
AFFECTED COUNCIL DISTRICTS:	City-wide
STAFF REPORT BY:	Jan Aramaki, Constituent Liaison/Policy Analyst
ADMINISTRATIVE DEPT. AND CONTACT PERSON:	Community Development/Tim Harpst, Kurt Larson, and Mike Barry

On August 9, 2005, the City Council held a discussion regarding the Administration's proposed Street Lighting Master Plan that included the administrative policies and the City's street lighting plan. At that time, the Administration reviewed with the Council the four existing street lighting programs (as per Attachment A) and presented five recommendations for the City Council's consideration.

As a follow-up to accomplish these five recommendations, the Administration recommends that the City Council approve the following funding proposals for street lighting:

- $275,000 FY07 CIP request to complete the Continuous Lighting Program on Redwood Road from 2100 South to North Temple and from 1000 North to 2300 North streets.
- $65,000 FY07 CIP request to complete the Continuous Lighting Program on California Avenue between 900 West and Redwood Road.
- $75,000 from General Fund to retain a specialized consultant to analyze options for a City-wide lighting program (refer to Attachment 2, Scope of Services, as provided by the Administration).

The Administration emphasizes in their transmittal letter that the City is in need of an evaluation street lighting philosophy based upon:

1. Lighting of the public way (streets and sidewalks) needs to be City owned and operated. As long as individuals provide lighting under their control, such as under the private street lighting, lighting cannot be guaranteed as a benefit to the user public.
2. There should be one base lighting program that applies city-wide that provides uniform and equitable lighting. The multiple lighting program options confuse the citizenry as to the lighting programs available, eligible, possible, applicable, etc.
3. There should be a discrete funding source. The multiple funding sources now used are insufficient and not guaranteed year-to-year, thus leading to a general deterioration in the City's lighting infrastructure investment. The restrictions on use of the different funding

sources are confusing to the community and leads to requests for special, unique funding "deals."

A review and update on the five identified issues and recommendations from the Administration (includes the above funding requests) are as follows:

1. Traffic Safety Lighting Program (Basic City lighting – at intersections and mid-block) -- **ISSUES**:

    a. A great majority of local streets in the City currently have a standard base level of lighting – the Administration reports 21 remaining lights need to be installed.

    b. In instances when a request by the majority of property owners within 150 feet of a requested lighting location is made and sufficient lighting is lacking within the 300 feet spacing, the Traffic Safety Lighting program provides an option for mid-block lighting. Each year, several requests are received when properties change ownership or owners decide they no longer wish to participate.

    c. Older industrial subdivisions did not receive lights years ago due to slow development and low volumes of traffic and pedestrian activity. Traffic Safety Lighting is requested as activity increases in these areas. Note: a developer in a new industrial area is required to install lighting by signing a waiver that commits the developer or owner to install lights as the subdivision develops.

    RECOMMENDATIONS:

    The Administration recommended that sufficient funding be provided annually to install new Traffic Safety Lighting as justified which will complete the Traffic Safety Lighting program citywide. For FY06, the City Council approved a Capital Improvement Program (CIP) request in the amount of $50,000 to complete the traffic safety lighting city-wide in all residential neighborhoods and currently justified industrial neighborhoods.

2. Complete the Continuous Lighting Program on major streets (brighter level and more uniform dispersion of lighting – 6-8 lights per block) by FY07 **– ISSUES**:

    Although the following streets are presently lit, additional lighting is needed to bring these streets up to the Continuous Lighting level: Redwood Road from 2100 South to North Temple and from 1000 North to 2300 North; California Avenue from 900 West to Redwood Road; and North Temple from 900 West to 2200 West.

    RECOMMENDATIONS:

    370 lights would complete sections of these streets. A CIP request was submitted for $275,000 for FY06, but was not a recommended priority by the Administration or approved by the City Council. However, the Administration has resubmitted a CIP proposal for FY07 for $275,000 for lights on Redwood Road from 2100 South to North Temple and from 1000 North to 2300 North; and has submitted a second CIP FY07 proposal for $65,000 to complete the lights on California Avenue between

900 West and Redwood Road. The Administration recommends that the North Temple section from 900 West to 2200 West be installed as part of the light rail extension to the Airport. The additional lighting will increase operating and maintenance costs by $44,400.

3. Change UP&L maintenance to private contractor maintenance if economically justified – **ISSUES:**

   Ongoing issue relating to the extensive time involved when there is a request to maintain street lights; i.e., bulb burn outs, pole replacements, etc. -- from the time a maintenance request is reported to the time the repair work is completed.

   RECOMMENDATIONS:

   a. Convert from UP&L's power and maintenance rate to a "power only" rate. The Administration has monitored several communities along the Wasatch Front who have switched to a "power only" rate in conjunction with private contractor maintenance – higher level of repair response times and lower overall power and maintenance costs have been reported.

   b. The Administration's RFP to request bids for various types and levels of maintenance has currently received bids from four private contractors which are currently under review. If submitted bids prove to be favorable, the Administration will inform UP&L to convert the City to a "power only" rate and a contract with a private contractor will be implemented to maintain and service City lights. If the Administration contracts with a private contactor, it will include the installation of the 21 remaining lights to complete the Traffic Safety Lighting Program.

4. The Administration reaffirms its recommendation to discontinue offering Private Lighting. Allow successful areas to continue, and encourage poorly maintained areas to convert to Special Improvement Districts (SIDs) – **ISSUES**:

   a. Several upper level income neighborhoods are participating in the Matching Grant Program, but few lower or middle income neighborhoods participate due to inability to pay the one-time, up-front matching dollars required in the program. Therefore, the Administration reports that the vast majority of the lights installed with Matching Grant funds are located east of 700 East.

   b. Poor track record of maintenance by property owners: 30% of the lights are currently not operating as a result of neglect of bulb replacement, physical repair not being maintained due to owner's unwillingness to perform, pay for, or seek funds from neighbors; and circuit breakers being turned off in homes that provide electricity to the lights.

      Although property owners signed a revocable permit to maintain the lights, over the years, maintenance has failed to be met due to: 1) property owners' neglect; and/or 2) neighbors who organized the efforts to have the lights installed have

either moved or are no longer capable of encouraging neighbors to keep the lights in operation.

At one time, the Administration mailed a letter to each property owner to remind them of their responsibility to maintain the lights, but a high level of outages remains a common occurrence.

c. A reported decrease in the number of Matching Grant Program applications in the past year indicates a decline in demand for private street lights.

RECOMMENDATIONS:

Discontinue the Private Street Lighting Program due to poor maintenance track record and interest decline in the program; however, allow those property owners who maintain their lights to continue to do so with the opportunity to convert to SID lighting. An SID conversion would require covering the cost of installing underground conduit in the public right-of-way, connecting the lights to the common UP&L power source; and paying maintenance and operation costs. The Administration recommends that these actions are placed on hold until a specialized consultant is retained to analyze options for creating a city-wide lighting program with a discrete funding source.

Attachment 1, Private Street Lighting Program Maintenance, provides the City Council with additional information developed regarding maintenance, operation, and equity issues associated with the Private Street Lighting Program and provides answers to previous City Council inquiries and issues:

a. Are there other measures that the City can explore to compel property owners maintain and operate their lights?

b. Can the City have the maintenance performed and bill an uncooperative property owner?

c. Can the City take on the maintenance of private lighting and charge the residents a lighting maintenance fee?

d. What else can be done to facilitate maintenance of private lights?

e. Why is SID lighting more expensive than private lighting?

f. What can be done to resolve or improve the equity issue associated with the use of Neighborhood Matching Grant (NMG) funds for private lighting?

5. Lighting infrastructure maintenance and replacement is not adequately budgeted and the number of lighting programs and funding sources contributes to the public confusion regarding the various options for lighting – **ISSUES:**

    a. Maintenance and replacement funding: Several years ago, the rates charged in SIDs were adjusted to build funds over time to cover the cost of maintenance and

for eventual system replacement; however no such mechanism exists for the 10,000 city-owned lights in the Traffic Safety Lighting Program or the Continuous Lighting Program.

To cover the cost of maintenance beyond what is covered in the UP&L power and basic maintenance rate, approximately $100,000 has been budgeted annually in the General Fund street lighting cost center. CIP requests are relied upon to pay for the cost of light replacements. Based on increasing competition for CIP projects, adequate funding for light replacement is inadequately budgeted.

$500,000 is required annually to replace deteriorated lighting systems based upon a life cycle of 40 years which means replacing 250 lights, poles and wiring annually.

b. Number of Lighting Programs: Traffic Safety Lighting, Continuous Lighting, Private Lighting, and SID lighting – contribute to public confusion as to what options are feasible for each neighborhood.

c. Number of Lighting Funding Sources also contributes to public confusion:

CDBG: restricted to CDBG eligible areas and used for design and capital costs of lighting in non-SID areas, but can only be used for design in SID area, not to defray capital costs. Cannot be used for O&M.

RDA: restricted to RDA areas and used for design and capital costs in SID areas and non-SID areas, but cannot be used for O&M.

CIP: no geographic restrictions and can be used for design, purchase, installation of City lighting within Traffic Safety Lighting and Continuous Lighting programs; and to defray some of the costs in SID areas.

General Fund: no geographic restrictions and can be used for operation costs and has been used for maintenance not covered under the "power and basic maintenance" rate of UP&L as well as replacement of individual lights as needed and to install new traffic safety lighting.

Matching Grant Fund: provides funding for 50% match from property owners for the capital costs to install private lighting, cannot be used for O&M.

For SIDs, although it is the responsibility of the participating property owners to pay for capital costs, funds from CIP and RDA have been applied in some incidences to help offset capital cots since there is no policy to indicate the percentage of the total cost allowed from these sources.

RECOMMENDATIONS:

The Administration recommends that the City Council appropriate $75,000 in funding to retain a specialized consultant to analyze options for creating one city-wide lighting program with a discrete funding source.

As part of the Administration's paperwork, they have attached a copy of Attachment 2, Scope of Services for the Study of Street Lighting Program Options and Street Lighting Funding Options which includes: comments from the City Council; Exhibit 1, Street Lighting Program & Funding Options; and Exhibit 2, Street Lighting Master Plan & Policy.

Matters at Issue:

Key to the lighting discussion is the need for funding:

1. There is discussion of establishing a discrete funding source. The Council typically avoids earmarking funds for specific issues, but rather compares all City needs and allocates available resources.

2. The recently adopted 10-year CIP plan does not address the lighting issue. If existing funding were used, this would have an impact on that 10-year plan.

Attachment A

Current Street Lighting Program Options

For the City Council's discussion, the Administration presents four existing City street lighting programs comprised of a total of 14,100 street lights: Traffic Safety Lighting (TRAFFIC SAFETY LIGHTING) and Continuous Lighting comprised of 10,000 lights; Private Lighting comprised of 1,900 lights; and Special Improvement Districts (SID) comprised of 2,200 lights. The Administration requests input from the City Council before changes to the programs are made and the proposed street lighting administrative master plan is finalized.

Programs that Provide Standard Base Level of City Lighting:

1. Traffic Safety Lighting (TRAFFIC SAFETY LIGHTING):

   Standard base level of lighting is provided on local streets for pedestrian and traffic safety at intersections as well as mid-block lighting (approximate spacing of 300 feet) at property owners' option. Mid-block lighting is an option as long as a majority of the property owners within 150 feet of the light location request are in support and a light is lacking within the 300 foot spacing.

   Lights typically consist of either standard cobra head lighting fixtures on wooden poles or a decorative light and pole with underground wiring.

   100% of lighting costs (purchase cost, installation, maintenance, and operation cost) are paid by the City out of the General Fund.

2. Continuous Lighting System:

   Busier major streets receive a brighter level of lighting and more uniform dispersion of lighting. Major streets handle higher levels of traffic volume, speed limits, and pedestrians. Levels of lighting consist of six to eight lights per block face.

   Lights typically consist of either cobra head lights on wooden poles or decorative fixtures and poles (i.e. State Street and University Light Rail line).

   100% of lighting costs (purchase cost, installation, maintenance, and operation cost) are paid by the City out of the General Fund. However, when new developments fronting on major streets need new or replacement continuous lighting, they are required to cover the costs.

Lighting Programs Beyond the City's Base Standard Level of Lighting:

3. Private Lighting for Residential Areas:

   For approximately eight years, residential neighborhoods have had the option to purchase and install privately owned, decorative lights in the park strip public right of way. There are 1,900 property owners who have lights wired directly to the electric service of their homes. Each resident who owns a light is responsible to maintain and operate the light and is required to sign a revocable permit recorded with the property. Neighborhood groups have the option to identify the style of light pole and fixture they desire.

   Individual property owners pay for the costs to purchase, install, maintain and operate the lights; however, the residents have the option to apply and participate in the City's Matching Grant Program which pays up to 50% of the capital cost to purchase and install the poles, lights, and underground wiring.

4. Special Improvement District (SID) for Residential and Commercial Areas:

   Special Improvement District (SID) provides additional lighting in areas where property owners desire special decorative lighting or more lighting fixtures than the City's standard level of lighting and are willing to be assessed for the additional costs of the lighting. There are currently 50 lighting extensions and the City has combined the individual districts into three super districts to simplify the annual assessment process. These extensions were combined based on assessment due dates, not on geographical location.

   When property owners within a specific neighborhood desire special or additional lighting, they may petition the City for the creation of a special assessment street lighting district. Creating this kind of a district is a legal process whereby property owners can arrange for funding of a public improvement that will benefit their properties. Special assessment districts are formed by ordinance upon agreement of a majority of the area property owners.

   Street lighting districts require the abutting property owners to pay 100% of the capital costs of the lighting and 75% of the ongoing operating and maintenance cost of the lights. The City pays the remaining 25% of the operating and maintenance cost as the equivalent of lighting that would be provided by the City. The property owners' costs are levied and billed annually in the form of special assessments.

A. LOUIS ZUNGUZE
DIRECTOR

BRENT B. WILDE
DEPUTY DIRECTOR

SALT LAKE CITY CORPORATION

DEPT. OF COMMUNITY DEVELOPMENT
OFFICE OF THE DIRECTOR

ROSS C. "ROCKY" ANDERSON
MAYOR

COUNCIL TRANSMITTAL

TO: Rocky Fluhart, Chief Administrative Officer **DATE:** January 30, 2006

FROM: Louis Zunguze, Community Development Director

RE: Street Lighting Program Issues and Recommendations

STAFF CONTACT: Tim Harpst, Transportation Director, at 535-7148 or tim.harpst@slcgov.com
Kurt Larson, Transportation Engineer, at 535-7151 or kurt.larson@slcgov.com
Mike Barry, Transportation Engineer, at 535-7147 or mike.barry@slcgov.com

DOCUMENT TYPE: Briefing

BUDGET IMPACT: The previously provided consultant study work scope has been modified to more intensely focus on addressing the remaining issues (see Attachment 2). It is recommended that $60,000 be appropriated for the study.

DISCUSSION:

Issue Origin: In a briefing on August 9, 2005, five recommendations were presented to the City Council:

1. Complete the Traffic Safety Lighting Program,
2. Complete the Continuous Lighting Program,
3. Convert from UP&L maintenance to private contractor maintenance,
4. Discontinue offering the Private Lighting Program,
5. Retain a specialized consultant to analyze street lighting options for creating one citywide lighting program with a discrete funding source.

At that time, the Council requested additional review be conducted to seek ways to improve the maintenance record of privately owned lights such that the Private Lighting Program could be continued. Council also requested a modified consultant services proposal regarding future funding options for street lighting. Further research has been done on both matters. The following provides this information along with an update on the progress made with the other three administrative recommendations.

Analysis: A brief response and progress report for each of the five original recommendations is presented below. A detailed discussion of options for improving private lighting maintenance is

provided in Attachment 1, and the requested Scope of Services for a specialized consultant is outlined in Attachment 2.

Recommendation 1: Complete the Traffic Safety Lighting Program in FY06 and provide sufficient funding annually to install new Traffic Safety Lighting when justified.

Council budgeted sufficient CIP funds in the current year budget to complete the installation of Traffic Safety Lighting City-wide. Funding was also approved to accommodate installation of qualifying optional midblock Traffic Safety Lighting requested during this fiscal year. Twenty-one additional lights are needed to meet the Traffic Safety Lighting Program standards for intersection lighting throughout the City. Utah Power & Light (UP&L) was directed to install this lighting in September 2005 but has not yet begun. With the City's projected transfer from UP&L to a private contractor for maintenance (see Recommendation 3 below), it is expected that the new contract will include installation of the remaining 21 lights.

Recommendation 2: Complete the Continuous Lighting Program by FY07.

CIP funding was not approved for the current fiscal year although the Administration reaffirms the recommendation to complete the Continuous Lighting Program. A CIP proposal for $275,000 has been resubmitted for FY07 to add lights on Redwood Road from 2100 South to North Temple and from 1000 North to 2300 North. A second CIP proposal for $65,000 has also been resubmitted for FY07 to add lights on California Avenue between 900 West and Redwood Road. Funding these two requests would complete the Continuous Lighting Program City-wide, with the exception of North Temple where it is recommended that the additional lights be installed as part of the light rail extension to the Airport.

Recommendation 3: Convert from UP&L maintenance to private contractor maintenance if economically justified.

The Administration has proceeded to implement this recommendation. Bids have been received from four private contractors and are currently under review.

Recommendation 4: Discontinue offering Private Lighting due to poor maintenance. Allow successful areas to continue and encourage poorly maintained areas to convert to Special Improvement Districts (SID).

Following further evaluation, the Administration reaffirms its recommendation to no longer offer this program due to continuing difficulties in:

a. assuring the lighting is maintained,
b. assuring the light owners operate them, and
c. promoting the program in less affluent neighborhoods.

Allowing existing successful private lighting programs to continue is satisfactory, but they should ultimately be returned to City ownership, maintenance, and operation in a

city-wide program that assures City control of the provision of public street lighting services for the public.

Detail on the additional information developed regarding the maintenance, operation, and equity issues associated with the Private Lighting Program is contained in Attachment 1.

Street Lighting Philosophy Needed: Street and sidewalk lighting realistically needs to be a City government-provided service. Lighting is extremely important in helping to ensure public safety and well being. Everyone should be entitled to benefit from street lighting and reasonably expect lighting will be provided. As long as individuals control the provision of lighting, this vital public service can not be guaranteed. The current challenges that the City is experiencing clearly speak to a need for re-evaluation of the City's lighting philosophy and policies.

It is extremely difficult, if not impossible, to please everyone's preference for street lighting: pole and fixture style, light type, brightness, pole location. It is recommended that the basic premise for a street lighting program be that:

a. It be owned and operated by the City, and
b. There be a base lighting program (type and level of lighting) offered that provides uniform and equitable lighting. This base lighting program could be as "basic" as it has been under the Traffic Safety Lighting Program utilizing wooden poles and overhead wiring or it could be "significant", utilizing decorative poles with underground wiring. Up to this point, the City has chosen the "basic" option and offered the opportunity for decorative poles with underground wiring via Special Improvement Districts (SID), whereby property owners pay the additional cost. City Council direction in this regard is needed.

Recommendation 5: Retain a specialized consultant to analyze options for creating one city-wide lighting program with a discrete funding source.

The previously submitted request for services outline has been modified to include the comments made by City Council. It is included with this transmittal as Attachment 2 and contains two exhibits.

NECESSARY ACTIONS:

In order to complete the recommendations made regarding public and private street lighting, the following actions are necessary:

- Adopt the FY07 CIP proposal for $275,000 to complete the Continuous Lighting Program on Redwood Road
- Adopt the FY07 CIP proposal for $65,000 to complete the Continuous Lighting Program on California Avenue
- Convert UP&L maintenance of City lights to contract maintenance

- Appropriate $60,000 in funding to retain a specialized consultant to analyze options for a City-wide lighting program
- Discontinue the Private Lighting Program after approval and implementation of a City-wide lighting program

PUBLIC PROCESS: N/A

RELEVANT ORDINANCE: N/A

Attachment 1
Private Street Lighting Program
Maintenance, Operation and Equity Issues

Private Street Lighting Program
Maintenance, Operation and Equity Issues

After conducting further brainstorming and research into options and legal issues per City Council's request, the Administration reaffirms its recommendation to eliminate the Private Lighting Program. This recommendation includes allowing those property owners who are maintaining their lights to continue to do so while offering an opportunity to all private light owners to convert to SID lighting. Such an SID would need to cover the cost of installing underground conduit in the public right-of-way, connecting the lights to a common UP&L power source and paying maintenance and operation costs. It is further recommended that none of the above actions be taken until the upcoming consultant analysis of city-wide lighting funding options is completed and informed decisions made on moving toward a city-wide SID or similar mechanism with sufficient funding.

The reasons for recommending eliminating the Private Lighting Program are:

1. Lack of control of maintenance and operation.
   Maintenance may be improved by offering assistance in different ways, as elaborated in this report, but it cannot be assured. There are also lights in working order that the owners have purposely chosen to no longer turn on. Although street lighting has an influence on and impact to abutting property and property owners, it also has the very important purpose of providing visibility for the public at-large using the public right-of-way. Thus, it is believed that the City government needs to be in a position to assure maintenance occurs and the lights stay activated.

2. History of non-equitable use of Neighborhood Matching Grant Program funds.
   The intent of seeing neighborhoods throughout the City using the Neighborhood Matching Grant Program to pay for up to 50% of the capital cost of a new, decorative lighting system is not being realized outside what are considered middle and upper income areas. This is evident from the accompanying map showing the location of private lights.

Much brainstorming and research has been done to seek ways of resolving the above issues, but none appear palatable. The following City Council issues were reviewed:

Are there other measures that the City can explore to compel property owners to maintain and operate their lights?

The no-cost revocable permit issued by the City, signed by each property owner and recorded with the County already requires the property owner to both maintain and operate their light.

Written requests from the City reminding the light owners of their agreed upon responsibility has not proven satisfactory. Neither has neighborhood peer pressure. Legally, the City could revoke the permit and have the light removed; but the intention is to illuminate the street, not remove the lights. Alternatively, an ordinance could be

adopted that would allow the City to fine the property owners, but that does not assure the light will be repaired or turned back on. This also sends a negative message.

Can the City have the maintenance performed and bill an uncooperative property owner?

This approach is not recommended. It would be necessary to go through a lengthy, labor-intensive legal process to have a lien placed against the property of the light owner to satisfy a judgment based on breach of contract. A private contractor would have to perform the maintenance because UP&L will not maintain private lights. If the light has not been repaired because the property owner can not afford it, it is unlikely the property owner will pay the maintenance bill. This approach only deals with the light owner and not the next door neighbors without a light because the light owner is the one who signed the revocable permit. This places the light owner in the potentially awkward position of needing to rely on the good nature of neighbors to help pay for the maintenance when there is no requirement for them to do so.

Can the City take on the maintenance of private lighting and charge the residents a lighting maintenance fee?

This is basically the Special Improvement District (SID) approach. An SID would be required to provide the legal mechanism to charge and collect the maintenance fee. It would also include the now standard 15% administrative fee. This goes against the primary reason the Private Lighting Program was started which was to have a less expensive alternative to lighting SIDs.

If this is pursued, a majority of the property owners in the area would need to agree to the SID and there are added complications not present in the current SID approach. Namely, the light-owning property owners would also have to provide the City with approval to perform the maintenance on their lights and to be on their property. There is increased difficulty and risk of damage to private property associated with performing maintenance on private property, and in some cases, inside private homes. This is why UP&L has informed the City that it will not perform maintenance on private lights.

What else can be done to facilitate maintenance of private lights?

If one of the bids currently under review is accepted to replace UP&L with private contractor maintenance of city-owned lights, a rate guaranteed for three years will be included that allows the contractor to offer their services to property owners to maintain their private lights. The cost information would be provided to the private light owners along with the contractor's contact information. It would be up to the individual light owners to request the contractor perform the maintenance and pay the contractor directly. It would then be up to the light owner to seek at least partial reimbursement from whatever neighborhood fund or mechanism may have been established or from their non-light-owning neighbors, if no reimbursement mechanism was established.

There are also several other ideas that we are following up on. At the most recent monthly meeting of the Mayor with Community Council Chairs, one community council indicated it serves as a "bank" for private lighting areas within its council area. It holds funds collected by the neighborhood for maintenance in an account that the neighborhood can use when needed. Another community council encourages their private lighting neighborhoods to maintain a lighting champion to facilitate collecting maintenance funds and facilitate getting maintenance performed. We will promote these practices to private light owners and community councils along with a third idea that neighborhoods with private lighting consider creating a homeowner or similar association to regularly collect and grow maintenance and capital replacement funds.

Short of the approaches described above including creating an SID for private light maintenance, the City could agree to pay the cost of private lighting repairs and fund an account to do so. Of course, there are equity issues that should be considered with such an approach since SID lighting participants pay 75% of maintenance costs.

As long as private lighting is continued to be offered, we will promote to all new applicants the very significant need for them to create a mechanism for providing long term maintenance and replacement.

Why is SID lighting more expensive than private lighting?

Information on this was provided in earlier correspondence and is repeated below.

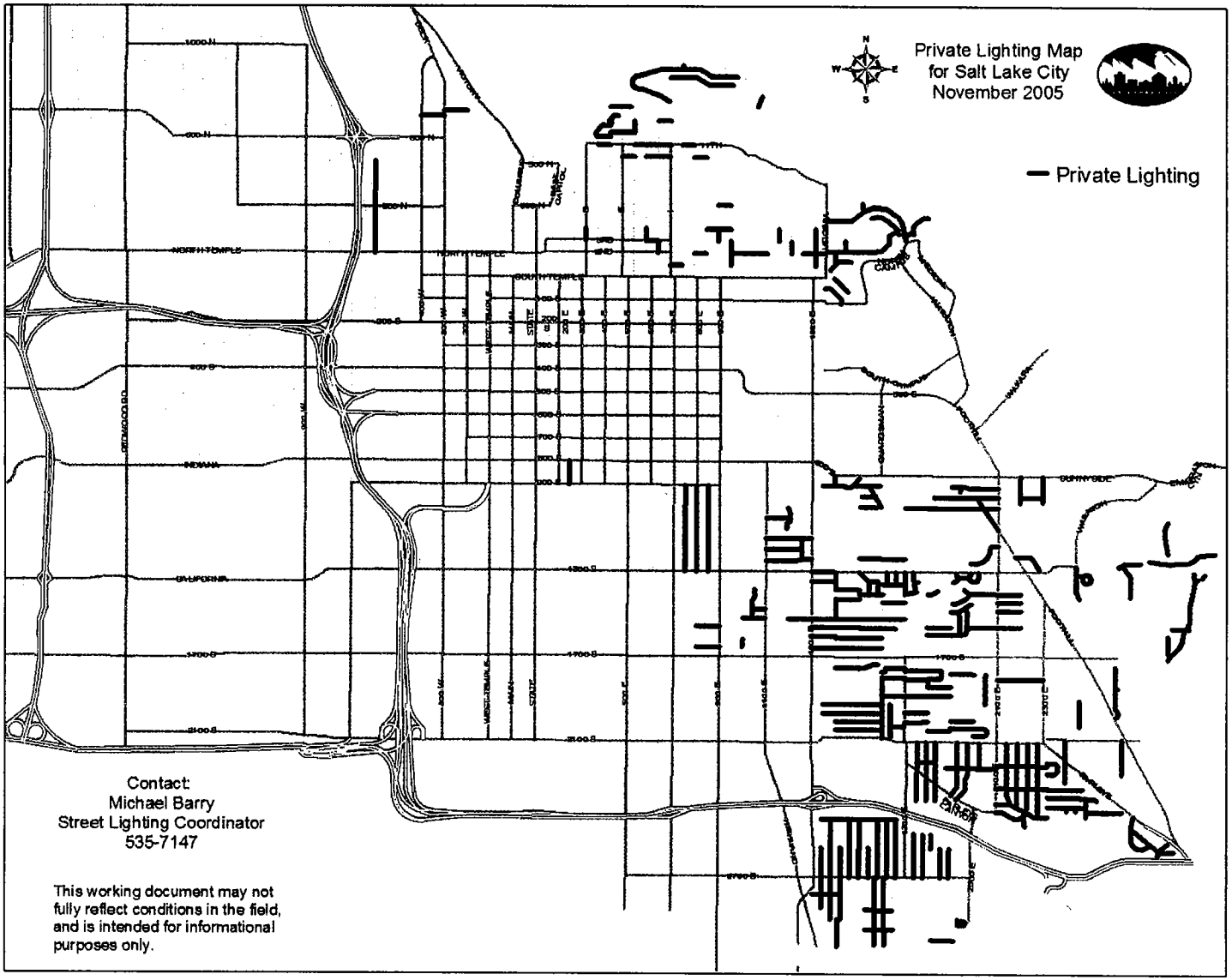
SID Lighting versus Private Lighting

- Professional engineering design required vs. no design cost
- More & heavy-duty wiring for high voltage vs. standard 110-volt wiring
- Conduit required vs. direct bury wire (low voltage)
- Conduit full length of street on both sides vs. wire from light to home electric service
- Poles and lights are more expensive, handle higher voltages, and have longer life expectancy vs. less substantial poles and lights with 110-volt wiring and shorter life
- Complex installation vs. simple installation
- 15% annual City overhead to manage SID billings vs. no City overhead
- Maintenance done by professional vs. most maintenance can be done by homeowner

What can be done to resolve or improve the equity issue associated with the use of Neighborhood Matching Grant (NMG) funds for private lighting?

The concept to allow private lighting to be eligible for NMG seemed logical at the beginning of the program. The reality has been that even with the NMG providing 50% of the capital cost of inexpensive lighting, many middle and lower income areas are not financially capable of coming up with the remainder of the needed up-front capital funds.

Considering the above, it is our view that available City funds would be better used to help write down capital costs in a city-wide SID or in some other manner to be researched and recommended by the lighting funding consultant.


Private Lighting Map
for Salt Lake City
November 2005
Private Lighting
Contact:
Michael Barry
Street Lighting Coordinator
535-7147
This working document may not fully reflect conditions in the field, and is intended for informational purposes only.

Private Street Lighting Program
Maintenance, Operation and Equity Issues

After conducting further brainstorming and research into options and legal issues per City Council's request, the Administration reaffirms its recommendation to eliminate the Private Lighting Program. This recommendation includes allowing those property owners who are maintaining their lights to continue to do so while offering an opportunity to all private light owners to convert to SID lighting. Such an SID would need to cover the cost of installing underground conduit in the public right-of-way, connecting the lights to a common UP&L power source and paying maintenance and operation costs. It is further recommended that none of the above actions be taken until the upcoming consultant analysis of city-wide lighting funding options is completed and informed decisions made on moving toward a city-wide SID or similar mechanism with sufficient funding.

The reasons for recommending eliminating the Private Lighting Program are:

1. Lack of control of maintenance and operation.
   Maintenance may be improved by offering assistance in different ways, as elaborated in this report, but it cannot be assured. There are also lights in working order that the owners have purposely chosen to no longer turn on. Although street lighting has an influence on and impact to abutting property and property owners, it also has the very important purpose of providing visibility for the public at-large using the public right-of-way. Thus, it is believed that the City government needs to be in a position to assure maintenance occurs and the lights stay activated.

2. History of non-equitable use of Neighborhood Matching Grant Program funds.
   The intent of seeing neighborhoods throughout the City using the Neighborhood Matching Grant Program to pay for up to 50% of the capital cost of a new, decorative lighting system is not being realized outside what are considered middle and upper income areas. This is evident from the accompanying map showing the location of private lights.

Much brainstorming and research has been done to seek ways of resolving the above issues, but none appear palatable. The following City Council issues were reviewed:

Are there other measures that the City can explore to compel property owners to maintain and operate their lights?

The no-cost revocable permit issued by the City, signed by each property owner and recorded with the County already requires the property owner to both maintain and operate their light.

Written requests from the City reminding the light owners of their agreed upon responsibility has not proven satisfactory. Neither has neighborhood peer pressure. Legally, the City could revoke the permit and have the light removed; but the intention is to illuminate the street, not remove the lights. Alternatively, an ordinance could be

adopted that would allow the City to fine the property owners, but that does not assure the light will be repaired or turned back on. This also sends a negative message.

Can the City have the maintenance performed and bill an uncooperative property owner?

This approach is not recommended. It would be necessary to go through a lengthy, labor-intensive legal process to have a lien placed against the property of the light owner to satisfy a judgment based on breach of contract. A private contractor would have to perform the maintenance because UP&L will not maintain private lights. If the light has not been repaired because the property owner can not afford it, it is unlikely the property owner will pay the maintenance bill. This approach only deals with the light owner and not the next door neighbors without a light because the light owner is the one who signed the revocable permit. This places the light owner in the potentially awkward position of needing to rely on the good nature of neighbors to help pay for the maintenance when there is no requirement for them to do so.

Can the City take on the maintenance of private lighting and charge the residents a lighting maintenance fee?

This is basically the Special Improvement District (SID) approach. An SID would be required to provide the legal mechanism to charge and collect the maintenance fee. It would also include the now standard 15% administrative fee. This goes against the primary reason the Private Lighting Program was started which was to have a less expensive alternative to lighting SIDs.

If this is pursued, a majority of the property owners in the area would need to agree to the SID and there are added complications not present in the current SID approach. Namely, the light-owning property owners would also have to provide the City with approval to perform the maintenance on their lights and to be on their property. There is increased difficulty and risk of damage to private property associated with performing maintenance on private property, and in some cases, inside private homes. This is why UP&L has informed the City that it will not perform maintenance on private lights.

What else can be done to facilitate maintenance of private lights?

If one of the bids currently under review is accepted to replace UP&L with private contractor maintenance of city-owned lights, a rate guaranteed for three years will be included that allows the contractor to offer their services to property owners to maintain their private lights. The cost information would be provided to the private light owners along with the contractor's contact information. It would be up to the individual light owners to request the contractor perform the maintenance and pay the contractor directly. It would then be up to the light owner to seek at least partial reimbursement from whatever neighborhood fund or mechanism may have been established or from their non-light-owning neighbors, if no reimbursement mechanism was established.

There are also several other ideas that we are following up on. At the most recent monthly meeting of the Mayor with Community Council Chairs, one community council indicated it serves as a "bank" for private lighting areas within its council area. It holds funds collected by the neighborhood for maintenance in an account that the neighborhood can use when needed. Another community council encourages their private lighting neighborhoods to maintain a lighting champion to facilitate collecting maintenance funds and facilitate getting maintenance performed. We will promote these practices to private light owners and community councils along with a third idea that neighborhoods with private lighting consider creating a homeowner or similar association to regularly collect and grow maintenance and capital replacement funds.

Short of the approaches described above including creating an SID for private light maintenance, the City could agree to pay the cost of private lighting repairs and fund an account to do so. Of course, there are equity issues that should be considered with such an approach since SID lighting participants pay 75% of maintenance costs.

As long as private lighting is continued to be offered, we will promote to all new applicants the very significant need for them to create a mechanism for providing long term maintenance and replacement.

Why is SID lighting more expensive than private lighting?

Information on this was provided in earlier correspondence and is repeated below.

SID Lighting versus Private Lighting

- Professional engineering design required vs. no design cost
- More & heavy-duty wiring for high voltage vs. standard 110-volt wiring
- Conduit required vs. direct bury wire (low voltage)
- Conduit full length of street on both sides vs. wire from light to home electric service
- Poles and lights are more expensive, handle higher voltages, and have longer life expectancy vs. less substantial poles and lights with 110-volt wiring and shorter life
- Complex installation vs. simple installation
- 15% annual City overhead to manage SID billings vs. no City overhead
- Maintenance done by professional vs. most maintenance can be done by homeowner

What can be done to resolve or improve the equity issue associated with the use of Neighborhood Matching Grant (NMG) funds for private lighting?

The concept to allow private lighting to be eligible for NMG seemed logical at the beginning of the program. The reality has been that even with the NMG providing 50% of the capital cost of inexpensive lighting, many middle and lower income areas are not financially capable of coming up with the remainder of the needed up-front capital funds.

Considering the above, it is our view that available City funds would be better used to help write down capital costs in a city-wide SID or in some other manner to be researched and recommended by the lighting funding consultant.

Attachment 2
Scope of Services

Scope of Services

Study of
Street Lighting Program Options
&
Street Lighting Funding Options

I. Background

A. Current Lighting Programs

Salt Lake City has a long history of providing street lighting, having been the sixth city in the United States to offer it.

The City currently provides street lighting via four programs:

- Traffic Safety Lighting
- Continuous Lighting
- Street Lighting Special Improvement Districts
- Private Street Lighting

The Traffic Safety and Continuous Lighting Programs provide basic lighting on all local and major streets and are funded 100% by the City's General Fund. There are approximately 10,000 City-owned lights in these programs.

The third program, Street Lighting Special Improvement Districts (SIDs), are offered by the City to property owners who want additional and/or decorative lighting and are willing to pay the capital cost and 75% of the operating and maintenance cost. The City pays 25% of the O&M cost of SID lighting systems which approximates the cost the City would incur if the streets were lit under one of the above lighting programs. The City owns and manages the SID lighting systems and bills the property owners to recover the cost. There are 2,200 lights in 50 street lighting SID's located throughout the City in both commercial and residential areas.

The fourth program is Private Street Lighting, in which property owners on local residential streets purchase and install lights that are connected to individual homes and agree to operate and maintain them at no cost to the City. The City provides each homeowner with a revocable permit allowing the privately owned light to reside in the public right-of-way. The City also offers one-time financial assistance via the Neighborhood Matching Grant Program to pay up to 50% of the capital cost incurred by the property owner in purchasing and installing the street light. There are 1,900 privately owned street lights in residential neighborhoods in the City.

B. Issues of Study

1. Multiple lighting programs. The existence of four lighting programs

sometimes leads to public confusion about which programs may apply to a given situation and what each program offers.

2. Inadequate and multiple funding sources. Numerous funding sources have been used for capital as well as operating and maintenance (O&M) costs for street lighting. These include local property owner funds, developer funds, City General Funds, City Redevelopment Agency funds and federal Community Development Block Grant funds. Each of these fund sources have various limitations placed on how and where they can be used for lighting. There is often no consistency year to year in the amount of these funds available and their total is less than adequate to maintain the City's significant lighting investment in a sustained manner.

3. Lack of control and maintenance of privately owned lights. Property owners are required to maintain and operate their privately owned lights as a condition of the revocable permit they sign that allows their light to be located on the public right-of-way. Many do, but as homes change ownership and maintenance issues arise, some property owners either do not repair the lights or purposely turn them off. The reality of the situation is that it isn't practical, inexpensive or desirable for the City to expend the staff time and resources to monitor this lighting, continue to remind light owners of their responsibilities, fine or prosecute light owners for non-maintenance and operation of their lights or require removal of the lights. Maintenance of private property on private property and inside homes also adds to the complexity of the City offering maintenance services.

C. Purpose and Need of this Study

The primary purpose of this analysis is to create an innovative and optimal financing structure that is sustainable for the existing and future master planned capital, operation and maintenance of street lighting in Salt Lake City. The consultant must provide sufficient analysis to support the financing structure. The consultant must also recommend an optimal street lighting program and description as well as identify an optimal method and options to convert unsuccessful and successful private lighting to a City-owned lighting program while allowing successful private lighting to remain or convert to City-owned lighting as an option in the future.

Declared Outcomes:

1. Multiple lighting programs. The goal will be to evaluate the current lighting programs and funding sources to determine their appropriateness, given the public safety objective of street lighting.

2. Inadequate and multiple funding sources. It is desired to identify practical lighting funding options, with associated pros and cons, to aid the City in

selecting a funding method that has the following attributes:

a. recognition of the investment value that property owners and the City have already made in lighting to assure fairness in the acquisition and expenditure of future funding,
b. provision of adequate funding on an ongoing basis to adequately maintain existing and future lighting,
c. ability to obtain funding to allow areas with lighting other than the lighting identified in the Street Lighting Master Plan to replace the existing lighting.

3. Lack of control and maintenance of privately owned lights. It is desired to identify options, with associated pros and cons, in order to select a means of assuring private lights are maintained and operated in a reliable manner. Short of this, a means needs to be identified to convert private lighting to whatever lighting program is ultimately adopted by the City.

II. Consultant Services Needed

A. Street Lighting Program Options

1. Identify options to the existing street lighting programs. All options must be:
   a. reasonably implementable,
   b. easily understood, and
   c. equitable to property owners recognizing the varying investments they have already made in their lighting.

2. Identify differences between the alternatives and the pros and cons of each.

3. Prioritize the identified options and state the logic for the priority.

B. Street Lighting Funding Options

1. Funding Sources. Identify possible funding sources for capital, operation and maintenance of street lighting. Identify the benefits and difficulties associated with each.

2. Funding Mechanisms. Identify possible funding mechanisms for capital, operation and maintenance of street lighting. Include at a minimum:
   a. a city-wide SID,
   b. a lighting fee as part of the City property tax assessment
   c. a City-wide utility or enterprise fund

   Identify the benefits and difficulties associated with each identified funding mechanism.

3. Financing Mechanisms. Identify financing mechanisms to allow decorative street lighting to be installed up front and paid off over time.
   a. Identify the benefits and difficulties associated with each financing mechanism.
   b. Identify the optimal timeline for repayment of expenditures based on the funding source/mechanism.

4. Financial Capacity. Identify the capability of the City to use the above identified funding sources, funding mechanisms and financing mechanisms. Note any restrictions and the pros and cons for each.

5. General Approach. Based on the above tasks, identify general approaches for funding existing street lighting capital, operation and maintenance commitments and allow achievement of providing the lighting identified in the street lighting master plan over a reasonable time period.
   a. Identify advantages and difficulties for each approach
   b. Identify timing requirements for each approach
   c. Prioritize the identified approaches and provide reasoning for identification of the recommended approach
   d. Create a written analysis

C. Maintenance of Private Lighting Options

1. Identify and prioritize options, if any, for assuring private lights are maintained and operated at the same level of reliability as City-owned lights. Each option, to be viable, must:
   a. not be overly punitive to the light owner,
   b. not require inordinate City staff time or cost

2. Identify and prioritize methods and procedures for offering private property owners a means to convert to City-owned lighting that is reasonably priced and recognizes both the property owner's and City's investment, if any, in the private light.

Upon completion of the technical analysis, the consultant will prepare a written report and present the findings to the City Council. Throughout the process of researching and preparing the report, it is envisioned that the consultants will meet with city staff to discuss findings and approaches.

III. Resource Information

A. Descriptions of 4 existing Salt Lake City Street Lighting Programs.

Traffic Safety Lighting (Local Streets)

Description: On local streets, the City provides a light at intersections for pedestrian and traffic safety. Under this program, optional mid-block lights with approximately 300 foot spacing are also provided if the majority of property owners within 150 feet of the proposed light location agree to having the optional light.

Funding: The City funds 100% of the cost for Traffic Safety Lighting, which are not decorative.

Continuous Lighting Systems (Major Streets)

Description: Along major streets, the City provides a brighter level and more uniform dispersion of lighting for traveler safety. These are streets with high traffic volumes and high speed limits, as well as more pedestrians. There are typically 6 to 8 lights per block face. The City funds 100% of the cost for Continuous Lighting.

Funding: The City funds 100% of the cost for Continuous Lighting Systems.

Special Improvement District (SID) Decorative Lighting (Commercial & Residential Areas)

Description: Additional and/or decorative lighting in residential and commercial areas is offered via the establishment of Special Improvement Districts. A formal, specific design is required, which includes wiring and electrical connections suitable to the number of lights connected to each circuit, the electrical load that is drawn, and the voltage provided at the power source. The design must comply with industry standards and be approved by the City's Transportation Division.

Funding: Abutting property owners in the SID agree to pay 100% of the capital cost for new or replacement SID Lighting and 75% of the operating and maintenance (O&M) costs of the lights. The City pays 25% of the O&M costs, which represents the approximate cost of lighting that the City would typically provide under either the Traffic Safety Lighting or Continuous Lighting programs.

Private Decorative Lighting (Residential Areas Only)

Description: Neighborhood residents purchase, install, operate, maintain, and own decorative lights that are placed in the park strip of the public right-of-way. Each streetlight has underground wiring that is connected to the electrical service

in the home of the owner of the streetlight. Each light owner signs a revocable permit issued by the City that is recorded with the property. The permit allows the light to be placed on public property and stipulates that the homeowner is responsible for operating and maintaining the light at the property owner's expense. Each neighborhood works with the City's Transportation Division on a design plan that provides adequate lighting. Design features include the type of pole, fixture, size and type of light, and the spacing and location of poles. Once a plan is approved, the neighborhood arranges for installation of the lights.

Funding: All costs of the Private Lighting program are the responsibility of the neighborhood. Property owners may apply for Matching Grant Funds to pay up to 50% of the capital costs with a maximum grant of $5,000 per block face.

B. Street Light Inventory

There are approximately 14,100 street lights in Salt Lake City. 2,200 are decorative, City-owned lights within SID areas, 1,900 are decorative, privately-owned lights and the remaining 10,000 are City-owned continuous lighting and traffic safety lights.

C. Current Funding Amounts and Sources for Lighting O&M and Capital

The City spends between $1,500,000 and $2,000,000 annually on street lighting, depending on the amount of funding approved for capital replacement and new installations. Property owners spend approximately $666,000 annually on their portion of SID lighting costs.

The City's annual costs and funding sources break down to:

$1,200,000	General Fund (GF) for non-SID operating and maintenance
$222,000	GF for the City's portion of SID operating and maintenance
$0 to 50,000	GF for Matching Grant funds for private lighting
$0 to $75,000	GF for new lights
$0 to $30,000	CDBG for new or replacement lights
$0 to $500,000	CIP for capital replacement
$0 to $200,000	RDA for capital replacement

Additionally, new or replacement installations by private developments, valued at up to $50,000, are turned over to the City each year.

D. Spreadsheet of Factors Affecting City-wide SID, Utility Fund, and Enterprise Fund Lighting Program Concepts – See Exhibit 1

E. Street Lighting Programs and Funding in Other Cities

Orem

- Citywide Street Lighting Program – 3,800 lights

- Residential – 16' decorative poles (Holophane)
- Arterials – 25' teardrop poles (Holophane)
- Industrial – 25' modified cobra head (Holophane)

- Installation funded by $3.25 per single family residential lot per month until $7M paid off
- O&M funded by increasing the Franchise tax from 5.36% to 6.00%
- City performs the maintenance
- Video describing their program is available

Sandy

- Total of 6,672 lights current
- Started with 1,100 existing cobra head lights
- Installed 4,800 new decorative poles in residential areas (Hadco) in one project
- Capital purchase and installation cost funded by a 5-year assessment on city's utility billings of $5 per month per resident where lights had been installed.
- As new areas develop, the lights are installed and the 5-year assessment for capital recovery begins.
- O&M funded by the City's General Fund
- City performs the maintenance on all but cobra heads. City does blue staking.
- No private lighting, but some PUDs have lights that are operated and maintained by homeowners associations.

F. Salt Lake City Street Light Master Plan & Policy Document – See Exhibit 2

Exhibit 1
Street Lighting Program & Funding Options

Exhibit 1

March, 2005

Street Lighting Program & Funding Options

1. **Current Program**. Provides basic lighting for traveler safety (Traffic Safety Lighting Program and Continuous Lighting Program) and options for decorative lighting (SIDs and Private Lighting). Issues include neighborhoods requesting a different deal from the city for lighting which creates confusion and the potential for setting precedents. Lower income areas find it difficult to enter into either a matching grant or SID to acquire decorative lighting. After about 4 years, up to 30% of residents are turning off their private lights or are not maintaining them.
2. **Citywide SID "A."** This concept has the City paying 100% of the O&M cost for street lighting and offering the use of an SID for property owners to pay 100% of the cost to convert to decorative lighting or replace decorative lighting. This would allow the use of CDBG funding, under current regulations, for up to 100% of the capital cost of lighting which helps lower income areas. It also reduces the city's administrative costs by no longer needing to manage ongoing O&M SIDs. It has an initial higher O&M cost to the City.
3. **Citywide SID "B."** This concept converts lighting to a citywide SID for both capital and O&M with the City participating in 25% of each. This reduces the City's cost for O&M at the expense of assessing all property owners, but provides the ability for the City to offer more than $1,000,000 annually toward capital costs of converting to decorative lighting should property owners be willing to enter into a capital SID. This option has the disadvantage of assessing lower income areas.
4. **Citywide lighting utility or enterprise fund.** This scenario would assess each property owner to cover all of the costs of street lighting. It could be done in a manner that would allow a steady income to convert lighting at a regular pace or bond to convert more quickly. Under this scenario, consideration could be to reducing the current amount taxed for street lighting. Assessments could be structured in several ways. It is not known how the administrative costs of this approach compare to that of the other methods such as using SIDs.

Program issues:	1. Current Program	2. Citywide SID "A"	3. Citywide SID "B"	4. Citywide Utility or Enterprise Fund
Definition	100% city $ in non-SID various city $ in SID capital 25% city $ in SID O&M	100% prop own. – capital 100% city - O&M and major street capital	25% city $ in SID capital 25% city $ in O&M	100% capital & O&M from fund with some GF tax rollback
Average annual City costs with present lighting	$1,500,000-2,000,000: $1,200,000 non-SID O&M $222,000 SID O&M $0-50,000 GF matching grant $0-30,000 CDBG capital $0-500,000 CIP capital $0-75,000 GF new lights capital $0-200,000 RDA, 0 to $50,000 private develop.	$2,088,000 O&M plus $250,000-500,000 major street capital	$522,000 O&M $1,500,000 capital available to be matched 3:1 by property owners	$2,088,000 O&M plus whatever level desired for capital

Exhibit 1 (cont.)

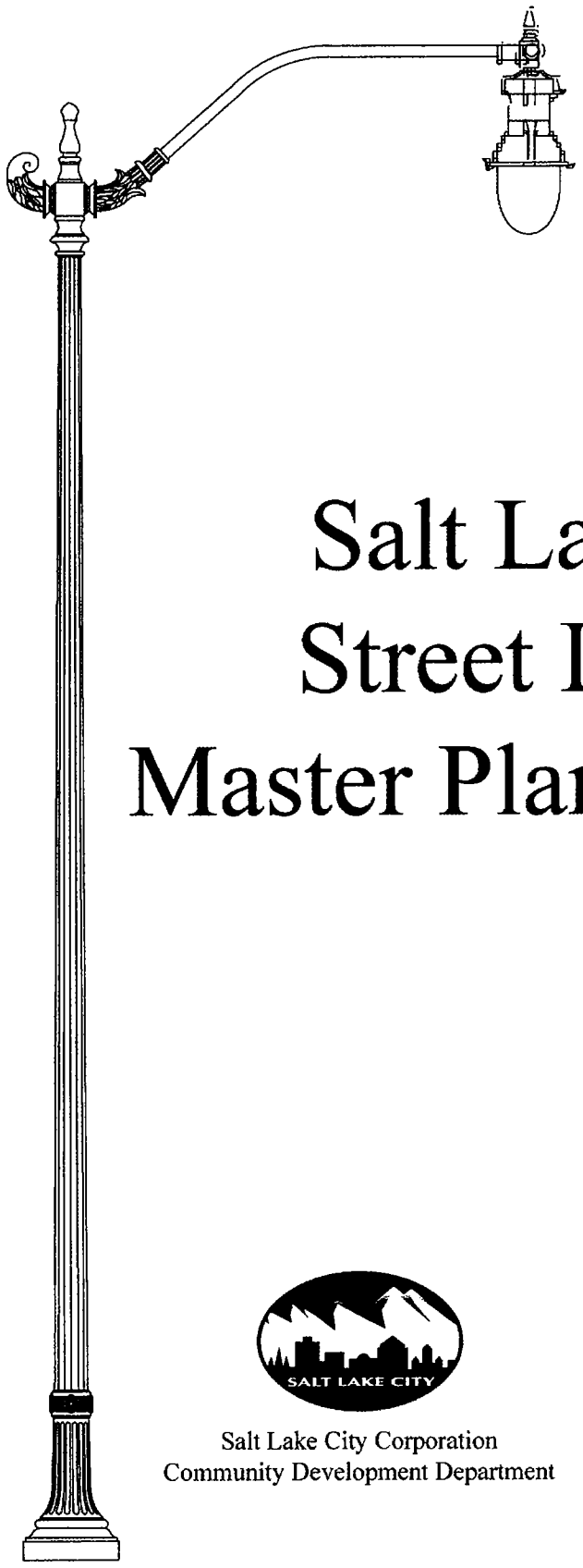
Program issues:	1. Current Program	2. Citywide SID "A"	3. Citywide SID "B"	4. Citywide Utility or Enterprise Fund
Annual resident costs with present lighting	$666,000 O&M in SID various capital $ in SID	None, unless new decorative lights desired	$1,566,000 for O&M plus 75% of any capital	$2,088,000 O&M plus any capital
Is there a guaranteed funding source for O&M?	No, must rely on General Fund	No, must rely on General Fund	No, must rely partially on General Fund	Yes
Is there a guaranteed funding source for capital (new or replacement lights)?	Can be in SIDs, but must compete for CIP, RDA, GF and CDBG for non-SID areas	Must create SID, major street paid out of CIP, RDA, GF and CDBG	75 % provided by property owner, major street by CIP, RDA, and GF	Yes
What funding sources/mechanisms can be used for capital costs?				
CDBG	Design only in SID areas	Yes	Design only	Design only
CIP or other General Fund	Yes	Yes for major streets	Yes, various %	Could supplement
RDA	Yes, in RDA areas	Yes, in RDA areas	Yes, in RDA areas	Yes, in RDA areas
SID	Yes	Yes	Yes	N/A
Bonding	Yes	Yes	Yes	Yes
New private development	Yes	Yes	Yes	Yes
New public projects	Yes, except CDBG in SID areas	Yes, except CDBG in SID areas	Yes, but not CDBG	Yes, but not CDBG
Assessment billings	annual in SID areas	annual as needed for capital only	annual	monthly, quarterly or annual
Use flexible assessment rates to account for lights already paid for by private ltg. &/or SID ltg.?	N/A	Yes, use different rates based on each area's capital needs	Yes, use different rates based on each area's capital and O&M needs	Yes, use diff. rates initially based on previous contributions then use flat rate
Can City collect delinquent assessments?	property liens in SIDs	property liens in SIDs	property liens in SIDs or SSDs	*property lien? turn off water?*

Exhibit 1 (cont.)

Program issues:	1. Current Program	2. Citywide SID "A"	3. Citywide SID "B"	4. Citywide Utility or Enterprise Fund
Are funds available to cover delinquent assessments until collected?	covered by G.F. against property liens	covered by G.F. against property liens	covered by G.F. against property liens	*advanced from funds collected or borrowed?*
Can private lighting be converted to public ownership fairly?	Via SID if majority property owners agree	Yes, when power is connected to grid	Yes, when power is connected to grid	Yes, when power is connected to grid
Effort needed to implement	N/A	convert existing SID areas to citywide SID and add other properties	convert existing SID areas to citywide SID and add other properties	convert existing SID areas to citywide enterprise or utility, add other properties
Effort needed to manage	continue programs and periodic renewals of SIDs	periodic renewal of citywide O&M SID	periodic renewal of citywide capital SID & O&M SID or SSD	Operate citywide enterprise or utility fund
Additional City resources needed to administer	None	Possibly	Possibly	Likely

Exhibit 2
Street Lighting Master Plan & Policy

August, 2005



Salt Lake City Street Lighting Master Plan and Policy

Salt Lake City Corporation
Community Development Department

Salt Lake City
Transportation Division
349 South 200 East, Suite 450

TABLE OF CONTENTS

1. INTRODUCTION

Salt Lake City's history illustrates a long-standing concern for the quality and safety of the urban environment influenced by street lighting. Salt Lake City was the fifth city in the United States to have electric streetlights. By 1887, streetlights were operating on Main Street, and along First South and Second South Streets. In 1908 Salt Lake City adopted a systematic plan for locating streetlights at each intersection on long blocks and an additional light midblock, when requested.

Historically, the lighting levels for street lighting, although modified and expanded over the years, were generally based on the Illuminating Engineering Society of North America (IES) recommendations. These are widely considered as generally accepted guidelines and are currently contained in IES publication RP-8-00 Roadway Lighting. They are based on geometric, operational and environmental factors. Salt Lake City's lighting standards also take into account factors such as traffic volume, accident rates, nighttime pedestrian activity, crime prevention and neighborhood preferences.

This is an administrative master plan recognizing lighting levels required for safety and the decorative style of lighting poles and fixtures as expressed by residents and business owners during numerous outreach meetings. *The administrative policies of Salt Lake City that govern the implementation of new and replacement street lighting are shown in italics within this document.* This plan includes information on the purpose and impacts of street lighting, required lighting levels within the City, acceptable styles of fixtures and poles, a plan showing the desired lighting for each neighborhood within the City, the technically recommended implementation priority and associated aspects of street lighting such as designing with crime prevention in mind and the use of banners on street light poles.

2. PURPOSE

Lighting serves many purposes. To many people, public way lighting goals are seemingly achieved by installing brighter or additional lights. However, harmful or negative effects of lighting such as glare and reduced visibility of the night sky were often overlooked. Lighting technology has evolved tremendously in recent years. There are now more light sources, fixtures, poles and materials available. There is also much interest in the use of decorative light poles with underground wiring along with a recognition of street lighting as an important daytime as well as evening urban design element.

Addressing the environmental issues of lighting design is seen as critically important to maintaining quality of life in neighborhoods. These issues go beyond the amount of light produced and include minimizing light pollution, enhancing the urban environment during the day by use of decorative poles and fixtures and at night by the provision of pedestrian level light, deterring undesirable or illegal activities, increasing safety, restricting unwanted truant light onto private property and minimizing glare, power consumption, cost and visual impacts (day and night).

This Street Lighting Master Plan is intended to be used in a compatible manner with existing land use master plans and updated as necessary to remain compatible with them. Defining lighting design policies will help the public, developers and City officials recognize lighting-related issues that must be addressed.

All of these factors have created the need for this comprehensive street lighting master plan and policy applicable to Salt Lake City's public rights-of-way.

3. STREET LIGHTING IN A PEDESTRIAN FRIENDLY CITY

Effective street lighting illuminates the street and sidewalk to offer visibility by and of the users of the public right-of-way for the safe and comfortable interaction of drivers, bicyclists and pedestrians.

Street lighting projects should combine with other urban design elements to create a holistic and aesthetic environment for pedestrians. Effective pedestrian lighting helps people feel safe and comfortable while walking in neighborhoods and to transit stops, stores, and other destinations. To accomplish this, the daytime appearance of the light poles and fixtures and the nighttime appearance of the illumination should reflect the needs and characteristics of each neighborhood and its master plan.

Salt Lake City desires to be a pedestrian friendly city. The Summary Vision Statement of the 1998 Final Report of the Salt Lake City Futures Commission states: "Salt Lake City's transportation system is integrated and multimodal. It moves people and products efficiently into and through the city. If focuses first on pedestrians and bicyclists, second on mass transit, and third on single occupant automobiles in planning and infrastructure support." The report recommends the expansion of late-night recreational programs and the design of streets that are pedestrian friendly. It encourages walking, improvements to the transportation system that promote auto-alternate means of travel such as walking, bicycling, and the use of bus, light rail and commuter rail transit, the adoption of pedestrian- and bicycle-friendly master plans for City neighborhoods and the use of Crime Prevention through Environmental Design (CPTED) techniques to reduce crime.

Adequate lighting of sidewalks and pedestrian crossings is a significant aspect of new street lighting projects. In addition to lighting pedestrian areas, street lighting should provide reasonably uniform illumination of the full width of public travel way.

Much of the existing street lighting in the City is provided by "cobra head" streetlights at a height of between 25 feet to 30 feet. This lighting pattern is effective for the roadway, but not always effective for pedestrians due to shading by trees and the difficulty in providing uniform lighting along sidewalks. The following drawings show the impact of street light mounting height on the lighting pattern of sidewalks.

Figure 3.1 shows the uneven light levels often associated with high-mounted lighting particularly in residential areas with mature trees and long spacing between lights. While this type of lighting may be adequate for drivers because the spot light effect is supplemented by their vehicle's headlights, it is neither pedestrian-friendly nor does it encourage walking.

Figure 3.1. High-mounted Cobra Head Street Lighting

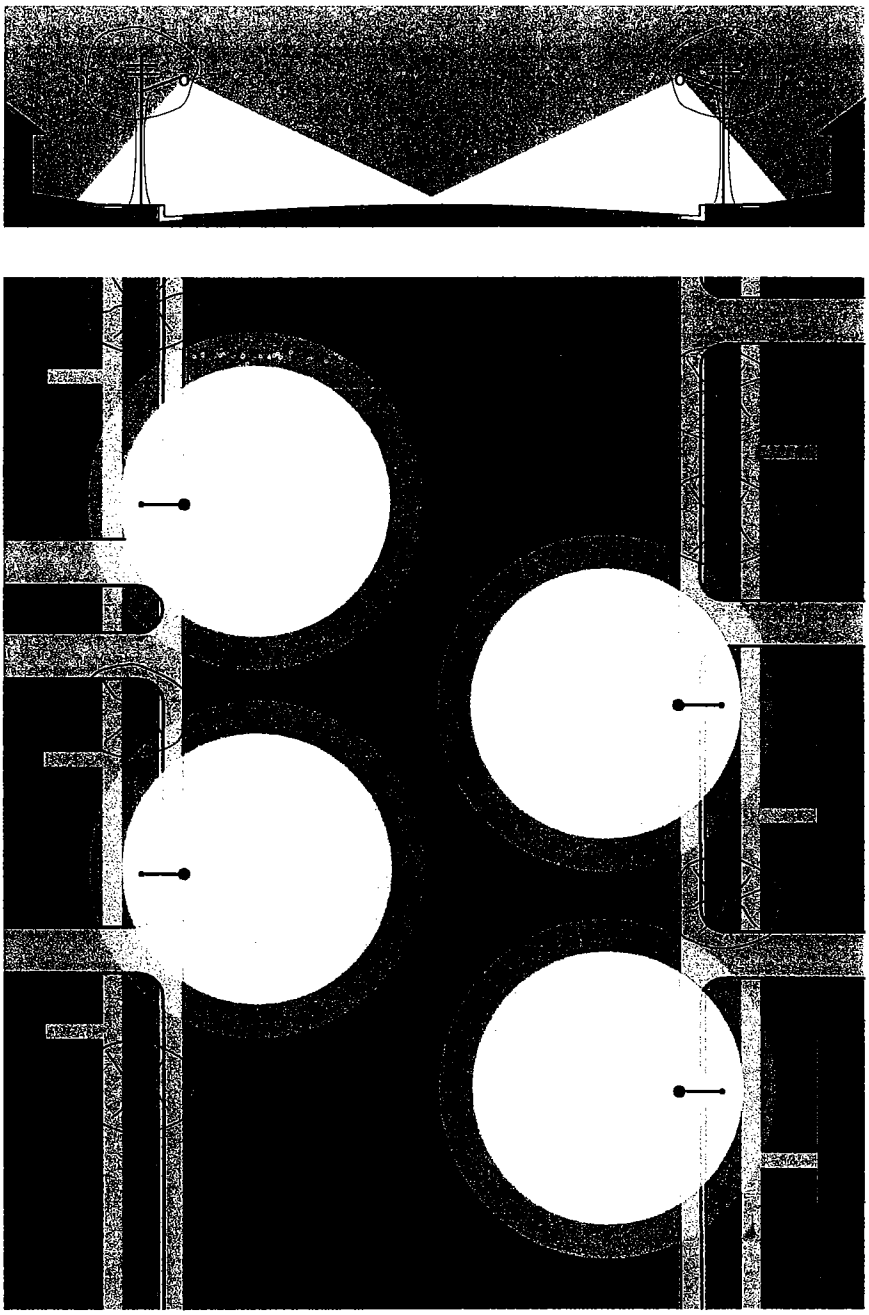


Figure 3.2 illustrates how pedestrian style streetlights with optically controlled light distribution are located below the tree line and provide a more even level of lighting that invites pedestrian activity during evening hours.

Figure 3.2. Pedestrian Style Lighting

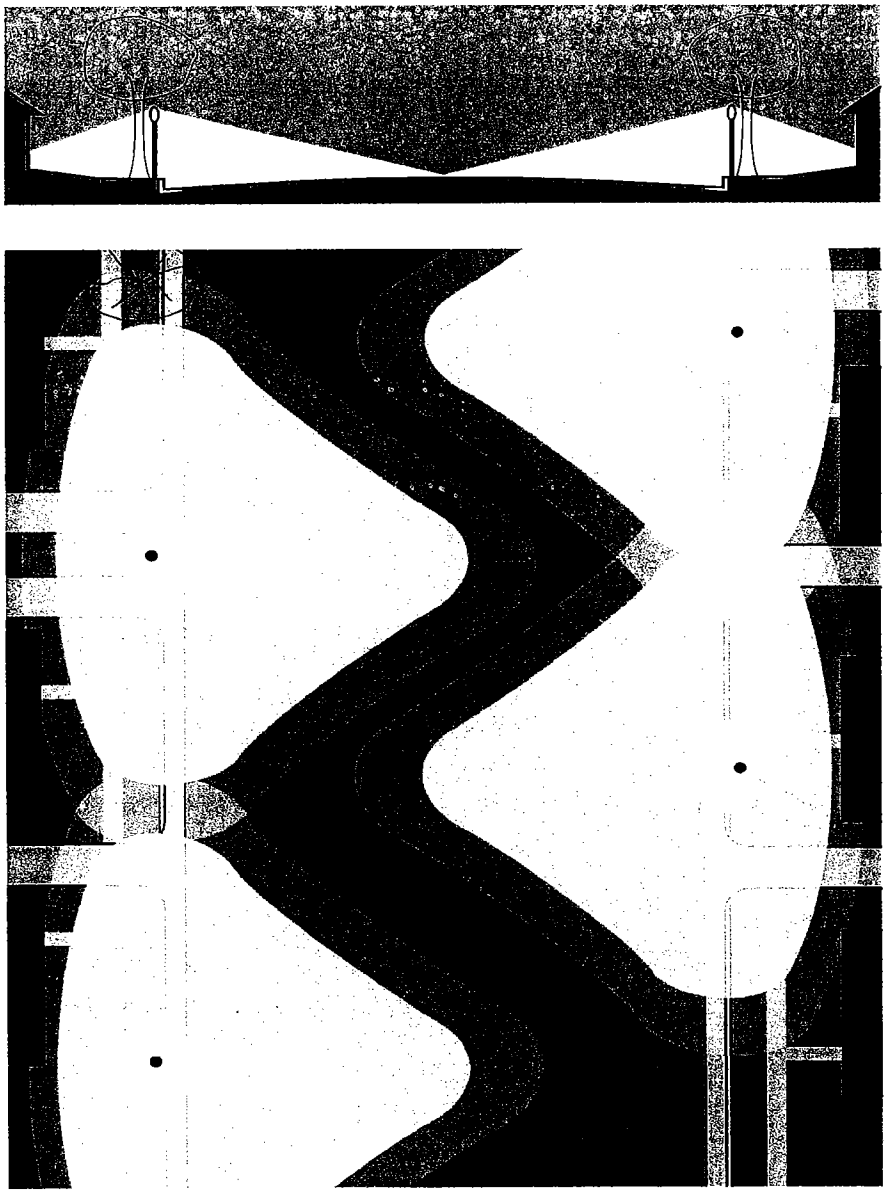
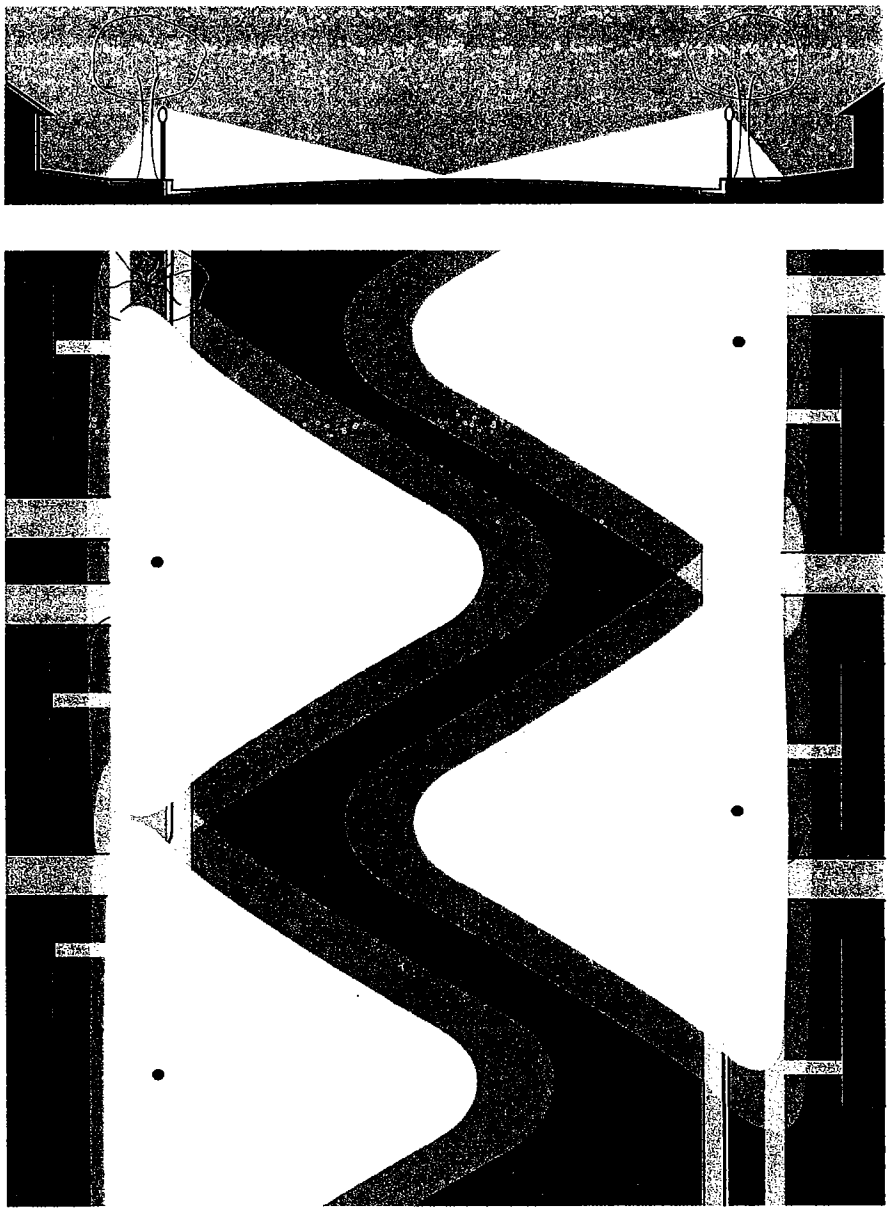


Figure 3.3 is a variation of Figure 3.2 showing how side shields can be placed inside light fixtures to reduce light trespass onto private property and into windows.

Figure 3.3. Pedestrian Style Lighting with Resident Side Light Shield



5. LIGHT TYPES

The preceding section described the level or amount of lighting required on Salt Lake City's public rights-of-way. This section describes the type or source of light to be used. Both affect a person's ability to comprehend what is being seen.

Currently, the most popularly used light sources for street lighting are metal halide and high-pressure sodium vapor. Previously, mercury vapor, fluorescent and incandescent lighting were prevalent. A few incandescent lights still exist along city streets. Mercury vapor and fluorescent lighting are no longer available for new installations. A relatively new white light source gaining popularity is induction lighting. A number of factors are involved in determining acceptable light sources. These include color rendition, cost to purchase and cost to operate and maintain.

Color Rendition and night vision

Colors are more readily identified when seen under blue-white light sources found in the shorter wavelengths of the color spectrum than under the longer wavelengths of yellow-orange light sources. This makes metal halide, induction, mercury vapor and incandescent light sources, which more closely mimic daylight, popular from a visibility and object identification viewpoint. Color rendition is more difficult under the yellow-orange light source of sodium vapor.

Metal halide is the technological successor to the mercury vapor, fluorescent and incandescent blue-white light source lamps and offers more economical operation with a longer lamp life (burn time). It is the current lamp technology of choice among lighting design professionals. Induction lights may prove to be the successor of metal halide lights. They provide good color rendition and promise a very long lamp life which equates to reduced maintenance costs.

Ease and accuracy of color rendition translate into a more attractive night time pedestrian atmosphere. They make streets feel safer and more attractive to pedestrians. For these reasons, the Crime Prevention through Environmental Design (CPTED) process favors white-blue street lighting over yellow-orange lighting.

Purchase Costs

Purchase costs for most light types are fairly similar. The new induction lights have a higher purchase cost offset by its much longer lamp life (burn time) claimed to be up to 100,000 hours (20 years). Cost considerations are generally more important with respect to maintenance and power usage than purchase and installation.

Operating and Maintenance Costs

High-pressure sodium vapor lighting uses less electricity to operate and the bulbs have a longer lamp life than many other light sources. This makes them popular from an economical point of view despite their only moderate color rendition attributes.

The cost to operate metal halide lighting has been reducing as their popularity and availability in the lighting industry has increased.

The cost advantage of induction lights is their long life expectancy which minimizes maintenance costs. Paying for power only on these 20-year bulbs recoups the higher purchase cost of induction lights in a 3 to 6 year period.

The Future

The lighting industry is focusing its attention on white lights for good color rendition, longer lamp life and energy efficiency for economy and a broader range in the light output (size of lamps offered) for use in various situations. This bodes well for metal halide and induction lighting which will likely succeed high-pressure sodium lighting as the most commonly used light sources.

Table 5.1 summarizes the general differences in the lamp types for the most commonly used bulb sizes encountered in street lighting. A comparison of these lights to incandescent lighting is also provided. The values shown are approximate and intended for relative comparisons.

Table 5.1. LAMP TYPE COMPARISON

	Lamp Type			
Factor	**Incandescent**	**Metal Halide**	**High-Pressure Sodium**	**Induction**
Wattage	25-150	50-400	50-400	55-165
Efficiency (lumens/watt)	8-18	38-75	72-115	64-73
Lumen Maintenance (%)	90 (85)	75 (65)	90 (70)	75 (50)
Lamp Life (hours)	750-2000	10,000-20,000	18,000-24,000	100,000
Energy Use	High	Medium	Low	Low
Color Rendition	Very Good	Very Good	Moderate	Very Good

Definitions:

- Wattage - Lamp wattages most commonly used in street lighting
- Efficiency – lamp output efficiency at 50% lifetime of lamp
- Lumen Maintenance - percent of initial lamp output at 50% lifetime of lamp and at end of lamp lifetime (in parentheses)
- Lamp Life - approximate typical lifetime of lamps in hours
- Energy Use – indicator of energy costs
- Color Rendition - relative ability of average observer to accurately perceive colors under the light types shown

Acceptable light types

Only efficient light types of the blue-white spectrum shall be used for new and replacement lighting. This currently translates to metal halide and induction light types. Existing high-pressure sodium vapor and other light types will continue to be supported until it becomes necessary to replace the light fixtures.

Exceptions to any of the above standards are not desirable and must be approved by the City Transportation Engineer.

6. LIGHT CUTOFF CLASSIFICATIONS OF LIGHTING FIXTURES

The term "light pollution" is often used in describing three distinct negative effects of lighting which are light trespass, sky glow and glare. Light trespass occurs when uncontrolled light from a street light is allowed to "spill" into an area where it is unwanted such as onto private property into a building window. Sky glow is the effect of obscuring the view of the night sky as a result of light being directed upward. Glare is created when a harsh light source detrimentally reduces an individual's ability to see objects the light is meant to illuminate.

Salt Lake City experiences all three types of light pollution. Light trespass and sky glow can annoy property owners and detract from enjoyment of their property. If the street lights are more noticeable than the objects they illuminate, then the lights are likely producing glare. Glare can be discomforting and counterproductive to drivers, pedestrians and other users of the public right-of-way.

With the help of environmental groups such as Dark Skies International, the Illuminating Engineering Society of North America (IES) has developed cutoff classifications for the lighting industry which are intended to reduce these negative impacts of lighting. There are four levels of cutoff classifications: Full Cutoff, Cutoff, Semi-Cutoff and Non-Cutoff. Full Cutoff light fixtures offer the most light distribution control and provide significant mitigation to all three types of light pollution; however, there are benefits and limitations to each light cutoff classification.

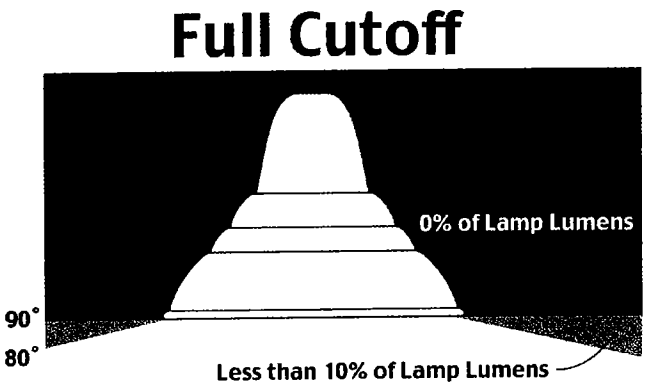
Acceptable light cut-off features

All new and replacement street lighting shall meet, at a minimum, the requirements of semi-cutoff lighting. In locations where "cobra head" or "shoe box" fixtures are used, they must meet, at a minimum, the requirements for cutoff lighting.

Exceptions to any of the above standards are not desirable and must be approved by the City Transportation Engineer.

Figures 6.1 through 6.4 describe each cutoff classification and their associated benefits and limitations.

Figure 6.1. Full Cutoff Light Fixture



No light above horizontal and less than 10 % of the produced lamp lumens shine above the 80° line.

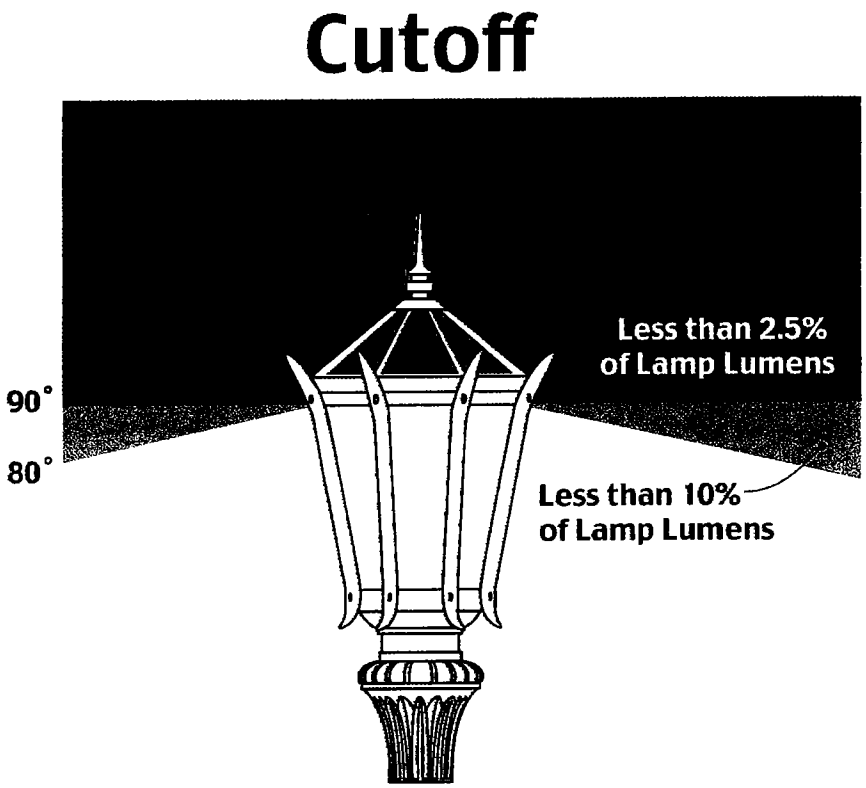
Full Cutoff benefits include:

- No direct up-lighting which is the major cause of sky glow
- Excellent light control at property lines
- Limits light trespass
- Maximum reduction of glare
- Allows greater visual access to the night sky

Full Cutoff limitations include:

- Typically reduces pole spacing (increasing pole and luminaire quantities and cost)
- Typically least cost effective of all cutoff categories
- Concentrated down-light component can result in reflected up-light and increase in sky glow
- Potential for decreased lighting level uniformity due to higher light levels directly under the pole
- Limited number of fixture styles (However, manufacturers are recognizing the importance of providing more light fixture styles meeting the full cutoff classification.)

Figure 6.2. Cutoff Light Fixture



No more then 2.5% of produced lamp lumens above the horizontal and less than 10% of the lamp lumens shine above the 80° line.

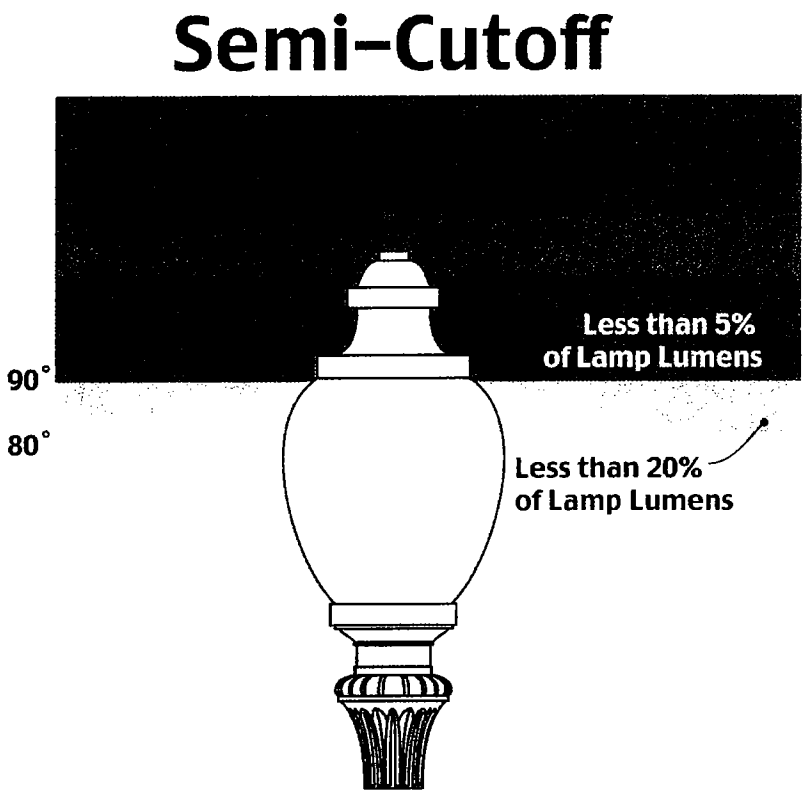
Cutoff benefits include:

- Small amount of high-angle light that can contribute to sky glow
- Limited light trespass
- Potential for increased pole spacing and lower overall power consumption compared to full cutoff
- More fixture styles available than for full cutoffs

Cutoff limitations include:

- Does allow some lighting above horizontal
- Light control at property lines is less than full cutoff
- Reflection off pavement can increase sky glow

Figure 6.3. Semi-Cutoff Light Fixture



No more then 5% of produced lamp lumens above the horizontal and less than 20% of the lamp lumens shine above the 80° line.

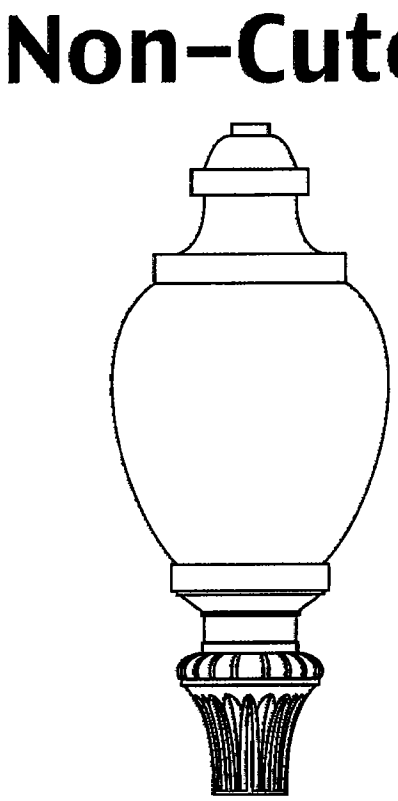
Semi-Cutoff benefits include:

- Potential for increased pole spacing and lower overall power consumption compared to cutoff
- High angle light accents taller surfaces
- Less reflective light off pavement than cutoff fixtures
- Illumination of vertical surfaces increases pedestrian security and sense of safety
- Large selection of fixtures to choose from

Semi-Cutoff limitations include:

- Allows more lighting above horizontal than cutoff fixtures
- Light trespass can be a concern in residential areas
- Increased amount of high-angle light compared to cutoff

Figure 6.4. Non-Cutoff Light Fixture



No limitation on light distribution at any angle.

Non-Cutoff benefits include:

- Potential for maximum pole spacing
- Accents taller surfaces
- Good uniformity of light distribution
- Least amount of reflective light off the pavement
- Largest selection of fixtures to choose from

Non-Cutoff limitations include:

- Greatest potential for direct lighting above horizontal (major cause of sky glow)
- No aiming of light
- Least control of light trespass
- Greatest potential for glare
- Inefficient use of energy compared to fixtures with cutoff features

7. FIXTURE AND POLE STYLES

Certain characteristics and features distinguish each commercial district and residential neighborhood from another within Salt Lake City. Lighting fixtures and poles can uniquely and distinctly enhance the appearance and complement the identity of each neighborhood and district.

Major Streets and Commercial District Streets

To insure uniform and safe lighting on major streets which by their nature carry higher speed, higher volume traffic, the light fixtures and poles identified in this chapter shall be used to provide appropriate lighting for the conditions present. Decorative poles and fixtures shall be used for new and replacement lighting on major streets whenever practical, except that cobra head fixtures on wood or steel poles may be used in industrial areas.

It is desirable to seek public input on the type of fixture and pole used for street lighting in commercial areas. The fixture and pole styles in these areas as identified in this chapter have been selected with public input and consideration of historic and planned urban design elements and land use. Decorative poles and fixtures shall be used for new and replacement lighting in commercial areas whenever practical.

Residential Neighborhood Streets

It is desirable to allow each residential neighborhood to adopt a decorative street light fixture and pole for its non-major streets from an approved list of fixture and pole styles to help the community achieve and maintain its master plan goals and identity. The approved list has been generated in consideration of the public input received and having sufficient variety to allow neighborhood identity while retaining a reasonable ability to obtain and store parts and provide economic maintenance.

All street lighting poles and fixtures used within Salt Lake City must be approved by the City Transportation Engineer. The currently approved "family" of light poles and fixtures for Salt Lake City is shown in Figures 7.1 and 7.2. Lamp fixtures with optical controls and side shield option capabilities are to be used because they provide flexibility in minimizing sky glow, light trespass, glare and energy waste. In special situations, such as within historic districts or when the installation of underground wiring and decorative poles and fixtures is not practical, exceptions to the above requirements may be approved by the City Transportation Engineer.

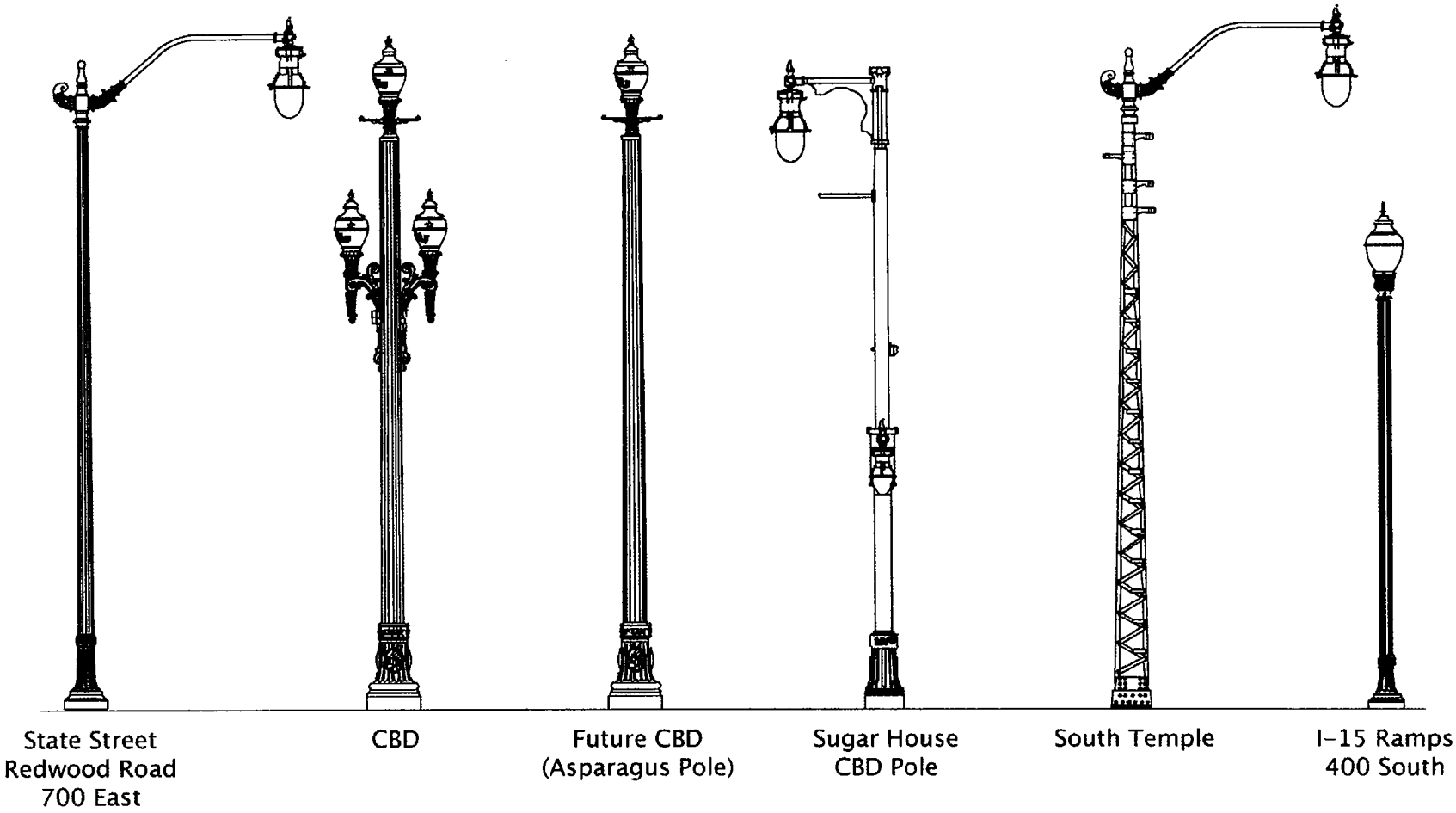


Figure 7.1. Major Street & Commercial Street Lights and Poles

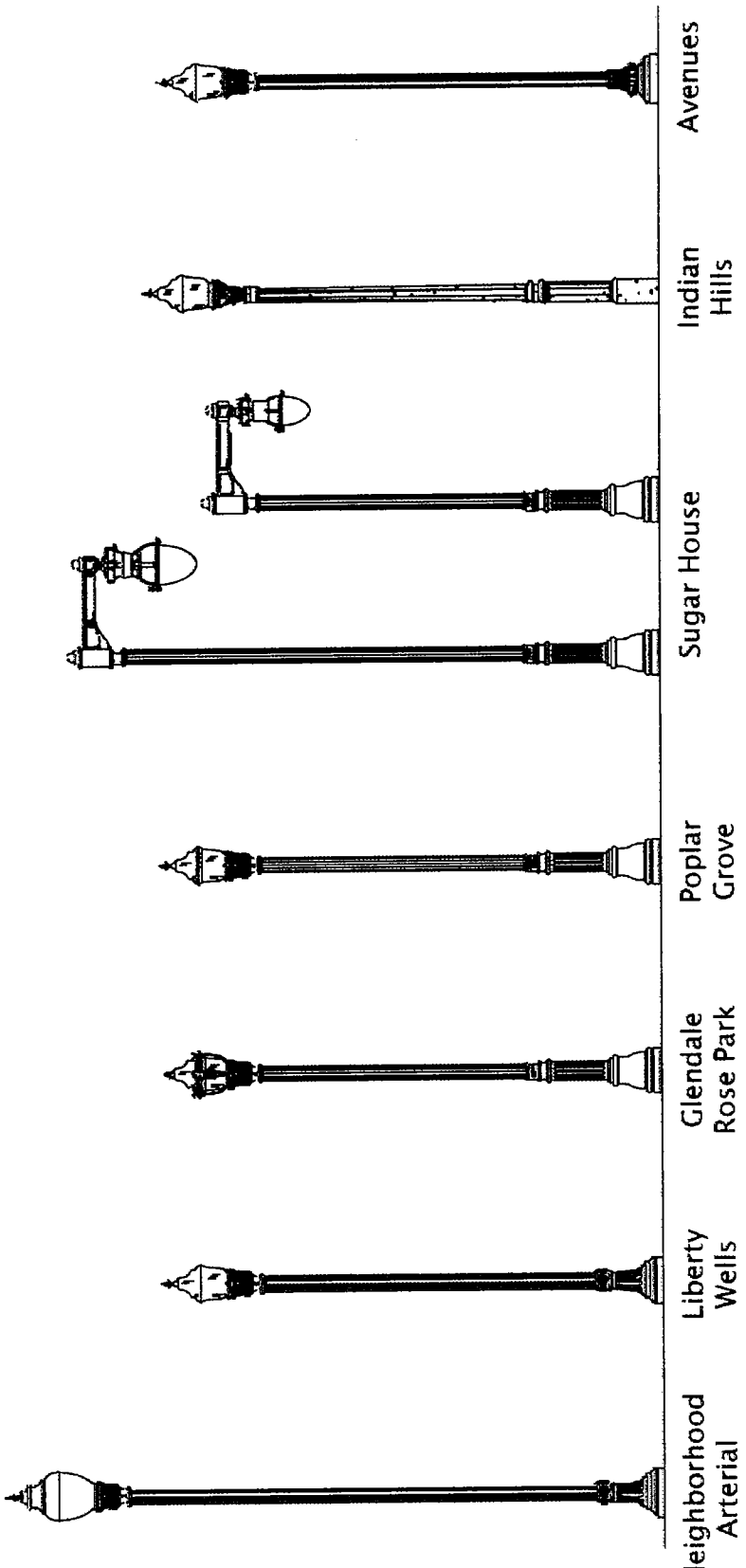


Figure 7.2. Residential Street Lights and Poles

Major streets require brighter lighting than most streets for the safety of the large volumes of vehicles and pedestrians. Business districts are well lit for the comfort of large crowds and to assure good nighttime color rendition in consideration of retailers displaying wares. Residential neighborhoods prefer lower lighting levels that focus on pedestrian ways as much as the paved streets, enhance the quality of life and walkability of neighborhoods and recognize the lower volumes and speeds of vehicles on the streets.

To identify the appropriate lighting for each street within the City, input was provided by community councils, citizens, downtown property and business owners and City planning and technical staff. This master plan incorporates the continuance of the lighting plan developed more than fifteen years ago for the downtown business area and that has been implemented since that time as lighting projects, major land use developments, transit improvements and road rebuild projects have occurred. Community councils and residents have expressed a desire for decorative poles at low mounting height with underground wiring that provides pedestrian scale lighting and a sense of neighborhood identity. Each community council within Salt Lake City was asked to identify their preference should the lighting along their residential neighborhood streets be replaced with decorative poles and fixtures. This has resulted in an approved "family" of decorative light poles and fixtures that provides the opportunity to mix and match pole and fixture styles to create unique lighting systems for each neighborhood while achieving the economy of stocking and maintaining a reasonable number of pole and fixture types.

Major Streets and Commercial District Lighting

The lighting pole and fixture styles identified for Salt Lake City's major streets and commercial districts are shown in Table 7.1.

Table 7.1. Major Streets and Commercial District Street Light Fixtures and Poles

Lighting Area	Pole Style	Light Fixture Style
Downtown	Cactus	Washington
Sugar House	Salem	Tear Drop
Trolley Square	Cactus	Washington
900 East & 900 South (9^{th} & 9^{th})	DB 9	SLA 16
Gateway	Cactus	Cactus
2200 West - North Temple to north City limits	North Yorkshire	Acorn
Redwood Road - 2100 South to 2300 North	Salem	Tear Drop
900 West - 2100 South to I-15	North Yorkshire	Acorn

Table 7.1. (cont.) Major Streets and Commercial District Street Light Fixtures and Poles

Lighting Area	Pole Style	Light Fixture Style
700 North/600 North - 300 West to 2200 West	North Yorkshire	Acorn
North Temple – State to 2200 West	North Yorkshire	Acorn
400 South/500 South/Foothill - Redwood Road to I-80	North Yorkshire	Acorn
Beck Street - I-15 to 100 North	Salem	Tear Drop
Main Street - 500 South to 2100 South	North Yorkshire	Acorn
State Street - 200 North to 2100 South	Salem	Tear Drop
700 East - South Temple to south City limits	Salem	Tear Drop
South Temple - State Street to Wolcott	Lattice Poles	Tear Drop
2100 South	Salem	Triple Tear Drop Sugar House Light
500 West – South Temple to 400 South	North Yorkshire	Acorn
1300 South – I-15 to State Street	Salem	Tear Drop

Residential Neighborhood Street Lighting

The decorative pole and fixture styles selected by community councils for their neighborhoods are shown in Table 7. 2.

Table 7.2. Residential Neighborhood Street Light Fixtures and Poles

Lighting Area	Pole Style	Light Fixture Style
Westpointe	Charleston	Grandville w/ribs and band
Jordan Meadows	Charleston	Grandville
Rose Park	Charleston	Grandville w/ribs and band
Fairpark	Charleston	Grandville
Poplar Grove	Charleston	Grandville w/ band
Glendale	Charleston	Grandville w/ribs and band
Foothill	North York Shire	Grandville
Capital Hill	Wadsworth	Grandville
Marmalade Hill	Wadsworth	Grandville
Ensign Downs	Wadsworth	Grandville
Upper Avenues	Wadsworth	Grandville
Avenues	Wadsworth	Grandville
Federal Heights	North York Shire	Grandville
Central	North York Shire	Grandville
East Central	North York Shire	Grandville
Liberty Park	North York Shire	Grandville
University Park	Concrete	Grandville w/ribs and band
College Avenues	Concrete	Grandville w/ribs and band
Sugar House	Private light style	Tear Drop
Highland Park	North York Shire	Grandville
East Bench	North York Shire	Grandville

8. LIGHTING PROGRAMS

Salt Lake City offers four lighting programs.

Traffic Safety Lighting (local streets)
On local streets, the City provides a light at intersections for pedestrian and traffic safety. Under this program, optional midblock lights at approximately 300 foot spacing are also provided if the majority of property owners within 150 feet of the proposed light location concur in having the optional light. The City funds 100% of the cost for Traffic Safety Lighting.

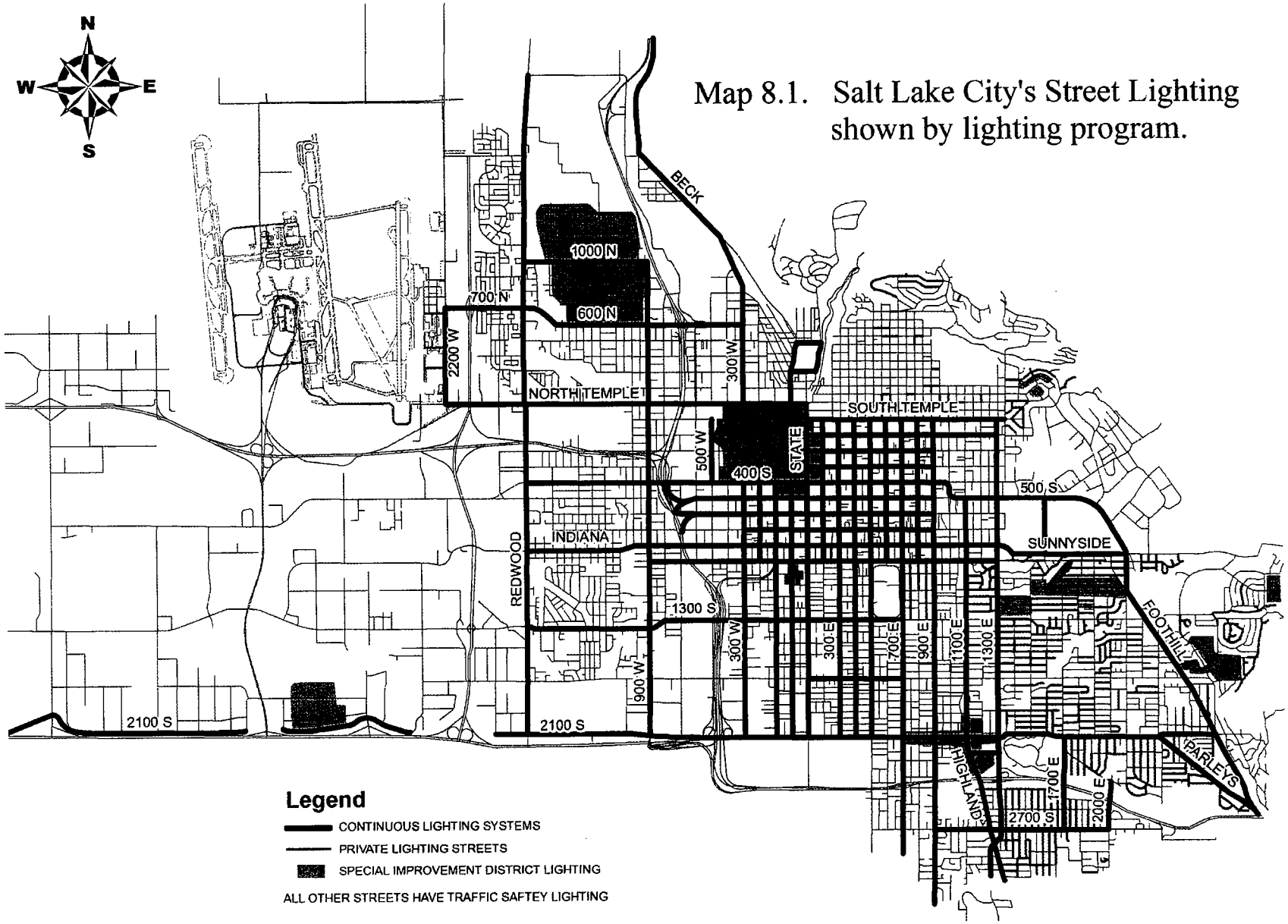
Continuous Lighting Systems (major streets)
Along major streets, the City provides a brighter level and more uniform dispersion of lighting for traveler safety. These are streets with high traffic volumes and speed limits as well as more pedestrians. There are typically 6 to 8 lights per block face. The City funds 100% of the cost for Continuous Lighting.

Special Improvement District (SID) Lighting
Additional and/or decorative lighting in residential and commercial areas is offered via special improvement districts wherein abutting property owners agree to pay the capital cost for new or replacement SID lighting plus 75% of the ongoing operating and maintenance costs of the lights. The City pays 25% of the operation and maintenance cost which represents the approximate cost of lighting that the City would typically provide under either the Traffic Safety Lighting Program or Continuous Lighting Program.

Private Lighting (residential areas)
Under the private lighting program, residents purchase, install, operate, maintain and own decorative lights that are placed in the park strip of the public right-of-way. Each streetlight has underground wiring that is connected to the electrical service in the home of the owner of the streetlight. Each light owner signs a revocable permit issued by the City that is recorded with the property. The permit allows the light to be placed on public property and stipulates that the homeowner is responsible for operating and maintaining the light at the property owner's expense. Each neighborhood works with the City Transportation Division on a design that provides adequate lighting. This includes the type of pole, fixture, size and type of light and the spacing and location of poles. Once a plan is approved, the neighborhood arranges for installation of the lights. All costs of this program are the responsibility of the neighborhood. Since the program's inception, the City has made the Matching Grant Fund available to property owners to apply for up to 50% of the capital cost of private lighting. The City makes an annual budgeting decision on the amount of funding available in the Matching Grant Fund.

Map 8.1 shows the locations where each of the above described lighting programs are deployed.

Map 8.1. Salt Lake City's Street Lighting shown by lighting program.



9. USING CRIME PREVENTION IN STREET LIGHTING DESIGN (CPTED)

In the planning, designing and building of the physical environment, especially in public spaces, it is essential that the principles and standards of Crime Prevention Through Environmental Design (CPTED) be given both fair and ample consideration. The proper design and effective use of the built environment can lead to a reduction in the fear of crime and the incidence of crime, and to an improvement in quality of life. Street lighting is very much a part of the physical environment and must be afforded the same level of CPTED assessment as any other aspect of public space.

Poor street lighting is not the main contributing factor in nighttime crime in public spaces. The lack of people socializing and using the public space contributes to an environment that may actually encourage crime, regardless of the level of lighting. It is important to note that lighting does decrease fear of crime, making public spaces more attractive for the community, thus promoting a process of greater legitimate use and socializing. Light does not prevent crime. People prevent crime. Lighting is an amenity that encourages interaction of people in public spaces, increasing natural surveillance.

In CPTED, *natural surveillance* is defined as: "The organization of physical features, activities, and people in such a way as to maximize visibility. The placement of windows, doors, common areas; the alignment of sidewalks and paths; the locations and levels of lighting; and the proper design and size of open spaces can contribute to natural surveillance opportunities." If a person wants to pursue any illegal activity, good natural surveillance enhanced by proper lighting will discourage the activity.

Street lighting that is well designed and properly maintained will do the following:

- Improve the appearance of the public space.
- Encourage people to interact.
- Contribute to a positive sense of safety and security.

The following are some general guidelines for lighting in public spaces:

- Public spaces must be well lighted for pedestrians.
- The light type and lighting level must not hinder recognition of people; a good measure is being able to identify faces 50 feet away.
- Consistency is essential.
- Glare and shadows must be eliminated to the maximum extent possible
- Blind spots, entrapment locations, and hidden areas need adequate lighting.
- In most cases, the best approach is to use more lights with lower wattage than a few lights with higher wattage.

Many aspects of the built environment, including lighting, must be assessed using the situational approach. The CPTED approach is to ask questions, from every possible angle, to determine if all possibilities are being considered.

The following questions can serve as a guide in determining proper lighting design or identifying deficiencies:

1. Are public spaces lighted to the minimum standard brightness?
2. Is lighting consistent, with little or no glare, shadows or contrasts?
3. Is reflectivity considered in designing the lighting?
4. Does the lighting adequately illuminate pedestrian spaces and possible entrapment areas?
5. Are grade change entrances well lit?
6. Are lights and vegetation compatible?
7. Are light fixtures located to avoid accidental knockdown?
8. Are light fixtures protected from vandalism?
9. Do the users, or residents, in the surrounding area participate and exhibit good ownership efforts?
10. Is maintenance adequate to insure clean fixtures and replacement of broken or burned out bulbs?
11. Are there other physical features that need improvement so that lighting can be effective?
12. Is there regular, on-going surveillance of the area by the community, contributing to ownership and reporting of deficiencies in lighting?
13. Are landscaping elements chosen and maintained so as not to restrict lighting?
14. Are nighttime corridors properly illuminated to eliminate hiding or entrapment areas?
15. Are sightlines and natural surveillance considered in designing lighting for designated nighttime corridors or activity generators?
16. Are movement predictor routes identified and adequately lighted?
17. Are signs, maps, house/building numbers, and other way-finding devices well illuminated?
18. Are the different seasons considered in designing lighting levels?

It is the policy of the Salt Lake City Transportation Division to support the use of Crime Prevention Through Environmental Design principles in the design and operation of street lighting within Salt Lake City.

10. BANNERS

Neighborhoods throughout the City may request approval to place banners on street light poles to provide a sense of community spirit and identity. Banners are also used to promote traffic calming. This master plan supports these uses of banners on street light poles.

An 18-foot high or taller pole will accommodate a 6' tall banner; however, shorter banner sizes may be necessary on neighborhood streets where shorter poles exist. Street light poles must be rated for wind load based on the desired banner size before approval to hang banners will be granted. In neighborhoods where light poles cannot accommodate banners, separate banner poles may need to be used.

Neighborhoods interested in receiving approval to hang banners for neighborhood community spirit and identity purposes must petition the City in accordance with the August 21, 2003 Executive Order: Authorizing the Placement of Street Banners in the Public Way, copies of which can be obtained at the Salt Lake City Transportation Division, 349 South 200 East, Suite 450. The cost associated with producing, hanging and removing these banners is borne by the organization requesting approval.

It is the policy of the Salt Lake City Transportation Division to support the use of banners on street light poles to enhance a sense of community and contribute to traffic calming.

11. STREET TREES AND LIGHTING COMPATIBILITY

It is desired that street lighting and trees located within or near the public rights-of-way be compatible. Both add character to neighborhoods and are highly desirable urban elements of livable communities.

Street lighting powered from underground wiring eliminates the need for tree pruning around wires. Likewise, locating street lights such that the current and future tree canopy does not significantly conflict with the desired lighting dispersion precludes the need for pruning. At the same time, care must be taken to maintain reasonably similar spacing between lights in order to maintain the desired uniformity of lighting levels along the streets and sidewalks.

It is the policy of the Salt Lake City Transportation Division to coordinate the location of new street lights with the Salt Lake City Forester and, in turn, coordinate on the planting of new trees such that both are compatible in providing desired benefits to the neighborhood.

12. ACKNOWEDGMENTS

MAYOR
Ross C. "Rocky" Anderson

CITY COUNCIL
Carlton J. Christensen – District 1
Van Blair Turner – District 2
K. Eric Jergensen– District 3
Nancy Saxton – District 4
Jill Remington Love– District 5
David L. Buhler – District 6
Dale Lambert– District 7

MAYOR'S ADVISORY COMMITTEE ON LIGHTING DESIGN
Anthony Arrigo – Utah Skies
Cheri Coffey – Planning Division
Sherrie Collins – Special Project Grants Monitoring Specialist
Dell Cook – Engineering Landscape Project Manager
Doug Dansie – Planning Division
Barry Esham – Community Affairs - Crime Prevention Specialist
Rebecca Fleischman - Resident
Rick Graham – Public Services Director
Gordon M. Haight II – Transportation Engineer
Boris Kurz – East Liberty Park Community Council Chair
Garth Limberg – Special Assessment Coordinator
Kadee Nielson – Westpointe Community Council Chair
Alicia Orgill – Police Department
Joel Patterson – Planning Division
Val Pope – Parks Division Manager
Lisa Romney – Mayor's Environmental Affairs Coordinator