



ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

ARLINGTON COUNTY GOVERNMENT
STREET LIGHT POLICY AND PLANNING GUIDE

DRAFT

JUNE 2006

TABLE OF CONTENTS

1 GOALS OF THE STREET LIGHTING PROGRAM..... 3

2 STREET LIGHTING POLICY OVERVIEW 3

3 BASIC LIGHTING..... 3

3.1 THE NEED FOR LIGHTING..... 3

3.2 BENEFITS OF LIGHTING..... 4

3.2.1 *Lighting Effects - Traffic And Pedestrian Safety..... 5*

3.2.2 *Lighting Effects - Crime Reduction..... 5*

3.2.3 *Lighting Effects – Aging 6*

3.3 ILLUMINATION LEVELS 6

3.4 TRANSITION LIGHTING 9

3.5 DARK SKY COMPLIANCE 9

3.6 STYLE OF LIGHTING 10

3.6.1 *Carlyle and Double Carlyle Fixtures 10*

3.6.2 *Cobra Fixture 11*

3.6.3 *Teardrop Fixture 11*

3.6.4 *Square Box, Colonial and Globe Fixtures 11*

3.6.5 *High Pressure Sodium lamps..... 12*

4 STREET LIGHTING PRIORITY / WARRANTING SYSTEM..... 12

4.1 WARRANT/PRIORITY EVALUATION EXPLANATION 13

5 STREET LIGHTING REQUESTS PROCESS..... 15

6 SUMMARY 17

1 GOALS OF THE STREET LIGHTING PROGRAM

- To provide for the safety of nighttime traffic operations.
- To provide the pedestrian a safe and secure feeling.
- To provide a street lighting plan that is consistent with the Dark Sky Association, Illumination Engineering Society and Federal Highway Administration's guidelines.
- To deter crime on Arlington County Streets.

2 STREET LIGHTING POLICY OVERVIEW

A GUIDE FOR FUTURE PLANNING AND IMPLEMENTATION OF THE PROGRAM

This street lighting policy provides structured guidelines to establish street lighting standards, identify street lighting types, and prioritize street lighting needs within Arlington County. The policy includes a priority system to determine where light is needed and includes illumination levels, which are based on Arlington's street classification system while being consistent with federal guidelines.

3 BASIC LIGHTING

3.1 THE NEED FOR LIGHTING

The need for public street lighting is becoming more important in an “urban village” environment. Public lighting provides for the safe operation of traffic on streets, provides pedestrians a safer traveling environment, promotes night use of commercial shopping areas, and increases citizen perception of safety from incidences of crime, which improves the quality of life in neighborhoods by creating the perception of safety. When considered on a broad level, the need for

lighting can be classified into three major categories: Traffic and Pedestrian Safety; Crime Reduction; and Aging Driver Considerations. The general purpose of roadway lighting is to provide improved visibility for the various users of the roadways and associated facilities. The term "users" include drivers of vehicles such as automobiles, trucks, buses, motorcycles and bicycles, pedestrians, and other citizens of the community. "Roadways" are defined as freeways, highways, and city streets of various types. "Associated facilities" include physical features along the roadway such as traffic barriers, bridge piers, roadside ditches, curbs, channelization, etc. Roadway lighting, in general, can be expected to reduce night accidents by about 30 percent. Roadway lighting will not, however, produce daytime equivalent accident rates as fatigue, intoxication, and other modifying factors often play a prominent role in nighttime accident rates.

It should be emphasized that illumination of the roadway and the adjacent areas is the basic medium for transmitting nighttime driver information. Indeed, virtually all of the rural highway mileage and a substantial amount of suburban and urban street mileage depend on illumination by vehicle headlights. On many of these roadways, illumination by vehicle headlights is entirely adequate. On other sections of roadways, particularly on the more complex and more heavily traveled urban streets and highways, additional illumination is needed. The objectives in providing this additional lighting can be summarized as follows:

- To supplement vehicle headlights, extending the visibility range beyond their limits both laterally and longitudinally
- To improve the visibility of roadway features and objects on or near the roadway
- To delineate the roadway ahead
- To provide visibility of the environment, and
- To reduce the apprehension of those using the roadway.

3.2 BENEFITS OF LIGHTING

The real value of roadway lighting is finally and directly related to driver safety and comfort and, consequently, to a reduction in nighttime accident rates, and social and economic gains in downtown urban areas.

Many downtown areas are almost deserted after dark. Serious crime can be reduced and businesses can increase their aesthetic appeal and commercial activity after the addition and proper maintenance of roadway lighting.

3.2.1 LIGHTING EFFECTS - TRAFFIC AND PEDESTRIAN SAFETY

The night driving environment is complex due to different types of roads, a greater volume of pedestrians and traffic, and a diverse composition of drivers. The limitations of the human eye are hampered by the amount of information gathering it has to accomplish during night driving. The automobile headlight can never completely satisfy the lighting requirements for the night driver.

Arlington County continuously strives to improve the safety conditions around the county through various outlets. As a result of some of the county's efforts to improve nighttime lighting, the pedestrian accident rate reduced significantly from 135 accidents in 2001 to 105 accidents in 2002. Thirty-five percent of the reported accidents occurred during nighttime hours in lighted conditions. The number of fatalities per year has remained constant over the past 5 years at 2 fatalities per year. Of course, other factors must be considered, such as alcohol, and factors other than poor lighting, when determining the primary cause of a pedestrian accident. With the reduction of these factors, the number of accidents can be further reduced. The County has reestablished some of its policies and guidelines and is constantly looking for ways to improve its current program considering the change in our community and to remain abreast of improving technology over the past two decades

3.2.2 LIGHTING EFFECTS - CRIME REDUCTION

A significant body of evidence indicates that lighting aids in crime deterrence and adds to the perception of citizen safety. While Arlington has a relatively low crime rate, which has reduced significantly by 50% over the past ten years since 1993, the County can still benefit from improved street lighting. The Police Department agrees that improved lighting, coupled with normal neighborhood patrols will enhance crime prevention, as well as increase the public's perception of neighborhood safety. The Division of Transportation coordinates with the Police Department's Crime Prevention section to focus on specific areas that should receive priority for improved lighting. It should be noted that improved lighting does not necessarily reduce overall crime, but can tend to deter it from certain areas. It also can contribute to a perception of safety in a neighborhood, which is an important element in the quality of life for the community.

3.2.3 LIGHTING EFFECTS – AGING

The aging eye has become an important issue in recent years because the population as a whole is getting older and more people are driving well in their senior years. As eyes age, their vision may diminish and many objects that directly relate to vision change. It is reasonable to expect the average Arlington driver and pedestrian to be older in the future. As age increases, the eyes deteriorate considerably in their ability to adjust the pupil opening in proportion to the available light. According to the International Dark Sky Association, “glare, illumination level and transient adaptation are all important issues relative to vision. One must consider proper lighting as a significant issue for the older adult’s health and quality of life.”¹ Because an older person’s eye may not adjust like that of a younger person, careful consideration and planning must occur when determining the illumination level of a street light.

3.3 ILLUMINATION LEVELS

As a result of an extensive lighting study several years ago, Arlington adopted general criteria for lighting levels on streets. The guidelines adopted were simple: 1.5 foot-candles for commercial areas, and 0.5 foot-candles for all residential areas. This is a good base guideline but does not consider functional classification of roadways and other environmental factors. The result of this lack of detail makes it hard to specify the level of light in some locations, and has sometimes resulted in a less than adequate final product. An example would be the level of light needed on a neighborhood principal street in an area where there is a public park with night activity. In this example, a level of 0.5 foot-candles would not be sufficient enough to support the night activity, and a level of 1.5 foot candles is too much for a residential area. When these circumstances are considered, it requires the designer to develop a more detailed plan.

Lighting standards, established by the Illuminating Engineering Society (IES) and the Federal Highway Administration (FHWA) in order to provide good roadway illumination, focus on the classification of roadway, as well as the land use or type of area, such as commercial, intermediate and residential. According to FHWA’s *Roadway Lighting Handbook*, a commercial area is defined as a portion of a municipality in a business development where there are large numbers of pedestrians during business hours. This also applies to densely developed

¹ “The Aging Eye – Some Basic Information”. International Dark-Sky Association. Information Fact Sheet 156. August 1999.

business areas outside of a Central Business District. It contains land use, which attracts a relatively heavy volume of nighttime vehicular and/or pedestrian traffic on a frequent basis.

An intermediate area is defined as a portion of a municipality often characterized by blocks having libraries, community recreation centers, large apartment buildings, or neighborhood retail stores. Few pedestrians characterize residential areas at night. Residential areas include single family homes, town houses and low-density apartment buildings.

Arlington streets are classified as Principal Arterial, Minor Arterial, Neighborhood Principal, and Neighborhood Minor. This report takes these, considers land use, transition areas, and other environmental and engineering factors, and develops the proposed lighting criteria, which is consistent with IES and FHWA standards (See Figure 1). The illumination levels are stated in foot-candles², and found in Table 8 of the *Roadway Lighting Handbook*. See Appendix for the FHWA's Lighting Recommendations by Roadway Classification.³

There are various factors that contribute to the illumination, such as commercial areas, which have on-site lighting, adjacent highways, and other light sources. Figure 1 gives the planner and designer a guideline to follow, as well as a goal to achieve when delivering the product to the driver and pedestrian on the street.

FIGURE 1. ARLINGTON COUNTY STREET LIGHTING

ILLUMINATION LEVELS			
BASED ON FUNCTIONAL CLASSIFICATION AND LAND USE			
Street Type	Commercial	Intermediate	Residential
Principal Arterial	2.0	1.4	1.0
Minor Arterial	1.4	1.2	0.8
Neighborhood Principal	1.2	0.9	0.6
Neighborhood Minor	1.0	0.8	0.5

All values are given in foot-candles.

² Foot-candle is defined as the measured amount of light on one square foot of surface area one foot away from a standard candle. It is the primary unit of light measure used in North America.

³ United States Department of Transportation, Federal Highway Administration. *The Roadway Lighting Handbook*. 1978. Reprinted April 1984.

Since Arlington does not maintain any lighting on interstates, such as I-66 or I-395, the first two categories are eliminated. The next category is that of major streets. Arlington segregates these into Major and Minor Arterials. This study classifies Major Streets as Neighborhood Principals, therefore, the values for Arlington's Neighborhood Principal streets are the same as the FHWA standard for Major streets.

Minor Arterial streets present a classification that is not defined by FHWA, but in Arlington is designed to primarily serve local neighborhoods while carrying some through traffic. It is within this definition that dictates the Minor Arterial illumination levels. They are not as bright as Major Arterials because they are designed with the neighborhood in mind. Because they do serve through traffic and do have higher average operational speeds and volumes, they deserve more lighting than their Neighborhood Principal counterpart. This leads to the rationale for the levels of the Minor Arterial and the Neighborhood Principal Street.

The Neighborhood Principal Street by all rights is a Collector street. They are designed to carry local traffic into the arterial system and do not serve as a through street. With this in mind the designer has to weigh the operational speed, pedestrian traffic and other factors against the need for higher levels of light. Obviously, the Neighborhood Principal street carries more traffic than its Neighborhood Minor subordinate. The Neighborhood Principal Street deserves the same light levels as the Collector, because they are designed to accomplish the same goal.

The Neighborhood Minor Street has the same characteristics as any Local street. They are residential and are lighted to the least stringent standard. The designer must provide only enough light to safely move traffic and pedestrians through the neighborhood without being overly obtrusive to residents' homes. Arlington County has always provided 0.5 foot-candles and this has served it well. Figure 2 illustrates Arlington County's standards for pole and lamp properties including the horizontal luminance, pole spacing and lamp lumens. Staff sees no reason to deviate from this standard. It is recommended that alleys only be considered for lighting when there are mitigating circumstances, such as high crime.

FIGURE 2. ROADWAY LIGHTING

POLE AND LAMP PROPERTIES CHART

Roadway Lighting Criteria	Residential	Commercial
Pole Spacing (ft)	100 – 120	60 - 90
Lamp Lumens	5000	14000
Horizontal Luminance Average (fc)	0.5	1.5
Wattage	70.0	150.0

See Appendix for examples of streetlight spacing scenarios.

3.4 TRANSITION LIGHTING

When developing lighting plans, the effects of lighting on the driver’s eye must be understood. According to the “Roadway Lighting Handbook”, a driver’s eye adjusts every time it experiences a lighting change. It is more difficult; and takes longer for the eye to adjust from light to dark than conversely. With this in mind, the handbook specifies that a transition lighting section be provided when moving from one light level to another.

The Illumination Engineering Society recommends that the light level be reduced by no more than 50% in a section of roadway that a vehicle travels along in a 15-second period. This means a driver traveling along the roadway would experience no more than a 50% drop in illumination in 15 seconds. This rationale will be considered when going from any type of zone in Arlington, like going from a commercial area along a residential street into an intermediate or a low-density area. This insures there is uniformity, and does not compromise this design imperative.

3.5 DARK SKY COMPLIANCE

Light Pollution is the scattering of light coming from lighting sources, which serve no function but to light up the sky. It is commonly found that most light fixtures end up spewing more light upwards than downward. This not only makes for terrible sky conditions or background glow but also wastes a lot of energy. Because Arlington County is committed to creating and maintaining a higher standard and quality of life for its residents, the Division of Transportation will comply with the Dark Sky Association regulations that attempt to reduce light pollution. The intent of the compliance is to eliminate light trespass from the

building and site, improve night sky access and reduce development impact on nocturnal environments. The requirements state that compliance should meet or provide lower light levels and uniformity ratios than those recommended by the *Illuminating Engineering Society of North America (IESNA) Recommended Practice Manual: Lighting for Exterior Environments* (RP-33-99). Design exterior lighting such that all exterior luminaires with more than 1000 initial lamp lumens are shielded. All luminaires shall meet the Semi-Cutoff or Full Cutoff IESNA Classification. The maximum candela⁴ value of all interior lighting shall fall within the building (not out through windows) and the maximum candela value of all exterior lighting shall fall within the property. Any luminaire within a distance of 2.5 times its mounting height from the property boundary shall have shielding such that no light from that luminaire crosses the property boundary.⁵ Full cut off fixtures do not emit light above the horizontal plane of the fixture. Semi-cutoff fixtures, while emitting very little light above the horizontal plane, do provide adequate cutoff capabilities. Most Carlyle and Teardrop lights within the County are semi-cutoff and some Cobra lights are full cutoff.

3.6 STYLE OF LIGHTING

Several factors contribute to the amount of light that is delivered to the street. These are the type and intensity of lamp, the age of the lamp and fixture, and the style or type of fixture. A major controlled factor is the fixture type. There are currently seven fixtures in use in Arlington today. Of the seven, only four, the Carlyle, Double Globe Carlyle, Cobra and Teardrop, are to be installed as part of any new projects.

3.6.1 CARLYLE AND DOUBLE CARLYLE FIXTURES



Photo 2 – Carlyle Fixture

The "Carlyle" and "Double Globe Carlyle" ornamental pedestrian scale luminaires are more decorative luminaires that are used along sidewalks in commercial and residential areas. These fixtures are typically 12 to 16 feet in height. Whether single or double globe fixtures are installed on an



Photo 1 – Double Carlyle Fixture

⁴ The candela is the luminous intensity of the lighting source.

⁵ Leadership in Energy and Environmental Design (LEED) – NC Version 2.1. Reference Guide. P. 69.

principal and minor arterial roadway depends on the “site plan” conditions and are subject to vary based on location. An Arlington County Department of Transportation Engineering and Operations street light engineer determines the actual height of the fixtures based on the neighborhood, location and proximity to other elements of the project’s site plans.

3.6.2 COBRA FIXTURE

The "Cobra" roadway luminaire is primarily found at intersections, in neighborhoods, along arterial streets and at some traffic signal locations. The standard Arlington County Cobra luminaire is 33 feet in height. See Appendix for an illustration of the nominal mounting height for a standard Cobra luminaire. Used widely by Dominion Virginia Power (DVP), which owns 85 to 90% of the County’s lights, the Cobra fixture was determined to be the best luminaire after DVP conducted an extensive light pollution study.



Photo 3 – Cobra Fixture

3.6.3 TEARDROP FIXTURE

The “Teardrop” luminaire is a decorative lighting fixture that may be found atop some signalized intersections along arterial streets in the County.



Photo 4 – Teardrop Fixture

3.6.4 SQUARE BOX, COLONIAL AND GLOBE FIXTURES

The “Square Box” luminaire is located mostly in parking lots, parks and open spaces. The “Globe”, although in small numbers, may still be in some commercial areas such as Courthouse and Clarendon. Although Arlington County no longer installs the Colonial luminaire, it is still found in some residential areas.



Photo 5 – Square Box Fixture



Photo 6 – Globe Fixture



Photo 7 – Colonial Fixture

3.6.5 HIGH PRESSURE SODIUM LAMPS

High-pressure sodium (HPS) lamps, which are to be installed in every new project and upgraded in every existing project within Arlington County, are a type of lamp for luminaires that have a very high rating of 140 lumens per watt⁶. They also offer a generally acceptable color rendition (a slight yellow/white), which does not effect the color of objects that appear on the street. Even though installation costs for high-pressure sodium lamps are higher than mercury vapor lighting, they are the most attractive lighting on the market because they cost less to operate than mercury and they deliver more light to the street. They are safer for the environment than their mercury counterpart. This is because a power plant emits harmful gasses into the atmosphere when it produces electricity. The more kilowatt-hours of light that is used, the more power plants work, thus the more harmful gases are emitted into the environment. A 400-watt mercury lamp consumes 45 kilowatt-hours more power per month than its 250-watt HPS counterpart. This attributes 31 more kilograms of carbon dioxide (an ozone damaging gas), 26 kilograms more of sulfur dioxide (a principal component of acid rain), and 11 kilograms more of nitrogen oxides (components of acid rain and smog). Although mercury vapor lamps are still in use within parts of Arlington County, the County resolved to convert all existing mercury vapor lamps to high-pressure sodium.

4 STREET LIGHTING PRIORITY / WARRANTING SYSTEM

Although a warranting or priority system for street lighting will not solve all problems, it will be helpful in making engineering decisions, and will assist in prioritizing lighting projects. Warrants are measurable, and are used to allow the engineer to make decisions based on facts. Federal Highway Administration's (FHWA) "Roadway Lighting Handbook" has established a warranting system for highway and street lighting. These warrants are primarily for highways, but have applications for urban streets. The warrants include major emphasis on geometric factors, operational factors, environmental factors and accidents.

This policy proposes criteria, which takes into consideration Arlington County's urban setting. The warrants have been tailored to Arlington's street classification system. Some warrants have been shortened, such as building setback and sight distances. Some warrants, such as crime, receive more weight. Additionally,

⁶ Lumen is the measured light as it would leave the lamp that is not affected by local losses such as ballast losses or through refraction.

more warrants have been added to take into account the amount of elderly drivers and tourism sites within close proximity to the potential street light location. Total night volumes and average nightly traffic are also considered when determining whether a street light is warranted in a particular location.

4.1 WARRANT/PRIORITY EVALUATION EXPLANATION

To understand the warrant/priority evaluation, one must understand the driver's information needs. Here are a few factors that influence the order of decision making⁷:

- Roadway Geometry
- Roadway Markings
- Channelization Outline
- Intersection Location
- Driveway Access
- Parked Vehicles
- Pedestrian Activity
- Development and Adjacent Light Sources
- Elderly Drivers
- Tourism Attraction Proximity, and
- Average Daily Traffic

Roadway geometry is the characteristics of the road such as curves and hills. It is important to be able to distinguish the outline of a curve at night. The roadway markings, such as solid or dashed lines must also be clear to the driver. Roadway channelization includes raised medians or islands, and is meant to divert traffic into a turning lane, or to separate opposing traffic. A driver must be able to see the channelization outline in order to avoid running into them. Roadside objects such as utility poles, fire hydrants, and trees must also be discernable to the driver at night. In instances where a driver runs off the road to avoid an accident, a lighted section would lessen any damage that could occur.

The following outlines the classification factors that appear in the County's warrant/priority evaluation outline and the effects of these on the need for lighting.

⁷National cooperative Highway Research Program (NCHRP), Report #152, "Warrants on Highway Lighting", Walton, Ned E. and Rowan, N.J., Washington D.C. 1974.

Figure 3. Classification Factors

CLASSIFICATION FACTOR	WHY LIGHTING IS NEEDED
Number of Lanes and lane widths.	The more lanes, the wider the road, the more light needed.
Median Openings and Driveways	The more openings, the greater the visibility need in those areas.
Curves and Grades	Sharper curves and steeper grades require more lighting.
Parking	Parking on one side, both sides or loading zones only will affect the need for the lighting in those areas where parked vehicles are present.
Percent of Development	The greater the development of the area, the greater the need for additional lighting.
Type of Use	Single family developments require less lighting than commercial areas.
Crime Rate	The higher the crime rate, the greater the need for lighting.
Night/Day Accidents	As night traffic accidents approaches 2 times that of daytime accidents, there is an increased need for more lighting.
Traffic signals	If traffic signals are present on the street, streetlights are most important.
Left Turns	If the street has left turn lanes in both directions, it has a greater visibility requirement than others.
Median Widths	The greater the median width the less the need for lighting because of the separation of opposing traffic.
Operating Speed	The greater the speed, the greater the need for lighting.
Pedestrians	The more pedestrian traffic that is present, the greater the need for improved lighting.
Street Classification	An arterial street needs more lighting than a neighborhood minor street by virtue of the amount of traffic it carries.

To achieve a quantitative measure of these types of characteristics the engineer must assign a rating based on the extent to which they influence driver informational needs. A numerical rating from one through five is assigned. A rating of five is given to a characteristic that most influences the driver, while a rating of one is given to the least influential. Some of the characteristics have a greater influence than other characteristics. This is achieved by weighing each characteristic against lighted and unlighted conditions. These weights are developed based on FHWA guidelines and engineering judgement.

To determine whether a street meets the criteria for lighting, a field survey will be made. The surveyor gathers all operational, environmental, geometric data as well as other considerations such as the level of tourism and elderly drivers, the volume/capacity ratio, total traffic volume and the average daily traffic. Then, the surveyor completes the Warrant/Priority form. See the following Preliminary Lighting Warrant Evaluation Form. The total score is compared to the score required for possible street lighting and a determination is made whether the location is a candidate for street lighting. The score that warrants lighting in our criteria is 114. This evaluation will also be used to assign a priority system for projects. The higher the score, then the higher the projects priority will be.

This evaluation system will provide a tool to prioritize where lighting is the most critical and will provide a tool that will establish where to spend tax dollars for street lighting. See Warrant/Priority Evaluation Form in the Appendix.

5 STREET LIGHTING REQUESTS PROCESS

It has merit to present the process by which street lighting is installed. There are several different categories that warrant streetlights. From the onset, it is always a driven community or safety need that requires street lighting be installed. The primary reason is lack of proper lighting in a neighborhood, but could also include improving lighting on existing arterial streets, or at intersections to enhance safety or to replace existing utility pole mounted lights with something more attractive such as a Carlyle light in a residential area. No matter the program, the lighting design will improve overall illumination. Several funding vehicles, the Neighborhood Conservation (NC) Program, the Business Conservation Program, the Comprehensive community Improvement Program, the Apartment Conservation Program, and the Public Works Capital Improvements Program (CIP), all serve the light installation process.

To request street lighting, a citizen may place a request with their civic association, the volunteer Neighborhood Conservation Advisory Committee

representative if applicable, or the Department of Public Works. When anyone calls the Department of Public Works to request additional lighting, their request is investigated. Most often, the request can be satisfied with adding a light on an existing utility pole, but the option of adding residential (Carlyle lighting or its replacement) lighting is investigated for practicality and feasibility. A petition is created which identifies any resident that will be affected by additional lighting. These persons are asked by the originator of the request to sign the petition in support of the project. The project is qualified for funding and construction when a majority of those identified sign the petition.

Neighborhood Conservation works to enhance residential areas by providing citizen-initiated public improvements in 48 participating neighborhoods. These public improvements (street improvements, traffic management, beautification, parks improvements and street lighting) are based upon neighborhood plans and must be endorsed by individual civic associations, recommended for funding by the Neighborhood Conservation Advisory Committee and approved by the County Board.

If the project does not fall within the boundary of a NC Area, it is put into the next available Capital Improvement funding cycle. Since this cycle runs a few years out, the project completion time takes much longer. For example, the Fiscal Year 2006 Capital Improvement Program (CIP) is planned in calendar year 2004. If approved by the County Board, a project, which is planned in 2004 and funded in the 2006 CIP, will typically be constructed in the winter of 2006.

Other programs as mentioned above such as the Apartment Conservation, or Business Conservation, etc. are planned as a part of those projects. The client understands up front that the street lighting improvements will be made as a part of their finished project. The lighting plans are approved as a part of their engineering plan. The County also requires site plan developers to install lighting as a part of their projects. They pay the costs associated with putting those lights into service.

6 SUMMARY

Arlington County will continue to benefit from a quality Street Lighting Program. Street lighting contributes to the quality of life by: providing a safer street at night for the pedestrian and the driver, by aiding in accident and crime prevention, and by aiding in improved night driving for an aging Arlington community, that is a vital and integral part of the future driving population.

By establishing lighting standards that compliment the Master Transportation Plan while being consistent with federal guidelines, Arlington County is defining what level of lighting should be on a certain street and shapes policy to adopt future programs to implement these levels. This, along with a Warranting/Priority System will ensure that the County will spend tax dollars efficiently.