

A photograph showing a bright sun setting or rising, partially obscured by the dark silhouettes of trees. The light creates a lens flare effect.

*Tuesday September 30, 2008*

A photograph of a sunset over a body of water. The sun is low on the horizon, creating a shimmering reflection on the water. A small boat is visible in the distance. The foreground is dominated by the dark silhouette of a large tree on the left side.

## White Rock Lake Park Master Plan Guidelines & Crime Statistics

*James Northrup  
Northrup49@gmail.com*

*Joe Gillum  
jgillum@mac.com*

*Catrine Sutter  
mail@catrine.ch*

## White Rock Lake Park Master Plan Lighting Guidelines

The guidelines for lighting in White Rock Lake Park can be summarized as follows:

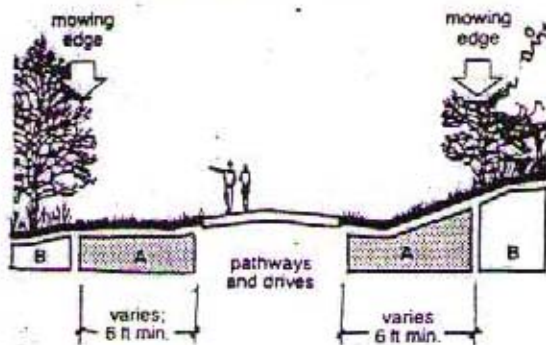
1. Fixtures should be shielded down lights
2. The number of fixtures should be minimal
3. Use concealed light sources – including placement in trees
4. Locate power supplies, ballasts, etc. underground
5. Metal halide or mercury vapor bulbs – not high pressure sodium

*None of these guidelines were observed by the Parks Department Architect.  
No lights should be installed in Park that do not conform to the Plan.*

## Master Plan Guide Lines

Following a selection of pages of the White Rock Lake master plan detailing the lighting:

# White Rock Lake Park Master Plan



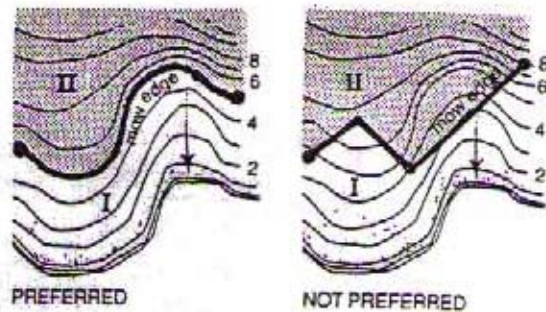
- Generally, all park pathways and drives should have maintained turf areas A adjacent to circulation paths to facilitate improved maintenance and trash pick-up. Exceptions to this guideline include pathways located in certain areas of the environmental reserve and special zones.

Figure 47. Pathway zones.

## Type V areas:

- Development/redevelopment in these areas should occur only to restore and enhance shallow water wetland plant communities and to provide appropriate habitat zones for fish and wildlife.
- Provide for appropriate *diversification* of native plants. Refer to **Plant List 5** for plant material to be utilized in these areas. This diversity should be reflected in plant sizes, shapes, and ages in addition to variety of plant species.

**Zone edge delineation.** Most zones will be delineated by a mowing edge. Mowing edges should follow the contours of the land when possible (see figure 47). Type I areas should be used adjacent to all drives and pathways except in environmental and special zones (see figure 48).



- Generally, mowing edge should follow the contours of the land.

Figure 48. Mowing edges.

## Lighting

In order to enhance the Park's natural features and character and maximize park security and safety, lighting should be carefully planned so that it appears to take a very minor role in the Park environment. The following are all lighting objectives that are important to maintain and support the natural character of the park:

- ✓ Locate major electrical supply lines facilities and lighting underground,
- ✓ Minimize fixture use,
  - medium and low lighting levels,
  - long lamp life and energy efficient fixtures,
- ✓ and concealed lighting sources.

The lighting use and intensity is slightly different in each Park Zone. The Design Guidelines recommend only one (1) fixture that promotes a use-district character and that is the Nautical Zone light fixture. This light with cross-arm is recommended for use only in the Nautical Zone and at the T-shaped fishing piers around the lake (see figure 42). The three (3) lighting fixtures recommended are as follows:

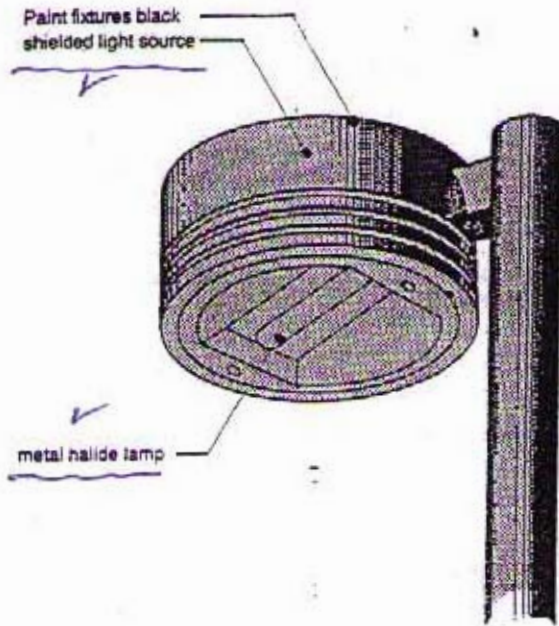
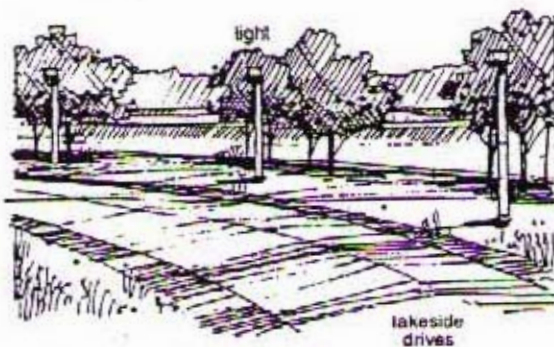


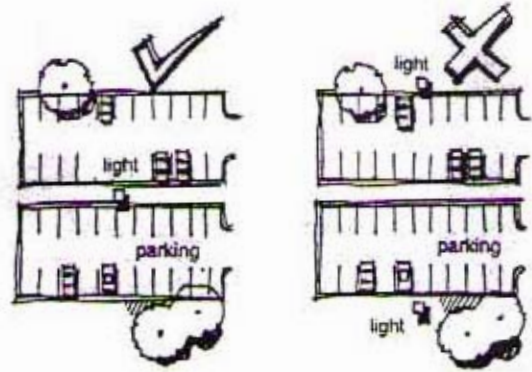
Figure 49. Drive and parking area lighting.

- Park drives and parking areas. This fixture should be equivalent to the Kim, Curvilinear Cutoff, Horizontal lamp, sharp cutoff luminaire (see figure 49). It should be painted black, with an arm mounted luminaire, metal halide lamp source, and fixture accent reveals. The houseside shield should be used to minimize light pollution near residential areas and be controlled with a photocell switch and timer over-ride.



- Provide for fixtures no taller than the tree tops.

Figure 50. Drive lighting.



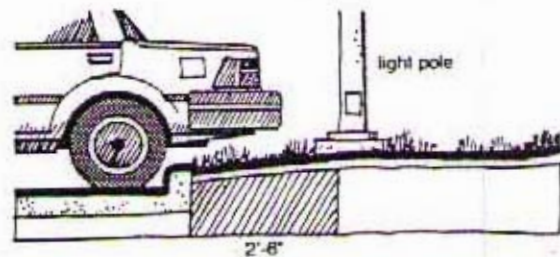
- Use the minimum amount of parking light standards.

Figure 51. Parking area lighting

The lights planned along the lakeside drive should be located near existing or newly planted tree groves to minimize the fixture profile along the lake shore. The fixtures should not be taller than tree-top height (see figure 50).

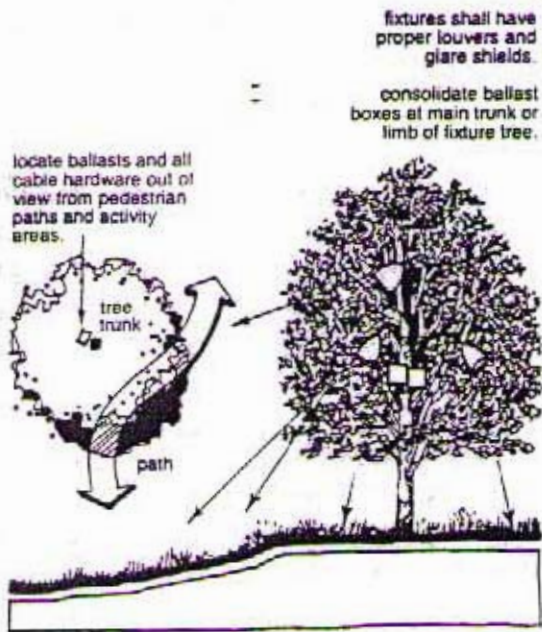
Lighting parking areas preferably should be done from a center island(s) position to minimize fixture quantities (see figure 51). They should be located a minimum of 2'-6" from a curb or pavement edge to protect the pole from auto bumpers (see figure 52).

- Nautical and fishing pier light (see figure 42).



- Locate poles at least 2'-6" from curb or pavement edge to protect pole.

Figure 52. Light pole protection.



**Criteria:**

- Paint all fixtures and hardware flat black to minimize visual impact of hardware.
- Do not place fixtures in newly planted trees.
- Specify metal halide lamps for use in flood light (not spot light) fixtures.

Figure 53. Tree-mounted light fixture.

- Security lighting. This fixture shall be equivalent to the Greenlee, 201 Bullet Fixture, Mercury Vapor lamp with appropriate tree mount box and above grade ballast box. All hardware shall be black. These down

**Criteria:**

- Place fixture pole through existing tree canopy to mount lights.
- Paint all fixtures and hardware flat black.

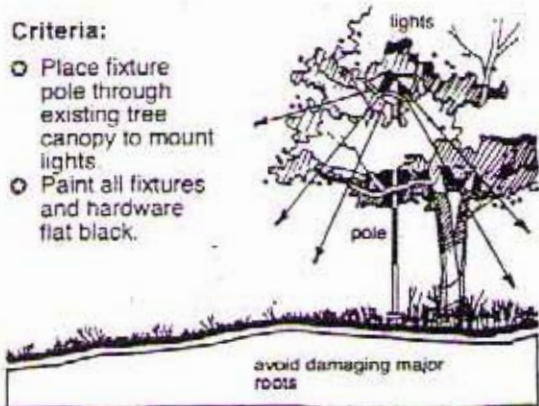


Figure 54. Pole-mounted light.

lights can be either located in an existing tree and appropriately aimed at walks, sitting areas, and picnic areas below (see figures 53 and 54), or mounted on a pole located as close to the tree trunk as possible. The ballast boxes should be located out of view and reach of pedestrians. The fixtures should be controlled by photocells with a timer over-ride.

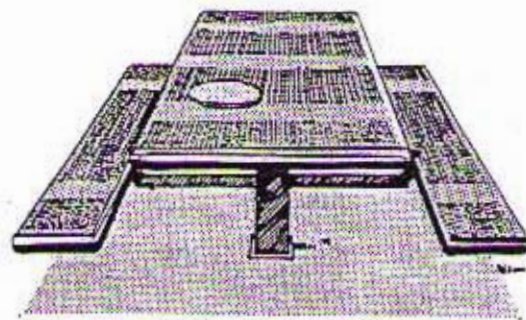
## Furniture

### Picnic Tables

Picnic tables of all sizes and materials are located all over White Rock Lake Park. This important item of site furniture needs stronger design guidelines of consistent style, quantity and placement to improve the visual quality of the Park and simplify maintenance. There are two (2) styles of benches recommended:

The metal table (see figures 55 and 56) should be similar to a Landscape Structures #885-08642,

#### Pedestal



- Landscape Structures #885-13642; same top and seats as 508 series, with 6 inch square steel center post; black. 513 Series.

Figure 55. Metal picnic table - pedestal.

## White Rock Lake Crime Evaluation and Statistics

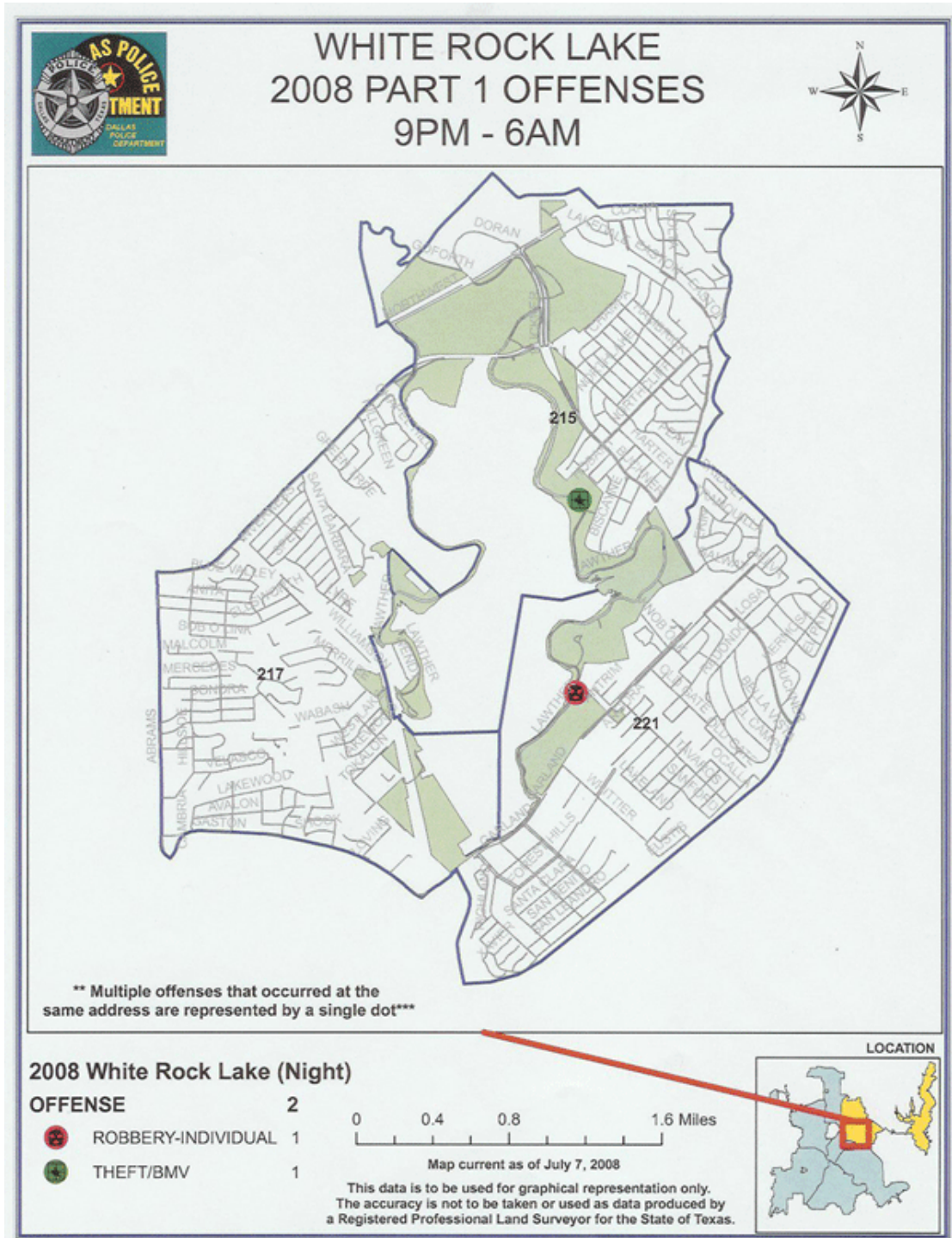
The crime offenses for White Rock Lake Park can be summarized as follows:

1. The Parks Department did not do a needs-assessment for this project
2. No studies were done to determine whether lighting was justified
3. The rationale presented was for “increased security”
4. Crime stats from DPD *do not indicate that lights would increase security*
5. The most prevalent type of crime is BMV - burglary of motor vehicles.
6. Most of BMV’s occurs in parking lots during day time
7. The plurality of night time crime is BMV in lighted parking lots
8. Lighting parking lots will increase BMV in the park

*Lighting lots will increase crime at the park, not decrease it!*








# Map of Crime Offenses

Latest example: 2008 night time (9 pm to 6 am)



## Composite of all night time offenses (9 pm to 6 am)

Years 2003-2008

Offenses	2003	2004	2005	2006	2007	2008	Total (in 5.5 years)
Thefts/Burglary car (BMV)	5  3	2  1	 2	0	1	 2	11
Robbery individual	3	3	0	1	2	 1	7
Aggravation assault	1	3	0	1	0	0	5
Car theft (UUMV)	0	0	0	0	 1	0	1
Rape	0	0	0	0	1*	0	1*
Other	0	1	 1	0	0	0	2

\* unconfirmed report



number of offenses in illuminated areas

*10 of the 27 total offenses occurred after curfew (midnight).*

*11 offenses of a total of 27 occurred in lighted areas*

## Conclusion

1. Most crimes in the park is burglary of motor vehicles (BMV) during day time, when it is easy to see (parking lot, cars, pedestrians etc.)
2. Of all the crimes that occur at night approximately 1/3 occur in lighted parking lots
3. Since lighted parking lots represent less than 20% of the total of the lots crimes are more likely to occur in these than in the un-lighted parking lots
4. There is no justification for putting street lights in parking lots in the park
5. Lighting parking lots will increase crime at night - and may increase other offenses including curfew violations