

COUNTY OF HENRICO
VIRGINIA

INTER-OFFICE MEMORANDUM

TO:	Planning Office	SUBJECT:	POD2013-00312: McDonald's Mechanicsville Tnpk Remodel
FROM:	Henrico County Police Division, Community Services Unit	DATE:	September 19, 2013

POD2013-00312

McDonald's Mechanicsville Turnpike Remodel

POD-66-98

<handicap parking improvements and addition of dual drive thru lanes >

- ☐ Henrico Police Division recommends approval
☐ Henrico Police Division recommends approval if the requirements in Section I are addressed.
☒ **Henrico Police cannot complete our review at this time. Additional information is needed.**

SECTION I. Address the following items in order for the Henrico Police to endorse this plan:

☒ **Provide new plans with details to address items noted below.**

☐ Provide a response addressing the items and/or stating the intent of the applicant.

1. The drive through lane expansion shows the removal of at least two light poles and a portion of the fence along the western property line. The following items need to be submitted in order for the Police Division to complete its review:
 - a) A lighting plan is requested.
 - b) Provide fencing details, location, and materials.
2. The lighting plan should meet the lighting standards listed in Section II.

SECTION II. Implement the following security standards:

Landscape Plan - no plan submitted

1. Show light pole locations on the landscape plan in an attempt to avoid conflicts.
2. The location of the light poles in relation to the trees needs to be considered, especially in parking lots and areas along the building's edge. The two should not be located in the same area, as illumination will be reduced as the tree matures.
3. All shrubs and trees should be trimmed to allow for maximum visibility to and from the site and from within the site. Shrubs should have a natural growth habit of no more than 2 ½ to 3 feet, or should be maintained at this height, especially when located along an entrance, walkway or in a parking area.
4. Trees located around the buildings, walkways and parking areas should have a natural growth habit that is a tree-form, non-pyramidal shaped tree. If this cannot be done, the canopy of the trees should be maintained at least 4 feet from the ground as the tree matures.

Lighting Plan – No plan submitted

5. The minimum maintained light level should be no lower than 1.0 foot-candles throughout the parking areas, walkways, building entrance and building edge.
6. The lamps throughout the site should be the same. The emphasis is to have the same color of light (white or orange/yellow) throughout which will provide good color rendition, help with visibility, and reduce contrasts. Color rendition refers to how objects of various colors appear under a particular lamp. Metal halide, LED, compact fluorescent lamps (white light) are preferred.
7. All light fixtures need to be full cut-off. See Photo's A and B for examples of full cut-off wall packs and pole lights.
8. Should post top fixtures be used, these fixtures also need to be full cut-off so that the light will be directed down to the ground, versus horizontally and up in the air. If decorative fixtures are installed, they should have the lamp in the top casing of the fixture so that the light will be directed towards the ground (See Photo C). This will also avoid glare because you don't actually see the lamp. Glare is defined as horizontal light that hinders vision.



Photo A. Shielded wall pack.

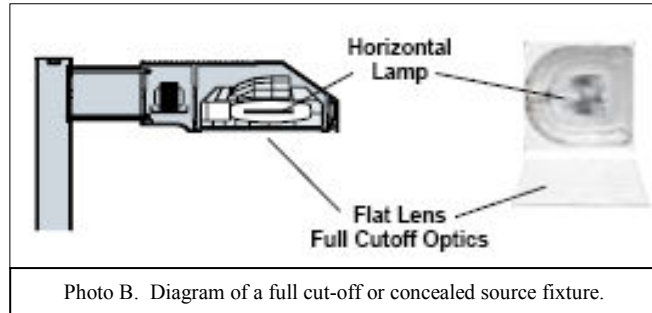


Photo B. Diagram of a full cut-off or concealed source fixture.



Photo C. The white globe visible to the eye in this post top fixture is decorative; the lamp is in the top of the fixture.

9. Lighting is one of the most economical and effective forms of crime prevention available. For lighting to be effective it must be uniformly distributed so that dark areas and areas of sharp contrast are not created. The Illuminating Engineer Society of North America defines uniformity as “the evenness of the distribution of light on the surface(s)”...which “aids security perception, while reducing the necessity for eye adjustment...” IESNA G-1-03, 5.4.
10. In creating uniform lighting, consider:
 - a) type of fixture
 - b) the height of poles
 - c) the direction of the light
 - d) spacing of fixtures
11. Routine maintenance of the lights is recommended.
 - a) A schedule should be established to review lights to determine if any need replacing.
 - b) Globes should be cleaned periodically to ensure full illumination from the light.
 - c) A program should be established to relamp the complex, also known as *group relamping*. This method reduces cost by minimizing site visits for the purpose of relamping, and it ensures that the lamps being replaced are consistent with all surrounding lamps.
 - d) A program should be established for the trimming and maintenance of tree canopies and other plant materials at or around the light poles so that illumination is not reduced.

While our requirements for the endorsement of the plan do not guarantee a crime-free environment, it is our experience that the application of the concepts of Crime Prevention Through Environmental Design (CPTED) will reduce the opportunity for crime to occur and will enhance the quality of life. Should you have any questions or comments, please contact me at (804) 501-5370 or van06@co.henrico.va.us.

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