

COUNTY OF HENRICO
VIRGINIA

INTER-OFFICE MEMORANDUM

TO:	Planning Office	SUBJECT:	POD2021-00414: Virginia Center Commons Apartments
FROM:	Henrico County Police Division, Community Services Unit	DATE:	October 29, 2021

POD2021-00414

Site + Landscape + Lighting Plans

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

SECTION I. Address the following items in order for 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.

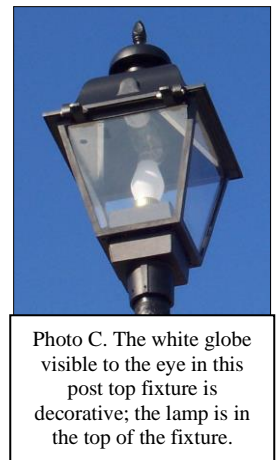
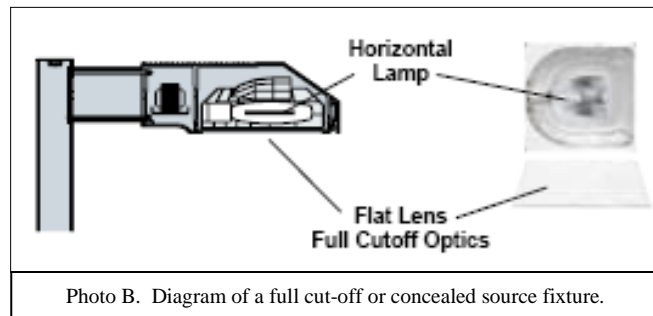
- Because there is no perimeter control, these buildings will need substantial access control measures, security cameras, signage and lighting. Even with crime prevention measures, the tenants will experience crime to their vehicles and their property inside their apartments, especially those that live on the first floor. Having patio doors and hung windows on the first floor provides easy access for potential burglary. Especially, if a door/window is cracked or accidentally left unlocked.
- Please describe where residents will park their vehicles.
- Because of the piecemeal development of the site, the parking lot lighting is going to be brighter around the Henrico Sports complex and the proposed apartments; however, the parking areas in between will seem darker. Parking lot lighting is required to be between 3-6 foot-candles. The lighting improvements should extend beyond the proposed property lines.
- Lighting is too low around the dumpster enclosures
- See best practices below as you proceed.

Landscaping Best Practices:

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 Best Practices:

5. The minimum maintained light level should be no lower than 3-6 foot-candles throughout the parking areas, and 1.0 foot candles along walkways, the 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. This will provide good color rendition, help with visibility and reduce contrasts. Metal halide, compact fluorescent, or LED lamps are preferred, all which are white light in color, are preferred. Color rendition refers to how objects of various colors appear under a particular lamp.
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.



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.

Building Security Best Practices:

12. Doors should be solid core construction and a minimum of 1 3/4 inches thick.
13. A solid core door should contain a security peephole for the users of the residence.

14. Strike plates must be solidly anchored through the doorframe, into the framing studs, using screws three inches or longer in length. Otherwise, a swift kick could break the doorframe.
15. Utilize non-removable hinge pins or piano hinge/continuous hinge on all exterior doors.
16. *As applicable* - French doors, where one door is stationary, are often a vulnerable point in security. The doors should not have more than one-eighth (1/8) of an inch between them. Install a deadbolt-locking device (header and/or threshold bolts could be used) that meets fire code but can serve as both a key lock and a single cylinder deadbolt.
17. *As applicable* - Sliding glass doors are a particularly vulnerable point in security. Locking devices should be installed.
 - a) Install 'Charlie-bars' for the sliding glass doors.
 - b) Install two sheet metal screws inside the top of the track to eliminate someone from lifting the doors out of the tracks.
18. A garage should have the following security measures in place:
 - a) Remote garage opener system that is not interchangeable where it will open other garage doors.
 - b) Bolt in the garage to lock the garage door in place if the resident chooses to.
 - c) Deadbolt locks for the doors separating the garage from the interior of the home
19. *From National Fire Protection Association (NFPA) 730 Guide for Premises Security 2006 Edition:*
As applicable - A side panel by the front door. From National Fire Protection Association (NFPA) 730 Guide for Premises Security 2006 Edition.(7.3 Doors – 7.3.6.4) If an exterior door has a glass panel within 40 inches of the lock, consider the following options. This will prevent a burglar from breaking the glass and reaching in to unlock the door.
 - a) Locate the sidelights on the hinge side of the door or the top of the door versus the deadbolt lock side.
 - b) Replace the glass with UL-listed burglary-resisting glazing material, such as polycarbonate glazing.
 - c) A piece of polycarbonate can be attached to the inside of the door behind the glass to provide backup protection
 - d) Protect the glass panel with a metal security screen

The Henrico Police Division supports and implements Crime Prevention Through Environmental Design (CPTED), which is the theory that the proper design and effective use of the built environment can lead to a reduction in the incidence and fear of crime and an improvement in the quality of life.

The following characteristics need to be in place at this site.

1. *Natural Surveillance.* Provide natural surveillance throughout the site, especially to parking areas, buildings, building entrances, walkways, etc. Natural surveillance is the placement of physical features, activities and people in such a way as to maximize visibility.
 2. *Natural Access Control.* Provide natural access control throughout the site. Natural access control is the physical guidance of people coming and going from a space by the judicious placement of entrances, exits, fencing, landscaping and lighting. The goal is to guide people where you want them to go and how you want them to get there.
 3. *Territorial reinforcement.* Territorial reinforcement is the use of physical attributes that express ownership, such as fences, pavement treatments, art, signage and landscaping. The goal is to promote ownership and pride in where you live and work.
 4. *Maintenance.* Allows for the continued use of space for its intended purpose. It also serves as an additional expression of ownership.
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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.

Billy Moffett
CPTED Planner