



CPTED NARRATIVE

COPANS TRANSIT OPERATIONS FACILITY
3201 W. Copans Road, Pompano Beach FL 33069
OWNER: Broward County Transit

- INTRODUCTION (CURRENT CONDITION)
- SITE IMPROVEMENTS & NEW FUNCTIONS.
- BUILDINGS
- CPTED PRINCIPLES – DESCRIPTION AND COMPLIANCE

Introduction:

The purpose of this project is to design and provide Architectural and Engineering services for site improvements to the existing Copans Transit Operations Facility including the design and construction of new buildings and site amenities, modifications and upgrades to the existing buildings, environmental and efficiency improvements, employee activity amenities and function, maintenance capabilities and facilities improvements.

The Copans Transit Operations Facility is located on Copans Road, east of the Florida Turnpike in Pompano Beach, Florida. Currently the site consists of 4 existing buildings: Building 1 - Maintenance Facility, Building 2 - Fuel Station, Building 3 - Wash Station, and Building 4 - Operations and Administration as well as bus parking and storage area and staff and visitor parking.

Proposed Site improvements:

The new site layout creates an efficient circulation loop for both the bus fleet maintenance functions, deliveries and privately-owned staff and visitor vehicles. The bus entrance driveway along Blount Road will be similar to the existing configuration but will be improved with a new guard house and security access using RFID readers. This entrance on Blount Road is designed to facilitate the preferred bus stacking and sequencing. The facility's main entrance, for staff, visitors and deliveries, off West Copans Road will also remain in the same location but will include an upgraded, highly-efficient security guardhouse and checkpoint. This entrance will use proximity card readers with barrier arms. The entrance will have one lane for employee access and another lane, closer to the guard booth for vendor and guest access.



Upon completion of construction the West Copans Road entrance, POV's and Facilities Maintenance vehicles would enter and circulate along the west property boundary to access both the existing on-grade parking areas as well as both existing buildings to remain and the proposed new building and other site features and amenities.

A vehicle gate operated by the security checkpoint would provide refueling tankers direct access from W. Copans Rd. to the Fuel Station. Delivery vehicles destined for the proposed Fleet Maintenance Building and Materials Management can enter and exit the site via Blount Rd. POV's and the bus fleet would not share circulation paths.

The following specific site improvements include:

- Extensive site work, grading and drainage improvement and circulation reconfiguration
- Site perimeter fencing
- Two on-site lakes and stormwater management areas
- Site access and guardhouse entry improvements
- Complete site and interior building security enhancements consistent with C.P.T.E.D. Guidelines including incorporation of CCTV technology improvements and electronic access control; enhanced pavement markings and surface parking upgrades for employees and visitors; bus maintenance parking and storage facilities including electric bus charging stations; site lighting improvements; upscale landscaping enhancements and reclaimed water irrigation; storm water drainage improvements; site circulation improvements (pedestrian and vehicular); required utility upgrades including solar/photo-voltaic panels and other electrical modifications; lightning protection advancement; and several other site improvements and amenities.

An existing area of standard vehicular parking will be reconfigured and be extended to provide the required parking spaces for the new buildings. The site also will provide two staging - open storage areas for 148 buses. The entire site facility will provide battery charging stations and maintenance for a fleet of 342 buses.

Buildings:

Maintenance (Building 1) is proposed to be demolished and replaced with a new Maintenance Building to provide the services necessary to maintain the new

electric buses technology, including improved ventilation and exhaust systems at the maintenance bay areas, electrical upgrades throughout and the additional square footage necessary to accommodate the scheduled maintenance for the fleet of 35', 40', 45', and 60' long articulated buses. This building shall also be fitted with both new products (oils and lubricants) and the waste containment structures. This building has 2 stories (total 214,530 sf) within the maintenance sector with buses charging stations on roof top level and other sector with 3 stories with offices including an area for drivers' facilities support. On the east side of the building there are ramps for the buses continuous circulation for batteries charging. This roof top is covered with solar panels that will feed partially the campus electric power needs. The office sector has a ballistic rated vestibule with electronic access control and intercom. Visitors will enter and go to a security desk. They will need to be escorted past the elevator. CCTV and electronic access control are included throughout the new building.

The existing Refueling (Building 2) and Bus Wash (Building 3) shall be renovated to accommodate the agency's current and future operational needs and standards.

The existing Operations (Building 4) will be renovated internally to house only part of the IT, Security and Scheduling Departments. Only minor improvements are planned for the exterior facades. CCTV and electronic access control are included in the renovation.

Training (Building 5) will be a new 2-story facility (total 20,442 sf) that will provide spaces for training with bus driving simulators and in-person training classes for different skilled employee groups. In addition, the other function will be to allocate part of the current Operations functions performed in Building 4.

CPTED Principals:

Principle #1 - Natural Surveillance:

The site will be manned continuously with both employees and security personnel. The lighting is more than adequate for all areas, especially the parking areas and the Bus Maintenance Building. Furthermore, with exception to required equipment screening all landscaping shall comply with the CPTED requirements for maximum shrub height, clear tree trunk height and visibility, and appropriate separation from buildings.

Entrance road and circulation to the main entrances have an illumination rate of X ft-candle to ensure visibility. The entrance to the Bus Maintenance Building has

additional lighting and glass front to enhance the natural surveillance.

Principle #2 - Natural Access Control

The proposed site improvements, including a continuous outer wall or Clear-Vu fencing with Coyote rollers, guard houses with vehicular access gates at both entry driveways, substantial interior chain link fencing with access control measures, lighting, wayfinding signs and walkways are designed to work together to guide staff and visitors to the security desk, appropriate building entrances or other site facilities. In addition, the directional signage shall be provided to emergency vehicles when needed. Furthermore, the guard houses are manned with security personnel 24 hours a day and signage shall be provided to indicate that only authorized personnel are allowed to enter the site. The site has defense in depth by layering security measures; the outside guard houses and fencing are the first layer with the internal security desk in the Bus Maintenance Building prior to getting access to the upper floors, where activities like operations and communications are located as a second layer. The third layer is the electronic access control on controlled areas throughout the building.

CPTED Principle #3 - Territorial Reinforcement

The public entrance on Copans will have proper directional signage to the guard booth and then the main entrance. The site fencing will limit entrance to the bus maintenance area and direct all personnel through the Maintenance Building. The parking, landscaping and wayfinding signage will reinforce this flow.

The main entrance on Copans Road shall be identified with an updated free-standing monument sign. In addition, roadway markings and instructional signage shall be provided indicating the requirement of guard check-in and proper identification for all visitors. In addition, signage shall be posted indicating that only authorized personnel are allowed to enter the site.

Visible surveillance cameras are placed throughout the site, especially along the perimeters to provide a secondary means of territory lines.

CPTED Principle #4 – Maintenance

The property will have an overall maintenance plan that will include both the buildings and the landscaping onsite. All landscaping will be maintained to comply with CPTED principles. All lighting will be LED to ensure ease of maintenance and durability.



The redevelopment of this property projects a natural impression of consistent activity, pride in the property and its value to the community. Maintenance staff shall be instructed to keep the landscaping trimmed to the appropriate CPTED height limits, and to maintain all other site features in a neat, clean and professional manner.

CPTED Principle #5 – Activity Support

The provision of consistent, 24 hour-a-day activity, security personnel, the proposed wall and fencing as well as other lighting and security measures projects a natural deterrent to criminal activity.