

# PROJECT ELEMENTS

Project elements in the Pembroke Pines Mobility Hub planning area are prioritized for conceptual design, permitting and implementation based on the Planning Framework. Preliminary cost estimates were developed for all Mobility Hub elements potentially fundable by the Broward MPO, including Mobility and Safety project elements, irrespective of the horizon year for ultimate implementation. The MPO expects to fund the shelters with FTA funds. Placemaking project elements are assumed to be City-funded projects, with cost estimates to be developed by the City for those elements not directly related to the multimodal transportation and transit network.

The near-term priority projects are comprised of a combination of Mobility, Safety, and Placemaking elements focused along Pines Boulevard west of Palm/NW 101st Avenue, and at community shuttle stop locations within the City Center and along Washington Avenue. Custom shelters are planned for BCT stops at the intersections of Pines Boulevard and NW 103rd and NW 106th Avenues, and some initially prioritized community shuttle stops. These shelters will be coordinated with other related investments, including intersection improvements for pedestrian and bicycle safety, sidewalk connectivity and ADA accessibility. At NW 106th Avenue, improvements will need to be coordinated with signalization and funded separately.

The plan view renderings in this section indicate both near- and long-term improvements as follows:

- Improvements to the intersection of Pines Boulevard and NW 103<sup>rd</sup> Avenue, within the Pines Boulevard public right-of-way (Figure P-1)
- Improvements to the intersection of Pines Boulevard and NW 106<sup>th</sup> Avenue, within the Pines Boulevard public right-of-way (Figure P-2)
- Pedestrian safety and ADA-compliance improvements at the privatelyowned shopping center north of Pines Boulevard (Figure P-3)
- A series of custom transit stop shelters of varying scales, within public rights-of-way or on City-owned property (Figures P-4 through P-10)

The shelter design renderings in this section can be considered "prototypes" of custom bus stop treatments, supporting both near-term and potential long-term implementation at specific Hub locations subject to further evaluation.

#### **MOBILITY AND SAFETY ELEMENTS**

Specific near-term elements depicted in the renderings include:

**CUSTOM BUS SHELTERS-** The custom shelter structures planned are prefabricated steel components that are assembled at the site and bolted into place. The design provides a form that is related to the architectural design elements used at the adjacent City Center. It is intended to be easy to install and maintain and will also facilitate shelter expansion in some locations pending growing ridership activity over time.

- Shelter Type 1 (Figure P-4) consists of a vertical element that denotes the stop location, including a City logo at the top and information panels at eyelevel that will accommodate the Broward County Transit (BCT) and community shuttle logo, and route and system information. This shelter type will be installed at the existing porte-cochere on the west side of the Charles F. Dodge City Center.
- Shelter Type 2 (Figure P-5) expands upon Type 1 by providing a shaded waiting area including two (2) benches and a second panel that can accommodate additional transit information or public art. A trash receptacle and two (2) bike racks are also included. This shelter type will be installed to serve Memorial Park along Washington Avenue.
- Shelter Type 3 (Figure P-6) expands further to provide additional waiting and information panel capacity. This shelter type will be installed adjacent to the City Center park, at a location to be finalized based upon City evaluation of shuttle routes.
- Shelter Type 4 (Figures P-7 though P-10) is the largest shelter prototype, providing the most shaded waiting area and seating capacity for passengers.
  This shelter type will be used at the BCT bus stops at four (4) locations on

#### **Pembroke Pines Mobility Hub Master Plan**



Pines Boulevard at both NW 103<sup>rd</sup> and NW 106<sup>th</sup> Avenue intersections. The westbound bus stop at NW 103<sup>rd</sup> Avenue is being moved closer to the road along with a safer sidewalk connection; the eastbound bus stop at NW 103<sup>rd</sup> Avenue is being moved to a safer far-side location out of the right turn lane into City Center; neither bus stop at NW 106<sup>th</sup> Avenue currently has a shelter.

**UPGRADED PEDESTRIAN CROSSWALKS-** At the intersections of NW 103<sup>rd</sup> and NW 106<sup>th</sup> Avenues with Pines Boulevard, and adjacent to the Washington Avenue shuttle stops, stamped and color-enhanced crosswalk treatments will be installed to aid in pedestrian mobility and safety.

**SIDEWALK AND ADA ACCESSIBILITY IMPROVEMENTS-** At the intersections of NW 103<sup>rd</sup> and NW 106<sup>th</sup> Avenues with Pines Boulevard, ADA-accessible sidewalk connectivity will be provided at all four corners and to provide direct connections to the eastbound and westbound BCT stops associated with each intersection. Improvements will be provided adjacent to the Washington Avenue shuttle stop as required, also, to ensure connections to the existing sidewalk network.

**MULTI-USE PATH** - From Hiatus Road to SW City Center Boulevard on Washington Avenue, an off-street multi-use path will be provided on the north side of the street, within the existing right-of-way to improve bicycle connectivity to and from transit stops in the City Center area, supporting a connection further west via Raintree Park. The existing sidewalk will remain.

**PAINTED BIKE LANES-** From NW 108<sup>th</sup> Avenue to Palm Avenue on Pines Boulevard, painted bike lane markings will be provided per FDOT standards in the vicinity of the intersections where the bike lane will be impacted by vehicle turning movements or BCT bus movements. The bike lanes will improve bicycle connectivity to and from transit stops in the City Center area.

All improvements associated with the intersection of Pines Boulevard and NW 106<sup>th</sup> Avenue will need to be coordinated carefully with signalization and funded separately.

## **PLACEMAKING ELEMENTS**

These related elements, both near- and long-term, would be funded and installed by the City in conjunction with the MPO-funded elements described above. Features under consideration are as follows:

**LANDSCAPING AT TRANSIT STOPS-** The City has adopted standards for transit stops that include landscape features; however, these enhancements are not FTA-eligible expenses. Provisions for future landscaping to be installed separately should be considered and coordinated during the design process.

**COMMUNITY IDENTITY FEATURES-** The City will consider incorporating a community logo at BCT and shuttle stop locations, as part of the vertical element and potentially in pavement features, to ensure consistency with City-wide branding and wayfinding initiatives. If there are additional costs associated with including these custom features, they may not be FTA-eligible expenses.

The preliminary cost estimate and schedule for the near-term Mobility and Safety element improvements, along with a discussion of implementation roles, responsibilities, and coordination needs is included in the **Implementation Strategy** section.



#### FIGURE P-1: INTERSECTION IMPROVEMENTS AT PINES BOULEVARD AND NW 103RD AVENUE

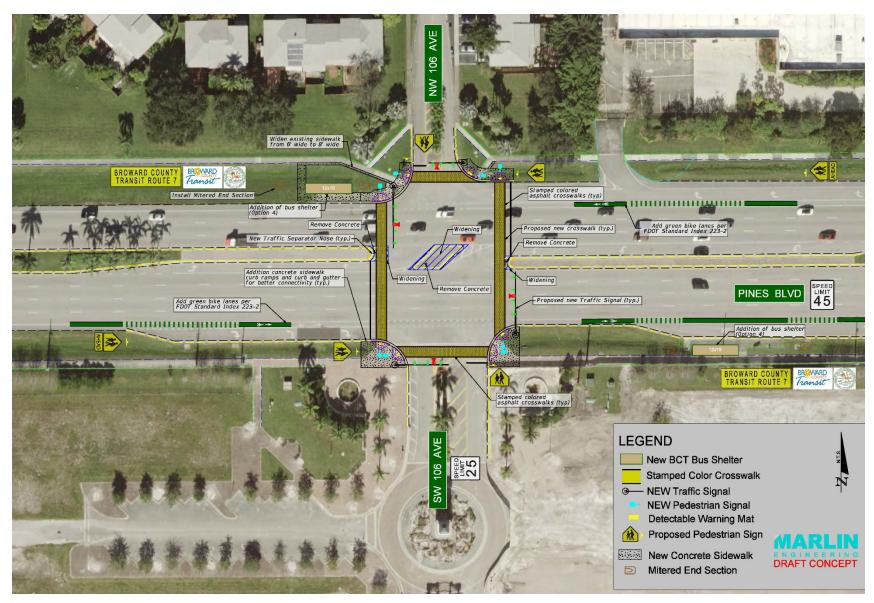
Not to Scale. Source: Marlin Engineering





#### FIGURE P-2: INTERSECTION IMPROVEMENTS AT PINES BOULEVARD AND NW 106<sup>TH</sup> AVENUE

Not to Scale. Source: Marlin Engineering





## FIGURE P-3: PEDESTRIAN CONNECTIVITY IMPROVEMENTS THROUGH SHOPPING CENTER

Not to Scale. Source: Marlin Engineering

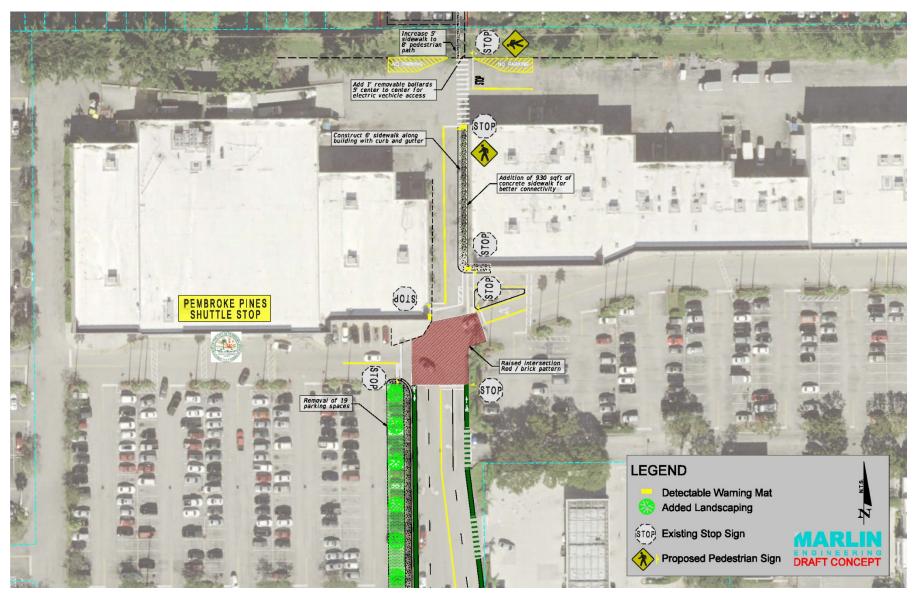




FIGURE P-4: TRANSIT STOP TYPE 1 – VERTICAL ELEMENT ONLY

Not to Scale. Source: HNTB



## FIGURE P-5: TRANSIT STOP TYPE 2 – SMALL-SCALE SHELTER

Not to Scale. Source: HNTB





# FIGURE P-6: TRANSIT STOP TYPE 3 – MEDIUM-SCALE SHELTER

Not to Scale. Source: HNTB





# FIGURE P-7: TRANSIT STOP TYPE 4 – LARGE-SCALE SHELTER

Not to Scale. Source: HNTB





# FIGURE P-8: TRANSIT STOP TYPE 4 – LARGE-SCALE SHELTER (FRONT VIEW)

Not to Scale. Source: HNTB



# **Pembroke Pines Mobility Hub Master Plan**



FIGURE P-9: TRANSIT STOP TYPE 4 – LARGE-SCALE SHELTER (PLAN VIEW)

Not to Scale. Source: HNTB



FIGURE P-10: TRANSIT STOP TYPE 4 – LARGE-SCALE SHELTER (ROOF PLAN VIEW)

Not to Scale. Source: HNTB

