A grayscale background image of a multi-lane highway with traffic. Several cars and a large truck are visible on the road, which is flanked by trees and a grassy shoulder. The image is slightly faded and serves as a backdrop for the text.

# **SR 5/US-1/FEDERAL HIGHWAY FROM SR 869/I-595 TO SR 842/BROWARD BOULEVARD HENRY E. KINNEY TUNNEL REHABILITATION**

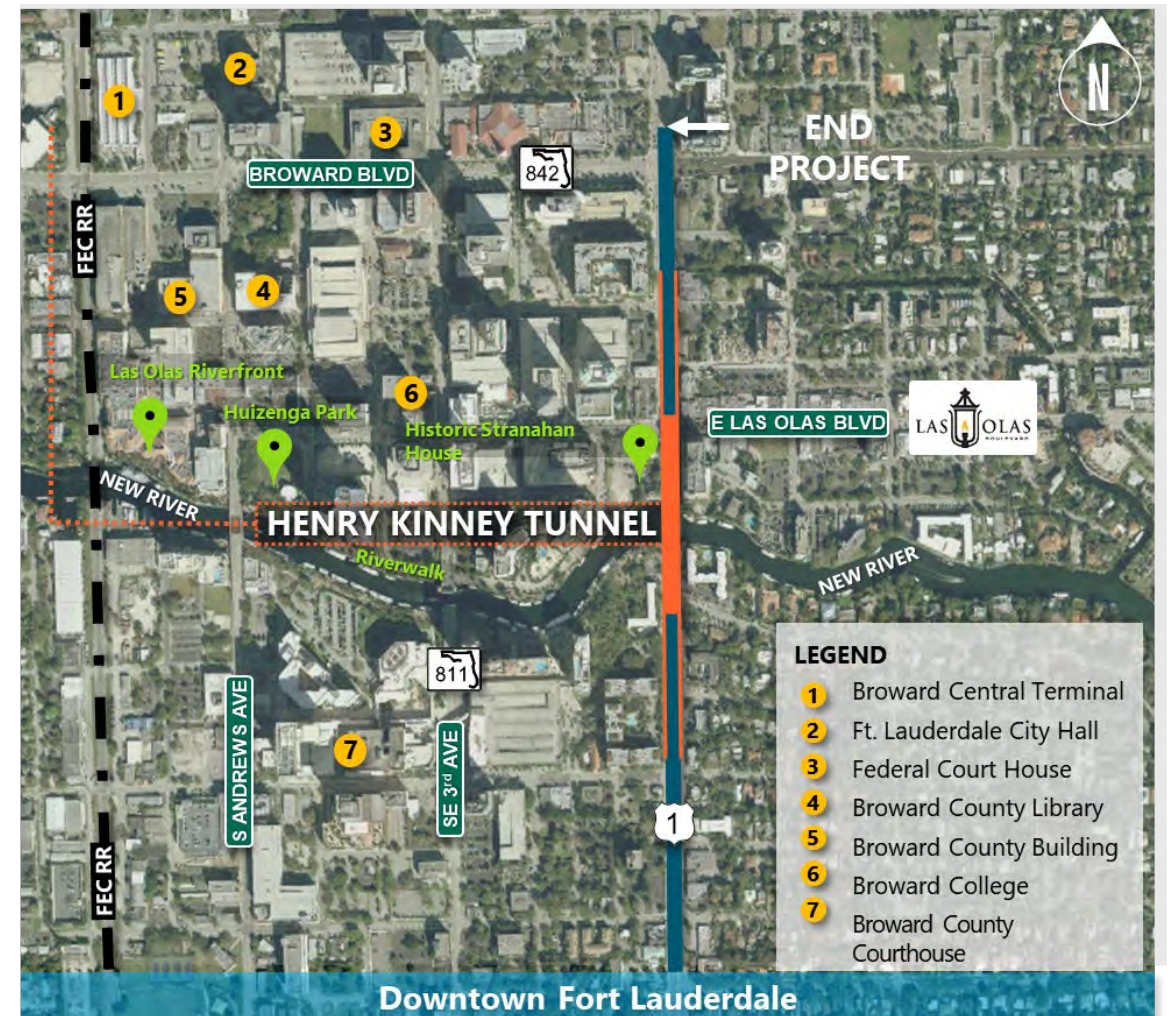
**Project Identification Nos.: 439714-1-52-01/439714-1-52-01  
Broward County**

City of Fort Lauderdale Commission Meeting  
October 6, 2020

# Project Location



SR 5/US-1/Federal Highway  
from I-595 to north of Broward Boulevard  
in Fort Lauderdale, Florida





## Purpose and Objectives

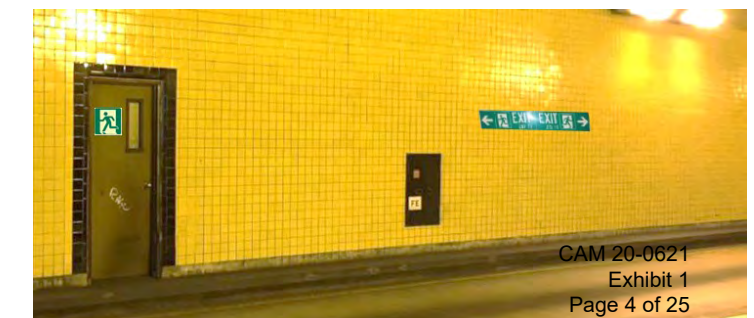
- **Rehabilitate the Henry E. Kinney Tunnel** to meet the latest federal, state, and local standards and guidelines for architecture, structural, mechanical, electrical, and life safety
- **Improve safety and mobility on US-1**
- **Enhance East Las Olas Boulevard at SE 6th Avenue** for a livable community



# Proposed Improvements

## Tunnel Rehabilitation

- Structural
  - Remove delaminated tiles
  - Repair spalls
- Architecture/Civil
  - Repair South Ventilation Building
  - Install impact attenuators at portals
  - Replace drainage grates (for bicycles)
- Mechanical
  - Replace pumps and ventilation fans
  - Install detectors for hazardous gases
- Electrical
  - Replace lighting with LED
  - Replace control systems and wiring
- Life Safety
  - Install exit signage in tunnel
  - Replace fire detection system and valves





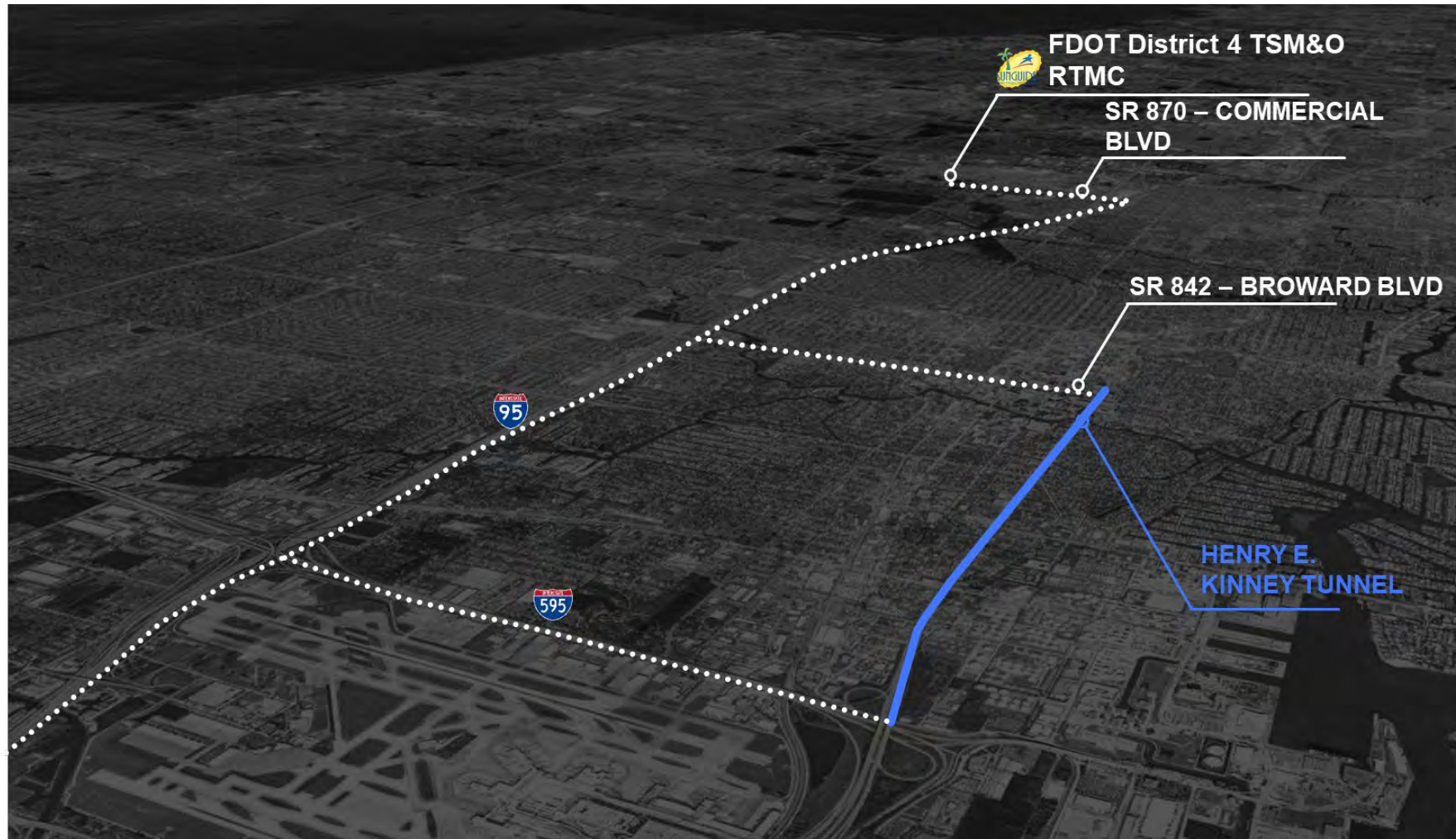
# Proposed Improvements

## Improve Safety and Mobility

- Adaptive Traffic Signal Control (ATC) System on US-1 at:
  - SE 30<sup>th</sup> Street
  - SE 28<sup>th</sup> Street
  - SR 84/Marina Boulevard
  - SE 17<sup>th</sup> Street
  - Davie Boulevard
  - SE 9<sup>th</sup> Street
  - SE 7<sup>th</sup> Street
  - Broward Boulevard



# Intelligent Transportation System (ITS)



**CCTV  
CAMERA AND TRAFFIC  
SENSOR (MDVS)**



**WARNING GATE**



**ARTERIAL DYNAMIC  
MESSAGE SIGNS (ADMS)**



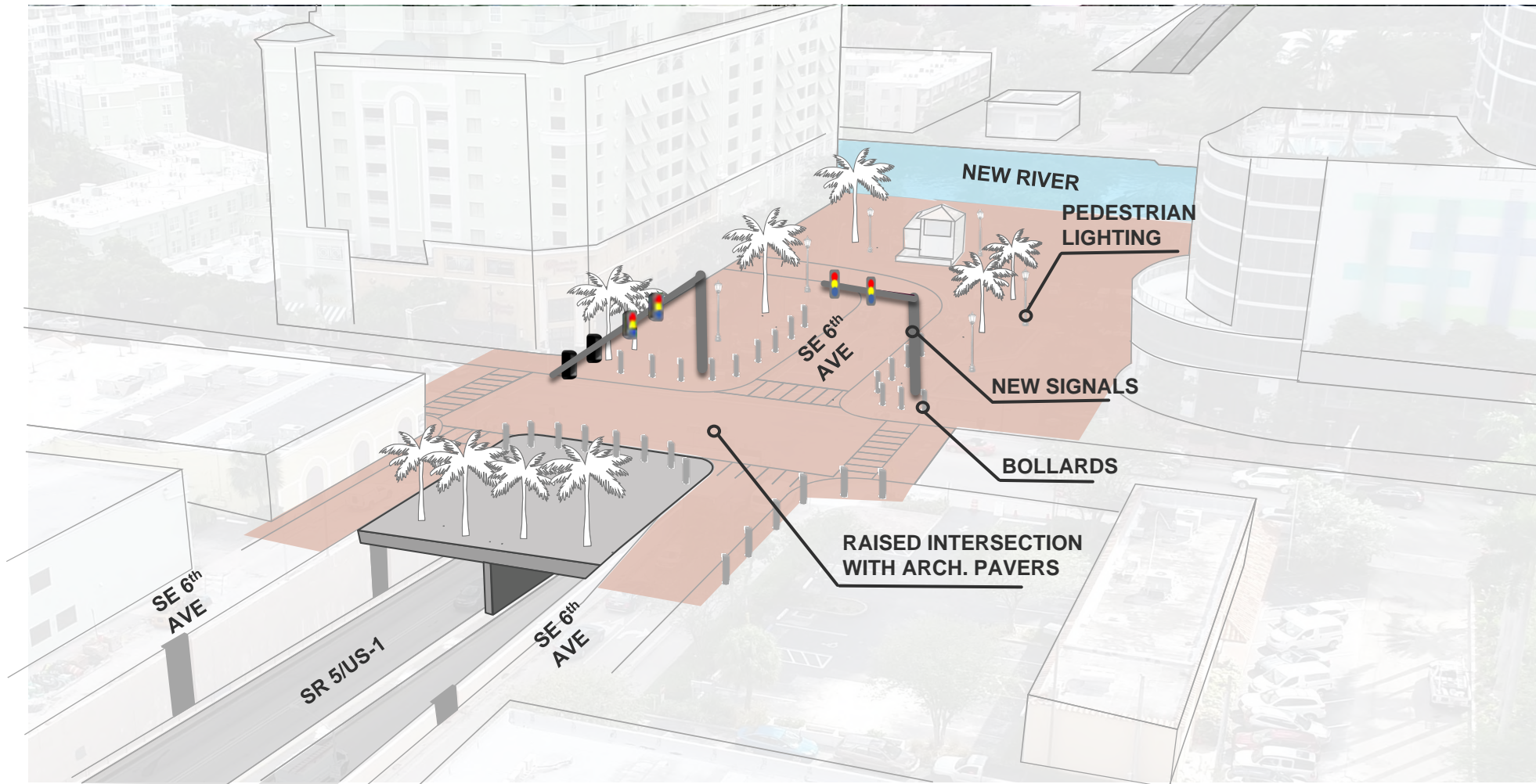
# Existing Conditions





# Proposed Improvements

## Tunnel Top Pedestrian Plaza



Conceptual Image



# Proposed Improvements

## Tunnel Top Pedestrian Plaza

- City of Fort Lauderdale Local Funded Agreement (\$10.6M)
- FP ID 439714-1-52-02
- Funded by City's Park Bonds
- Improves sight distance for SE 6<sup>th</sup> Avenue Southbound at Las Olas Boulevard
- Enhance Las Olas Boulevard at SE 6<sup>th</sup> Avenue:
  - Construct New Pedestrian Plaza/Tunnel Extension (117-ft)
  - Raised intersection
  - Reconstruct North ventilation building
  - Reconstruct SE 6th Ave and Laura Ward Riverwalk Plaza
  - Install hardscape and landscape
  - Replace signals with new mast arms



# Proposed Improvements

## Tunnel Top Pedestrian Plaza – Coordination and Public Outreach

- Previous concepts and public meetings
  - Downtown Development Authority (DDA) 2013 Concept
  - City's Structural Study of North Deck Extension 2015
  - FDOT Locally Funded Agreement (LFA) Concept 2017
  - Presentations and Public Meetings
    - Commission Meetings
    - Public Meeting on April 24, 2019
    - Public Meeting on November 25, 2019
    - Parks, Recreation, & Beaches Advisory Board Meeting on January 22, 2020 approves funding for final design and construction



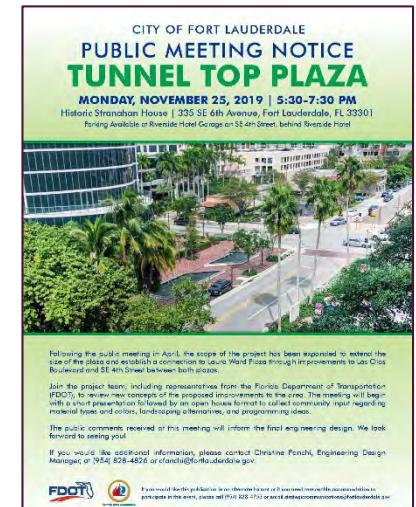
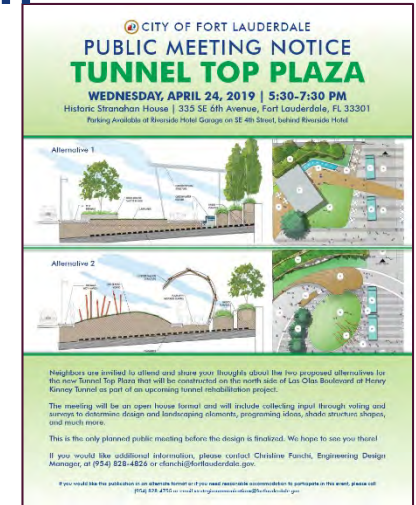
DDA Concept (2013)



Public Meeting Concept  
(April 2019)



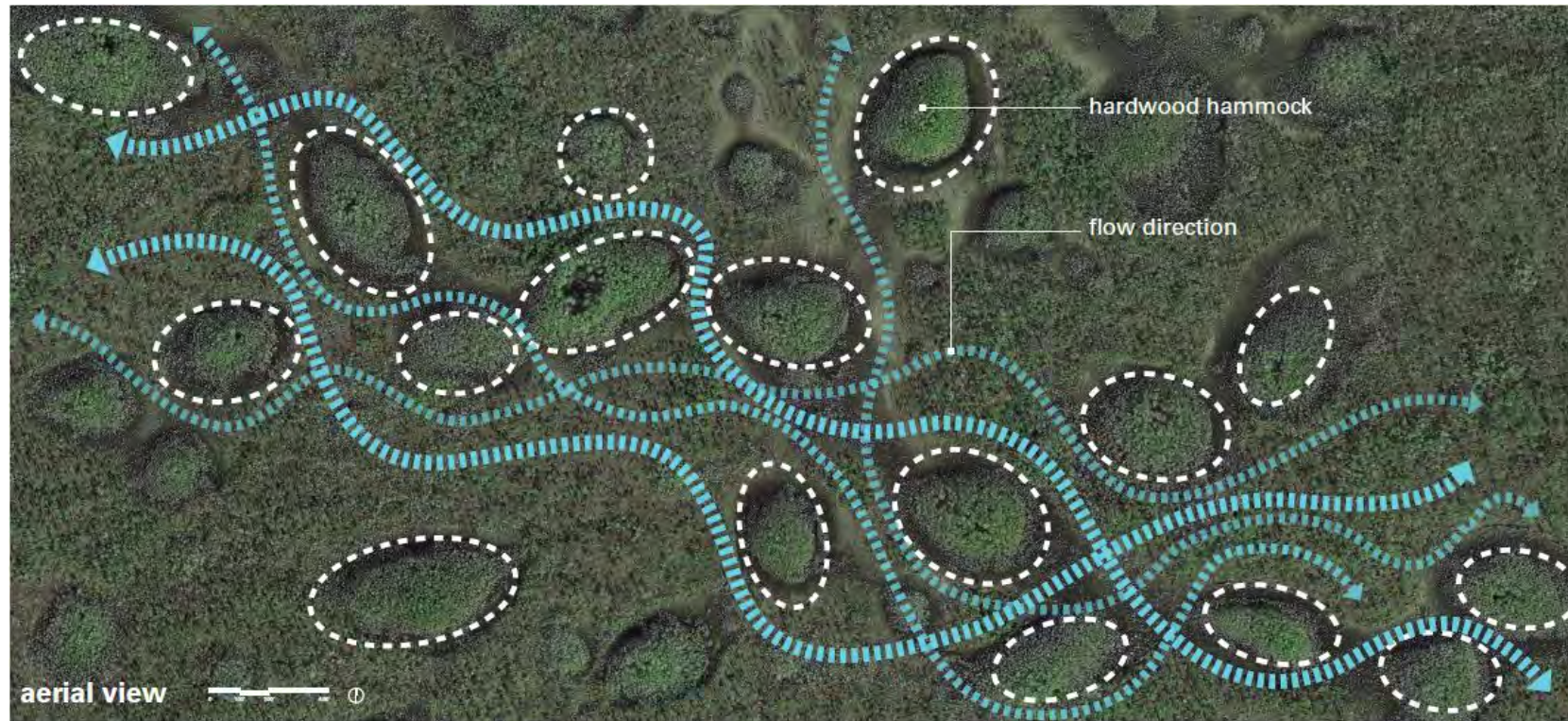
Final Concept (Jan. 2020)





# Proposed Improvements

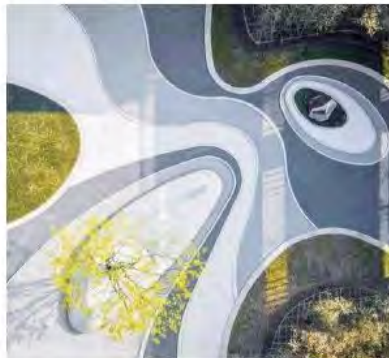
## Tunnel Top Pedestrian Plaza





# Proposed Improvements

## Tunnel Top Pedestrian Plaza





# Proposed Improvements

## Tunnel Top Pedestrian Plaza



Conceptual Image



# Proposed Improvements

## Laura Ward Plaza

### Key Features:

- Trail head for Riverwalk
  - Connection to Las Olas
- Artificial turf event space
- Water Taxi improvements
  - Defined space
  - Seating
  - Shade
  - Lighting
- Vent Shaft improvements
  - Increase pedestrian space and opportunity for interpretative panels
- Planting focused on native canopy





# Proposed Improvements

## Riverside Hotel & ICON Plazas

### Key Features:

- Redefined cohesive patterned pavement to enhance flowing concept
  - Provides transition of "the canvas"
  - Preservation of Riverwalk donor pavers
- Renovation of fountain
- Preservation of access to Stranahan House
- Planting focused on native canopy

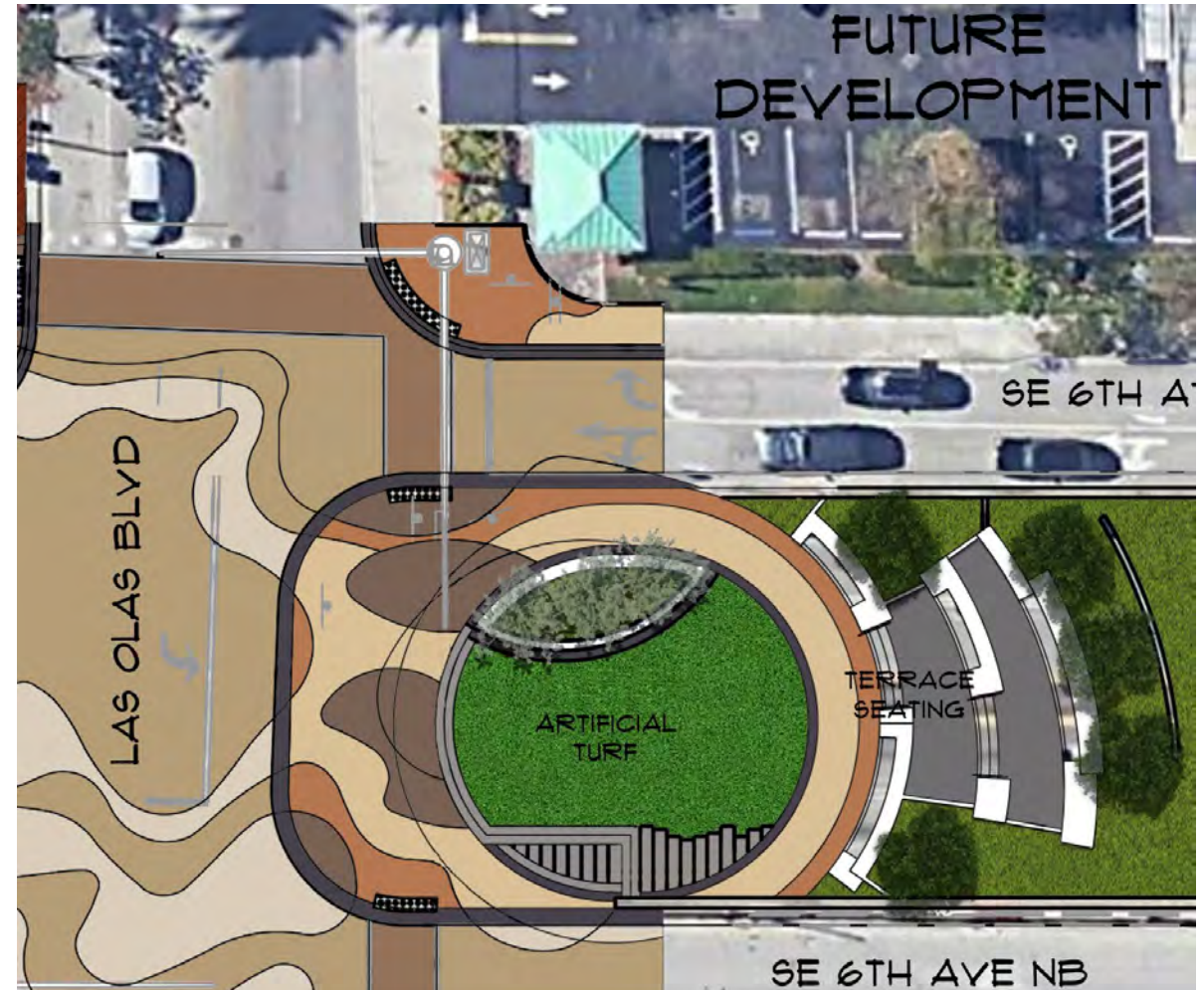


# Proposed Improvements

## Tunnel Top Plaza

### Key Features:

- Terrace seating
  - Elevated view to New River
  - Thematic head spring flowing to New River
- Elevated artificial turf play space
- Planting focused on native canopy





# Proposed Improvements

## Tunnel Top Pedestrian Plaza



Images from preliminary concept



# Proposed Improvements

## Tunnel Top Pedestrian Plaza



Images from preliminary concept



# Proposed Improvements

## Tunnel Top Pedestrian Plaza



Images from preliminary concept

# Proposed Improvements

## Tunnel Top Pedestrian Plaza



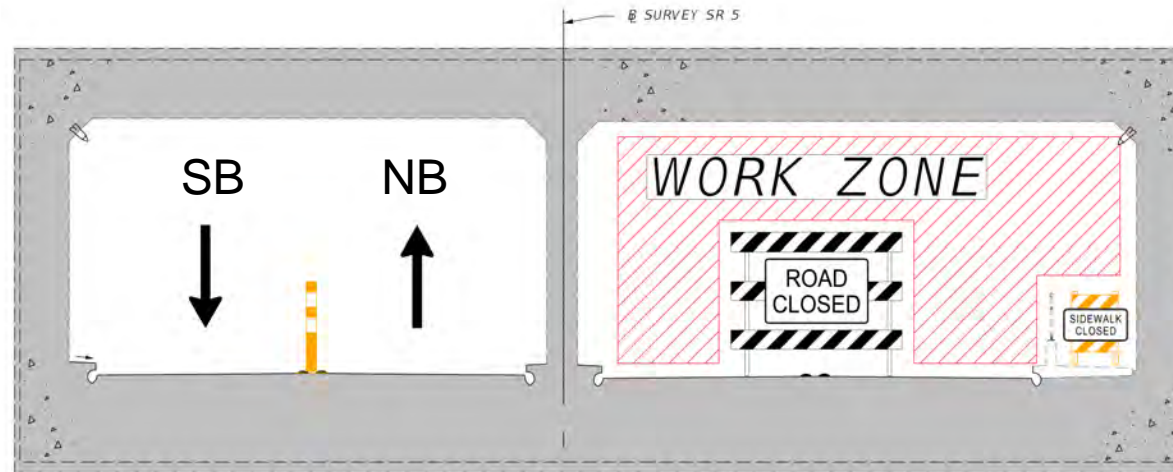
Historic  
Preservation  
Consultation



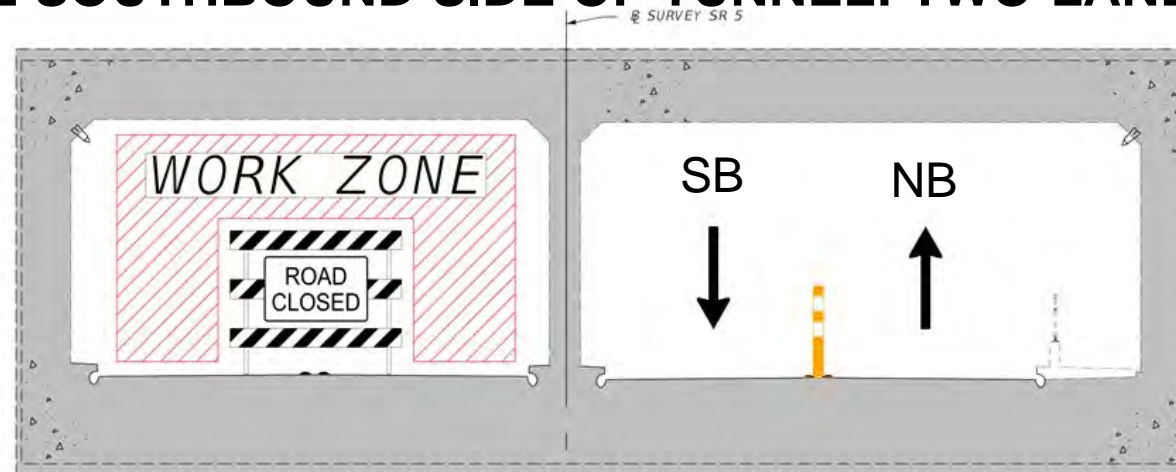


# Traffic Control Plan

## TCP 1 - CLOSE NORTHBOUND SIDE OF TUNNEL: TWO-LANE TWO-WAY TRAFFIC

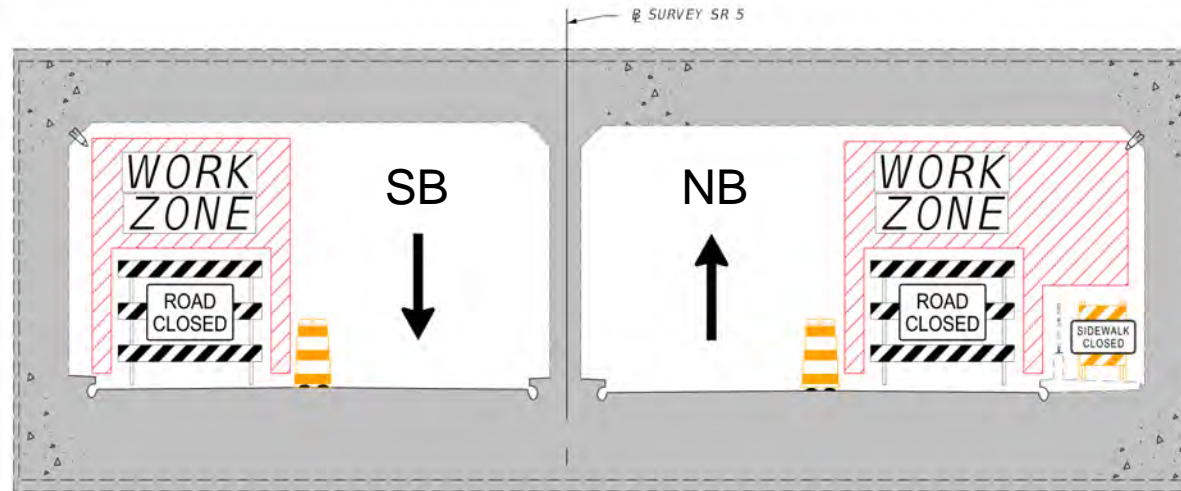


## TCP 2 - CLOSE SOUTHBOUND SIDE OF TUNNEL: TWO-LANE TWO-WAY TRAFFIC

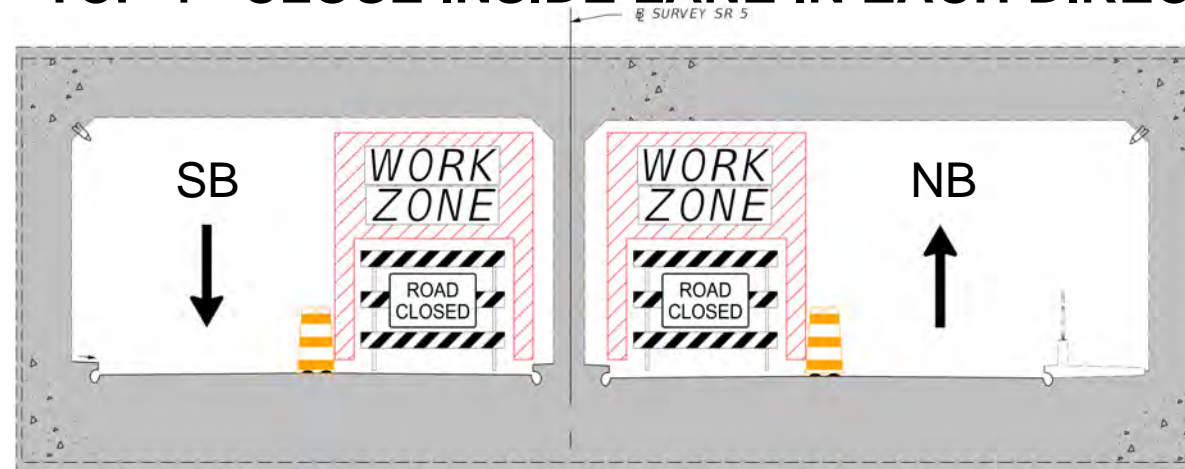


# Traffic Control Plan

## TCP 3 - CLOSE OUTSIDE LANE IN EACH DIRECTION



## TCP 4 - CLOSE INSIDE LANE IN EACH DIRECTION

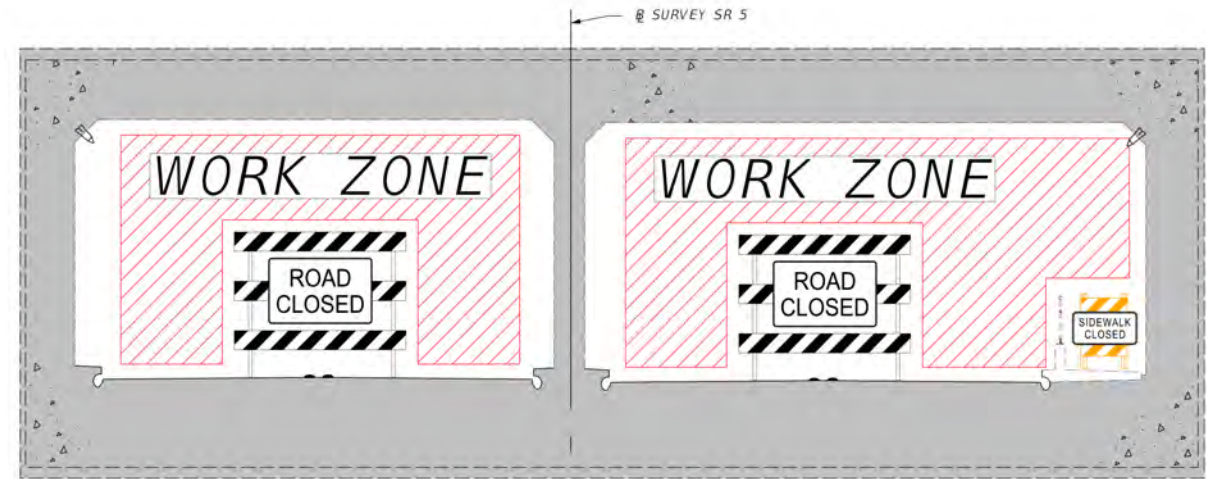
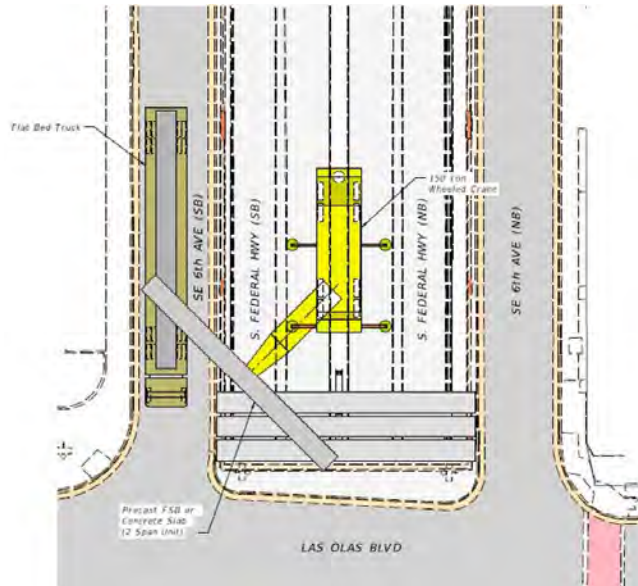




# Traffic Control Plan

## TCP 5 - FULL TUNNEL CLOSURE – DETOUR TRAFFIC

- Install detour for vehicle and pedestrian traffic on US-1 at tunnel
- Close all lanes of US-1 to traffic at tunnel

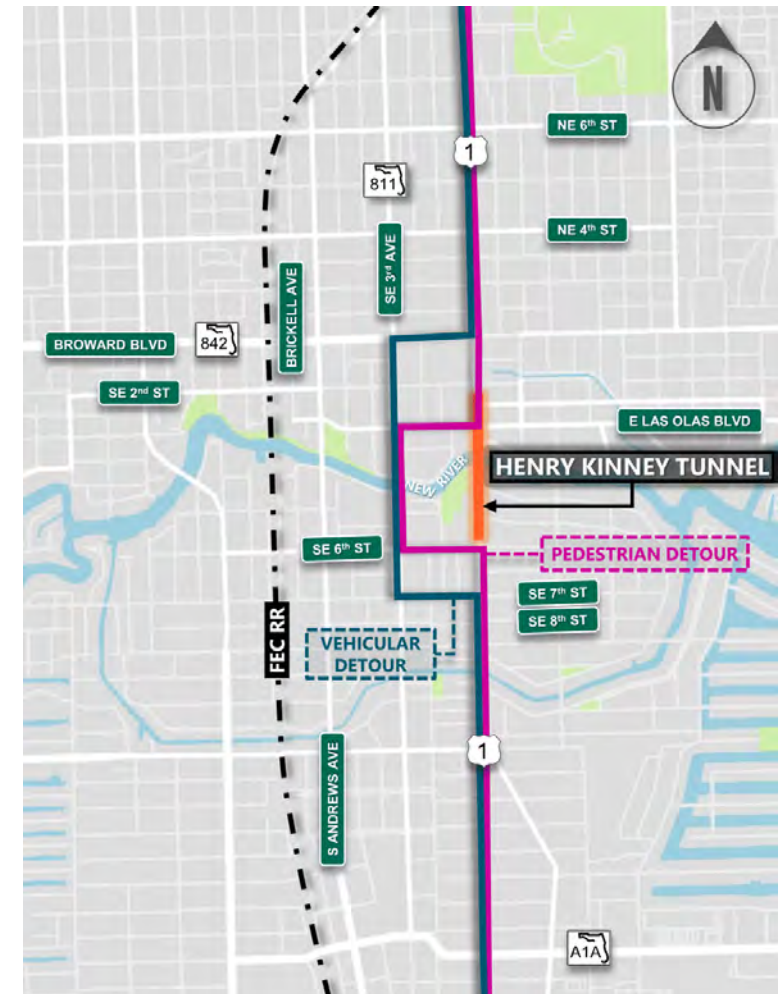


# Traffic Control Plan

## FULL TUNNEL CLOSURE – DETOUR TRAFFIC (NIGHTTIME OR WEEKENDS)

### TCP 5

- Detour traffic on US-1 at the tunnel
- Coordinate with emergency responders, 3<sup>rd</sup> Avenue bridge, and Broward County Traffic
- Detour of traffic through local streets (SE 7<sup>th</sup> Street, SE 3<sup>rd</sup> Avenue and Broward Boulevard
- Pedestrian (sidewalk) traffic shall use SE 6<sup>th</sup> Street, SE 3<sup>rd</sup> Avenue, and East Las Olas Boulevard for detours





## Project Schedule and Cost

- Construction Cost Estimate: **\$26 Million**
- Final Design Completion: **December 2020**
- Letting Date (Bid Opening): **May 2021**
- Construction Start: **Summer 2021**