

Designing &
Maintaining
LID/GI &
Proprietary
BMPs

“Before preparing to improve
the world, first look around
your house three times.”

Chinese Proverb

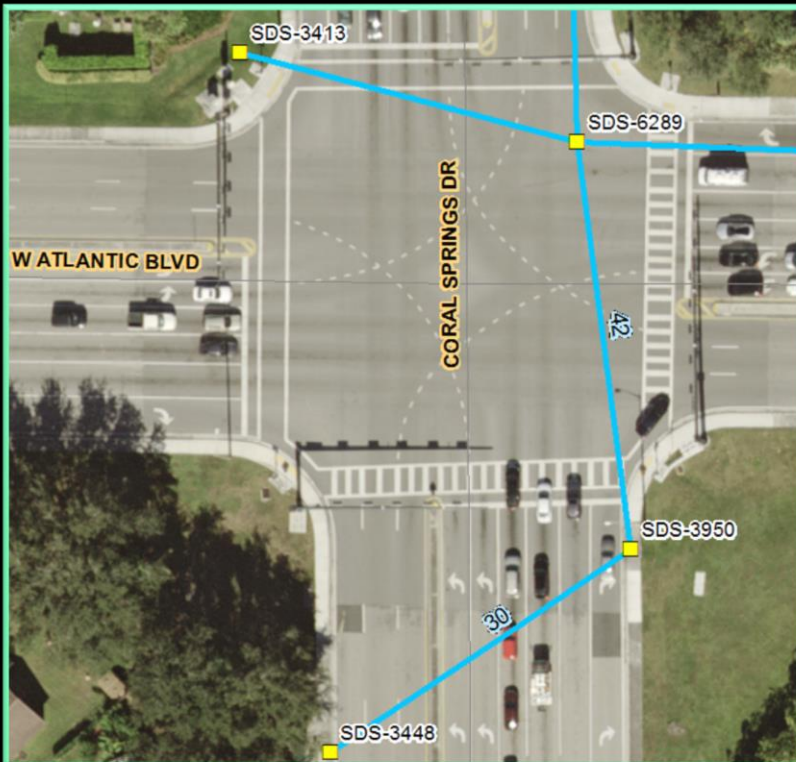
Anh Ton, P.E., Director

Broward County
Highway & Bridge Maintenance

FSA Seminar: Maintenance of Stormwater BMPs
September 13, 2019



Stormwater Infrastructure Mapping

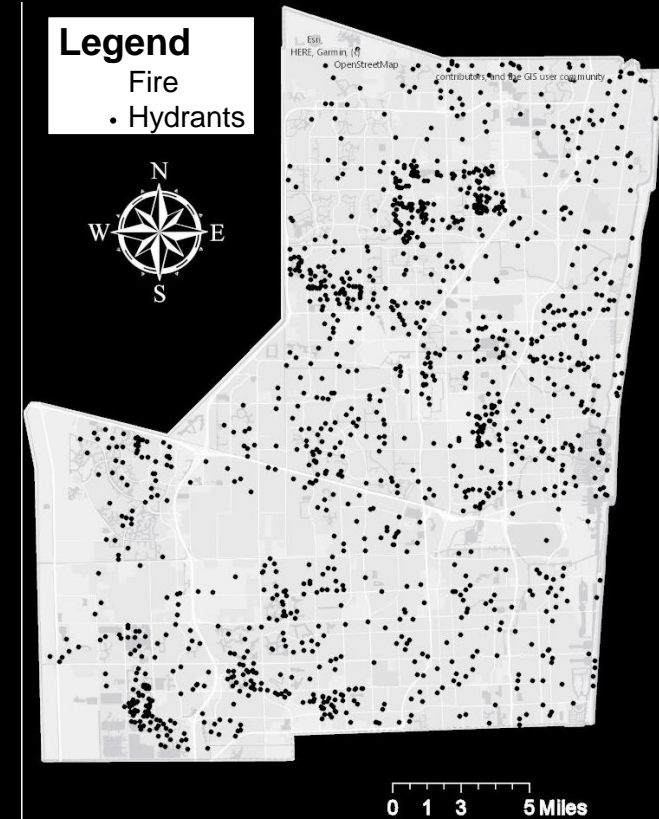


Savings: \$600K/year



Drainage
Structures

Vacuum & Sweeper Trucks Get Thirsty!



Reduce GHG Emissions & Save \$200K/year

Sea-level
Rise Flood
Prevention

New Challenge: Flooding Due to Sea Water Inundation to Stormwater System



Sea-level
Rise Flood
Prevention

New Challenge: Sea-level Rise

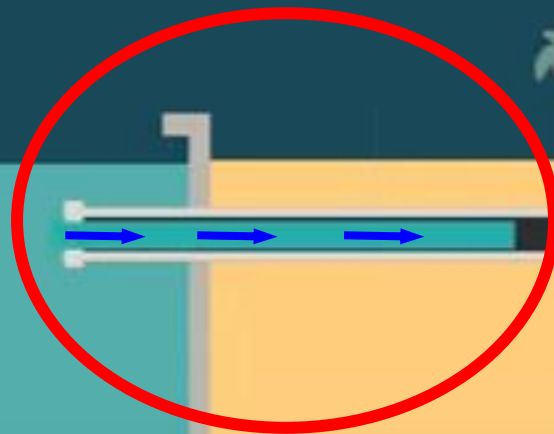
Drainage system conventional water flow



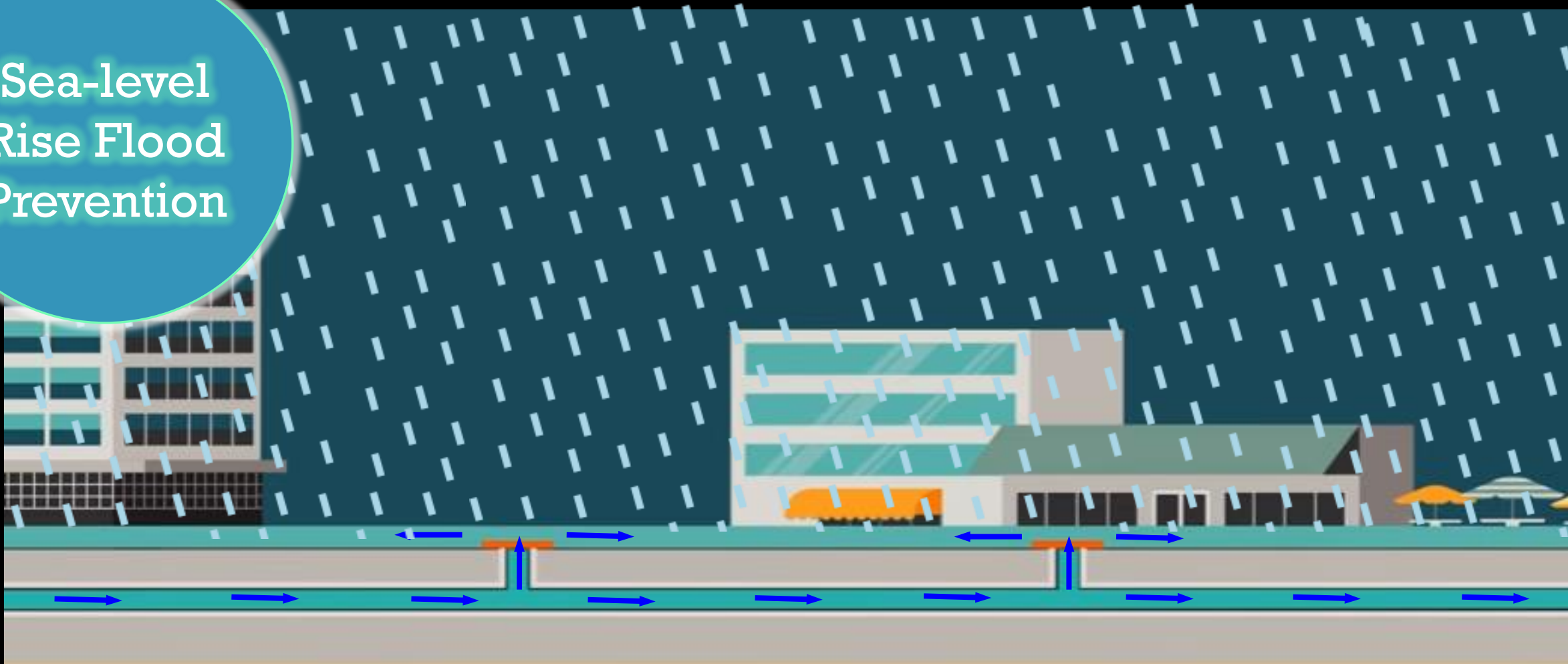
New Challenge: Sea-level Rise

Sea-level
Rise Flood
Prevention

High Tides
Backflow Into
Outfalls



Sea-level
Rise Flood
Prevention



**Flooding Due to Sea Water Inundation to
Stormwater System**

CheckMate® at Ocean Outfalls

Sea-level
Rise Flood
Prevention



Florida Friendly Landscaping

Minimal Shrubs

Conventional Turf

Before



Drought-tolerant FL
natives with value to
pollinators

Perennial Peanut

After



FL Water Star



Smart
Irrigation
Controller &
Moisture
Sensor to
minimize
irrigation

The Bioswale Collaboration



FL Native Wildflower Hydroseeding Bridge Embankment

Peters Road Bridge

Before



After



- Zero Maintenance
- Erosion Control
- Habitat Restoration

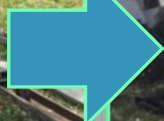
Urban Trees

Before



Avoid
torn-up
sidewalks

2013



2019

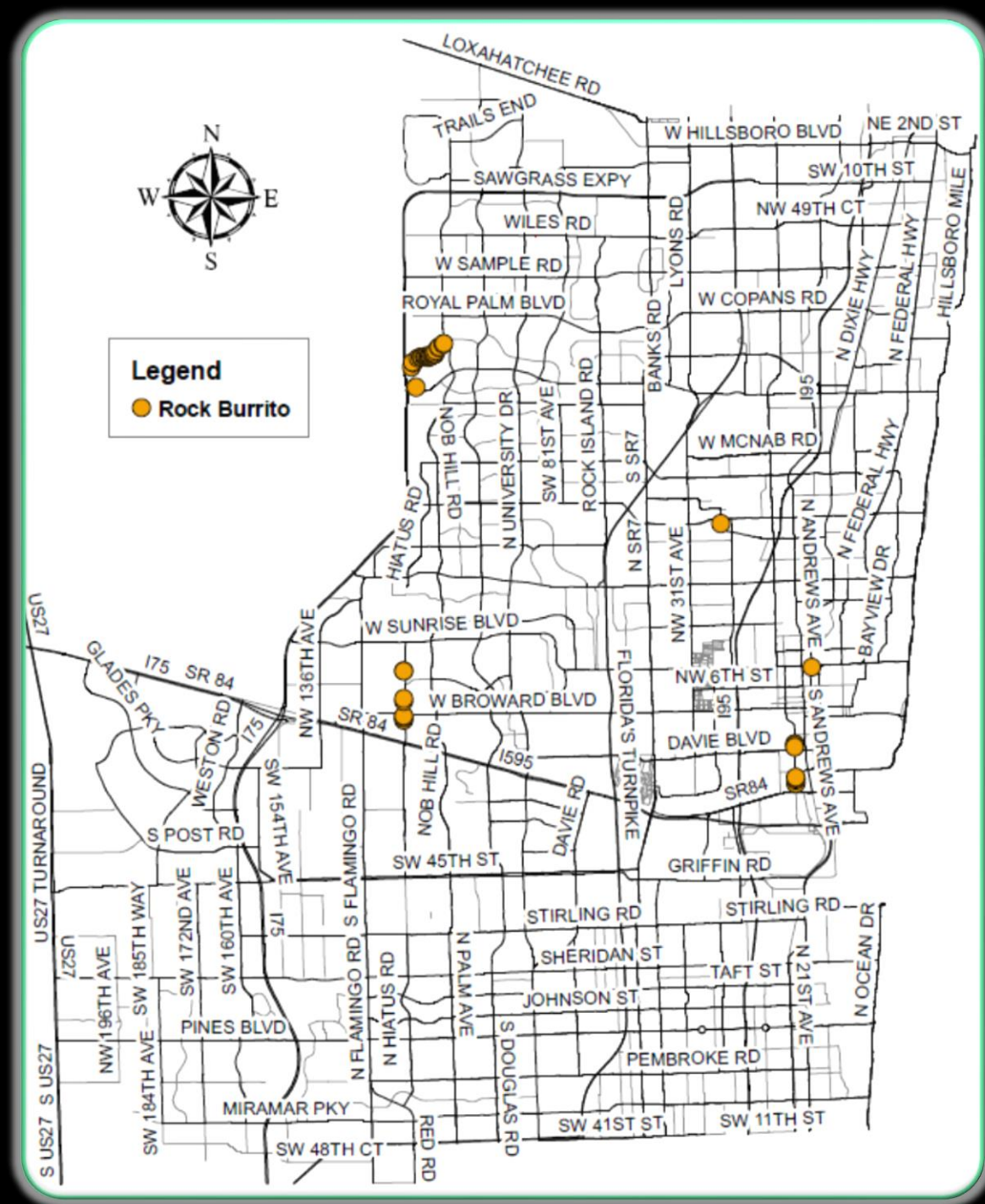


**The “Rock
Burrito”**

Urban Trees

The “Rock Burrito”

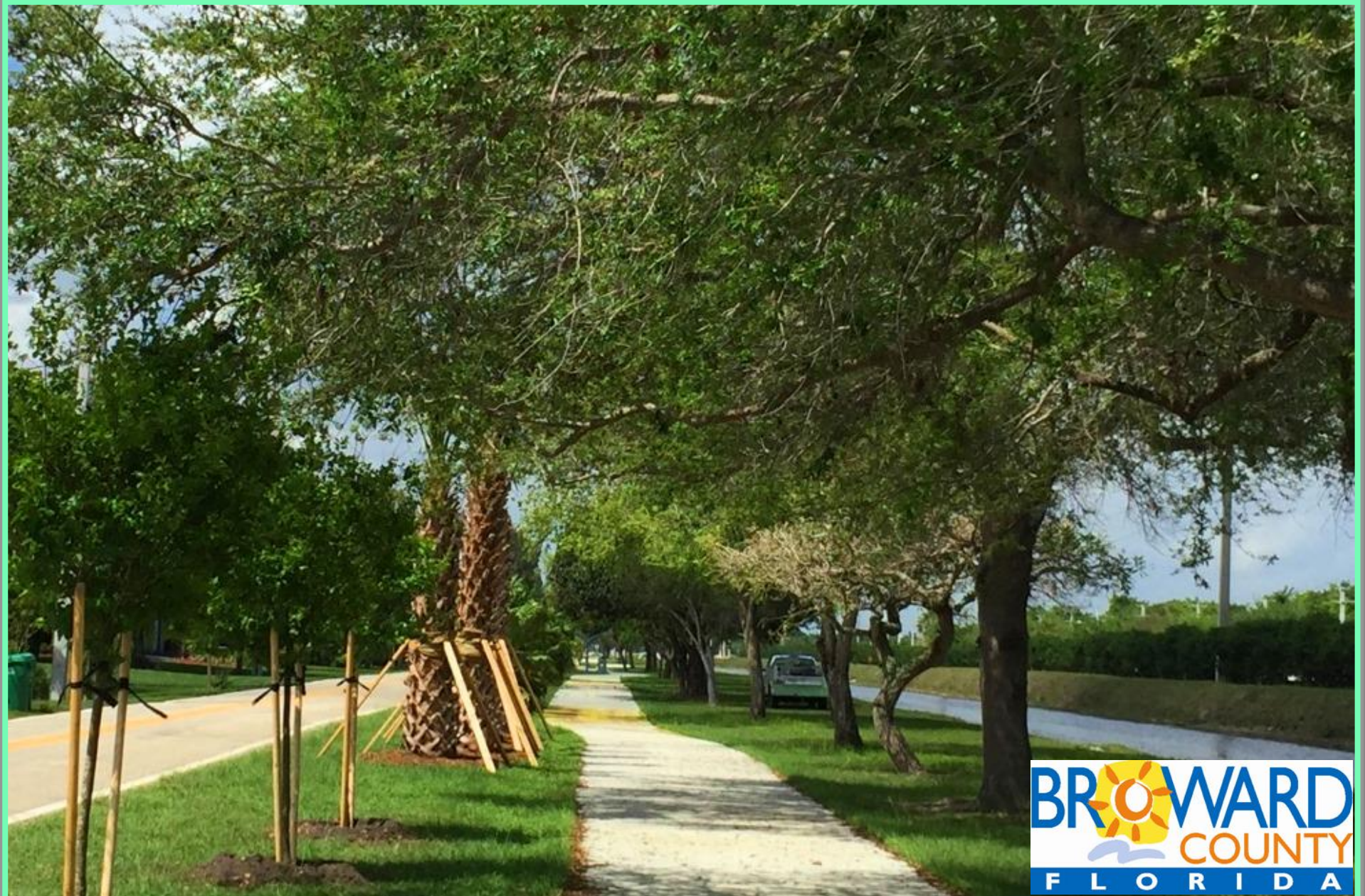




The “Rock Burrito”

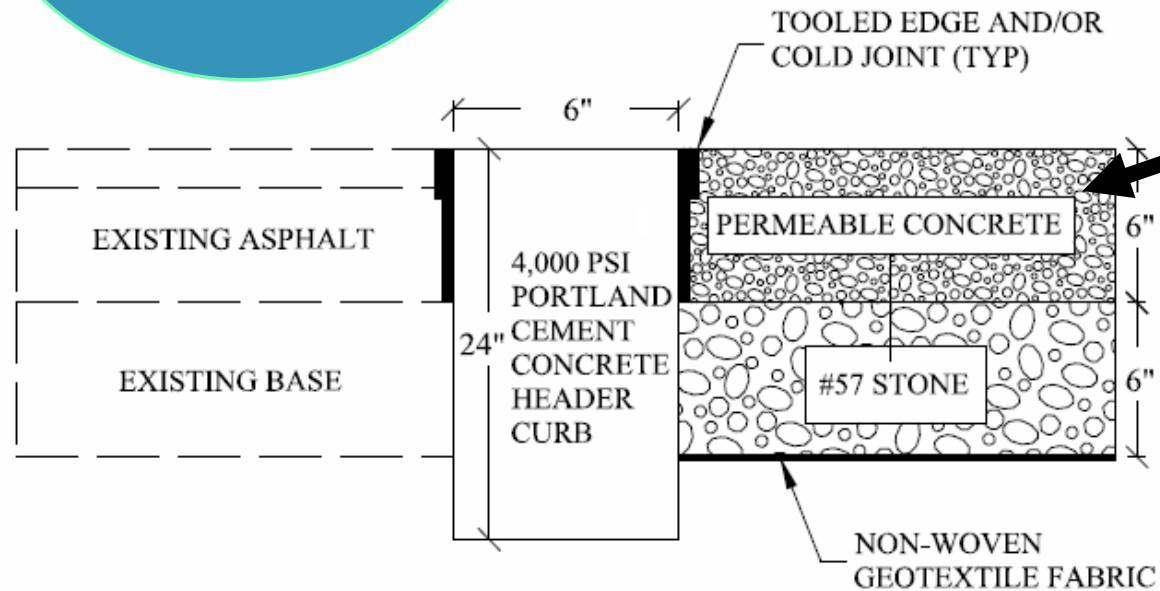
Urban Trees

The Greenways

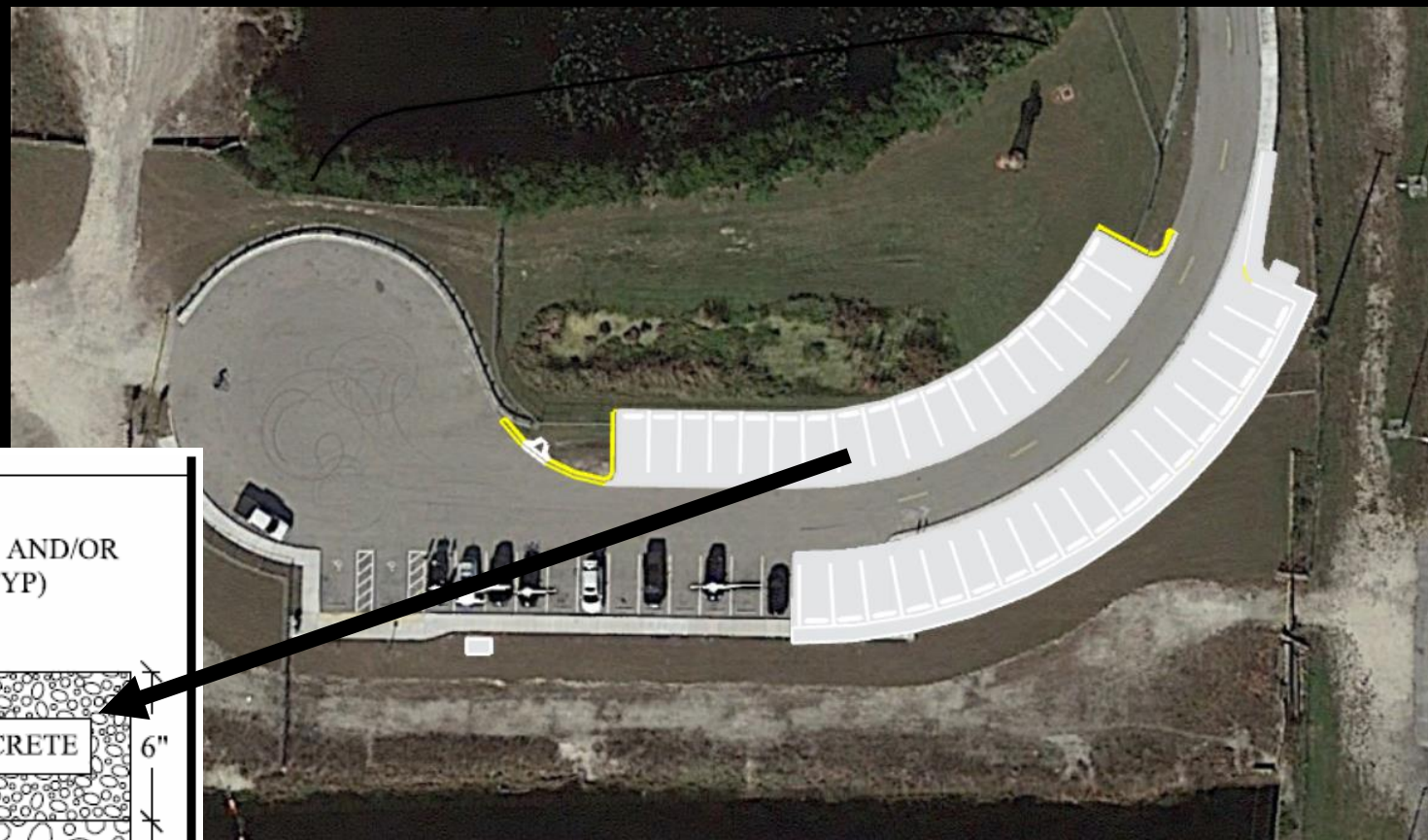


Hiatus Greenway

Permeable Paving



PERMEABLE PAVEMENT DETAIL



The Sawgrass Atlantic Trailhead