

Bus Stops in Volusia County and Municipalities- Roadside Experience



Where are the Bus Stops?



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Votran began operating in 1975.
Covering the East side of Volusia County
and then expanding to the West Volusia
area. Today Votran services all four
corners of Volusia County.

- 16 Municipalities
- 4 Named Unincorporated areas
 - Barberville
 - Seville
 - Wilbur by the Sea
 - Ormond by the Sea
- Multiple Unincorporated areas
throughout Volusia County

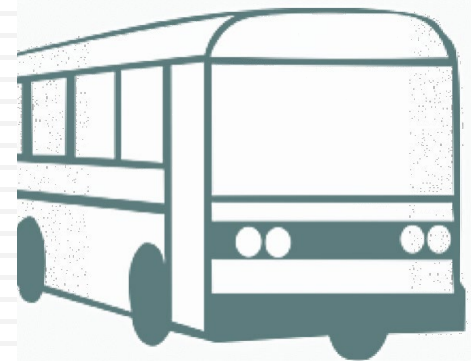
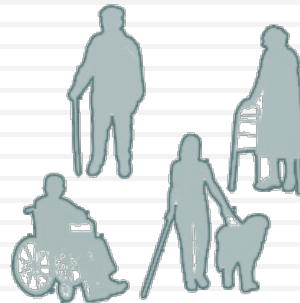
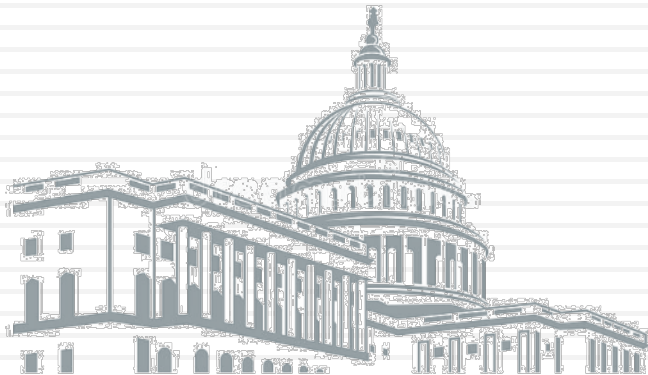
Votran operates-

- 28 daytime fixed routes
- 7 night routes
- 6 Sunday routes
- FLEX service in New Smyrna Beach
- Paratransit service – Gold Service



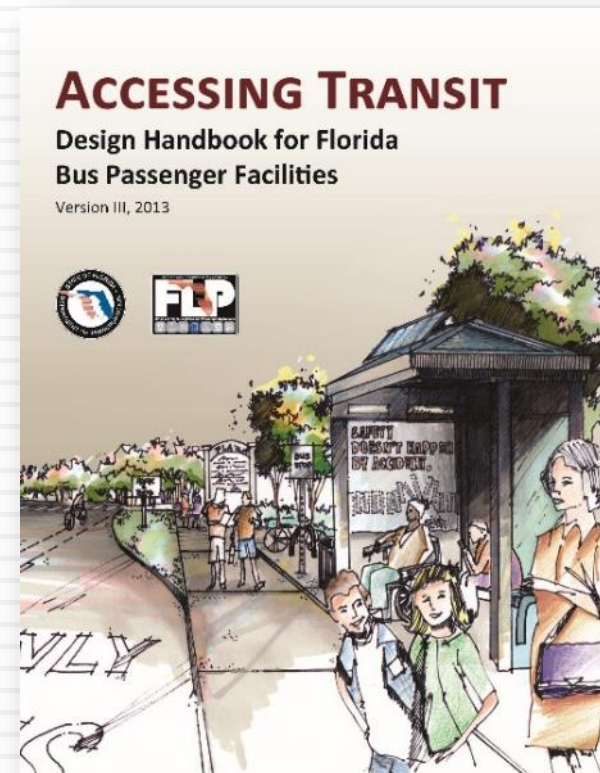
Bus Stop Guidelines

The Federal Transit Administration (FTA) defines a bus stop as a sign and post in a safe location for both riders and buses to engage. The FTA does state that a bus alighting and boarding area may be present. If present it must be in accordance with the Americans with Disabilities Act of 1990 (enacted in 1992).



Bus Stop Guidelines

- Guidance
- Utilization



Accessing Transit
Design Handbook for Florida Bus Passenger Facilities

- <https://www.fdot.gov/transit/pages/newtransitfacilitiesdesign.shtm>

Locating a Bus Stop

When locating a bus stop, Votran considers the following factors:

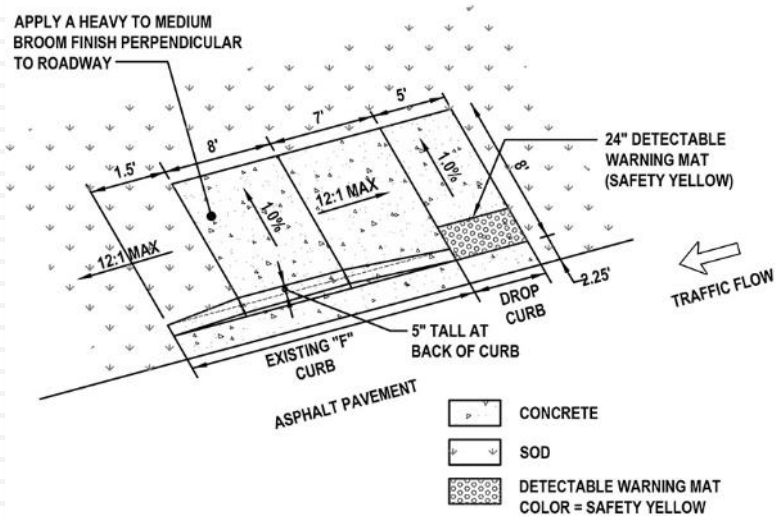
- Safety
- Security
- Traffic Flow
- Transit System Performance



The Bus Stop

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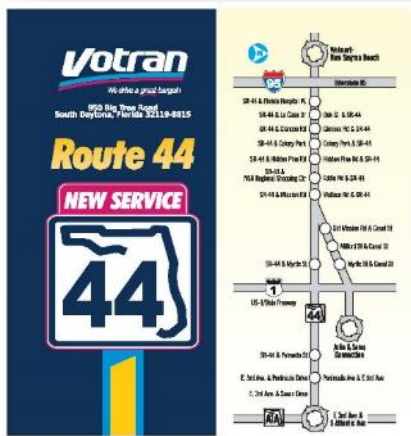
- Federal Transit Administration (FTA) C4710.1
- ADA guidance for Bus boarding and alighting areas shall comply with ADA – Section 810



The Bus Stop

Improvements to bus stops are triggered by:

- New route or modification to existing route
- State / County / City Projects
- FDOT roadway projects



The Bus Stop

Improvements to bus stops are triggered by: (cont.)

- Requests to move a stop
 - Florida Shores Plaza

JOINT PROJECT AGREEMENT BETWEEN THE COUNTY OF VOLUNTA AND THE CITY OF SUNGROWER FOR BUS STOP IMPROVEMENTS AND MAINTENANCE

THIS JOINT PROJECT AGREEMENT ("Agreement") is made and entered into by and between the County of Volusia ("County"), a political subdivision of the State of Florida, and the City of Edgewater ("City"), a municipal corporation of the State of Florida, to establish parameters and procedures for the improvement and maintenance of certain bus stops within the jurisdictional boundaries of the CITY. Each of the above individually may be referred to as Party, and collectively as Parties.

WITNESSETH:

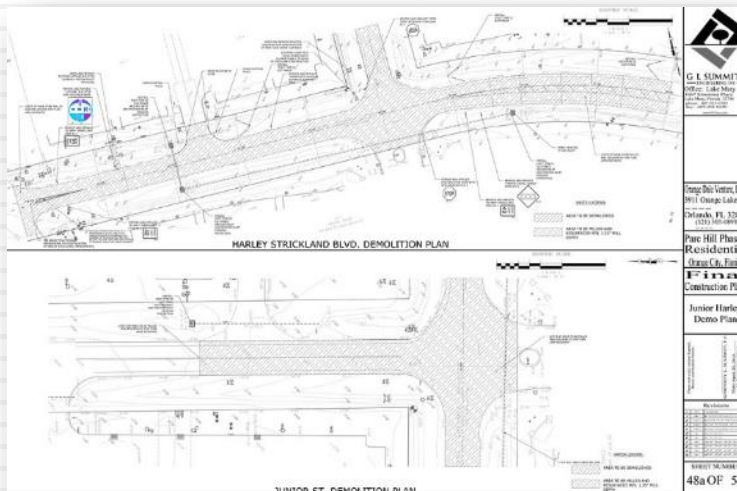
WHEREAS, the County owns and operates, Voltran, a public transit system established by the County in 1973, which currently includes a fleet of fixed route buses and paratransit vehicles; and

WHEREAS, Voltran provides public transit services to many residents of the City, and has numerous bus stops located within the City to serve those residents; and

WHEREAS, the Parties are dedicated to providing effective and efficient transportation to the residents of the City; and

WHEREAS, the Parties acknowledge that effective and efficient transportation requires accessibility for all residents including those with disabilities; and

WHEREAS, the Parties desire to work together to enhance certain bus stops within the



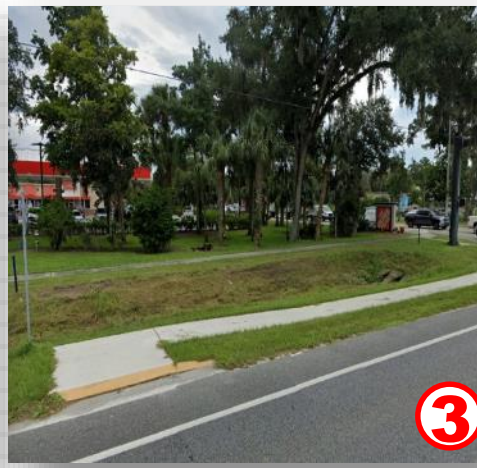
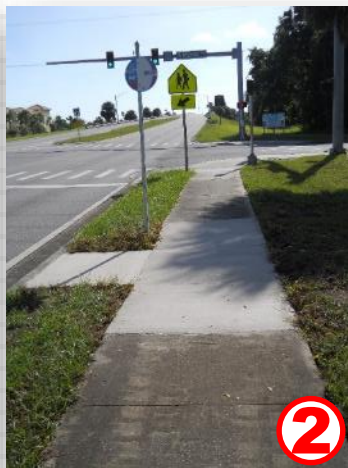
- New development and construction
 - Parc Hill Phase 1&2
 - SunRail T.O.D. DeBary

Types of Bus Stop

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Votran builds 4 basic types of bus stops depending on roadside conditions.

- 1) Roadway with curb adjacent to sidewalk
- 2) Roadway with curb, utility strip (grass), sidewalk
- 3) Roadway with sidewalk, but no curb
- 4) Roadway without curb or sidewalk



Bus Stop Challenges

Challenges to bus stop placement and improvements

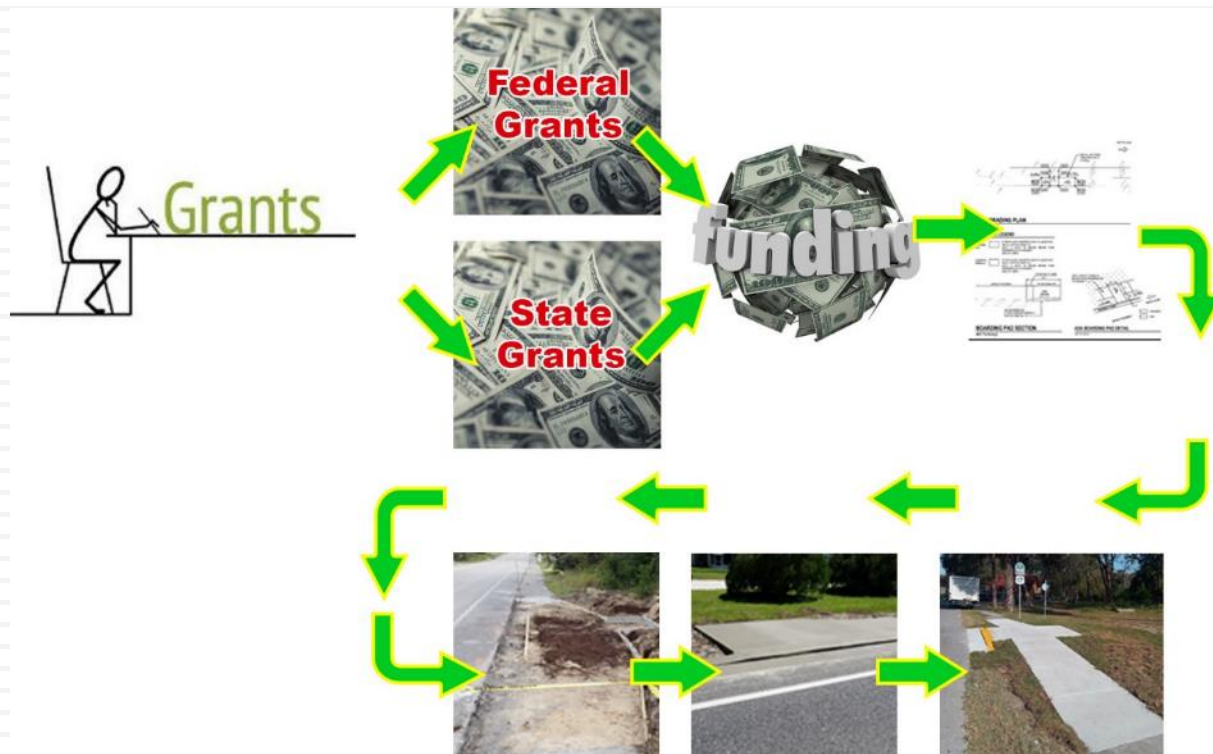
- Restricted right of way (ROW)
- Roadside Infrastructure
- Business/Private Property Owners
- Agreements



Bus Stop Funding

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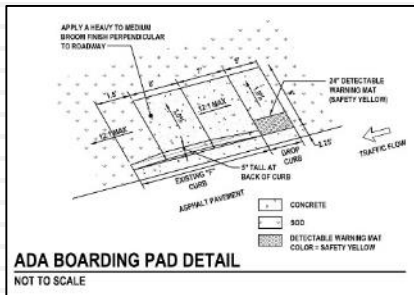
Funding for construction of bus stop ADA pads comes from state and federal grants.



Bus Stop Funding

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Cost of a bus stop



Basic ADA Pad
w/sign

\$10,000



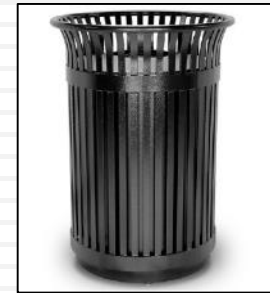
Shelter
w/concrete base

\$16,000



ADA Bench
w/concrete base

\$1,000



Trash Can
w/concrete base

\$1,000

The bus stop with shelter: \$27,000.

The bus stop with bench: \$12,000.

ADA Accessible path = \$74 linear foot including engineering

Bus Stop Benches

The Americans with Disability Act of 1990 and its subsequent updates do not require that a bench or shelter be placed at a bus stop.

However, if such an amenity is placed as a courtesy feature either by the transit system or municipality, it has to meet all ADA requirements for its placement and structure.

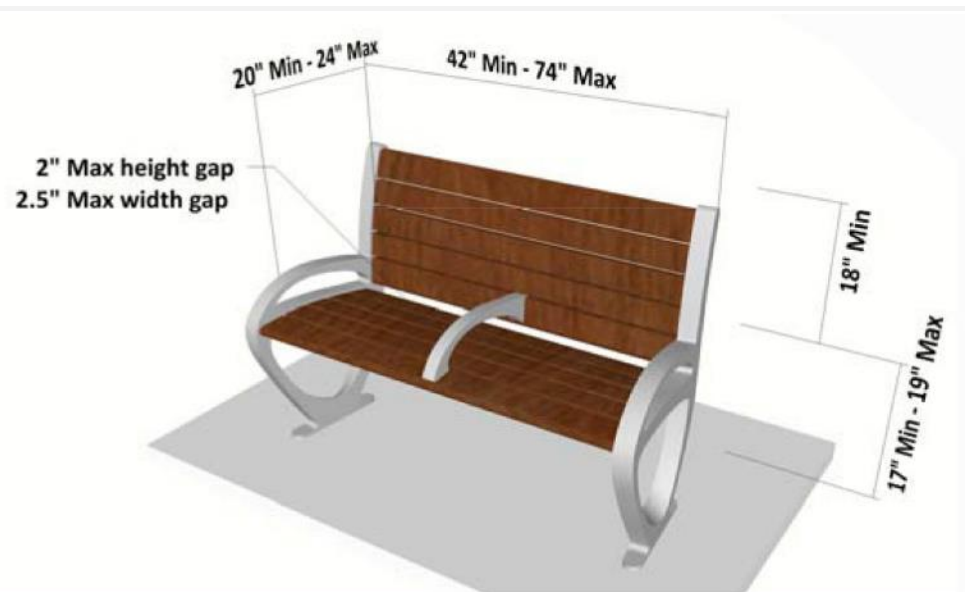
- 305 Size-The clear floor or ground space
- 802 Wheelchair Spaces, Companion Seats, and Designated Aisle Seats
- 903 Benches
 - 903.2 Clear Floor or Ground Space
 - 903.3 Size
 - 903.4 Back Support
 - 903.5 Height
 - 903.7 Wet Locations

Bus Stop Amenities

General Bus Stop Benches

Bench dimensions shall be as follows:

- Minimum 20" to maximum 24" in seat depth.
- Maximum 28" in depth and 44" in height.
- Minimum 42", maximum 74" wide.
- Bench seat 17–19" (17" preferred) above the ground or floor.
- Back support that extends from a point 2" maximum from above the seat surface to a point 18" above the seat surface.



Bus Stop Amenities

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Bus Stop Benches: Advertising Contractors: What Could Go Wrong?



Bus Stop Shelters

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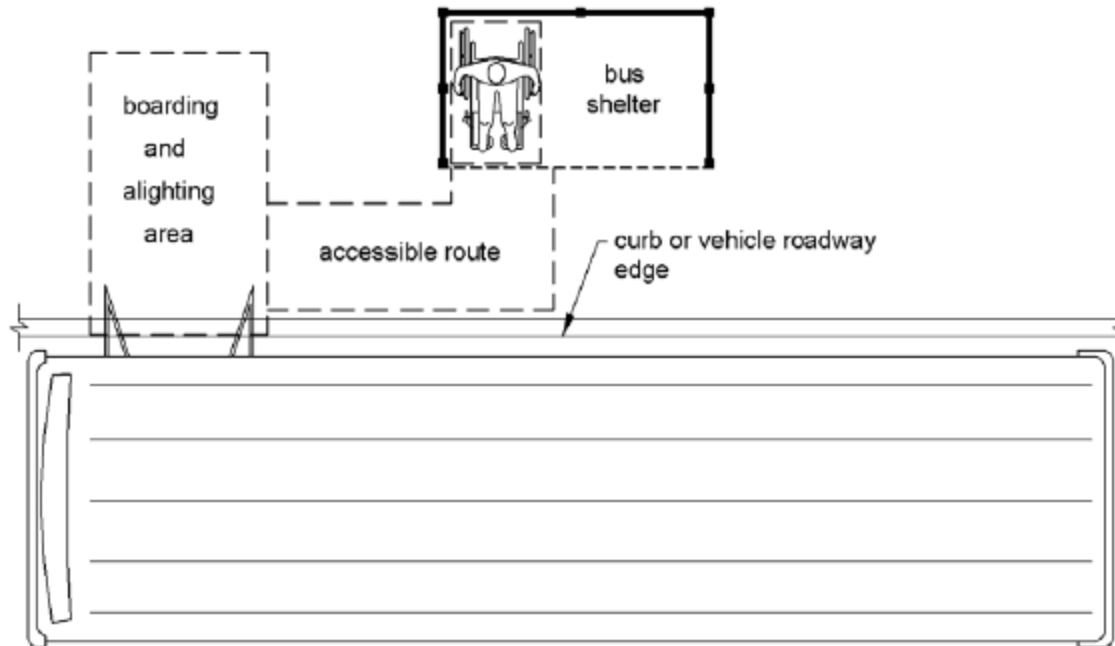
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Bus Stop Amenities

Bus Stop Shelters

810.3 Bus Shelters

Bus shelters shall provide a minimum clear floor or ground space complying with [305](#) entirely within the shelter. Bus shelters shall be connected by an accessible route complying with [402](#) to a boarding and alighting area complying with [810.2](#).

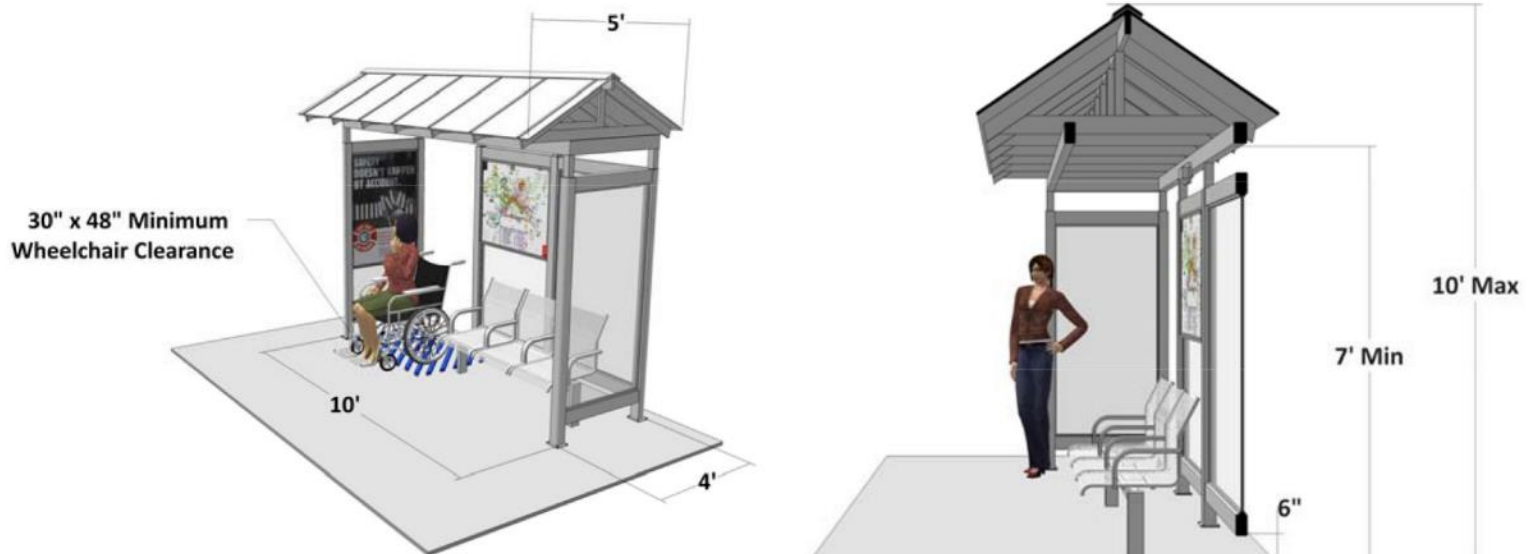


Bus Stop Amenities

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General Bus Stop Shelters

- Example of bus shelter with typical dimensions.



Bus Stop Amenities



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Bus Stop Shelters

Per Florida Administrative Code (FAC) 14-20.003

A shelter may be erected only at bus stops designated by a public transit agency or the local school board and identified as having service to a minimum number of 10 times in a 5-day period, excluding weekends and holidays

Minimum Boarding Suggested by Location for Considering a Bus Shelter	
Location	Minimum Boardings
Rural	10 or more per day
Suburban	25 or more per day
Urban	50 to 100 per day

What if...The Cost of Upgrades



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Bus Stop Shelters

Ridership CY-2018-2019 - Based on the formula from Florida Administrative Code (FAC) 14-20.003

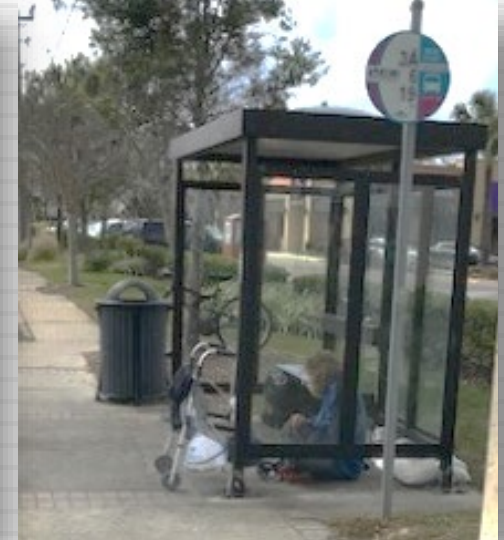
- 44 stops exceed 50 per day
 - Shelter w/ADA pad = \$1,144,000
 - Bench w/ADA pad = \$484,000
- 166 stops range from 25 to 49 per day
 - Shelter w/ADA pad = \$4,316,000
 - Bench w/ADA pad = \$1,826,000
- 337 stops range from 10 to 24 per day
 - Shelter w/ADA pad = \$8,762,000
 - Bench w/ADA pad = \$3,707,000
- 1,620 stops range from 0 to 9 per day
- This does not take into account the bus stops not captured at this time.

Bus Stop Amenities

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The cost of maintenance and the Human Condition

Shelters are often utilized by our homeless community.



Bus Stop Amenities

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Bus Stop Shelters

Draw backs to bus shelters: Maintenance and Replacement costs



Bus Stop Amenities

Contracted Bus Stop Amenities

Amenities can be placed via contract with an outdoor advertising firm that offers a bus stop amenity option.

- Provides courtesy amenities at bus stops
- Removes maintenance/replacement/liability cost from transit agency
- Provides a revenue source back to the transit agency



Bus Stop Amenities

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Comments or Questions

