

BCDCOG

Transit and Bus Stop Design Guidelines



October 2021

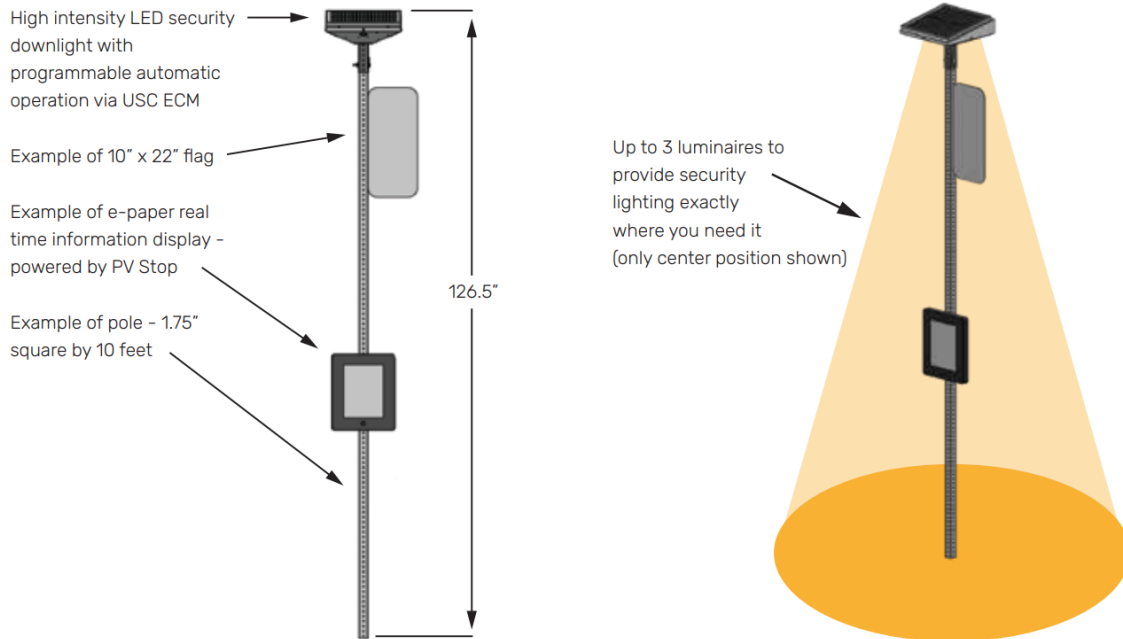
APPENDIX E: AMENITY STANDARDS AND SPECIFICATIONS

Appendix E contains the specifications for all CARTA amenities, as described in Chapter 5: Bus Stop Amenities. Amenities at bus stops may differ, but the following amenities are those formally approved by CARTA for use at their bus stops.

Solar Lighting Specifications

CARTA has approved solar lights for two discrete uses. The first is a sign mounted solar light, and the second is a solar light package approved for shelters. The specifications for each are below:

PV-STOP+ TRANSIT SOLAR-POWERED LED LIGHTING SYSTEM



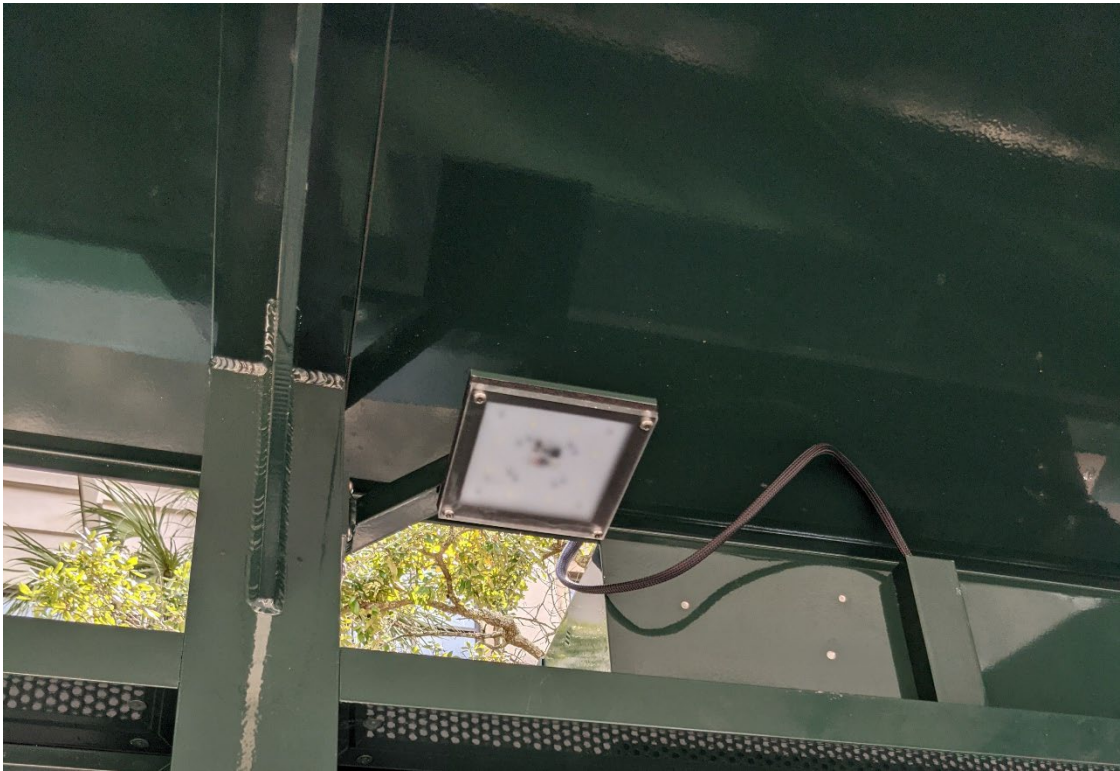


Solar Lighting in Use at CARTA Bus Stop.

BRASCO SOLAR LIGHTING PACKAGE

Includes:

1. 175 watt flexible solar panel
2. 4.3 watt LED light
3. 73 AMP hour batteries



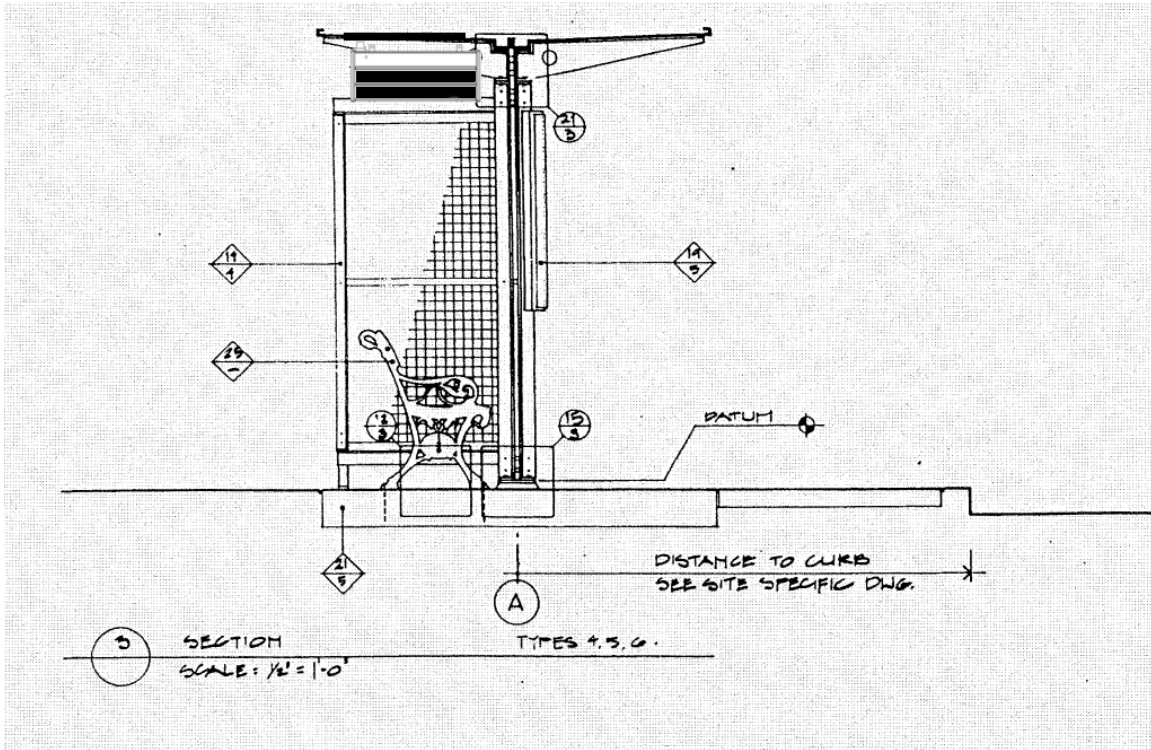
Shelter light installed at a CARTA shelter

SPECIFICATIONS	
Model No.	SU-6
Dimensions	5" x 5"
Power Consumption	4.3 W
Fixture	Aluminum Weldment with Frosted Acrylic Lens
Input Voltage	12 Volts DC
Operating Temperature	-40 - 74°C
Finish	Standard Powder Coat or Anti-Graffiti Powder Coat
Power Supply	A/C, Solar Powered
Hardware	Tamper Resistant
Mounting	Header or Column Mounted
Operating Hours	50,000

BRASCO Solar Light Specifications

Digital Sign Specifications

CARTA has an approved digital sign approved for use at its bus stops. The sign is built by Sunrise Systems and comes in single- or double-sided models.



Sunrise Systems Single Side Digital Sign shown in use at a Charleston bus shelter.



Digital sign mounted to a CARTA bus sign.

Trash Receptacle Specifications

Trash receptacles vary throughout the region based on the municipality. CARTA has two pre-approved trash receptacles for their own stops: The “Landscape” trash receptacle and the “Eclipse 32.” Specifications for these stops and other popular trash receptacle models by municipality are below.

CARTA uses the “Landscape” trash receptacles and attaches them to sign posts.



Eclipse-10-20

Landscape 10-20

Small steel waste receptacles for column mounting with optional lids and optional mounting bracket. Includes center message band.

10 Gallon Landscape Trash Receptacle

20 Gallon Landscape Trash Receptacle

- Retainer bands hold bags in place
- Bottom drainage holes included
- Mounting holes for poles or walls Included
- Add decals to center band for message
- Weather and UV-resistant powder coat
- Available in black, coffee brown, or hunter green

The “Eclipse 32” is typically installed with Brasco Sunline shelters.



Eclipse-32

Eclipse 32

18” Diameter, 38” H. Large freestanding aluminum waste receptacle with optional lid and optional liner.

32 Gallon Eclipse Trash Receptacle

- Pedestal base with drainage holes included
- Weather and UV-resistant powder coat
- Available in standard powder coat painted finish RAL colors

Mt. Pleasant and the City of Charleston typically use the “Streetscape” trashcans.



Streetscape

Streetscape

26” Diameter, 33” H. Large freestanding steel waste receptacle with optional lid, optional liner and optional center message band.

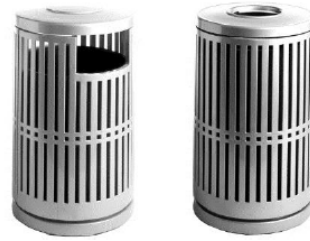
35 Gallon Streetscape Trash Receptacle

- Optional “Recycle Blue” finish
- Pre-drilled mounting holes for concrete
- Weather and UV-resistant powder coat
- Available in black, coffee brown, or hunter green

Additionally, Mt. Pleasant often uses the Chase Park model trash bin at stops.

RECYCLING-LITTER BIN

Model	Chase Park, dual use
Manufacturer	Landscape Forms
Openings	Standard side (1), 5 inch diameter hole (1)
Size	36 gallon, 24 inch diameter, divided liner
Signs	(2) standard design, 10-recyclable, 13 waste only
Color	Black, Powdercoat



Bench Specifications

CARTA has an approved bench design for its new shelters. In addition, historical benches are used in Charleston’s historic district, and Mt. Pleasant has its own preferred bench design. Seating should be secured to a poured foundation and incorporated within shelters when possible. **The standard depth for poured concrete or asphalt foundations beneath benches is 4”.**

CARTA’s approved bench is the BRASCO 6’ Curveline bench. The specifications for this bench and a photo of it installed at a BRASCO shelter are shown below.

The historical bench used in the Charleston historic district is built by J&M Foundry in Summerville (Address - 1594 State Rd, Summerville, SC 29483; Phone Number- (843) 761-2990). Below is a picture of the benches installed at a historic district bus stop.



Additionally, the Town of Mt. Pleasant often installs the “Austin” model bench shown below.

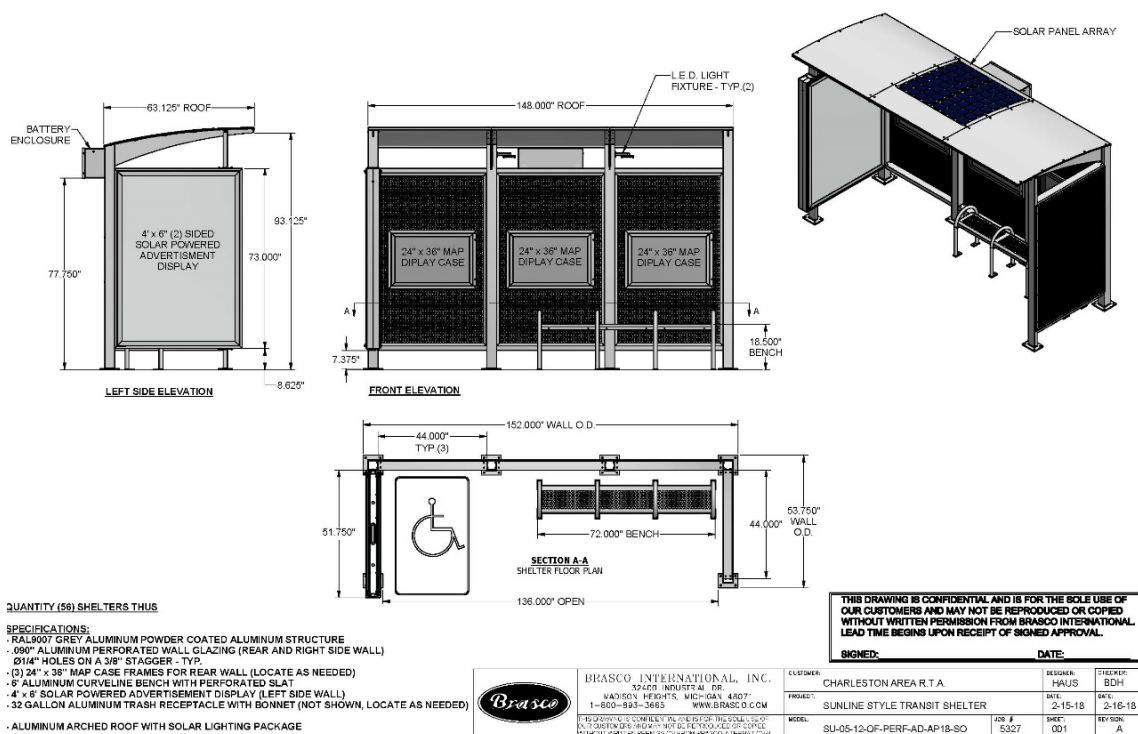
Model	Austin
Manufacturer	Landscape Forms
Style	Backed
Wood	Ipe, no finish
Mounting	Cantilever Surface Mount
Arm Option	No arms
Color	Titanium Powdercoat



Shelter Specifications

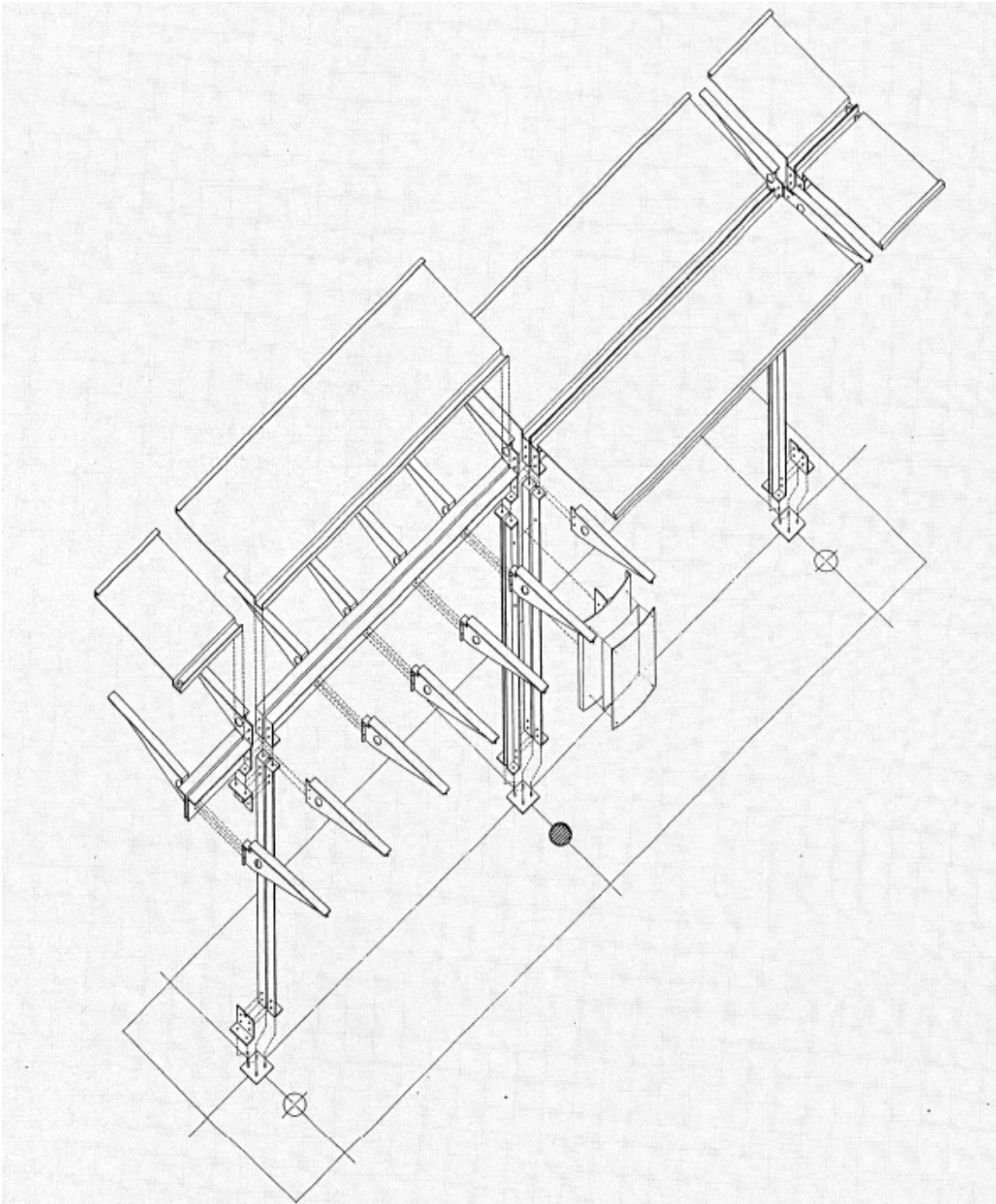
CARTA's standard shelter is manufactured by BRSCO. The shelter is ADA compliant and made of aluminum. Shelters must be built on and secured to a reinforced concrete foundation; CARTA requires that the poured foundation for its standard shelter be 8" deep reinforced concrete. Bus shelters should provide a clear line of sight to approaching buses and ensure that waiting passengers are visible to bus operators and other street users.

Its specifications and two example photos are below. The shelter comes in gray and green.



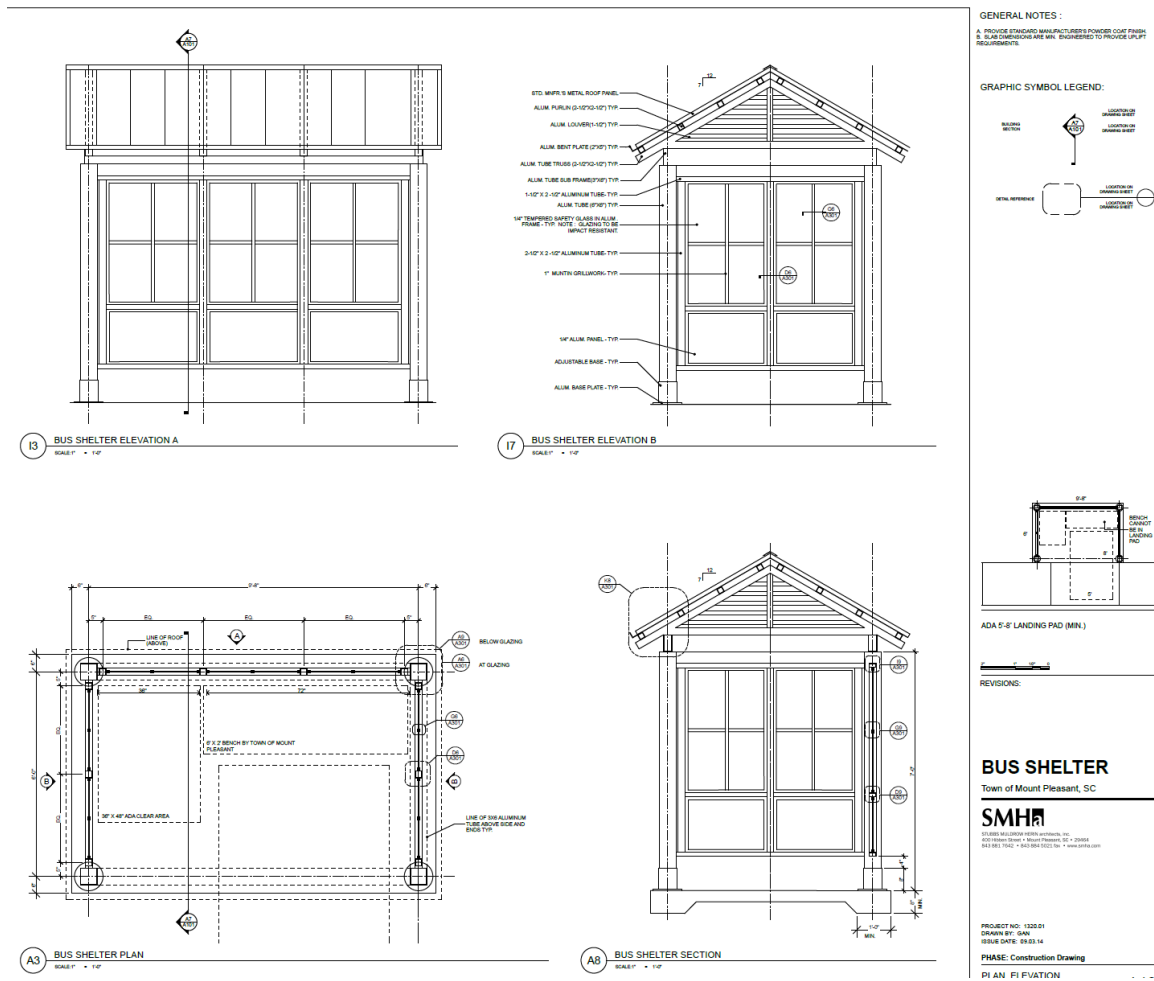


The City of Charleston has approved and adopted two shelter designs. The first is the Standard CARTA Stop. The second is the Historical Shelter Design, which is the preferred shelter design for all shelters installed south of Line Street. The Historical Shelter features a unique roof structure. Dimensions and additional photos the historical shelter designs are below. Poured foundations for historic shelters must be 12" deep reinforced concrete.





The Town of Mount Pleasant has adopted a standard BRASCO bus shelter for all shelters within the municipality. The Mount Pleasant shelter features a gable roof design. Similar to the City of Charleston’s shelter designs, Mt. Pleasant’s has been adopted by the city so that the town’s Design Review Team is generally only asked to approve shelter locations. Shelter specifications for Mt. Pleasant’s design are below. Poured foundations for custom shelters like that approved by the Town of Mount Pleasant must be 4” deep with an 18” edge around the perimeter, and they must also include a “turn down” edge and 4 12” x 30” depth footers of reinforced concrete.

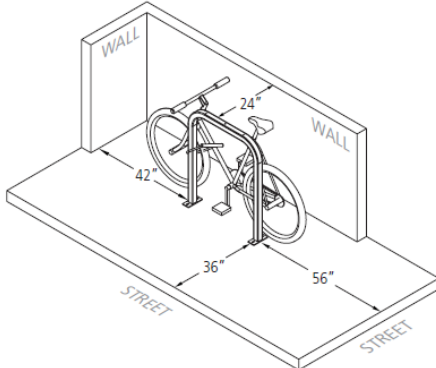
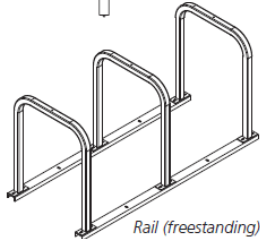
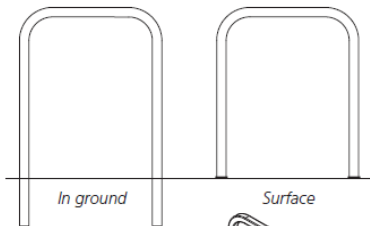
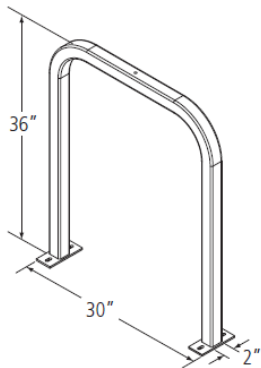


The Town of James Island uses the CARTA standard shelter but painted blue. Shelters must be built on and secured to a reinforced concrete foundation; CARTA requires that the poured foundation for its standard shelter be 8" deep reinforced concrete.



Bike Rack Specifications

CARTA’s preferred bike rack design is the Dero Downtown Rack | Square Tube Secure Bike Rack. In areas outside of the Historic District, this bike rack is gray. Within the historic district, this rack is black. Specifications and an example of the gray rack in action are below. Bicycle racks should be affixed to a paved surface. For CARTA, **the standard depth for poured concrete or asphalt bicycle rack foundations is 4”**. If multiple bicycle racks are installed, they must be placed at least 3 feet apart to allow convenient access. Where multiple rows of racks are installed to form a “bicycle parking lot,” there should be 4 feet between each row, measured from tire to tire.



Product Dero Downtown Rack
As manufactured by Dero Bike Racks

Capacity 2 Bikes

Materials 2" x 2" x 3/16" square tube - mild steel
2" x 2" x 11g square tube - stainless steel

Finishes An after fabrication hot dipped galvanized finish is our standard option. 250 TGIC powder coat colors, thermoplastic coating, PVC dip, and stainless steel finishes are also available as alternate options.

Our powder coat finish assures a high level of adhesion and durability by following these steps:
1. Sandblast
2. Epoxy primer electrostatically applied
3. Final thick TGIC polyester powder coat

Installation Methods **In ground mount** is embedded into concrete base. Specify in ground mount for this option.
Foot Mount has two 2.5"x6"x.25" feet with two anchors per foot. Specify foot mount for this option.
Rail Mounted Downtown Racks are bolted to two parallel rails which can be left freestanding or anchored to the ground. Rails are heavy duty 3"x1.4"x3/16" thick galvanized mounting rails. Specify rail mount for this option.

Space Use and Setbacks **Wall Setbacks:**
For racks set parallel to a wall:
Minimum: 24"
Recommended: 36"

For racks set perpendicular to a wall:
Minimum: 28"
Recommended: 42"

Distance Between Racks:
Minimum: 24"
Recommended: 36"

Street Setbacks:
Minimum: 24"
Recommended: 36"



Outdoor, unsheltered racks are the most common and cheapest to provide for short-term parking in the Charleston region. Bike parking can also be provided in indoor, guarded storage areas or lockers, which are highly secure. Or, they can be provided in sheltered storage area. It is uncommon for a municipality or agency to have a specific policy on the number of bike parking spaces that must be provided at a given public location like a transit stop.

The Town of Mt. Pleasant often installs “Ring” model bike racks, made of stainless steel, but these are not CARTA-standard.



Leaning Rail Specifications

Leaning rails are uncommon today in CARTA's system but are planned to be expanded to more stops. CARTA's preferred leaning rack design is BRASCO's Contour leaning rail design, pictured below.



CONTOUR (LR-CO)

A modern rail that can be surface-mounted or affixed to a shelter or wall. Constructed from 4" round aluminum extrusion and is available in 4', 6' and 8' lengths and a 32" height. Powder coated to the color of your choice.