



Charles D. Baker, Governor  
Karyn E. Polito, Lieutenant Governor  
Stephanie Pollack, MassDOT Secretary & CEO  
Steve Poftak, General Manager



## DESIGN DIRECTIVE

To: Distribution

From: Erik J. Stoothoff, P.E. *EJS*  
Chief Engineer

Date: 5/6/2020

RE: Trash Receptacles

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This intent of this Design Directive is to consolidate, reiterate, supplement, and clarify the MBTA's approach, preferences, and requirements for Trash and Recycling Receptacles at MBTA Stations and Facilities, for the purpose of customer, employee, and civilian safety.

In the event that conditions warrant deviation from this directive, a design waiver signed by the Chief Engineer and department owning the scope of work will be required of the project

MBTA Standards shall apply only where Code does not address a topic or the MBTA requires a standard above and beyond Code. The more stringent shall always apply.

### **OBJECTIVE**

Selection of trash and recycling receptacles for all new construction, repair or replacement projects shall follow standards that are consistent with MBTA's priorities to:

1. Maximize safety to MBTA passengers, staff and pedestrians.
2. Minimize risk to MBTA assets.
3. Minimize downtime and prevent disruptions to traveling public.
4. Protect surrounding environment from risk of residual effects of explosion.

Proactive planning towards potential threats is critical to the safety of our passengers and personnel as well as the functionality and longevity of the MBTA systems. This includes station platforms, parking areas, tracks, maintenance facilities, utilities and all other supporting infrastructure. As such, design shall prioritize safety, function and ease of maintenance over time. Trash and recycling receptacle use and distribution shall be a coordinated effort with MBTA departments as well as regulatory and representative agencies and municipalities.

## **CODES AND STANDARDS**

- SD RAILPAX-04-01
- SAFETY Act
- APTA
- ASTM

## **DESIGN PRINCIPLES**

Blast mitigating trash barrels shall be considered for all stations and scenarios. Considerations should include, station location, passenger volume, structural integrity of station and surrounding environment.

1. MBTA Standard Receptacle shall comply with Homeland Security Directive SD RAILPAX-04-01. Receptacle shall consist of the following features.
  - a. Standard color is Federal Standard Black, FS27038 [RGB Hex Code – 05111], unless otherwise specified by MBTA.
  - b. Overall dimensions, +/- 1/2": 24.5" x 24.5" x 47" tall.
  - c. Side panels shall be made of clear .236 thick polycarbonate panels to provide complete visibility of the contents (to comply with the Department of Homeland Security directions).
  - d. Customized 5" x 7" openings on all 4 sides.
  - e. Lockable shell cover.
  - f. All latches, hinges and hardware to be made of galvanized steel.
2. For Blast Mitigating Receptacles, the following shall be considered.
  - a. Standard Blast Mitigating receptacle must be Safety ACT approved by the Department of Homeland Security.
  - b. Standard finish is stainless steel, unless otherwise specified by MBTA.
  - c. 35 gallon capacity.
  - d. Approved receptacles shall meet blast mitigating testing methods in accordance with ASTM E2639-12 and shall meet specifications contained in ASTM E2740-12.
  - e. In cases where it is determined that blast mitigating receptacles will be used, receptacles shall be deployed in accordance with ASTM E2831/E2831M-11.
3. At open-air platforms along Commuter Rail and Green Line, cylindrical, solid steel slat receptacles are acceptable and may only be used in circumstances where it is approved by the MBTA. When approved, the following requirements shall be met.
  - a. Overall dimensions, +/- 1": 34" tall, 24" diameter at bottom of barrel, 28" diameter at steel stop ring.
  - b. Component dimensions, +/- 1/4":
    - i. Solid steel vertical bars: 1/4" x 1"
    - ii. Solid steel horizontal bands: (Two) 1/4 x 2-1/2"
    - iii. Solid steel support bars: 3/8" x 3-1/2"
    - iv. Solid steel top ring: 5/8" diameter.
    - v. Solid steel leveling feet: 3/8" diameter thread.

- c. Standard color is Federal Standard Black, FS27038 [RGB Hex Code – 05111], unless otherwise specified by MBTA.
  - d. All fabricated metal components shall be shot-blasted, etched, phosphatized, preheated and electrostatically powder-coated with TGIC polyester powder coatings, 8-10 mils (200-250 microns) finish thickness and hot dip galvanized before powder coating.
  - e. Recycled material content to be 50% or greater unless otherwise approved by MBTA.
  - f. 35 gallon capacity high density plastic liner, weight not to exceed 6 lbs.
  - g. Acceptable lids are convex, tapered formed and rain bonnet. Trash opening shall have a diameter of no more than 7” and no less than 6”.
  - h. Trash receptacles should be installed at all commuter rail stations, but only following a negotiated agreement for the periodic pick-up of trash and maintenance of the receptacles.
4. Receptacles shall be surface mounted on 4” deep concrete slab or approved equal surface and installed using galvanized bolts, washers and/or lock bolts.
  5. All trash and recycle cans shall be isolated from the concrete structure and flooring materials with HDPE or Mylar shims to prevent degradation due to de-icers.
  6. Placement of receptacles shall be determined through coordinated efforts with Transit Police, Engineering & Maintenance, System Wide Accessibility, and the MBTA Project Manager.
  7. Quantity of trash receptacles at stations shall follow the same guidance as placement and consider the following.
    - a. Passenger volume at each station.
    - b. A minimum of two (2) trash receptacles shall be placed on heavy and light rail platforms, separated by a distance of not more than 100 feet.
    - c. A minimum of three (3) trash receptacles shall be placed on Commuter Rail platforms, including one (1) on mini-high platforms, and separated by a distance of not more than 200 feet.
    - d. A minimum of one (1) trash receptacle shall be placed in the customer service area.
  8. Trash receptacles must be installed such that the receptacle does not impede pedestrian desire lines or turns at fare lobbies, stairs or elevators or reduce pedestrian clear width along platforms and egress routes. Trash receptacles shall not be installed within 3 feet of open ends of benches. Trash Receptacles shall not reduce the queueing level of service for pedestrian passage.

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### **ADDITIONAL DESIGN GUIDANCE**

Submittal of complete manufacturer's product data to MBTA for approval is required. This shall consist of complete product description and specifications, catalog cuts, and other descriptive data required for complete product use and information.

Provide samples of all materials to be exposed in the completed work.