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## DESIGN DIRECTIVE

To: Distribution

From: Joseph A. Pavao, P.E. *JAP*  
Acting Chief Engineer

Date: October 26, 2022

RE: Bus Transit Traffic Signals

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This design directive is intended to consolidate, reiterate, supplement, and clarify the MBTA's approach, preferences, and requirements for the design of bus transit traffic signals. In the event that conditions warrant deviation from this directive, a design waiver signed by the Chief Engineer and the department owning the scope of work will be required.

Design Consultants shall design to standards as prescribed by Code. 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.

### **CODES AND STANDARDS**

Unless noted, or directed otherwise, the latest edition of the following standards, codes and guidelines shall be used in the design of all bus transit traffic signals, as appropriate, and as set forth in this directive.

- Boston Transportation Department (BTD) Specifications
- Federal Highway Administration (FHWA) Manual for Uniform Traffic Control Devices (MUTCD)
- MassDOT Project Development and Design Guide

### **DEFINITIONS**

*Bus Transit Traffic Signals* shall refer to traffic control signals dedicated to the control of bus transit vehicles.

### **DESIGN PRINCIPLES**

1. Bus transit movements in intersections where there is a separate movement, or separately timed movement, between public traffic and bus transit traffic shall be controlled by signal indicators as shown in Figure 1.

2. Aside from the red horizontal bar signal indication, bus transit traffic signals shall otherwise conform section 8C.11 of the 2009 MUTCD with latest revisions.
3. Design and installation bus transit traffic signals shall conform to Boston Transportation Department (BTD) Specifications for municipal locations within the City of Boston, and shall conform to MassDOT Specifications for municipal locations outside of Boston and at all state highway locations.
4. Bus transit traffic signal heads shall be mounted according to MassDOT Project Development and Design Guide Standards.
5. All designs for new, modified, or replacement bus transit traffic signal systems shall be submitted to the Office of Operations Planning, Schedules & Strategy for review and approval.

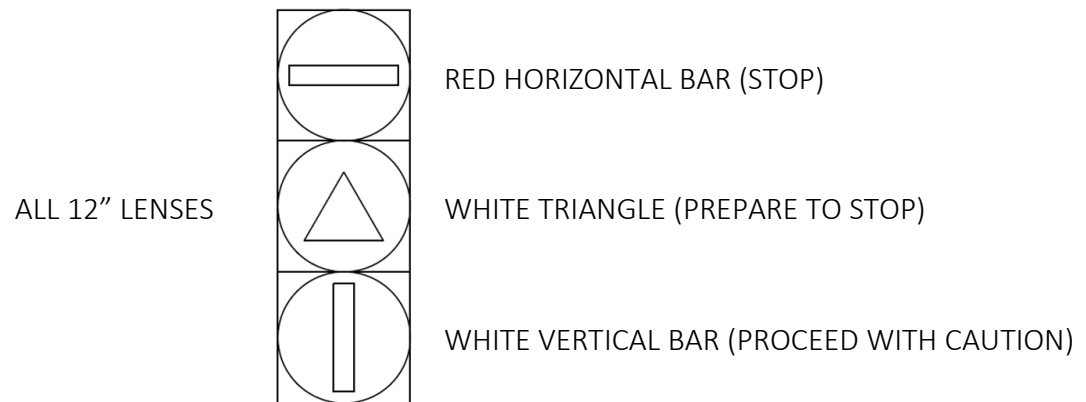


Figure 1: Bus Transit Traffic Signal Standard Detail