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It is important to summarize the previous signage related efforts, in an attempt to clarify the criteria for which this document is based and for a general understanding of the efforts that have lead up to the updating of the Boston Logan International Airport Signage Standards and Guidelines project.

**Background**

Boston Logan International Airport (BOS) is currently the 18th busiest airport in the USA and New England's primary airport, with over 26 million passengers per year using the Airport. By the year 2010, over 37 million passengers per year are expected to use the Airport's facilities.

Boston Logan International Airport is a conjunction of five connected individual terminals (Terminals A, B, C, D and E) and two major parking garages (Central Parking and Terminal B Parking). Each one of these facilities has its own architectural style, which may become an issue when trying to implement signage that is consistent throughout the Airport. Different signage systems have been implemented to custom fit the conditions of each facility resulting in a variety of sign types and sizes without uniform systematic characteristics.

As of February 2005, the issuance of this document, there are several "systems" in place that create a variation in signage conditions. The "older" system developed by Peter Muller-Munk in 1990 is still within place in several areas of the Airport (Terminal C, for example). In addition, Terminal B and its associated parking areas have an "older" signage system that was developed and implemented by the airlines.

As part of the Logan Modernization program for major landside improvements (terminals and roadways), Massport decided to establish Logan International Airport Sign Program Guidelines and Graphic Standards (90% Draft) submitted in May 2002 by Karen Lewis Design, Inc.(Graphic Standards) in an effort to create a seamless and cohesive signage system for the Airport.

These Graphic Standards have been and are continuously being implemented in sections of the Airport (Ex. Terminal E, B/C walkways). Future projects such as MPA Project No. L219-C3 Central Parking Garage Repairs and Expansion and Terminal A Redevelopment are being signed based on Karen Lewis Sign Program Guidelines and Graphic Standards.

**Logan International Airport Sign Program Guidelines and Graphic Standards (90% Draft):**

This program consists of a variety of sign type families for terminals, curbside, roadways and Airport service buildings. Karen Lewis Design Inc. Provided Massport with four volumes total that reference specifically to each one of these areas:

- Volume 1: Passenger Terminals Interior
- Volume 2: Passenger Terminals Curbside (Exterior)
- Volume 3: Airport Roadways (Terminal Roadways, Egress Roadways and Service Roads)
- Volume 4: Airport Service Buildings (Support Facilities)



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**Logan International Airport Sign Program Guidelines and Graphic Standards (90% Draft) cont'd:**

Each set of sign families consisted of a variety of Directional, Informational, and Identification signs. However; a comprehensive family of identification sign types addressed for Terminals, Gates, and other important facilities/functions is not included in the program.

The existing Graphic Standards propose the use of terminal icons to identify the terminals. These icons carry the color and the letter designated for each terminal (Terminal A: Blue, Terminal B: Red, Terminal C: Green, Terminal D: Orange and Terminal E: Purple). These colors are used in directional signs in the roadways and the terminals.

**Conceptual Report:**

In an effort to make the passenger's wayfinding experience more pleasant throughout Boston Logan International Airport, the Massachusetts Port Authority (Massport) has decided to evaluate the feasibility of an alternate "color coded system" for the signage program and to review the existing Graphic Standards.

Massport has enlisted the services of Carter & Burgess, Inc (CB) to evaluate the possibility of an alternate "color coded system" and to provide examples of different "color coded systems" currently being implemented at other airports around the country.

The analysis of the existing "color-coded" systems within other airports, that Carter & Burgess, Inc reviewed, consisted of examples from the current Amsterdam's Schiphol International Airport. This specific system utilizes three sign background colors to differentiate between three primary airport function groupings: (yellow) flight services, (green) leaving the airport, and (black) auxiliary services.

Carter and Burgess, Inc summarized and evaluated the "color coded" system, reviewed the in-place signage conditions and current Graphic Standards at BOS and provided Massport with recommendations and alternatives to improve the Airport's signage system. The alternatives and brief description are as follows:

**ALTERNATIVE 1 - MODIFY / PROCEED WITH CURRENT GRAPHIC STANDARDS:**

Update and further standardize the current Graphic Standards along with additional solutions to enhance the overall program. There are areas on these standards that require enhancement, such as curbside color-coding, messaging on overhead roadways, addition of supplemental sign types, etc. In addition, there is a need to include dynamic signage, VMS, and a signage database.

**ALTERNATIVE 2 DEVELOP NEW COLOR-CODED SIGN PROGRAM:**

Re-evaluate the current sign program airport-wide and revise the system to be in compliance with the color-coding based on the "Schiphol-model".

**ALTERNATIVE 3 HYBRID SIGNAGE SYSTEM:**

Integrate the new color-coding principles with the current Graphic Standards. The alternative would include implementing color-coding to a lesser degree than used at Schiphol or NY/NJ, but still utilize the methodology of the system. Color-coding only the international symbols or using color-coding rule lines/ bands may achieve this.



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**Conceptual Report con't:**

The complete list of conclusions and recommendations as well as the results of the study can be found in the "Conceptual Report: Color-Coded Wayfinding Study" submitted to Boston Logan International Airport on April 2003.

**Wayfinding Analysis and Plan:**

Based on the recommendations and alternatives proposed by CB in the "Conceptual Report: Color-Coded Wayfinding Study", Massport commissioned Carter and Burgess to develop a Wayfinding Analysis and Plan in July 2003.

The purpose of the Wayfinding Analysis and Plan was to identify and determine key wayfinding decision points for passengers throughout Boston Logan International Airport for proper wayfinding signing. This analysis included terminals, curbside, garage, frontage roadways, etc. , and develop a plan of recommendations showing conceptually how to improve these problematic areas. CB performed a series of site surveys at BOS in order to identify and determine major circulation patterns throughout the airport as well as major decision points.

The data collected during those visits through photos, videos, surveys, meetings and drawings was used to determine key recommendations that would improve the wayfinding and signage system at the Airport.

In general, the study found that there are signage issues, short-term and long-term, that need to be addressed at BOS. CB provided Massport with general recommendations that would improve the wayfinding and signage system at BOS in both short-term and long-term bases.

**SHORT-TERM RECOMMENDATIONS:**

As part of the short-term solutions, Carter & Burgess, Inc determined typical problematic areas for proper wayfinding and signage throughout the Airport and recommend interim solutions for each one of these situations.

CB provided Massport with temporary solutions for terminals, curbside, parking and roadways that can be found in the packages listed below:

- Short-Term Recommendations Terminals: Submitted February 16th, 2004
- Short-Term Recommendations Curbside: Submitted March 16th, 2004
- Short-Term Recommendations Parking: Submitted March 16th, 2004
- Short-Term Recommendations Roadways: Submitted March 23rd, 2004

**LONG-TERM RECOMMENDATIONS:**

As part of the long-term solutions, CB studied the current signage systems being used at BOS and revised the current Graphic Standards that are being implemented in order to provide the Airport with long-term recommendations. These recommendations included changes in the nomenclature, terminology, message hierarchy, international symbols, color-coded system, sign types and other important issues that would affect the signage system throughout the Airport.

The long-term recommendations were presented to the BOS Signage Committee in different occasions through four Signage Committee Work-Sessions:



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**Wayfinding Analysis and Plan cont'd:**

1. Signage Committee Work-Session No.1 held on 10/29/03
2. Signage Committee Work-Session No.2 held on 12/19/03
3. Signage Committee Work-Session No.3 held on 04/28/04

The decisions made by the Committee during the Work-Sessions determined the direction of the Signage Standards and Guidelines. Detailed recommendations regarding Terminology, Message Hierarchy, International Symbols, Typography, etc., can be found in the Section 2.0 Graphic Standards of the Signage Standards and Guidelines for each area.

**Signage Standards and Guidelines:**

Upon the completion of the Wayfinding Analysis and Plan CB was commissioned for a third task at BOS. This task consisted of revising and modifying the Logan International Airport Sign Program Guidelines and Graphic Standards (90% Draft). This document is the second of five volumes of the Signage Standards and Guidelines developed by CB.

The objective of the Signage Standards and Guidelines is to provide a set of design standards, requirements and design criteria to be used for all interior and exterior signing applications at BOS. The document will be the primary reference for those designing and implementing the Airport's capital improvement program. Criteria relating to terminology/symbology, graphic layout, letter style, arrow size, size relationships, color relationships, sign types, mounting conditions, etc. is set forth in these standards and guidelines.

Signs Regulated by the Documents:

- All exterior and interior directional, identification, and informational signs for public throughout the airport property:
  - Access Roadway
  - Airport Roadway
  - Curbside (Upper, Lower)
  - Ground Transportation
  - Terminal(s)
  - Parking Garage and Sub-ordinate Parking Facilities
  - Airport Services Facilities

There are five "volumes" in the total set of Graphics Standards and Guidelines for BOS. Each volume is a separate reference to a different area(s) or new development as follows:

- Volume 1: Terminals
- Volume 2: Curbside and Ground Transportation
- Volume 3: Parking
- Volume 4: Roadways
- Volume 5: Airport Services Buildings



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Based on the determination of required messages in the various areas of the airport property and the relationship of message function to message hierarchy, a numbering system was developed to classify sign types. The following list outlines all of the sign type series used at BOS.

**Series 100 - Terminal**

- Directional 101 - 150
- Identification 151 - 180
- Informational 181 - 199

**Series 200 - Curbside/Ground Transportation**

- Directional 201 - 250
- Identification 251 - 280
- Informational 281 - 299

**Series 300 - Parking**

- Directional 301 - 350
- Identification 351 - 380
- Informational 381 - 399

**Series 400 - Roadways**

- Directional 401 - 450
- Identification 451 - 480
- Informational 481 - 499

**Series 500 - Airport Services Buildings**

- Directional 501 - 550
- Identification 551 - 580
- Informational 581 - 599

