

Wayfinding Signage Standards Manual
Columbus Regional Airport Authority

March 14, 2019



COLUMBUS
REGIONAL AIRPORT AUTHORITY

Introduction

1.1 CRAA Wayfinding Signage Standards

1.2 Manual Use

Introduction

CRAA Wayfinding Signage Standards

This Wayfinding Signage Standards Manual is a product of the Signage and Wayfinding Master Plan development process that the Columbus Regional Airport Authority (CRAA) undertook in the early 2000s. The manual utilizes a system of color-coded signage which organizes information by distinct color combinations based on traveler functions – i.e. arrival/departure, services, and parking/ground transportation. This color-coded visual communications system has successfully served as the primary means of customer wayfinding within the John Glenn Columbus International Airport terminal since its initial implementation in 2003.

The purpose of this manual is to summarize the signage master plan and to serve as a tool to manage, maintain, and update the signage system in a uniform manner. Since the initial implementation of the system, both the airport and airline industries have experienced an evolution of operations, including heightened security, airline consolidations, enhanced communications and operational technologies, and most importantly, airport customer expectations.

This 2018 update incorporates new elements including symbols, messages, and sign types that have been developed since the original build-out of the signage system. These edits and additions reflect the facility, regulatory, and operational changes that have occurred since 2003.

Introduction

Manual Use

This manual should be used as a basic guide by all Columbus Regional Airport Authority (CRAA) personnel, tenants, sign contractors, and other suppliers engaged in the planning, design, fabrication, installation and maintenance of public signage at John Glenn Columbus International Airport, Rickenbacker International Airport and Bolton Field Airport. Adherence to the standards of this manual, and official CRAA policies and procedures for control of airport signage in effect by CRAA, will ensure consistency and uniformity throughout the entire program.

It is important to note that this manual is not intended to account for every possible future use case scenario for signage at CRAA facilities. The manual should be used as a reference to guide decisions about signage in conjunction with stakeholder collaboration, past experience, the signage program management processes, and solid judgment to arrive at an acceptable signage solution or application.

Additionally, every sign that's currently in place at CRAA facilities is not depicted in this manual; refer to signage master plan documents for each facility as needed for a complete reference of all signs.

Based on a general understanding of the intended use/application of each sign type and planning philosophy, the user may select from the following sections the appropriate graphic standards and specifications to revise, replace, or add a sign.

Standardization of Application

Each sign type should be utilized only for the specific purpose(s) described in the manual and associated specifications. Identical conditions should always utilize the same type of sign, if possible. All proposed signs, including those not specifically covered in this manual, prior to installation, must be reviewed and approved as outlined in Section 10 – Program Management, of this manual.

This “working” manual is composed of eleven interrelated parts for specification, development and production purposes.

- 2.0 General Specifications: Depicts and describes graphic standards applicable to a variety of signs.
- 3.0-6.0 John Glenn Columbus International Airport Sign Examples: Depicts and describes graphic/materials standards by application. Signs are organized by airport area, classification and type. A general specification is described of the materials, processes and major parts used to construct the sign or to replace a panel. The materials listing is not a complete list of all parts required. A detailed assembly drawing and list of parts can be obtained through the as-built shop drawing reference listed under “Construction” on the sign example sheets. All of the as-built shop drawings were produced by Signs Unlimited, except those noted. Sign layouts serve as a design guide for the revision/production of the sign depicted or those of the same type and function.
- 7.0 Rickenbacker International Airport and The North American Freight Center Sign Standards: This section is reserved for future use.
- 8.0 Bolton Field Sign Standards: This section is reserved for future use.
- 9.0 Sign Construction: Depicts and describes the construction of each sign type and sources of materials/processes.
- 10.0 Program Management: Describes general program management processes for CRAA’s Wayfinding Signage Program.
- 11.0 Index: Provides information and resource links to relevant signage information sources.

General Specifications

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2.2 *Terminology*

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General Specifications

Color Code Design Concept

The color code design concept has a distinctive appearance and represents an effective approach that is different from many current signage system concepts in use at US airports today. The concept uses distinct and highly-visible color combinations to visually organize messages by types of information. Consistent application of these standards throughout the airport helps passengers recognize and follow messages associated with the departures and arrivals process. The color code system also utilizes an extensive family of internationally recognized symbols to facilitate universal understanding of messages.

The color code signage system is based upon a modified design concept originally developed for the Port Authority of New York and New Jersey by Bureau Mijksenaar and Peter Muller-Munk Associates, a Division of Wilbur Smith Associates (predecessor firm to CDM Smith, Inc.).

Columbus Regional Airport Authority Color-Coded signing system

- **Follow Yellow Signs when flying - for Gates, Ticketing, Baggage Claim, etc.**

- **Follow Black Signs for airport services - Restrooms, Elevators, Telephones, etc.**

- **Follow Green Signs when landing - for Parking, Ground Transportation, etc.**

General Specifications

Terminology

Terminology is one of the wayfinding signage standards cornerstones. Consistent usage in all information dissemination applications, signage, printed and verbal, of the official terminology listed in this glossary will help eliminate identification confusion and provide informational continuity throughout the airport and various categories of users.

Airport Services

Airport Police & Operations Center
 ATM
 Authorized Access Only
 Automated External Defibrillator (AED)
 Courtesy Phone
 Directory
 Do Not Enter
 Elevator
 Emergency Exit
 Emergency Exit Only
 Emergency Phone
 Escalator
 Escalator(s) to:
 Family Restroom(s)
 First Aid
 Food Court
 Information Center
 Level (1, 2, 3, 4, 5)
 Men
 Nursing Room
 Postal Center
 Restroom(s)
 Severe Weather Shelter Area
 Shoe Shine
 Stair
 Stair Exit
 Telephones
 TTY
 Walkway
 Women

Departing and Arriving

All Gates
 Arrivals
 Baggage Claim
 Baggage Claim Carousel
 Check-in
 Concourses A, B, C
 Curb Check-in
 Currency Exchange
 Customs
 Departures
 Duty Free
 Gate (A1, B16, C46, etc.)
 Gates (e.g., A1-7, B16-36, C46-56)
 Information Center
 International Arrivals
 Terminal
 Terminal & All Gates
 Ticketing
 Ticketing & Check-in

Roadway/Site/Curbfront

Cell Phone Parking Lot
 Hotel(s)
 Passenger Drop-off
 Passenger Pick-up
 Pedestrian Crossing
 Pet Rest Area
 Restaurant(s)
 Return to Terminal
 Smoking Area
 Shuttle Drop-off
 Shuttle Lot (Red, Blue, Green)
 Through Traffic
 Truck Lane
 Valet Parking

Ground Transportation & Parking

Additional Parking
 Blue Shuttle Lot
 Buses
 Curbfront
 Do Not Enter
 Down to Additional Parking
 East Elevators to Terminal
 Exit
 Exit to Toll Plaza
 Green Shuttle Lot
 Ground Transportation
 Level 3, Row D, etc.
 Long Term Parking
 Off-Airport Hotel Shuttles
 Off-Airport Parking Shuttles
 On-Airport Hotel Shuttles
 Parking
 Parking Garage
 Passenger Drop-off
 Passenger Pick-up
 Pedestrian Crossing
 Pre-Arranged Vehicles
 Public Buses
 Red Shuttle Lot
 Rental Car Lobbies
 Rental Car Return
 Rental Cars
 Rideshare
 Scheduled Shuttles
 Short Term North
 Short Term South
 Shuttle Drop-off
 Shuttle Lots
 Shuttles
 Skycap
 Special Event Shuttles
 Taxis
 Terminal Walkway
 Up to Additional Parking
 Valet Parking
 West Elevators to Terminal

General Specifications

Hierarchy of Information

Informational Hierarchy for Suspended Overhead Interior Directional Signage

Primary

(First priority for available panel space)

Gates
Concourses
Baggage Claim
Ground Transportation
Ticketing
Parking
Airlines

Secondary

(Second priority for available panel space)

Rental Cars
Information
Restrooms
Elevators
(Use word for Restrooms and Elevators if space permits; if not, then use symbol.)

Tertiary

(Primarily on wall or flag signs)

Courtesy Phone
Emergency Phone
AED
First Aid
TTY
Mail Drop

General Specifications

Pictograms

Flight Services



Baggage Claim
(yellow w/black)



Gates/Terminal
(yellow w/black)



International Arrivals
(yellow w/black)

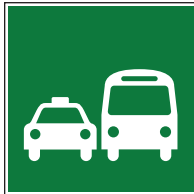


Ticketing/
Check-In
(yellow w/black)

Transportation Services



Buses
(green w/white)



Ground Transportation
(green w/white)



Passenger Drop-off
(green w/white)



Passenger Pick-up
(green w/white)



Rental Cars
(green w/white)



Rideshare
(green w/white)



Shuttle
(general & Green Lot)
(green w/white)



Shuttle (Blue Lot)
(blue w/white)



Shuttle (Red Lot)
(red w/white)



Taxis
(green w/white)

Parking



Parking
(general & Green Lot)
(green w/white)



Valet Parking
(green w/white)

Color designations are given with background color first, followed by symbol color.

General Specifications

Pictograms

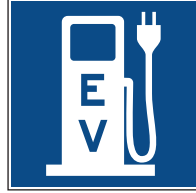
Airport Services



ATM
(black w/yellow)



Cell Phone Lot
(black w/white)



Electric Vehicle
Charging
(blue w/white)



Elevator
(black w/yellow)



Elevator (up)
(black w/yellow)



Elevator (down)
(black w/yellow)



Escalator
(black w/yellow)



Family Restroom
(blue w/white)



Group Welcome
(black w/yellow)



Hotel Information
(black w/yellow)



Information
(directory)
(black w/yellow)



Lost and Found
(black w/yellow)



Moving Walkway
(black w/yellow)



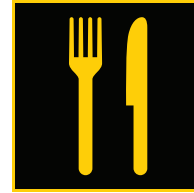
Nursing Station
(blue w/white)



Pet Rest Area
(black w/yellow)



Post Office
(blue w/white)



Restaurant
(black w/yellow)



Restroom(s)
(black w/yellow)



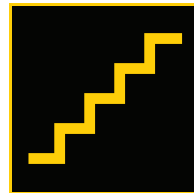
Restroom Men
(black w/yellow)



Restroom Women
(black w/yellow)



Smoking Area
(black w/yellow)



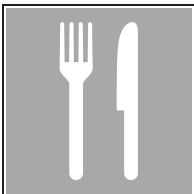
Stairs
(black w/yellow)



Telephone
(black w/yellow)



Hotels
(gray w/white)



Restaurants
(gray w/white)

Color designations are given with background color first, followed by symbol color.

General Specifications

Pictograms

Regulatory



AED
(white w/red & black)



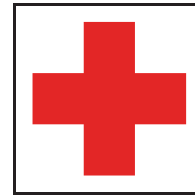
Do Not Enter
(red w/white)



Emergency Exit
(red w/white)



Emergency Telephone
(red w/white)



First Aid
(white w/red)



No Animals
(white w/red & black)



No Smoking
(white w/red & black)



No Weapons
(white w/red & black)



Severe Weather Shelter
(green w/black & white)

Customs/Security



Please Wait
(yellow w/red & white)



United States Department of Homeland Security

Note: permission must be obtained from the Department of Homeland Security to use this logo.

Accessibility



Disabled
(blue w/white)



TTY
(blue w/white)

Warning



Pedestrian Crossing
(yellow w/black)

Color designations are given with background color first, followed by symbol color.

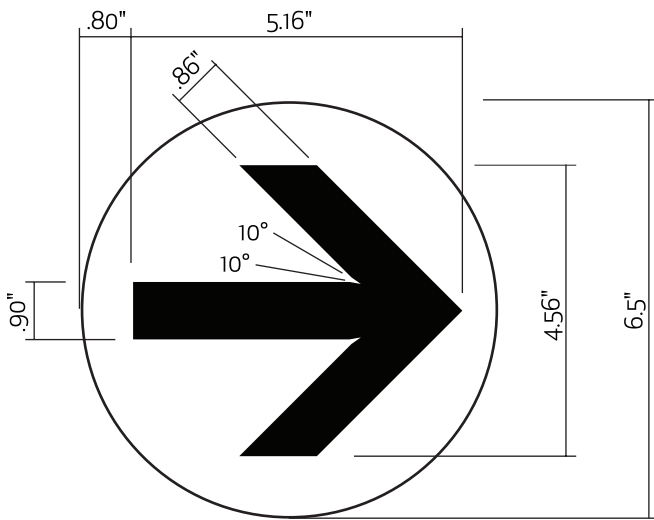
General Specifications

Arrows

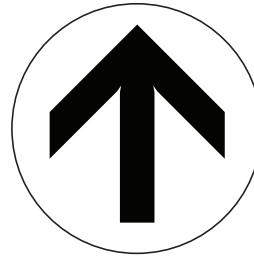
Arrows and messages are generally right aligned, encouraging people to keep right. Arrow and message may be left aligned if the passenger flow should keep to the middle or go to the left.

Messages always line up with the direction of the arrow. When the arrow is on the right side, the pictogram will be placed left of the arrow, followed by the message. When the arrow is on the left side, the pictogram will be placed right of the arrow, followed by the message. The arrow is always closest to the destination toward which it points.

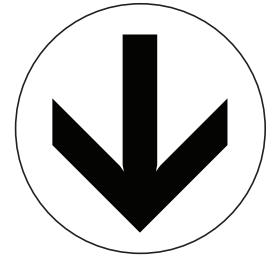
For consistency, the orientation of pictograms should be as indicated on 2.5-2.7 Pictograms, regardless of the direction of the arrow. The pictograms for stairs and escalator may be flipped to match the indicated direction only when combined with an arrow (see 2.9 Arrows).



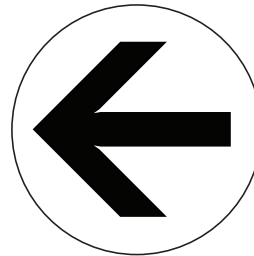
Standard Arrow (arrow size may vary).
 Enlarge or reduce arrow and circle diameter proportionately per sign layout requirement.



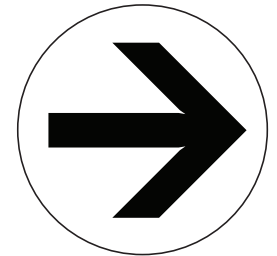
Proceed straight ahead



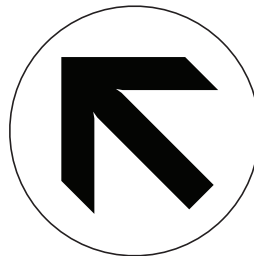
Proceed down



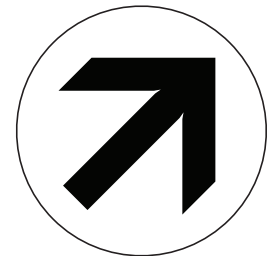
Make a left turn



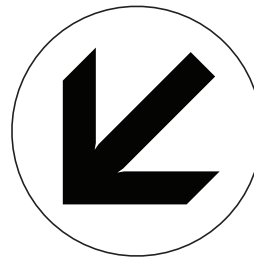
Make a right turn



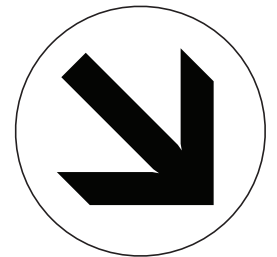
Proceed to left and up



Proceed to right and up



Proceed to left and down or Destination at left



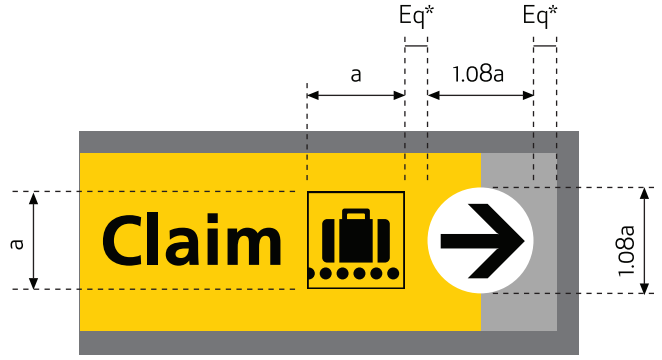
Proceed to right and down or Destination at left

General Specifications

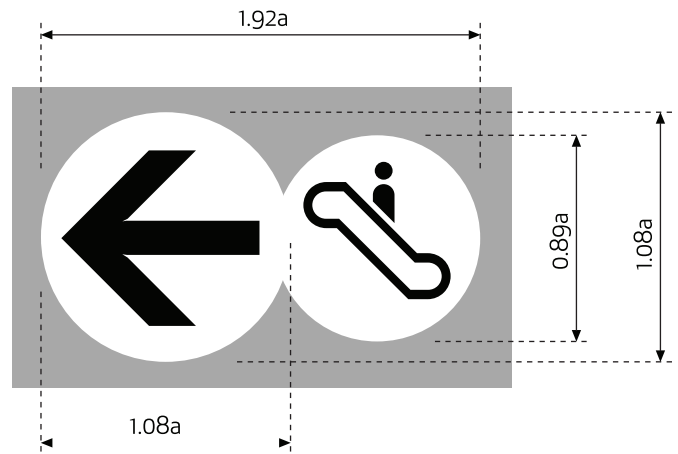
Arrows

The standard black arrow is fixed within a white circle. The colored background of the sign extends to the centerline of the circle. The other half of the circle has a gray background behind it.

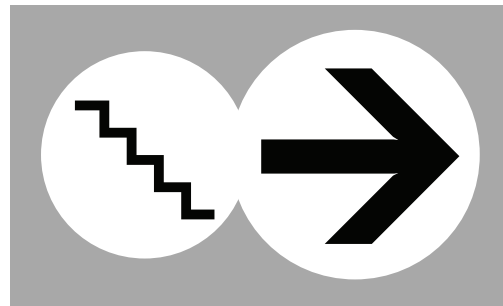
Arrows which denote level change (going up or down) should be accompanied by a symbol illustrating the means of access, e.g., stairs or escalator. This symbol should be added in a smaller circle, which overlaps the circle of the arrow. The direction of the symbol matches the arrow (see right).



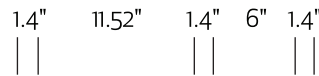
a = pictogram height
* related to pictogram height



Proceed to the left and up the escalator



Proceed to the right and down the stairs



General Specifications Typography

Type Fonts

The Frutiger PA Bold plus typeface is slightly heavier, so that light and dark text appear to have a similar weight. Dark copy on a light background appears slightly thinner ($\pm 8\%$) than the same copy on a dark background. By increasing the weight of the dark copy (Frutiger PA Bold plus), this optical illusion is corrected.

The Frutiger Bold type font is used for light copy on a dark background:

- yellow on black
- white on green
- white on gray

The Frutiger PA Bold plus type font is used for dark copy on a light background:

- black on yellow

ABCDEFGHIJK
LMNOPQRSTU
VWXYZ.,-:;! '&?
abcdefghijklmn
opqrstuvwxyz
\$1234567890

Frutiger Bold

ABCDEFGHIJK
LMNOPQRSTU
VWXYZ.,-:;! '&?
abcdefghijklmn
opqrstuvwxyz
\$1234567890

Frutiger PA Bold plus

Frutiger PA Bold plus	Spacing <small>1 1</small>
Frutiger Bold	Spacing <small>1 1.25</small>
Frutiger Bold	
Frutiger Bold	

General Specifications

ADA Requirements

According to ADA (Americans with Disabilities Act) requirements, primary messages on overhead signs above 80” should have a minimum 3” cap height for legibility, and symbols should be a minimum of 6” in height. The typefaces used in this wayfinding system, Frutiger Bold and Frutiger PA Bold Plus, meet ADA requirements for stroke width and legibility.

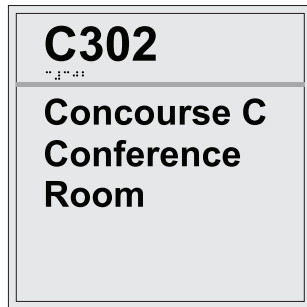
Wall signs identifying permanent spaces should have upper case tactile messages and accompanying Grade 2 Braille messages to identify either the function of the space (such as restrooms or elevators) or the room number. Each permanent space must be identified. Office functions, which frequently change, are not required to be tactile. The room number (or address) is considered to be permanent and is recommended to be tactile. Tactile messages must be a minimum of .625” cap height, but no larger than 2”.



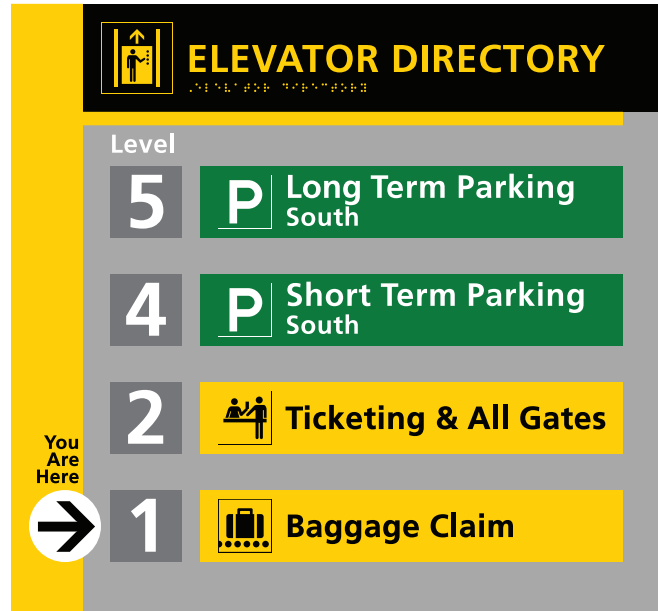
Overhead Sign, above 80”
Primary message - 3” cap height (minimum)



Restroom Identification
(tactile)



Room Identification
(tactile top insert)



Elevator Directory
(tactile header panel)

General Specifications

Letter/Line/Word Spacing

Letterspacing (kerning) should match existing sign messages. Wide letterspacing is recommended for internally illuminated messages; normal letterspacing is recommended for non-illuminated messages, e.g., wall signs.

Spacing guidelines are based on the stroke weight of the typeface. The color code signs installed use the following standards as reference:

- Frutiger Bold 125% spacing
- Frutiger PA Bold plus 100% spacing

An easy way to insure uniformity is to field measure the length of a message, e.g., “Baggage Claim” at a specific character height, then match the length to achieve the desired letter/word spacing.

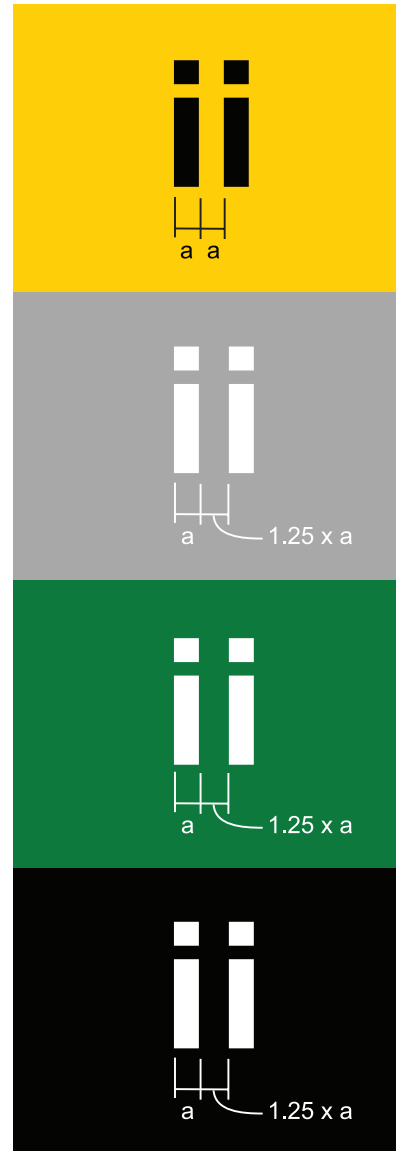
Some typical message lengths are:

FRUTIGER PA BOLD PLUS

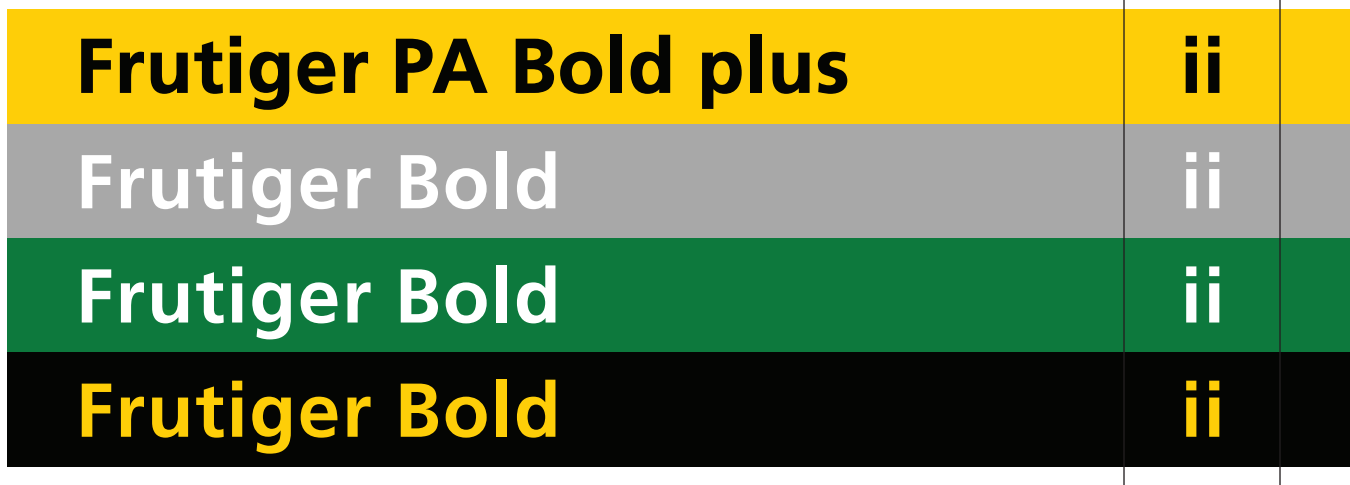
Message Cap	Ht.	Length
Baggage Claim	3”	31 1/8”

FRUTIGER BOLD

Message Cap	Ht.	Length
Ground Transportation	3”	48 3/8”
Restrooms	3”	21 3/4”
Restrooms	4”	29”



a = stroke weight



General Specifications

Legibility/Distance

Certain size-to-distance ratios have evolved over the years and are utilized in the industry, relating to the legibility of vehicular and pedestrian signage. Most vehicular signage messages are sized to be legible from a distance allowing adequate time for reaction and decision in a safe manner.

The charts displayed here provide minimum guidelines for sizing sign messages based upon various distances. These guidelines also apply to the symbols associated with written messages. For greater impact or scale relationships, the message size may be larger than the suggested minimal functional guidelines.



Legibility General Standards
The nominal distance from which a message can be read is usually a factor of the letter size cap height.

Distance (feet)	7.5	15	22.5	30	37.5	45	60	75	90	105	120	150	180
Capital Letter Height (inches)	0.25	0.5	0.75	1	1.25	1.5	2	2.5	3	3.5	4	5	6

Pedestrian Applications

Use this chart to determine the minimum size required for the desired viewing distances by pedestrians.

		Approach Speed (MPH)						
		5	15	25	35	45	55	65
Distance (feet)	50	4"	5"	6"	7"	8"	9"	10"
	100	6"	7"	8"	9"	10"	11"	12"
	200	8"	9"	10"	11"	12"	13"	14"
	300	10"	11"	12"	13"	14"	15"	16"
	400	12"	13"	14"	15"	16"	17"	18"

Vehicular Applications

Use this matrix to determine the minimum message cap height required for the specific combination of approach speed/desired viewing distance at the sign location.

General Specifications

Colors & Function

The uniformity of these colors should be strictly controlled. The following quality control procedures are recommended:

- Colors should be called out by their color system source and specification number.
- A set of master color swatches/materials should be maintained as the standard; tolerances for matching in various media should be established.
- For new sign contractors, pre-production color sample/material submittals should be requested for match comparison with the “master” swatches.
- A visual check should be made of production signs using the “master” color swatches prior to installation.

Note: The colors yellow and blue have two specifications for the translucent film. Either can be used, but the one chosen must be used throughout an entire terminal. The two colors may not be used next to one another.

On instructions (maps) or directories, two colors of gray (gray: PMS Cool gray 6C and dark gray: PMS Cool gray 9C) can be used to form alternating rows or columns.

In the sign layouts, a dark gray band is shown around the signs to represent the signbox retainer frame. This frame should be finished in the same color that matches PMS Cool gray 9C.

Gray (3M 3630-61 vinyl) is used for:

- placement for information and instructions
- the arrow field and arrow alignment
- a separator for messages

Gray (match Cool Gray 6C) is used for:

- screen printing or paint processes
- printing
- interior sign stanchions

Dark Gray (3M 7725-41 vinyl) is used for:

- blank opaque interior sign face panels

Dark Gray (match Cool Gray 9C) is used for:

- alternating lines on a directory
- painting the sign box and its sign retainer frame

Charcoal (Gerber 220-101) is used for:

- background color of site post and panel signs

Brushed Aluminum (MAP 41-342) is used for:

- cabinet and frame color of new overhead signs for Concourse B

PMS = Pantone Matching System Printing Inks

MAP = Matthews Acrylic Polyurethane

The Contractor is required to submit samples of each material and color. Suggest starting a sample reference file including painted extrusions, vinyls and acrylics (6” x 6”).

General Specifications

Color Specifications

	ILLUMINATED SIGNS		NON-ILLUMINATED SIGNS	
	Translucent film	Non-translucent film	PMS Print or Paint	Reflective Film
Yellow	3M 3630-25 or 75	3M 7725-25	116C	3M 4091
Green	3M 3630-26	3M 7725-186	356C	3M 4097
Red	3M 3630-33	3M 7725-13	485C	3M 4092
Blue	3M 3630-127 or 167	3M 7725-17	301C	3M 4095
Black	3M 3630-22	3M 7725-12	Black	3M 1178
White	3M 3630-20	3M 7725-20	-	3M 4090
Gray	3M 3630-61	3M 3630-61	Cool Gray 6C	-
Dark Gray	3M 3630-61	3M 7725-41	Cool Gray 9C	-
Cardinal Red	3M 3630-53	-	187C	-
Brown	3M 3630-63	3M 7725-29	469C	3M 4099
Charcoal	-	Gerber 220-101	Match Gerber 220-101	-
Brushed aluminum	-	-	MAP 41-342 Paint	-
Yellow (parking)	A9114-T	A9106-O	Process Yellow	-
Purple	A9460-T	A9413-O	Violet C	-
Orange	A9161-T	A9169-O	021C	-
Brown (parking)	A6280-T	A9278-O	469C	-

General Specifications

Layout

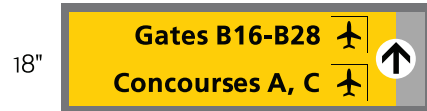
Message Lines / Panel Height and Width of New Directional Signs

A standard height of 18" is preferred for new directional signs, if space permits. A single message should be centered vertically in the panel. Sign height limitations may restrict messages to one line vertically. Two lines of 3" text and accompanying 6" x 6" pictograms can be accommodated on a panel height of 18".

Standard panel lengths should be used for new internally illuminated signs, if possible. All signs used for a common purpose, e.g., gate identification, should have the same panel dimensions. A 1.375" frame should be used for all internally illuminated signs.



One message line
(3" text with 6" pictogram)



Two message lines of same information category
(3" text with 6" pictogram)



Two message lines of different information categories
(3" text with 6" pictogram)



Signs of same type should be same dimensions

General Specifications

Layout

Gray Band Use

On directional and identification signs, a gray band is used to highlight a directional arrow or a pictogram. The gray band is also a thematic element that recurs in all airport areas, on most sign types, and serves to unify the sign system.

Gray is also used as a background for directories and informational signs.

Note: When gray has been used as the background color, the band color changes to the color of the element depicted.



General Specifications

Layout

Directional Signs

Directional signs use arrows to direct users to one or more destinations. Destinations in the same direction, in the same color-code category, can share one arrow. If the destinations are in different categories, each must have its own arrow, and a .6” gray band separates the colors.

The pictogram, if used, should be placed next to the arrow, followed by the text. Signs with arrows on the right side of the sign (to the right or straight-ahead) will have right-aligned messages; signs with arrows on the left (to the left or straight-ahead) will have left-aligned messages.

Destinations can be grouped horizontally on a single arrow, if they are in the same color-code category.

Different directions on a horizontal sign can be separated by a gray vertical divider.



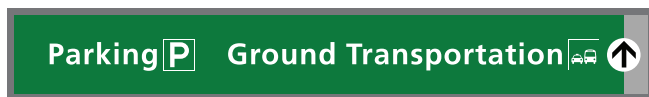
Single message, flush (left) with arrow



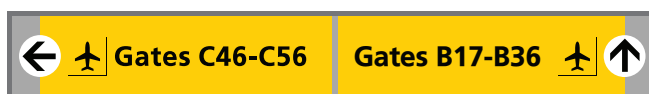
Single message, flush (right) with arrow



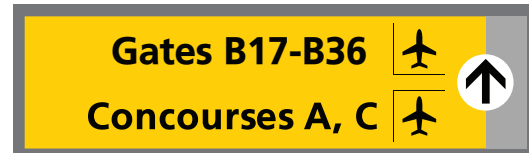
Single message, flush (right) with arrow



Horizontally grouped destinations of same color-code category, same direction



Horizontally divided destinations, different directions



Same direction, same color-code category: one arrow, messages flush (right) with arrow



Same direction, different color-code categories: two arrows, messages flush (right) with arrows



Different directions, same color-code category: two arrows, messages flush (right & left) with arrows



Different directions, different color-code categories: two arrows, messages flush (left & right) with arrows

General Specifications

Layout

Identification Signs with Pictograms

Identification signs are located above or beside the service or facility identified.

If a pictogram is applicable, it is bisected by a gray band. If only text is used, the gray band is left blank (see pages 42 and 43).

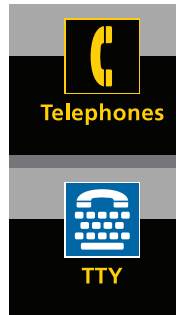
Flag mounted signs provide easy recognition from a distance, and are used for common airport services. The gray band is placed horizontally on these signs.

Beside the entrance to a facility, wall-mounted plaque signs are used for identification. These signs must comply with ADA regulations:

- Room number or function name must be tactile and in all upper case; minimum 0.625" cap height.
- Room number or function name must also appear in Grade 2 braille below tactile message.
- Sign should be mounted 5'-0" to center of sign.



Flag mounted elevator identification



Flag mounted identification, two services at one location



Tactile/braille room identification



Flag mounted identification



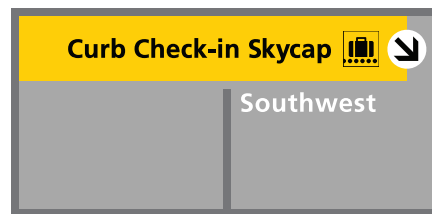
Door-mounted stair identification



Basic identification sign with pictogram



Curbside, with airline logo



Curbside, suspended



Curbside, overhead wall-mounted (as of April 2015 only offered by Southwest Airlines)



Column-mounted shuttle identification

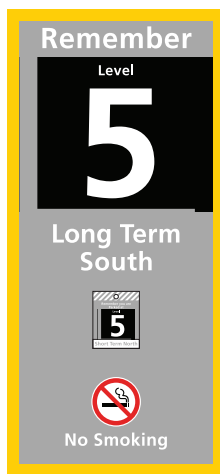
General Specifications

Layout

Identification Signs without Pictograms

Identification signs are located above or beside the service or facility identified.

The identification signs illustrated on this page do not use pictograms, either because there is no applicable pictogram or because the available space precludes the use of one.



Parking reminder sign with level identification



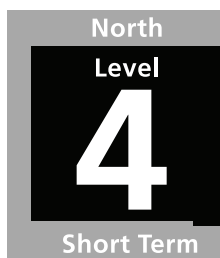
Parking Level identification at stairwell



Gate identification sign



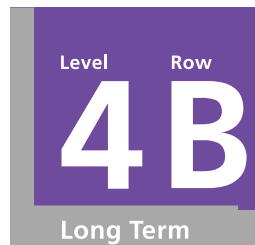
Baggage Claim carousel identification with airline names



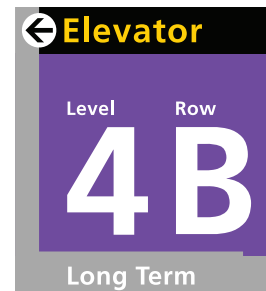
Level identification at elevator



Level identification at elevator



Level/row identification in parking



Level/row identification with directional information



Level identification entering parking area from elevator lobby

General Specifications

Layout

Secondary & Multiple Message Lines

Multiple message lines, centered on a pictogram, may be composed of a single continued message. Ideally, there should be a distance of one-half the cap height between multiple message lines of equal height.

Secondary messages, of lesser importance or explanatory nature, can be at a reduced cap height below the primary message.

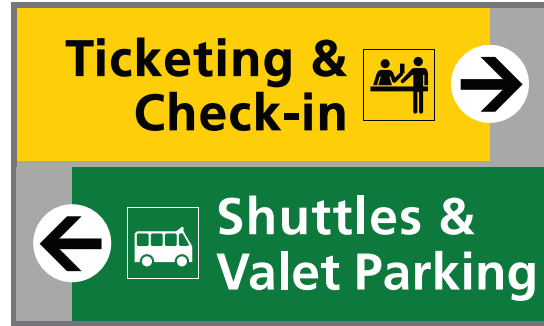
Gate identification numbers can be at a larger cap height for greater emphasis and visibility, if there is available space on the sign.



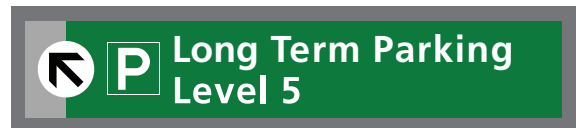
Secondary lines of text at reduced cap height



Secondary message at reduced cap height, due to spatial constraints



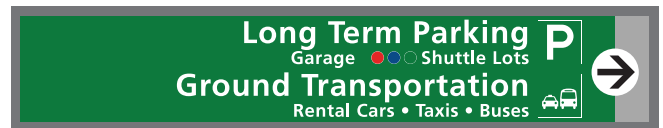
One message requiring two lines, centered on symbol



One message requiring two lines, centered on symbol



Secondary lines of text at reduced cap height



Secondary lines of text at reduced cap height - primary message and secondary message lines equal the height of the associated pictogram



Gate identification numbers enlarged for emphasis and greater legibility from a distance



Gate numbers enlarged for emphasis and greater legibility from a distance

General Specifications

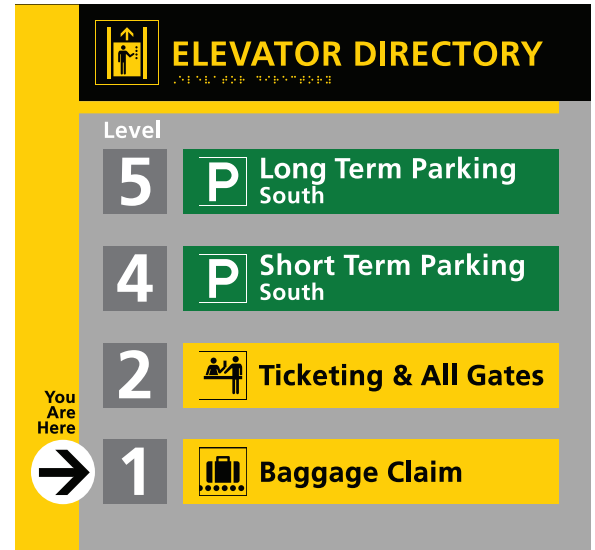
Layout

Informational Signs

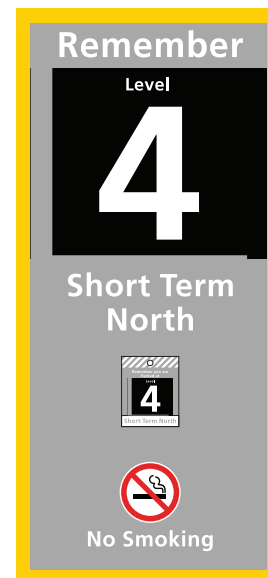
Directories provide information at major decision points such as bus stops, elevators and corridor intersections. Elevator directories indicate what destinations can be reached on each level accessible by that elevator. Airport directories list, and graphically locate, the gates, airline ticketing counters, airport services, etc.

Directories provide an overview, creating awareness of areas and services beyond the location of the sign. Informational messages are subject to frequent change, and should be easily changeable.

Other informational signs include parking level “reminder” signs and clocks.



Elevator directory



Parking level “reminder”

General Specifications

Layout

Regulatory & Warning Signs

Regulatory signs designed for this airport generally have a neutral dark gray or black background. Messages of an emergency nature may have a red background for faster recognition.

Regulatory or warning signs that incorporate layouts or symbols from the Manual of Uniform Traffic Control Devices should use the standard MUTCD colors for background, symbols and messages, as appropriate.



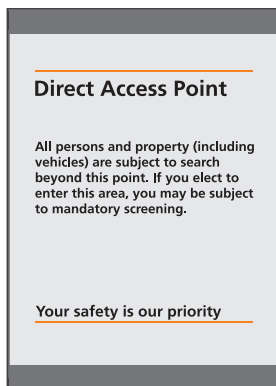
Regulatory sign in parking garage and at terminal security checkpoints with standard regulatory symbol from Manual on Uniform Traffic Control Devices (MUTCD)



Vehicular warning sign in parking garage



Pedestrian warning sign at stairwells and exit doors



Mounted insert regulatory sign at Direct Access Point entry areas throughout the terminal (doors, stairwells, etc.)



Pedestrian regulatory sign above moving walkway



Restricted access sign at elevator



Wall-mounted prohibition sign with pictogram bisected by gray band



Vehicular warning sign in parking garage, with MUTCD symbol bisected by gray band, and standard yellow background color (used on MUTCD warning signs)



Wall-mounted identification sign with pictogram bisected by gray band

Terminal & Atrium Walkway

3.1 Directional Sign Types

3.2 Identification Sign Types

3.3 Information Sign Types

3.4 Regulatory Sign Types

Terminal & Atrium Walkway

Directional Sign Types

Type A - Internally Illuminated Suspended, Double-sided

Used in concourses to provide directions, single or multiple direction, and multiple categories of information. Provides directions to alternate means of level change, e.g., elevator serves same destinations as escalator (sign T-244A).

Materials

Panel:

3/16" translucent acrylic sheet #7328 (Existing Concourse B signs only; 5/32" translucent white acrylic #7328)

Message:

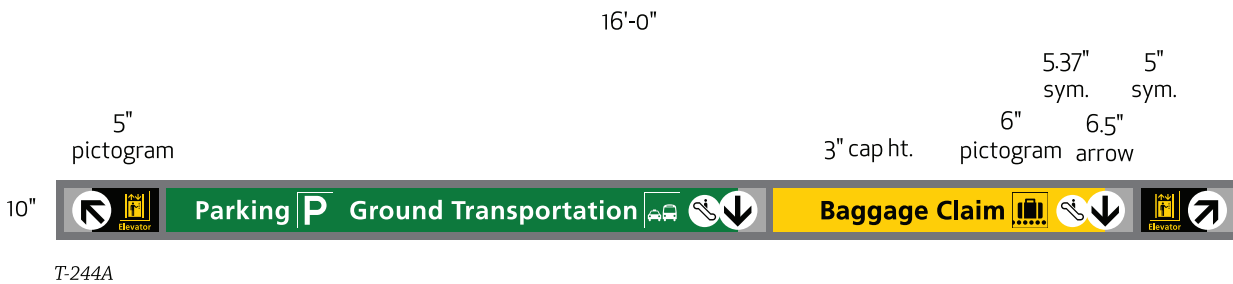
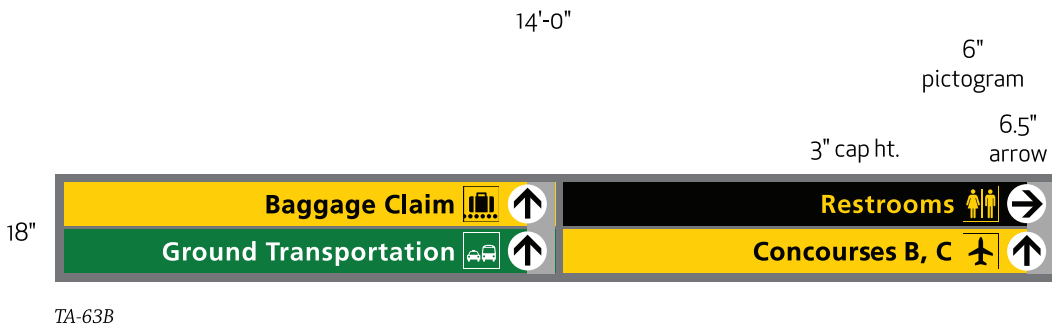
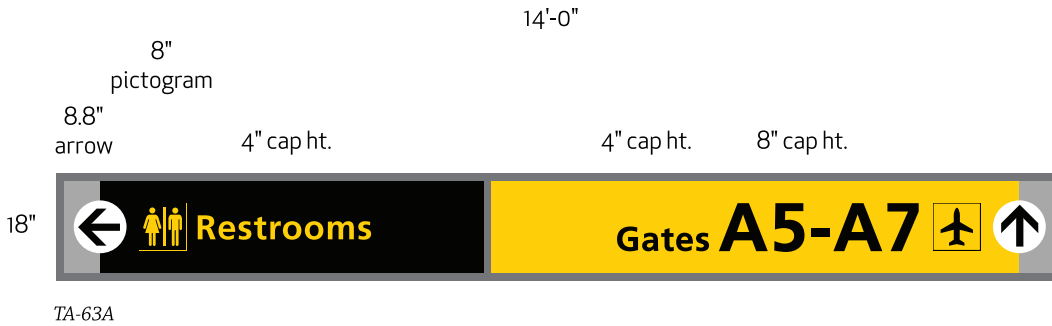
Applied translucent vinyl, 3M 3630 series

Frame:

SignComp parts 1612, 1624, 1662

Construction:

Sign TA-63A/B Sheet 0031
Sign T-244A Sheet 0127



Terminal & Atrium Walkway

Directional Sign Types

Type B - Internally Illuminated Overhead

Provides directions, single or multiple direction, or multiple categories of information.

Materials

Panel:

3/16" translucent acrylic sheet #7328 (Existing Concourse B signs only: 5/32" translucent white acrylic #7328)

Message:

Applied translucent vinyl, 3M 3630 series

Rental Car Logos:

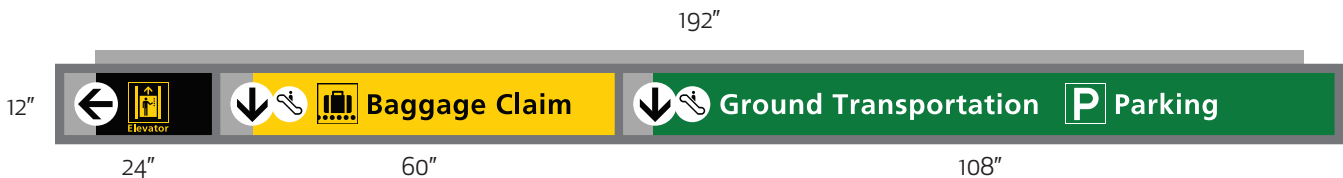
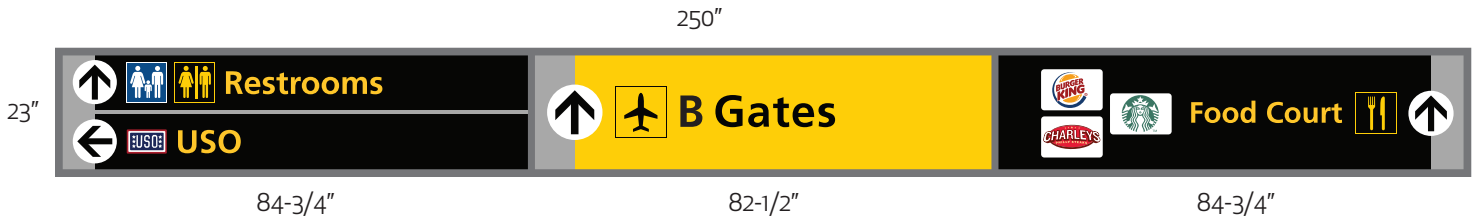
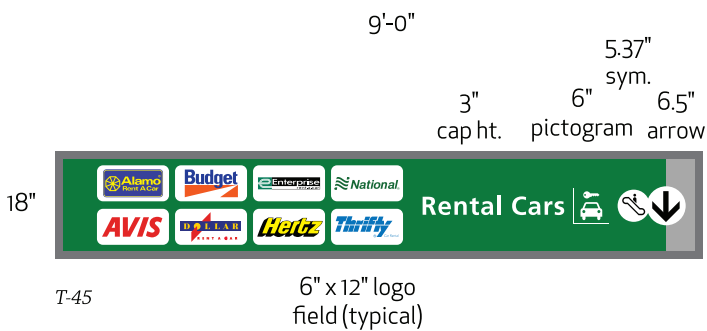
3M 230 series translucent vinyl

Frame:

SignComp parts 1602, 1624, 1662

Construction:

Sign TB-23	Sheet 0113
Sign TB-24	Sheet 0116
Sign T-45	Sheet 0408



Terminal & Atrium Walkway

Directional Sign Types

Type B-3.1 - Internally Illuminated Changeable - Ticketing

Provides directions to airline ticket counters, with changeable film sections.

Materials

Panel:

3/16" translucent acrylic sheet #7328

Message:

Applied translucent vinyl, 3M 3630 series

Airline Names:

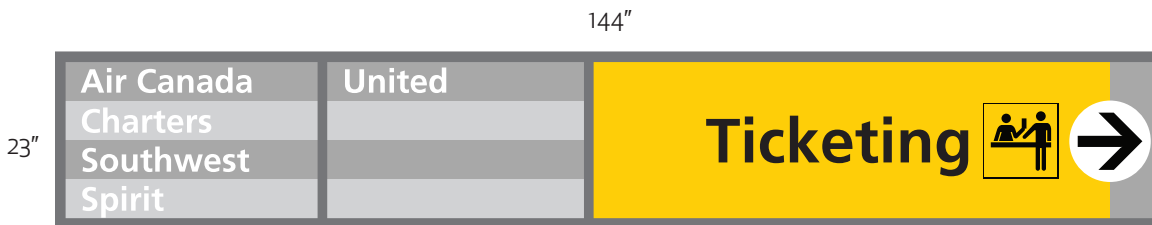
Changeable, computer-generated 5-mil Lambda Duratrans color transparency

Frame:

SignComp parts 1602, 1624, 1662

Construction:

Sign T-150 Sheet 0154
Sign T-172-2 Sheets 0160, 0164



Terminal & Atrium Walkway

Directional Sign Types

Type B-5.1 - Internally Illuminated Changeable - Baggage Claim (directional)

Provides directions to airline baggage claim carousels.

Materials

Panel:

3/16" translucent acrylic sheet #7328

Frame:

SignComp parts 1602, 1624, 1662

Message:

Applied translucent vinyl, 3M 3630 series

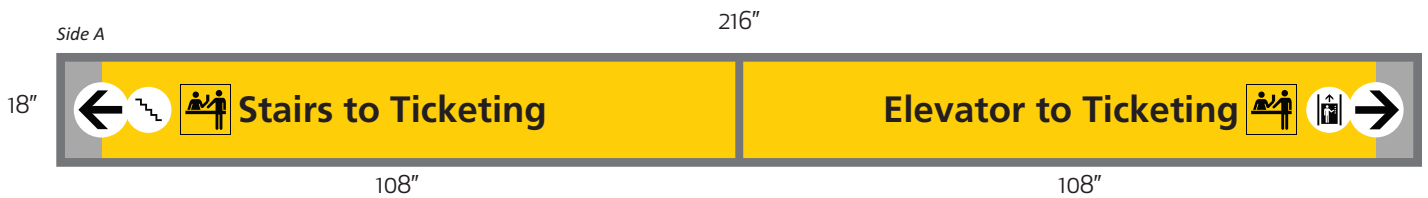
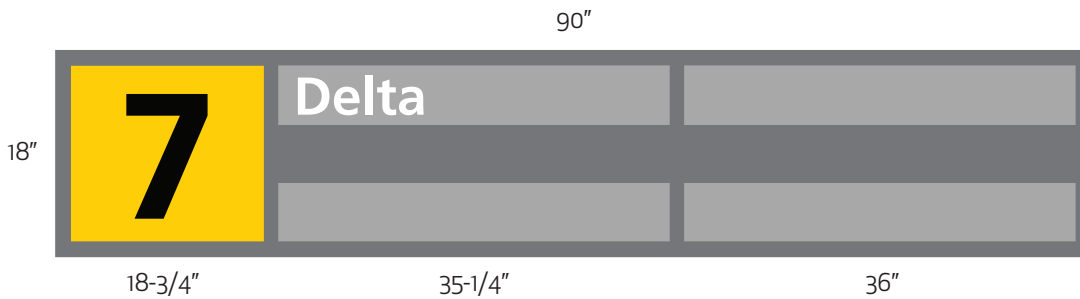
Construction:

Sign T-90 Sheets 0406, 0404

Sign T-91 Sheets 0409, 0404

Airline Names:

Changeable, computer-generated 5-mil Lambda Duratrans color transparency



Side B



Terminal & Atrium Walkway

Directional Sign Types

Type D-1 - Non-illuminated Suspended Jetbridge Exit

Provides directions to deplaning passengers upon entering terminal from jetbridge.

Materials

Panel:

3/16" white opaque acrylic

Frame:

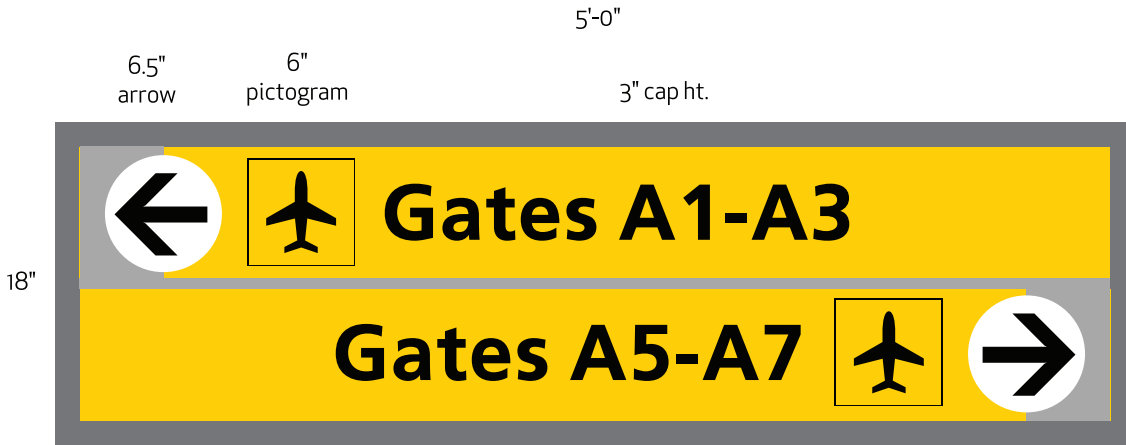
SignComp parts 1602, 1624, 1662

Message:

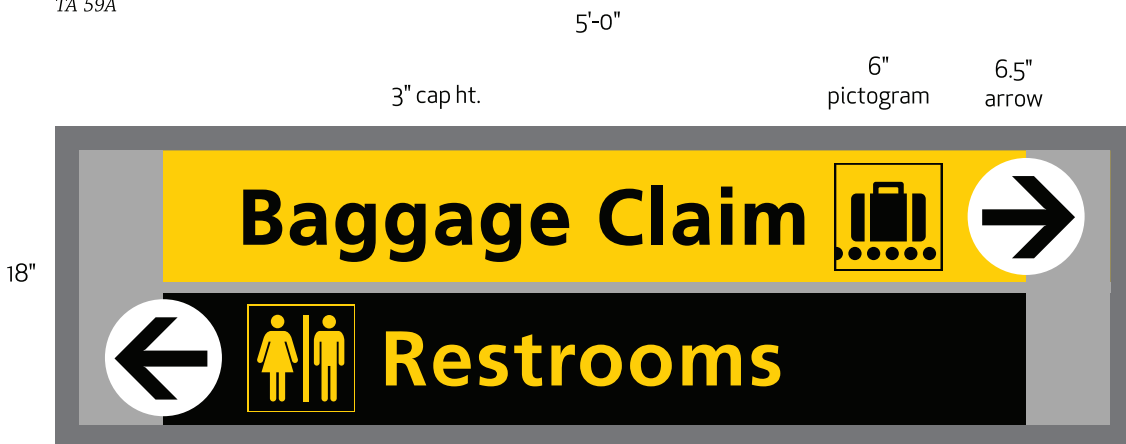
Non-translucent film, 3M 7725 series

Construction:

Sign TA-59A/B Sheet 0015



TA 59A



TA-59B

NOTE: Concourse B signs of this type were removed during the Terminal Modernization program [TMP] in 2013-2015 due to ceiling/soffit reconfiguration.

Terminal & Atrium Walkway

Directional Sign Types

Type D-5 - Non-illuminated Wall-mounted

Provides directions or controls traffic; wall-mounted and non-illuminated.

Materials

Panel:

3/16" opaque white acrylic

Frame:

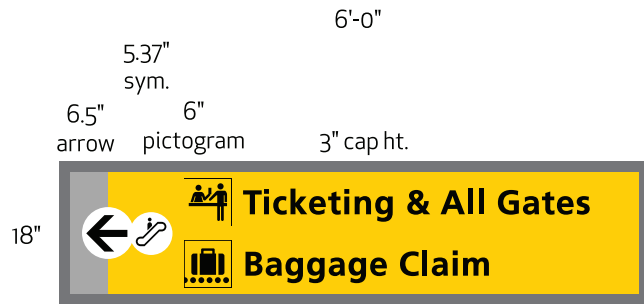
Custom 3" x 1 3/8" x 3/16" aluminum channel

Message:

Non-translucent film, 3M 7725 series

Construction:

Sign T-265 Sheet 0185



T-265

Terminal & Atrium Walkway

Directional Sign Types

Type G-11 - Level Directional at Stairwells

Provides directions to destinations on other levels accessible from stairwells.

Materials

Panel:

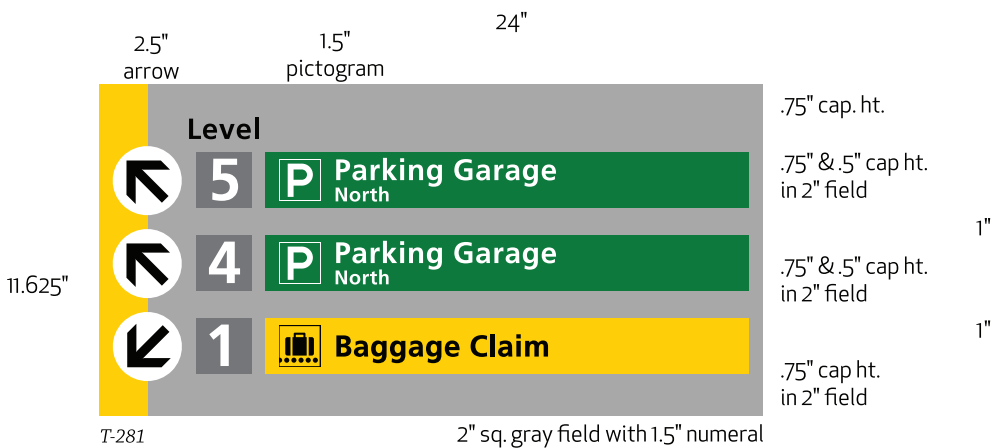
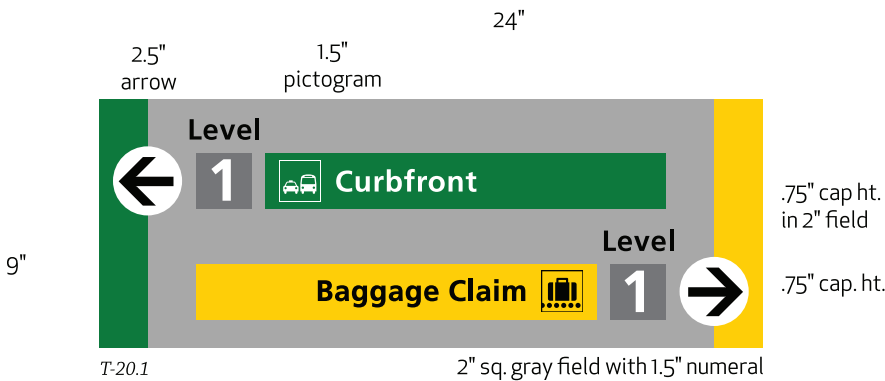
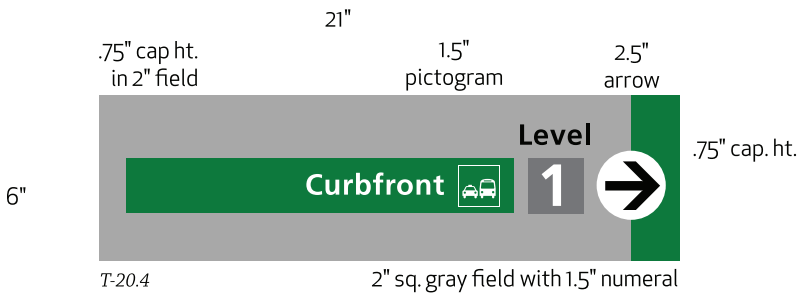
1/16" matte clear acrylic face over 1/8" opaque white acrylic backup

Construction:

Sign T-20.4	Sheet 0402
Sign T-20.1	Sheet 0402
Sign T-281	Sheet 0151

Message:

Gerber edge printed foil onto 3M 225-114 enamel-receptive clear vinyl applied to second surface of 1/16" face



Terminal & Atrium Walkway

Directional Sign Types

Type H - Post-mounted

Provides directions to terminal functions accessible via escalators.

Materials

Panel:

1/8" aluminum with painted edges

Message:

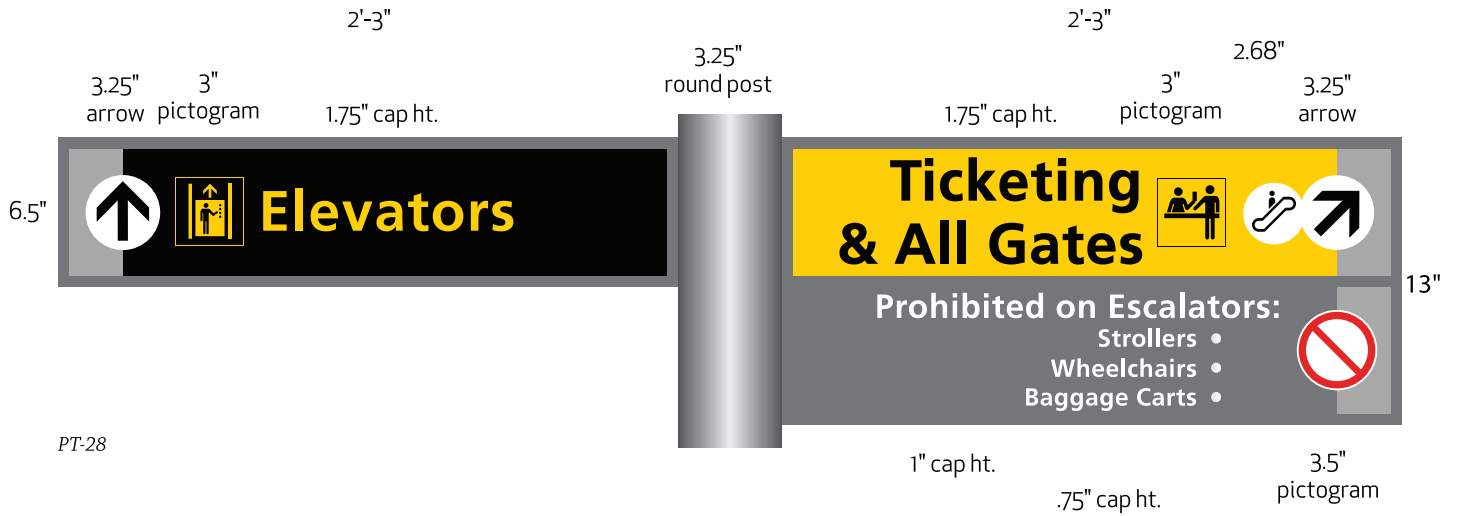
Non-translucent film, 3M 7725 series

Pole:

SignComp #1007 with cap # 5254

Construction:

Sign PT-28 Similar to Sheets 0291, 0290



Terminal & Atrium Walkway Identification Sign Types

Type A - Internally Illuminated Suspended - Gate Identification

Identifies gate location - single and multiple gate message.

Layout of wall-mounted single-faced signs is the same as for double-faced signs.

Materials

Panel:

3/16" translucent acrylic sheet #7328 (Existing Concourse B signs only; 5/32" translucent white acrylic #7328)

Message:

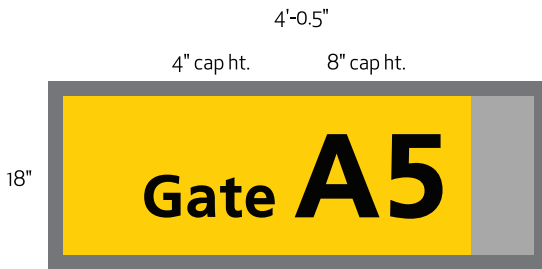
Applied translucent vinyl, 3M 3630 series

Frame:

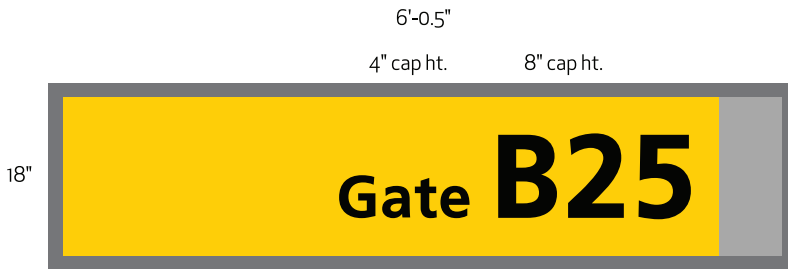
SignComp parts 1592, 1624, 1662

Construction:

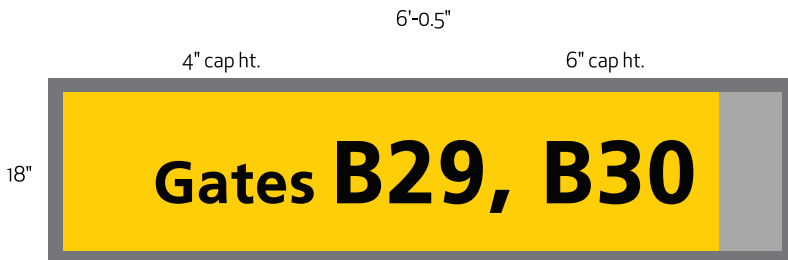
Sign TA-49	Sheet 005
Sign TB-74	Sheet 0111
Sign TB-68	Sheet 0103



TA-49



TB-74



TB-68

Terminal & Atrium Walkway Identification Sign Types

Type B-5.1 - Internally Illuminated Changeable - Baggage Claim (identification)

Identifies airline baggage claim carousels by number and airline.

Materials

Panel:

3/16" translucent acrylic sheet #7328

Frame:

SignComp parts 1602, 1624, 1662

Message:

Applied translucent vinyl, 3M 3630 series

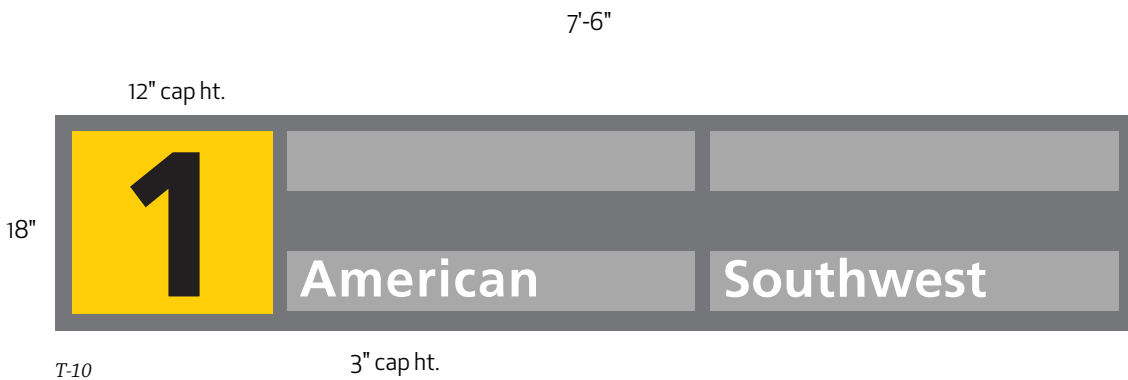
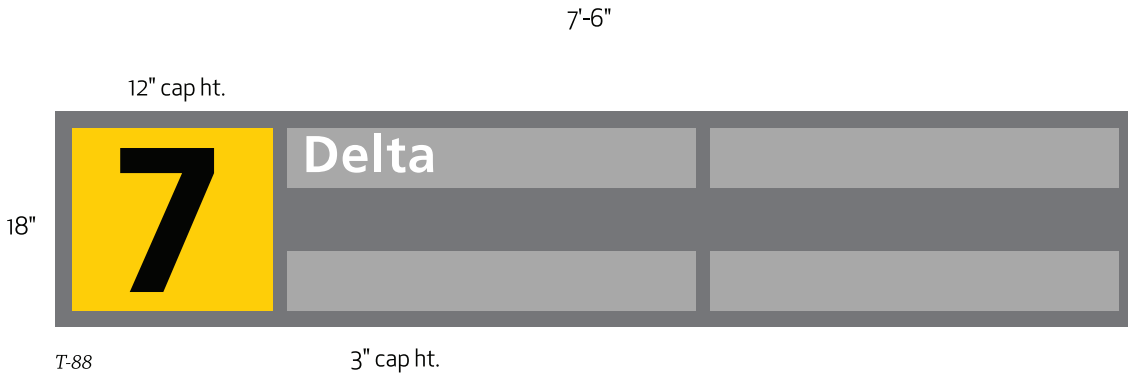
Construction:

Sign T-88 Sheet 0419

Sign T-10 Sheet 0419

Airline Names:

Changeable, computer-generated 5-mil Lambda Duratrans color transparency



Terminal & Atrium Walkway Identification Sign Types

Type E - Exterior Gate Identification at Jetbridge - Three-sided

Identifies gate exterior; three-sided and mounted on jetbridge.

Materials

Panel:

1/4" clear polycarbonate #9034

Message:

Applied translucent vinyl, second surface

Frame:

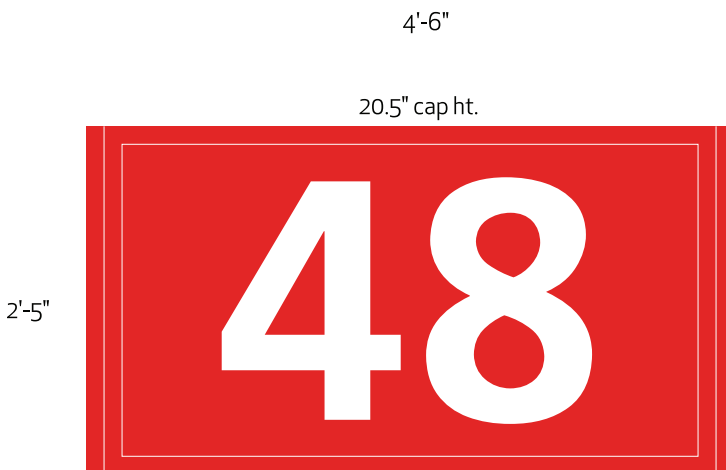
Custom 2" x 2" x 1/4" outer frame

Construction:

Sign TA-204 Sheets SG3.18.3, 1/SG4.5 (DaNite)

Sign TC-101 Sheets SG3.18.3, 1/SG4.5 (DaNite)

28 1/2" x 50" trim size of face



Terminal & Atrium Walkway Identification Sign Types

Type E-1 - Exterior Gate Identification - Wall-mounted

Identifies gate on exterior; mounted on wall of terminal building.

Materials

Panel:

1/4" clear polycarbonate #9034

Message:

Applied translucent vinyl, second surface

Frame:

Custom 2" x 2" x 1/8" outer frame

Construction:

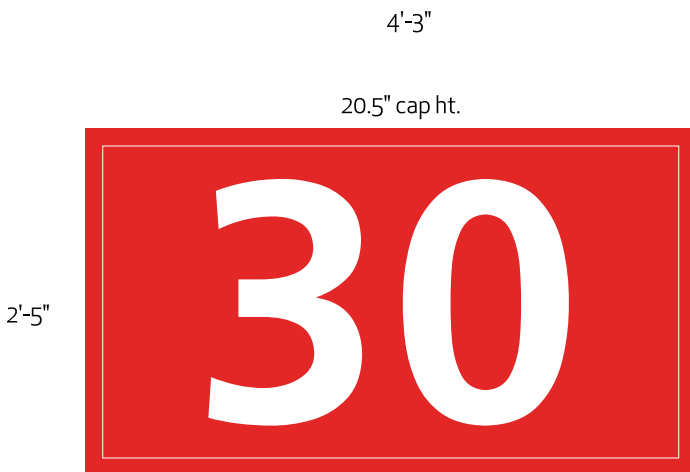
Sign TA-207 Sheets SG3.18.4, 1/SG4.6 (DaNite)

Sign TB-214 Sheets SG3.18.4, 1/SG4.6 (DaNite)

28 1/2" x 50" trim size of face



TA-207



TB-214

Terminal & Atrium Walkway Identification Sign Types

Type F - Flag Mounted

Flag mounted 12" signs identify important public services.

Materials

Panel:

3/4" Sintra rigid PVC sheet

Message:

Non-translucent film, 3M 7725 series

Frame:

Custom 2" x 2" x 1/8" outer frame

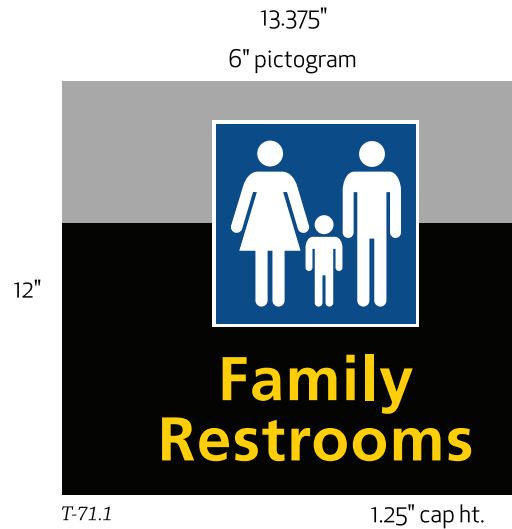
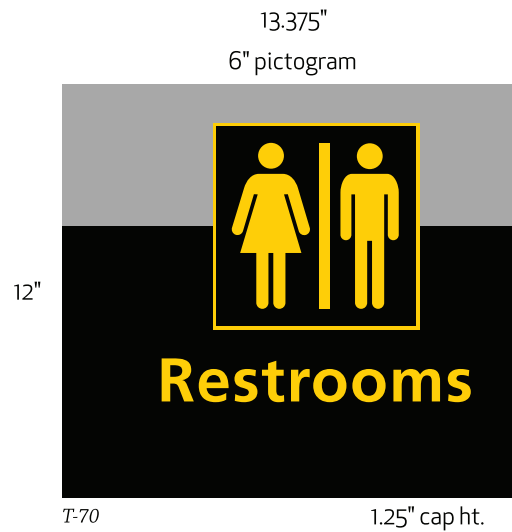
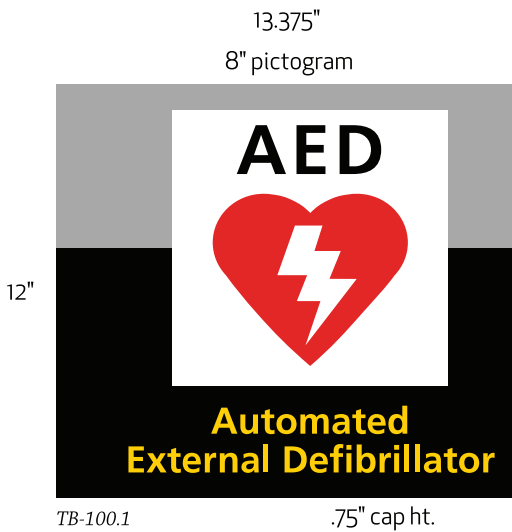
Construction:

Sign TB-88 Sheet 0049

Sign TB-100.1 Sheet 0053

Sign T-70 Sheet 0428

Sign T-71.1 Sheet 0400



Terminal & Atrium Walkway Identification Sign Types

Type F-1 - Flag Mounted

Flag mounted 18" signs identify elevator locations.

Materials

Panel:

3/4" Sintra rigid PVC sheet

Message:

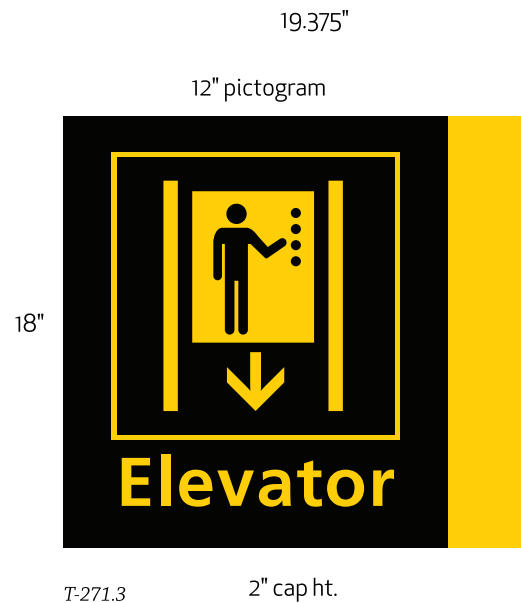
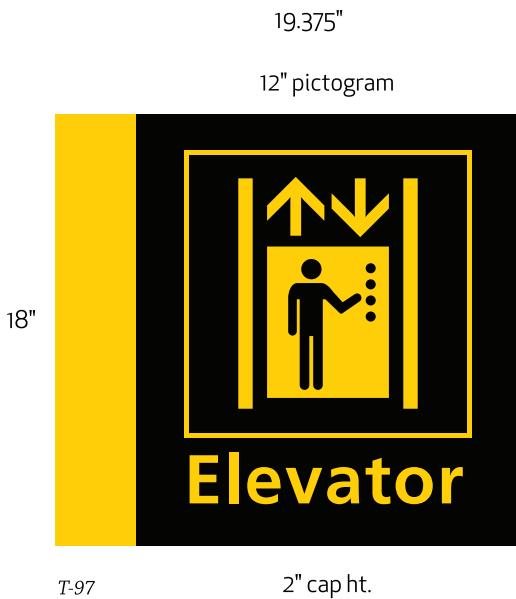
Non-translucent film, 3M 7725 series

Frame:

Custom 2" x 2" x 1/8" outer frame

Construction:

Sign T-97 Similar to Sheet 0600
Sign T-271.3 Sheet 0057



NOTE: The flag mounted elevator identification sign type is a special circumstance. In order to highlight this amenity for passengers to easily locate, the overall dimensions, pictogram dimensions and cap ht. are larger. A vertical yellow bar has been used instead of the standard gray bar as well.

Terminal & Atrium Walkway Identification Sign Types

Type G-1 - Restroom Tactile, Type G-2 - Restroom Non-tactile

Identifies restrooms; includes ADA-compliant signs.

Materials

Panel:

1/8" acrylic or photopolymer removable panel insert

Message:

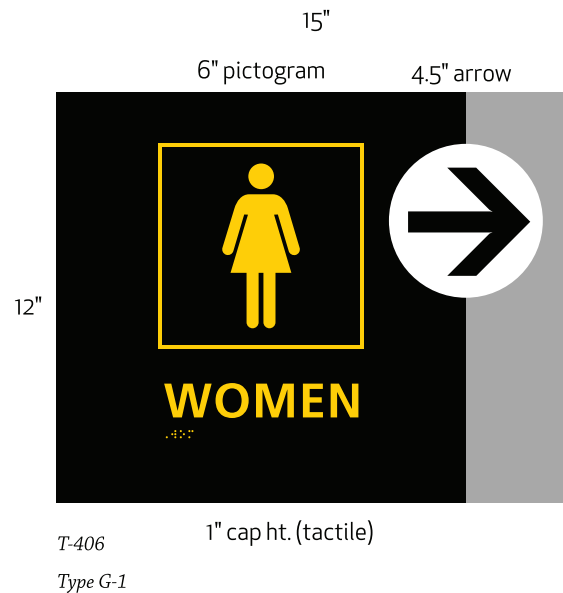
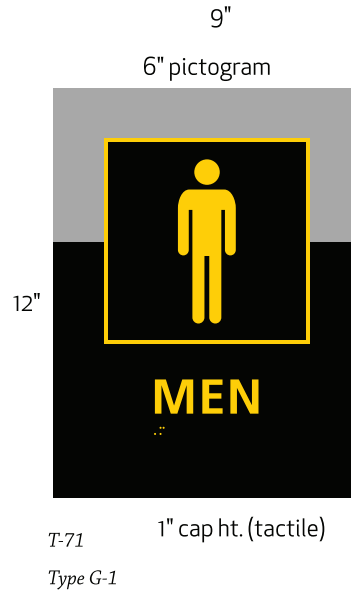
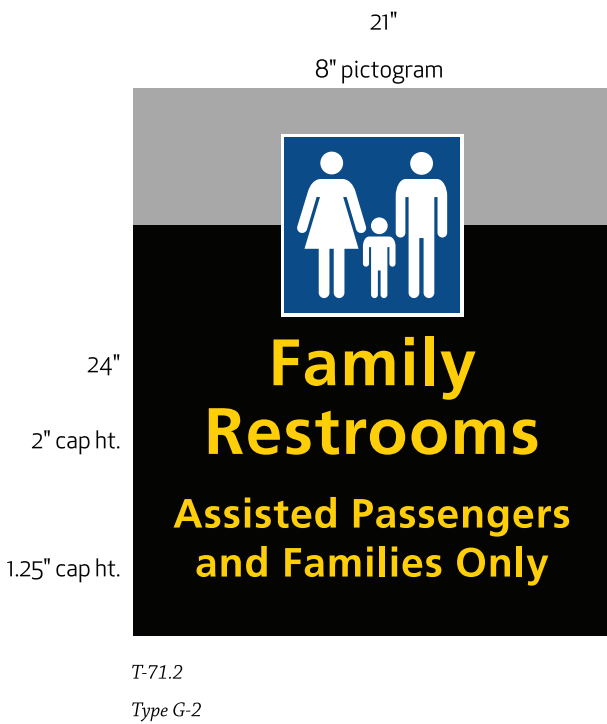
Screen printed on first surface

Construction:

Sign T-71	Sheet 0123
Sign T-71.3	Sheet 0233
Sign T-406	Sheet 0193
Sign T-71.2	Sheet 0251

Frame:

APCO Sign Track Thinline DSR-TL



Terminal & Atrium Walkway

Identification Sign Types

Type G-3.1 - Severe Weather Shelter Area

Type G-3.2 - Flag Mounted Severe Weather Shelter Area

Identifies shelter areas throughout the terminal in the event of a weather emergency.

Materials

Panel:

1/8" acrylic or photopolymer removable panel insert

Message:

Screen printed on first surface

Frame:

APCO Sign Track Thinline DSR-TL

Construction:

Under development

9"

6" pictogram

12"

.75"
cap ht.



Type G-3.1

13.375"

6" pictogram

12"



Type G-3.2

1.25" cap ht.

Terminal & Atrium Walkway Identification Sign Types

Type G-4 - Stair Identification

Identifies public stairways throughout the terminal and parking areas.

Materials

Panel:

1/16" matte clear acrylic face over 1/8"
opaque white acrylic backup

Message:

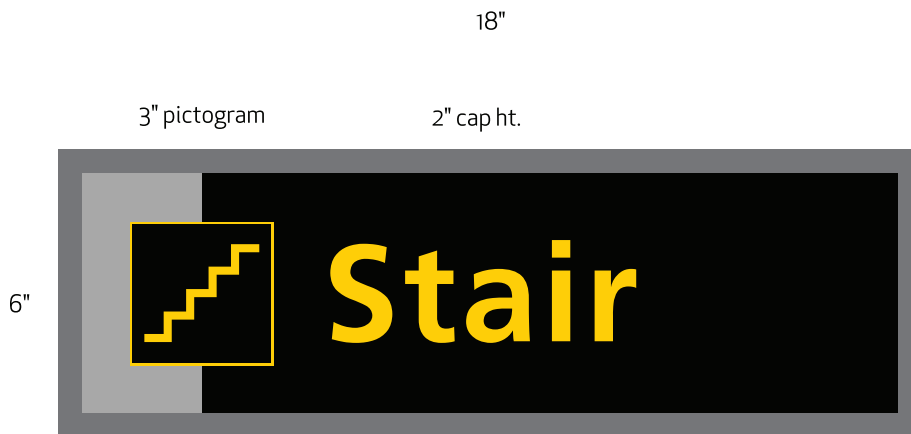
Gerber edge printed foil onto 3M 225-114
enamel-receptive clear vinyl applied to second
surface of 1/16" face

Frame:

SignComp parts 1592, 1624, 1662

Construction:

Sign T-322 Sheet 0214



T-322

Terminal & Atrium Walkway

Identification Sign Types

Type G-5 - Level Identification Wall-mounted

Identifies level at short term parking lobbies.

Materials

Panel:

1/8" opaque acrylic removable panel insert

Message:

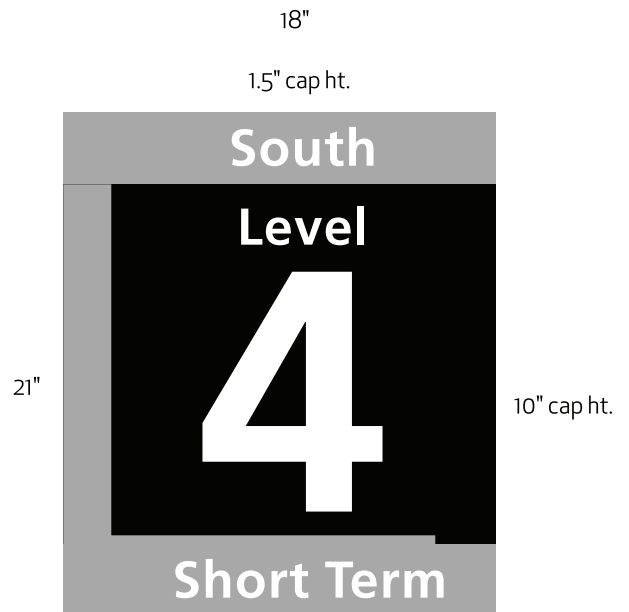
Screen print graphics on first surface

Frame:

APCO Sign Track Thinline DSR-TL

Construction:

Sign T-340 Sheet 0198



T-340
Type G-5

Type G-7 - Level Decal on Escalator

Identifies level on escalators at terminal short parking levels 4 & 5.

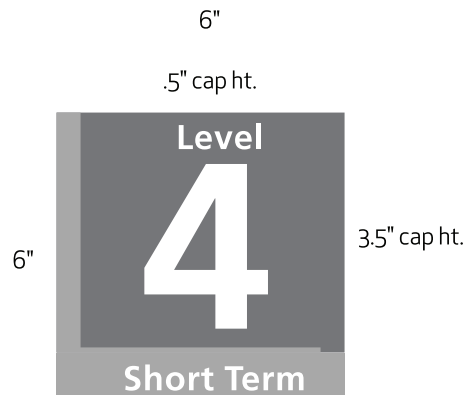
Materials

Message:

Gerber edge print on first surface on 7725-20 white vinyl decal

Construction:

Sign T-258 Sheet 0212
Sign T-340 Sheet 0198



T-258
Type G-7

Terminal & Atrium Walkway Identification Sign Types

Type G-8 - Room Identification on Wall

Identifies room number and function of offices along public circulation areas.

Materials

Panel:

1/8" acrylic or photopolymer removable insert

Message:

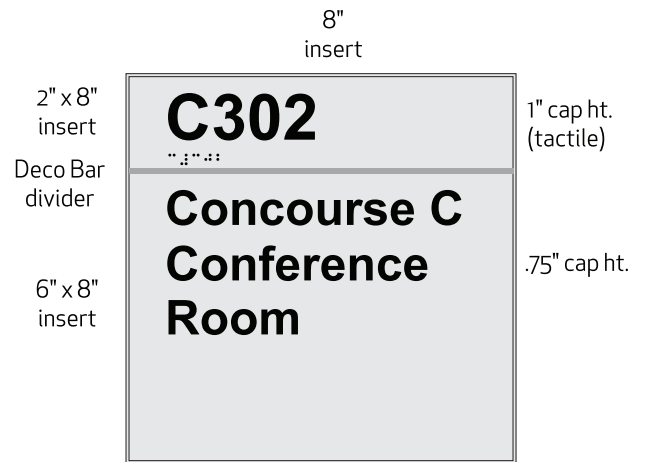
Screen printed on first surface

Frame:

APCO Sign Track Thinline DSR-TL

Construction:

Sign TC-94 Sheets SG3.14, 4/SG4.4 (DaNite)



TC-94

Type G-8

Type G-9 - Room Identification on Door Frame

Basic room identification number on door frame, for offices and rooms in nonpublic areas.

Materials

Panel:

1/8" acrylic

Message:

White vinyl

Background:

Black



Type G-9

Terminal & Atrium Walkway Information Sign Types

Type G - Elevator Directory

Elevator directories provide information regarding levels and functions accessible from each elevator.

Materials

Header:

1/8" thick etched photopolymer

Frame:

APCO Sign Track Thinline DSR-TL Deco Bar MDBB

Panel:

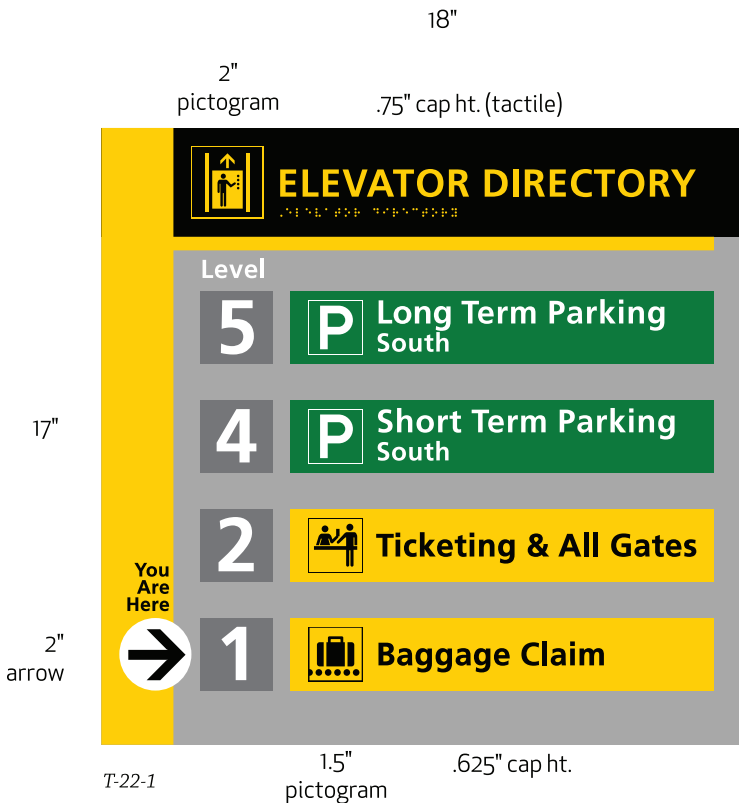
1/8" acrylic removable panel insert

Construction:

Sign T-22-1 Sheets 0241, 0244

Message:

Screen printed background, screen printed on
.062" thick polystyrene raised plates



Terminal & Atrium Walkway Information Sign Types

Type G-6 - Parking Reminder

Provides information reminder of level on which one is parked; located near short term parking elevators.

Materials

Panel:

1/8" acrylic removable panel insert with parking reminder stud and tear-off pad

Frame:

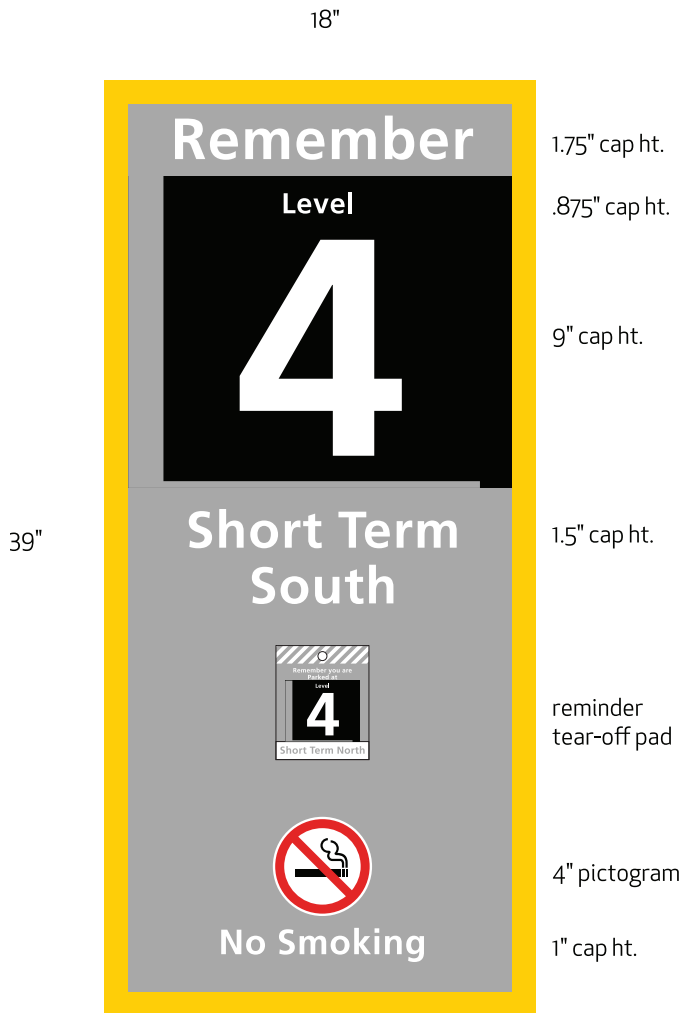
APCO Sign Track Thinline DSR-TL

Message:

Screen print graphics on first surface

Construction:

Sign T-344 Sheet 0220



T-344

Terminal & Atrium Walkway Regulatory Sign Types

Type G-4 - No Smoking

Standard regulatory sign used throughout the terminal and atrium.

Materials

Panel:

1/8" acrylic removable panel insert

Frame:

APCO Sign Track Thinline DSR-TL

Message:

Screen printed on second surface

Construction:

Sign TB-105 Sheet 0122



Curbfront

4.1 Directional Sign Types

4.2 Identification Sign Types

4.3 Information Sign Types

4.4 Regulatory Sign Types

Curbfront Directional Sign Types

Type A - Internally Illuminated Suspended (Vehicular Directional)

Used in curbside areas to direct vehicular traffic and to designate lane alignment on overhead signs.

Materials

Panel:

3/16" translucent acrylic #7328

Frame:

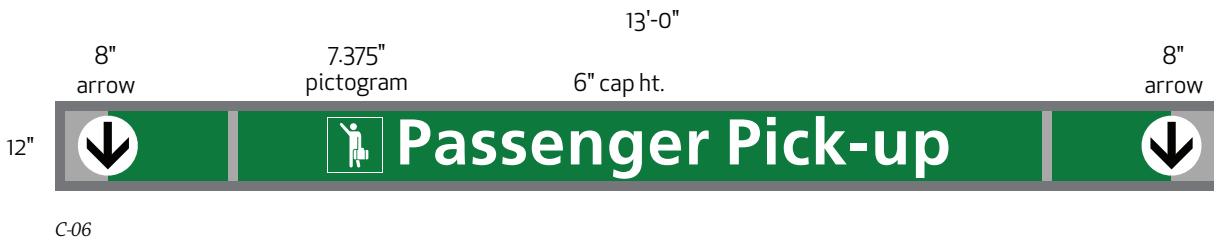
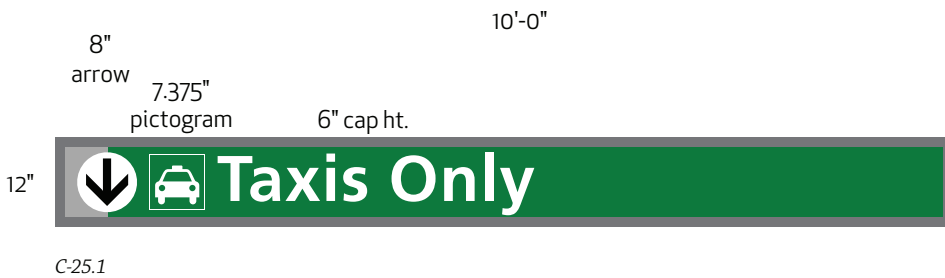
SignComp parts 1602, 1624, 1662

Message:

Applied translucent vinyl, 3M 3630 series

Construction:

Sign C-06	Sheets 0295, 0299
Sign C-25.1	Sheets 0296, 0299
Sign C-86	Sheets 0296, 0299



Curbfront

Directional Sign Types

Type A - Internally Illuminated Suspended (Pedestrian Directional)

*Under development.
The implementation of these specific sign examples are pending.*



Side A

C-105A



Side B

C-105B

Curbfront

Directional Sign Types

Type H - Post-mounted (Pedestrian)

Provides pedestrian directions to Ground Transportation modes along the curbfront.

Materials

Panel:

1/8" aluminum with painted edges

Pole:

SignComp #1007 with cap #5254

Message:

Non-translucent film, 3M 7725 series

Construction:

Sign C-31.1A Sheets 0291, 0290



Curbfront Directional Sign Types

Type N-1 - Post-mounted Signs

Provides vehicular directions to various curbside functions.

Materials

Panel:

.100" removable aluminum panel

Post:

SignComp parts 1210, 5004

Message:

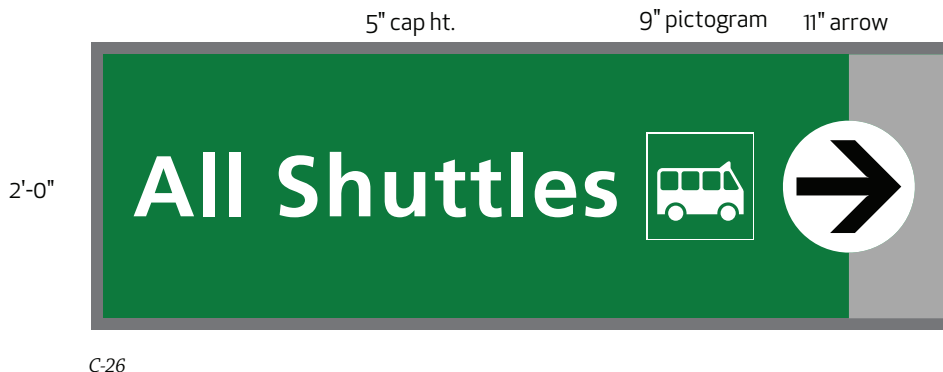
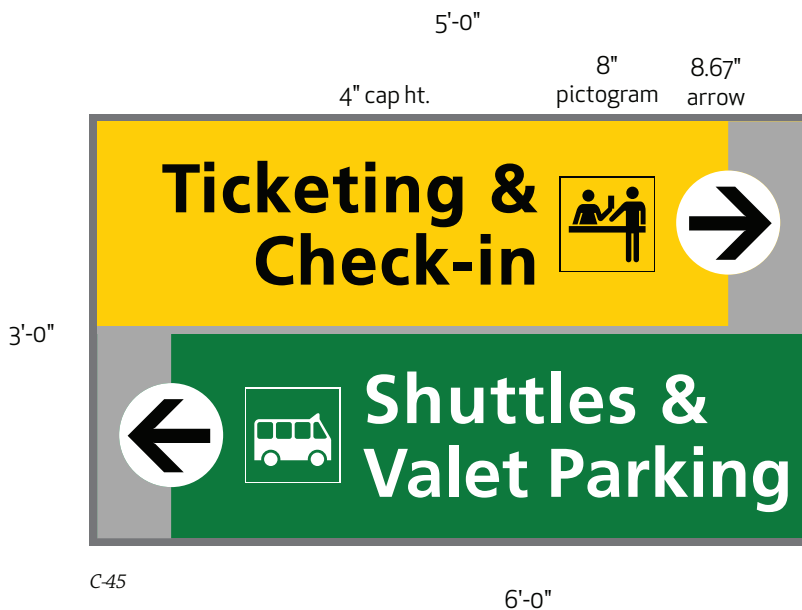
Reflective film, 3M 3800 series for background and 3M 3990 for white copy

Construction:

Sign C-26 Sheets 0292, 0290
Sign C-45 Sheets 0292, 029090

Frame:

SignComp parts 1260, 1200



Curbfront Identification Sign Types

Type D-6 - Non-illuminated Wall-mounted

Identifies curb check-in stations along the curbfront.

Materials

Panel:

.100" removable aluminum panel

Frame:

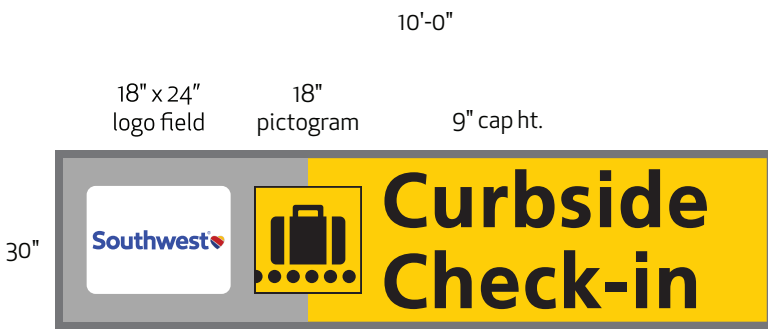
SignComp part # 1265

Message:

Non-translucent vinyl 3M 7725 series

Construction:

Sign C-55 Sheets 0294, 0299



C-55

Curbfront Identification Sign Types

Type G-12 - Shuttle Identification on Columns

Identifies boarding points of shuttles at curbside first level Ground Transportation.

Materials

Panel:

.100" removable aluminum panel

Message:

Painted background with reflective message, 3M 3990

Frame:

SignComp part #1265

Construction:

Sign C-34 Sheets 0289, 0288
Sign C-37 Sheets 0289, 0288

23"

6" pictogram



23"

C-34

2.5" cap ht.

23"

6" pictogram



23"

C-37

2.5" cap ht.

Curbfront Identification Sign Types

Type P - Airline Identification at Curbfront

Identifies most convenient terminal entrance to airlines along upper and lower curbfront.

Materials

Panel:

.100" removable aluminum sign panel

Frame:

SignComp Slide Body part #1260

Message:

Non-translucent vinyl, 3M series 7725

Construction:

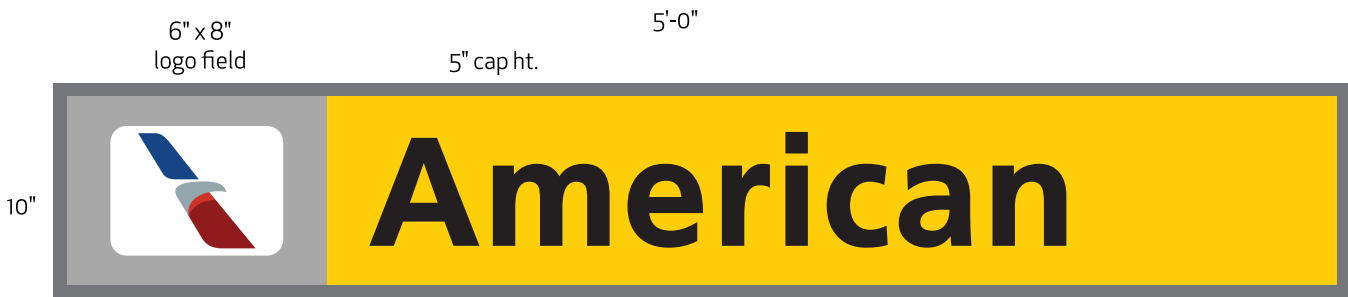
SignC-70 Sheet 0293

Sign C-81 Sheet 0293

Sign C-76 Sheet 0293

Airline Logos:

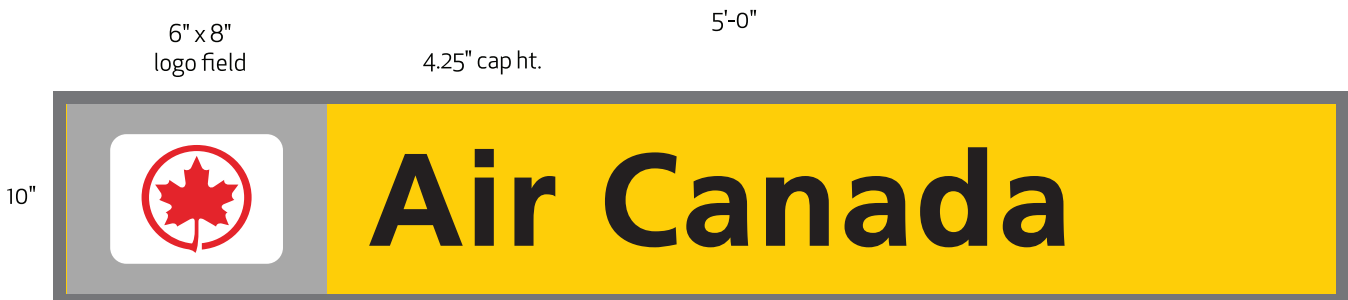
Machine-cut from 3M vinyls



C-70



C-81



C-76

Curbfront
Information Sign Types

Type X-X

Under development

Curbfront

Regulatory Sign Types

Type A - Internally Illuminated Suspended (Regulatory / Warning)

Conveys warning or regulatory messages to drivers at upper and lower curbfrights.

Materials

Panel:

3/16" acrylic sheet #7328

Frame:

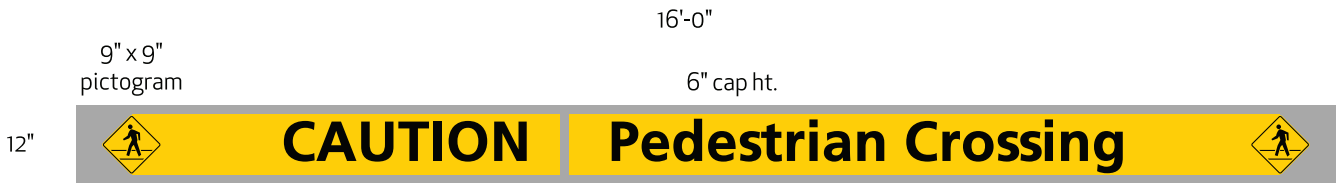
SignComp parts 1602, 1624, 1662

Message:

Applied translucent vinyl, 3M 3630 series

Construction:

Sign C-13.1 Sheets 0297, 0299



C-13.1

Parking

5.1 Directional Sign Types

5.2 Identification Sign Types

5.3 Information Sign Types

5.4 Regulatory Sign Types

Parking

Directional Sign Types

Type A - Internally Illuminated Suspended

Provides vehicular and pedestrian directions within parking garage.

Materials

Panel:

3/16" translucent acrylic #7328

Frame:

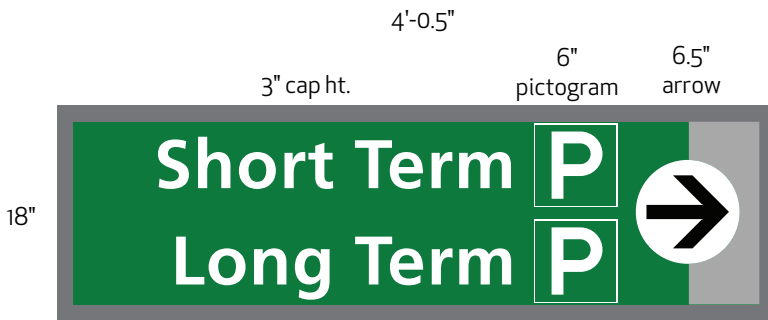
SignComp parts 1612, 1624, 1662

Message:

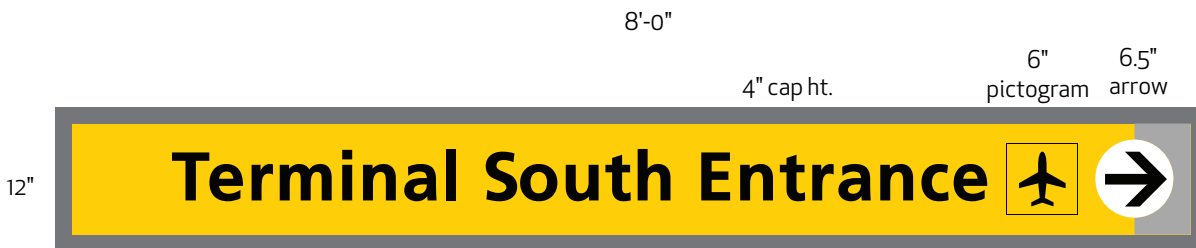
Applied translucent vinyl, 3M 3630 series

Construction:

Sign PS-09A Sheets 0358, 0352
Sign PL-162 Sheets 0371, 0367



PL-162



PS-09A

Parking

Directional Sign Types

Type A - Internally Illuminated Suspended - Rental Cars

Provides directions to rental car return area within parking garage.

Materials

Panel:

3/16" acrylic sheet #7328

Frame:

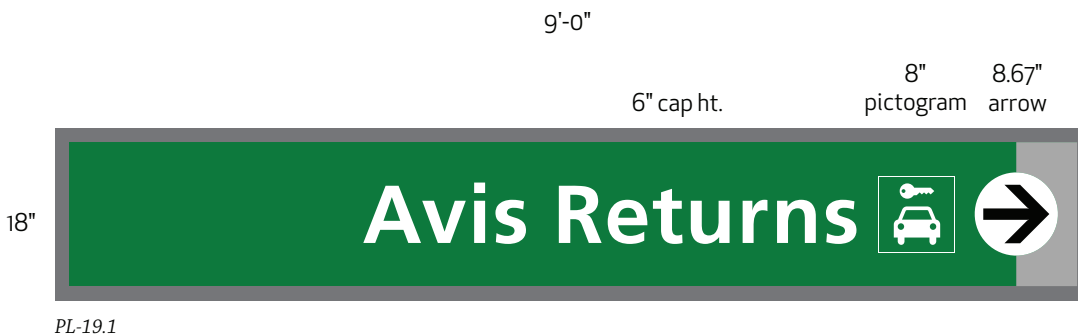
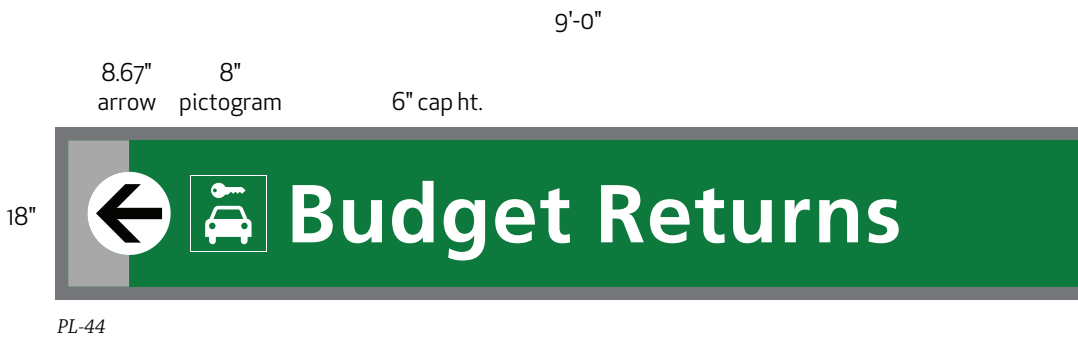
SignComp parts 1602, 1624

Message:

Applied translucent vinyl, 3M series 3630

Construction:

Sign PL-44 Sheets 0372, 0370
Sign PL-19.1 Sheets 0372, 0370



Parking

Directional Sign Types

Type B - Internally Illuminated Overhead

Provides vehicular and pedestrian directions within parking garage.

Materials

Panel:

3/16" translucent acrylic sheet #7328

Message:

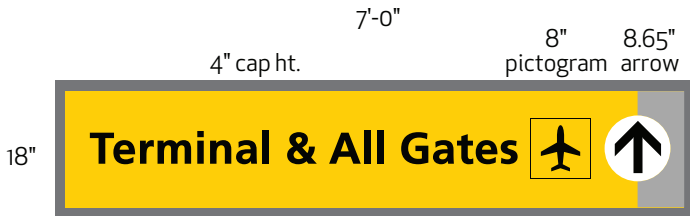
Applied translucent vinyl, 3M 3630 series

Frame:

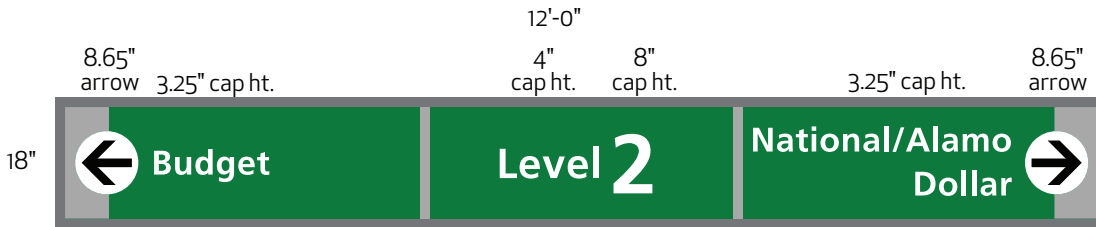
SignComp parts 1602, 1624, 1662

Construction:

Sign PL-50	Sheets 0379, 0370
Sign PL-97.1	Sheets 0376, 0367
Sign PL-251	Sheets 0376, 0367
Sign PL-262	Sheets 0384, 0370



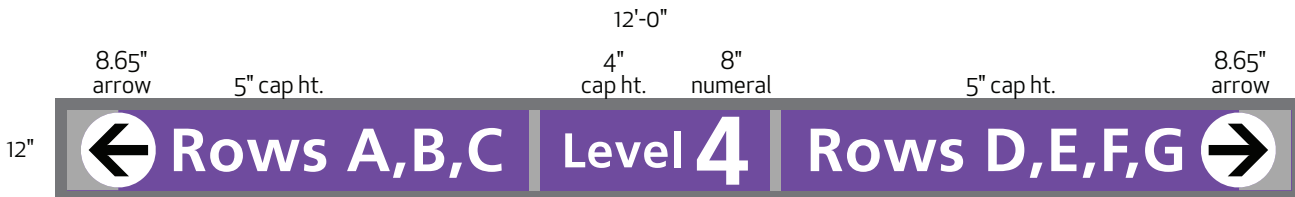
PL-262



PL-50



PL-97.1



PL-251

Parking

Directional Sign Types

Type B - Internally Illuminated Overhead (Retroreflective)

Provides vehicular and pedestrian directions within parking garage.

Materials

Panel:

3/16" clear polycarbonate substrate

Frame:

SignComp parts 1602, 1624, 1662

Message:

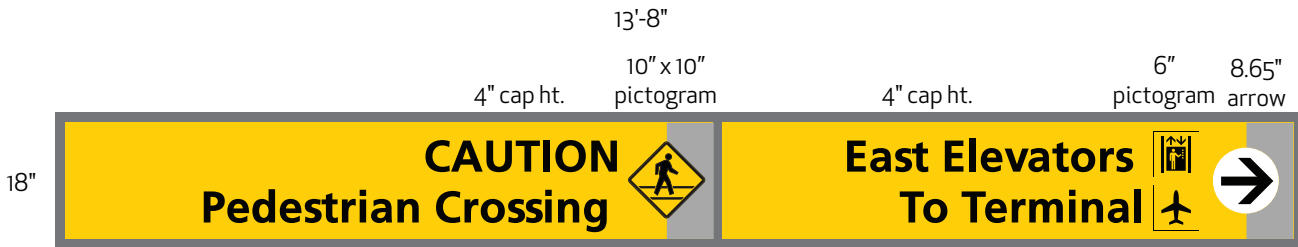
3M 1177 or 3M 1178 applied over retro-reflective film
3M 3990T

Construction:

Sign PL-88 Sheets 0381, 0367
Sign PL-259 Sheet 0377



PL-88



PL-259 Retroreflective

Parking

Directional Sign Types

Type B-3.1 - Internally Illuminated Changeable - Rental Cars

Provides directions to rental car counters, with changeable film sections.

Materials

Panel:

3/16" translucent acrylic sheet #7328

Frame:

SignComp parts 1602, 1624, 1662

Message:

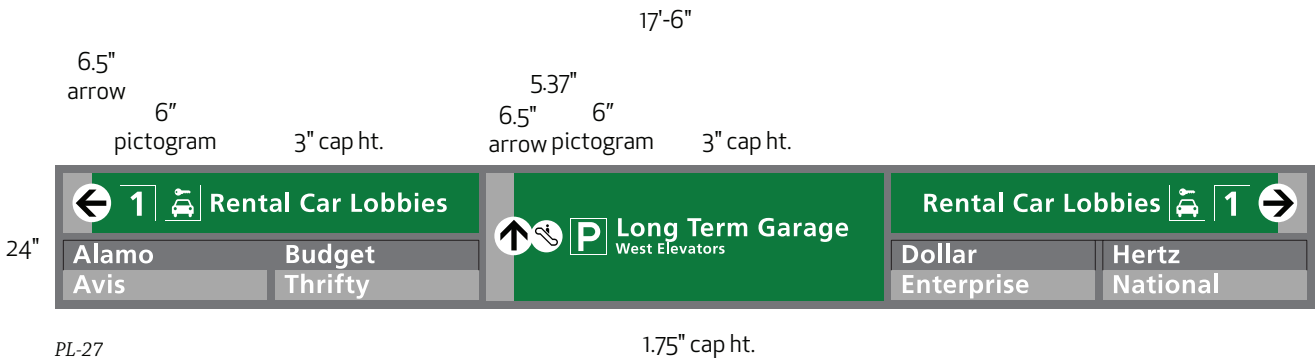
Applied translucent vinyl, 3M 3630 series

Construction:

Sign PL-27 Sheets 0379, 0370

Rental Car Names:

Changeable, computer-generated 5-mil Lambda Duratrans color transparency



Parking

Directional Sign Types

Type D-5 - Non-illuminated Wall-mounted

Provides vehicular or pedestrian directions or controls traffic; wall-mounted and non-illuminated.

Materials

Panel:

.100" removable aluminum panel

Message, pictogram & arrow field:

3M Diamond Grade Reflective Sheeting - White 4090

Background colors:

3M Scotchcal Translucent

Green 3630-26

Yellow 3630-25 or 75

Black 3630-22

Frame:

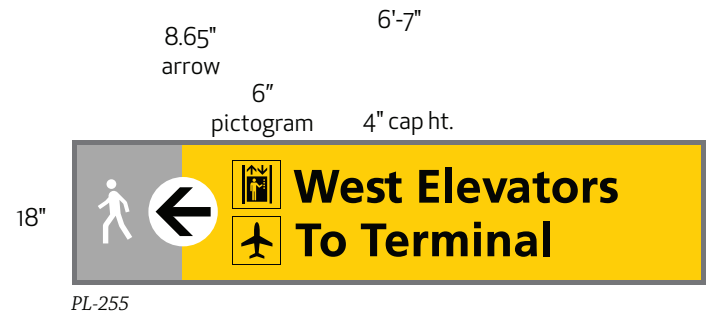
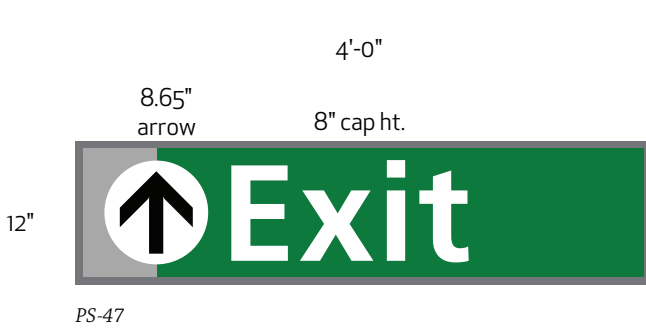
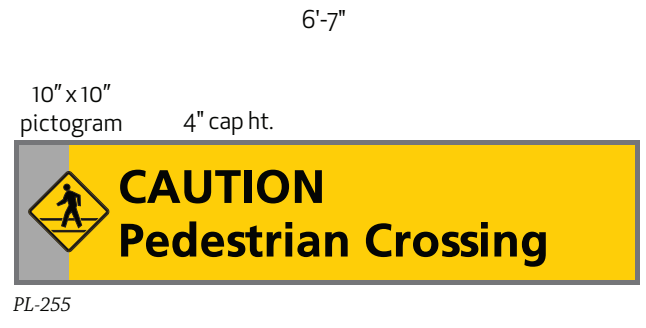
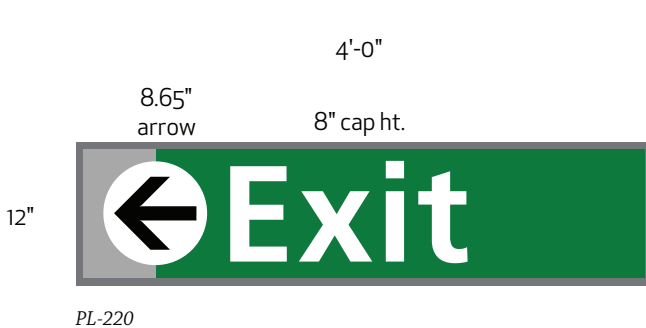
SignComp Slide Body part 1265

Construction:

Sign PL-220 Sheet 0362

Sign PS-47 Sheet 0351

SignPL-255 Sheet 0363



Parking

Directional Sign Types

Type D-6 - Non-illuminated Wall-mounted Exit Directional

Provides vehicular exit directions within parking garage; wall-mounted and non-illuminated.

Materials

Panel:

.100" removable aluminum panel

Frame:

SignComp Slide Body part 1265

Message, pictogram & arrow field:

3M Diamond Grade Reflective Sheeting - White 4090

Construction:

Sign PL-13 Sheet 0363
Sign PS-51 Sheet 0351

Background colors:

3M Scotchcal Translucent
Green 3630-26
Black 3630-22



Parking

Directional Sign Types

Type H-2 - Internally Illuminated Post-mounted Directional

Provides vehicular directions where overhead mounting is not possible.

Materials

Panel:

3/16" clear polycarbonate substrate

Frame:

SignComp parts 1612, 1624, 1662

Message:

3M series 1177 green background applied over retroreflective film 3M 3990T

Construction:

Sign PS-56A Sheet 0359



Parking

Directional Sign Types

Type N-1 - Internally Illuminated Post-mounted Signs

Provides vehicular directions on Garage Parking Level 6.

Materials

Panel:

3/16" clear polycarbonate substrate

Frame:

SignComp parts 1612, 1624

Message:

3M series 1177 green background and 3M 3630-61 gray applied over retroreflective film 3M 3990T

Construction:

Sign PL-204 Sheet 0366



PL-204

Parking Identification Sign Types

Type F - Flag Mounted

Flag mounted 12" signs identify important public services.

Materials

Panel:

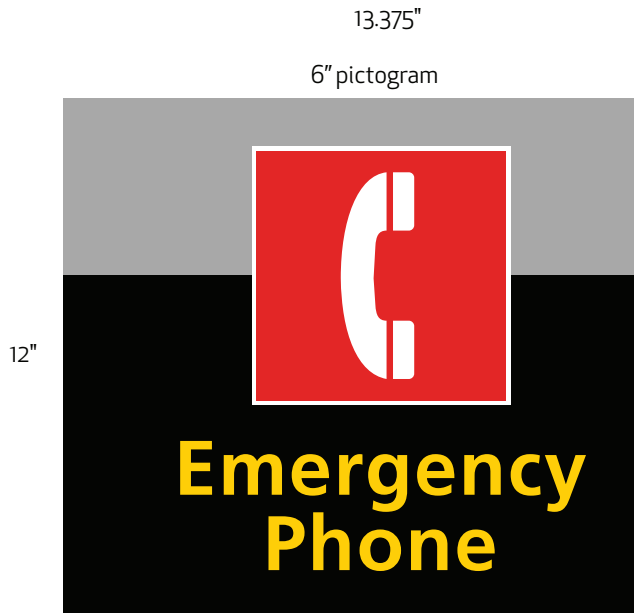
3/4" Sintra rigid PVC sheet

Construction:

Sign PL-261 Similar to Sheet 0049

Message:

Non-translucent film, 3M 7725 series



PL-261

1.25" cap ht.

Parking

Identification Sign Types

Type G-10 - Level Identification / Levels to Ground

Identifies level and provides exiting information within long term parking stairwells.

Materials

Panel:

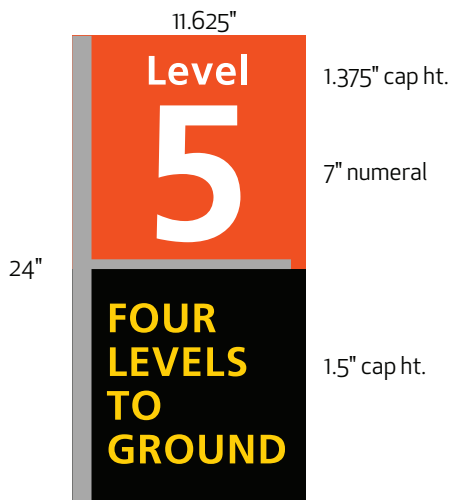
1/8" acrylic substrate and 1/16" face

Construction:

Sign PL-181 Sheet 0360

Message:

Gerber edge foil print on second surface of 1/16" matte clear acrylic face



PL-181

Sign Type G-10

Parking Identification Sign Types

Type G-11 - Level Identification at Stairwells, Elevators

Identifies level and provides directions to terminal at long term parking stairwell entrances.

Materials

Panel:

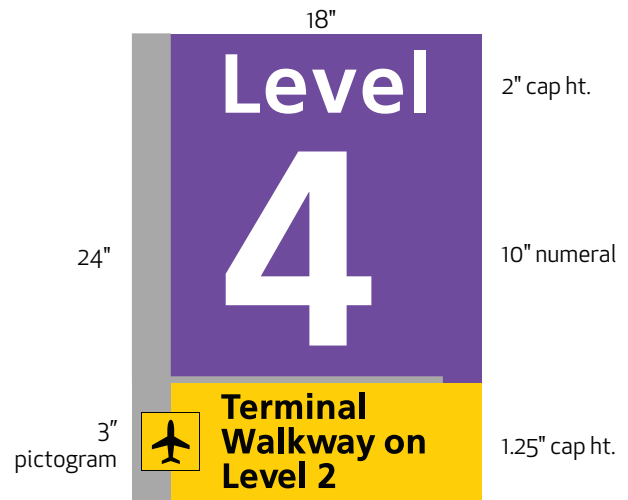
1/8" acrylic substrate and 1/16" face

Message:

Gerber edge foil print on second surface of 1/16" matte clear acrylic face

Construction:

Sign PL-168 Sheet 0361



PL-168
Sign Type G-11

Identifies level in elevator lobbies.

Materials

Panel:

1/8" opaque white acrylic insert

Message:

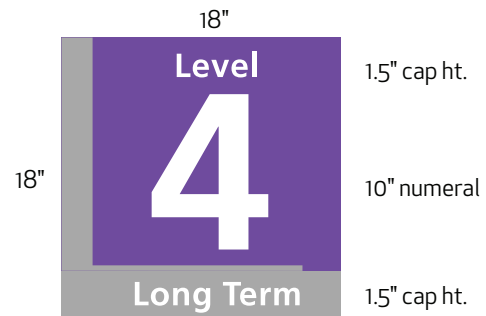
Screen print background and message

Frame:

APCO Sign Track Thinline DSR-TL

Construction:

Sign PL-229.1-4 Sheets 0255, 0254



PL-229.1-4
Sign Type G-11

Identifies level at stairwells.

Materials

Panel:

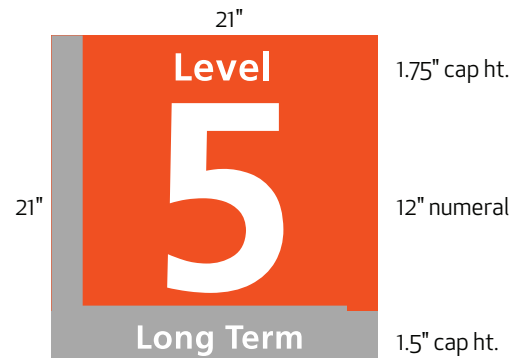
.100" aluminum

Message:

Screen print background and message

Construction:

Sign PL-180 Sheet 0320



PL-180
Sign Type G-11

Parking

Identification Sign Types

Type M - Level / Row Identification on Columns

Type M-1 - Level / Row Identification w/Directional Info

Identifies level/row on columns and provides pedestrian directions to nearest elevator within Long Term Parking.

Materials

Panel:

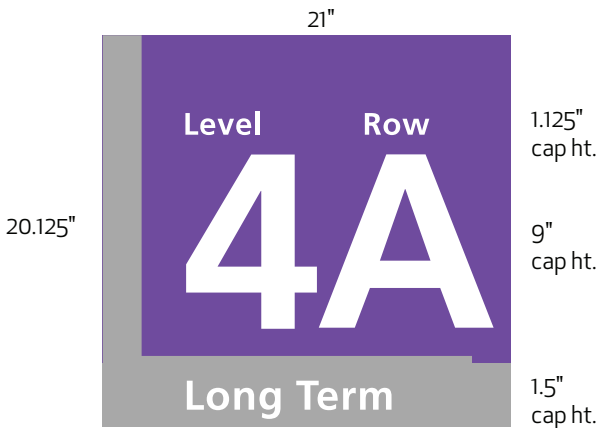
.100" aluminum

Message:

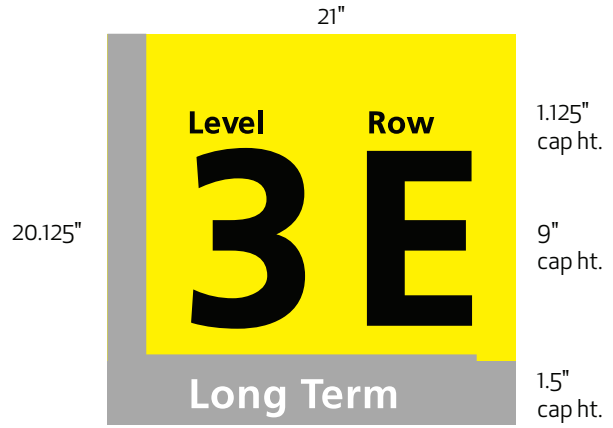
Screen print background with applied reflective copy, white 3M 3990, or black 3M 7725-12 or yellow 3M 3871

Construction:

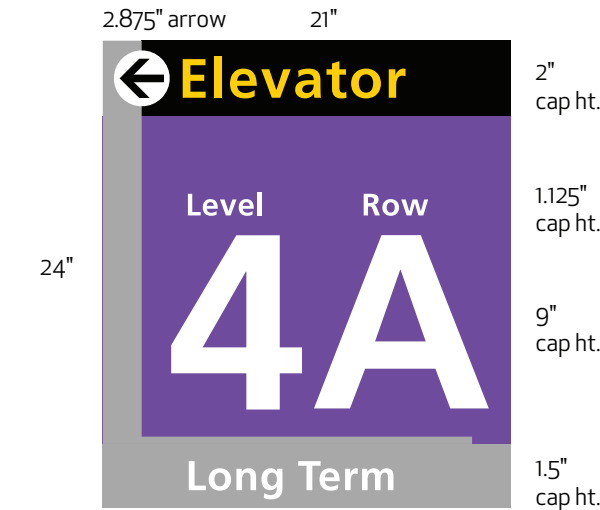
Sign PL-244	Sheets 0326, 0324
Sign PL-244.1	Sheets 0332, 0329, 0328
Sign PL-93	Sheets 0322, 0324
Sign PL-93.2	Sheets 0329, 0328



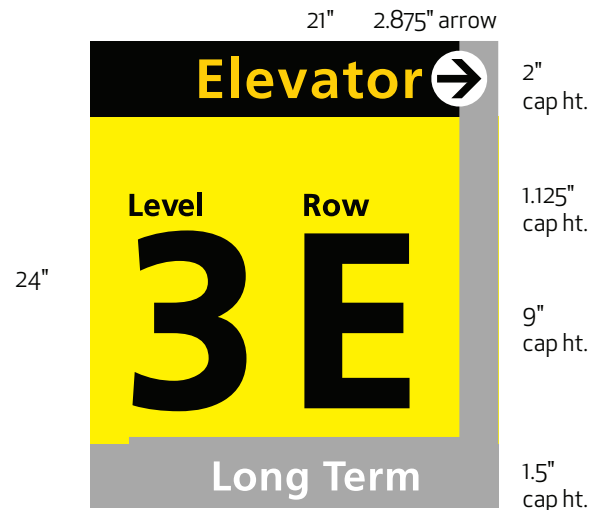
PL-244



PL-93



PL-244.1



PL-93.2

Parking Identification Sign Types

Type M-2 - Level Identification on Columns Short Term Parking

Identifies level, north or south, on round columns within Short Term Parking.

Materials

Panel:

.040" aluminum

Message:

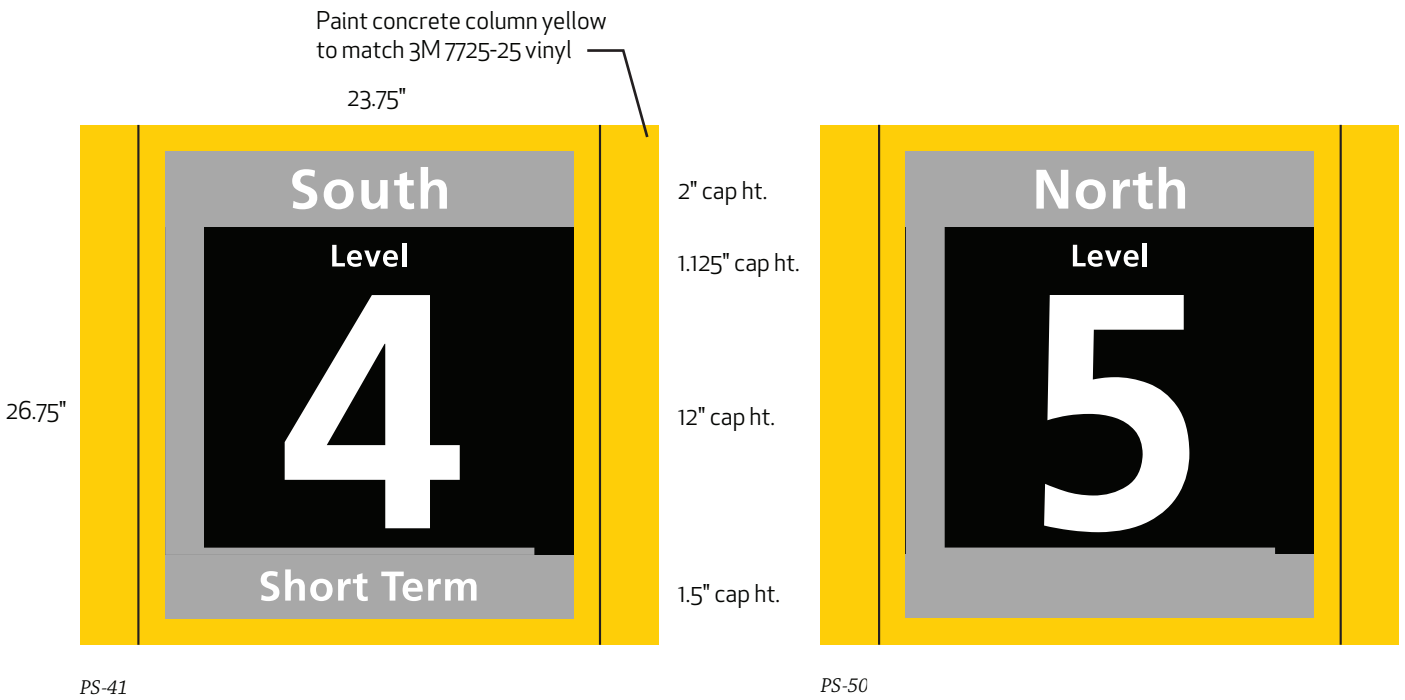
Screen print background on 3M 3990 white copy

Mounting:

Use mastic and 4 Hilti metal-hit anchors

Construction:

Sign PS-41 Sheet 0327
Sign PS-50 Sheet 0327



Parking

Identification Sign Types

Type N-1 - Post-mounted Signs

Identifies level on Long Term Parking Level 6, where overhead signs are not possible, and provides direction of traffic.

Materials

Panel:

3/16" clear polycarbonate substrate

Frame:

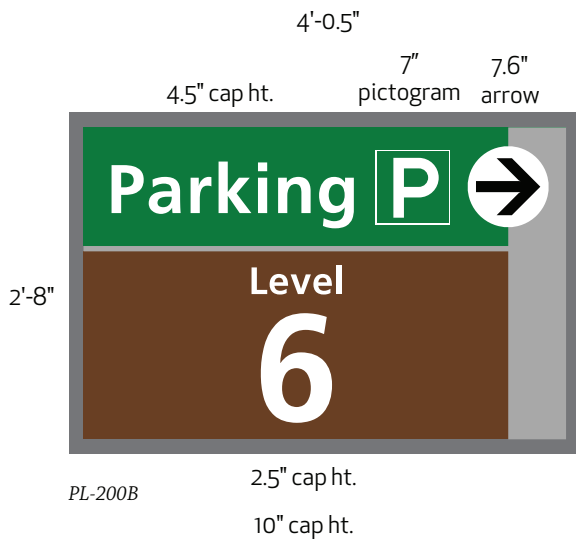
SignComp parts 1612, 1624

Message:

3M series 1177 green background and Avery Brown A6280-T background and 3M 3630-61 gray applied over retroreflective film 3M 3990T

Construction:

Sign PL-200B Sheet 0366



Parking

Information Sign Types

Type G - Elevator Directory

Elevator directories provide information regarding levels and functions accessible from each elevator.

Materials

Header:

1/8" thick etched photopolymer

Frame:

APCO Sign Track Thinline DSR-TL Deco Bar MDBB

Panel:

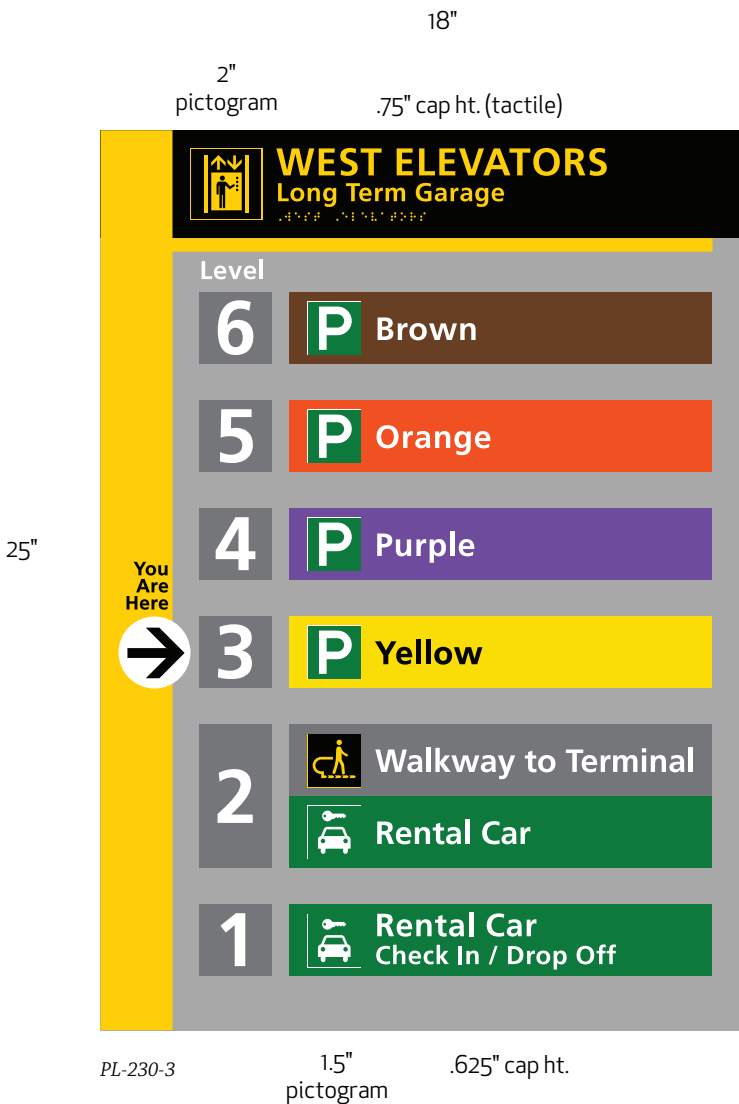
1/8" acrylic removable panel insert

Construction:

Sign PL-230-3 Sheets 0260, 0261

Message:

Screen printed background, screen printed on .062" thick polystyrene raised plates



Parking

Information Sign Types

Type G-6 - Parking Reminder

Provides information reminder of level on which one is parked; located near long term parking elevators.

Materials

Panel:

1/8" acrylic removable panel insert with parking reminder stud and tear-off pad

Frame:

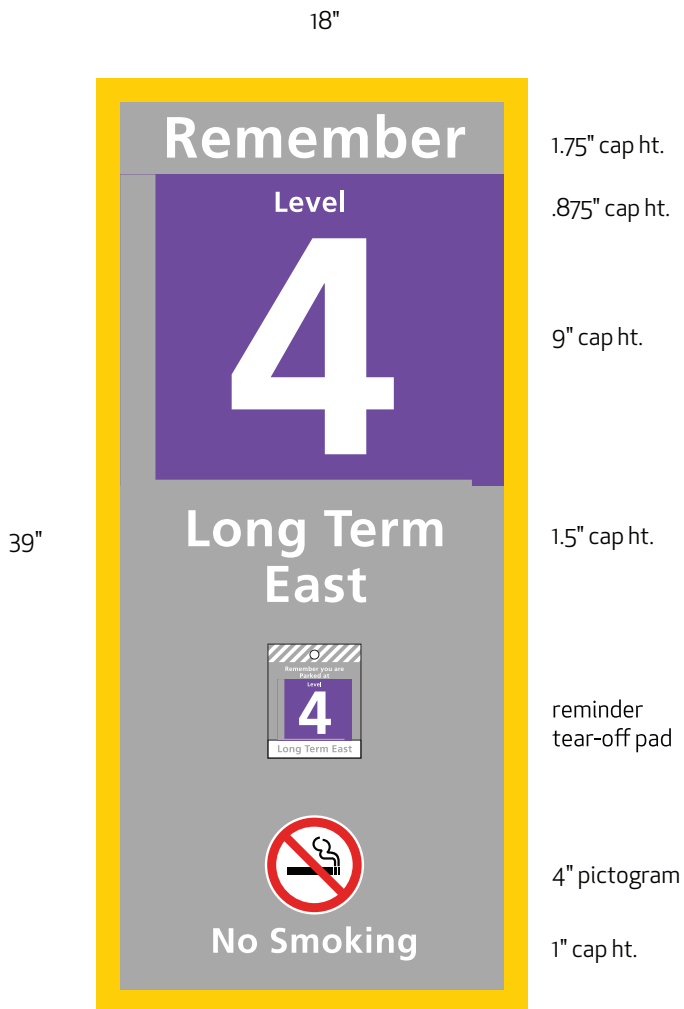
APCO Sign Track Thinline DSR-TL

Message:

Screen print graphics on first surface

Construction:

Sign PL-0267 Sheets 0262, 0236



PL-267

Parking

Information Sign Types

Type K - Dynamic Signs

Provides level identification and parking status (dynamic) at helix level entrances within long term parking.

Materials

Header:

3/16" milk white acrylic #7328

Panel:

3/16" clear polycarbonate

Message:

Applied translucent vinyl graphics on first surface, 3M 3630 series, and translucent white sprayed on second surface, with masked windows for LEDs

Frame:

SignComp parts 1602, 1624, 1662

Dynamic Message:

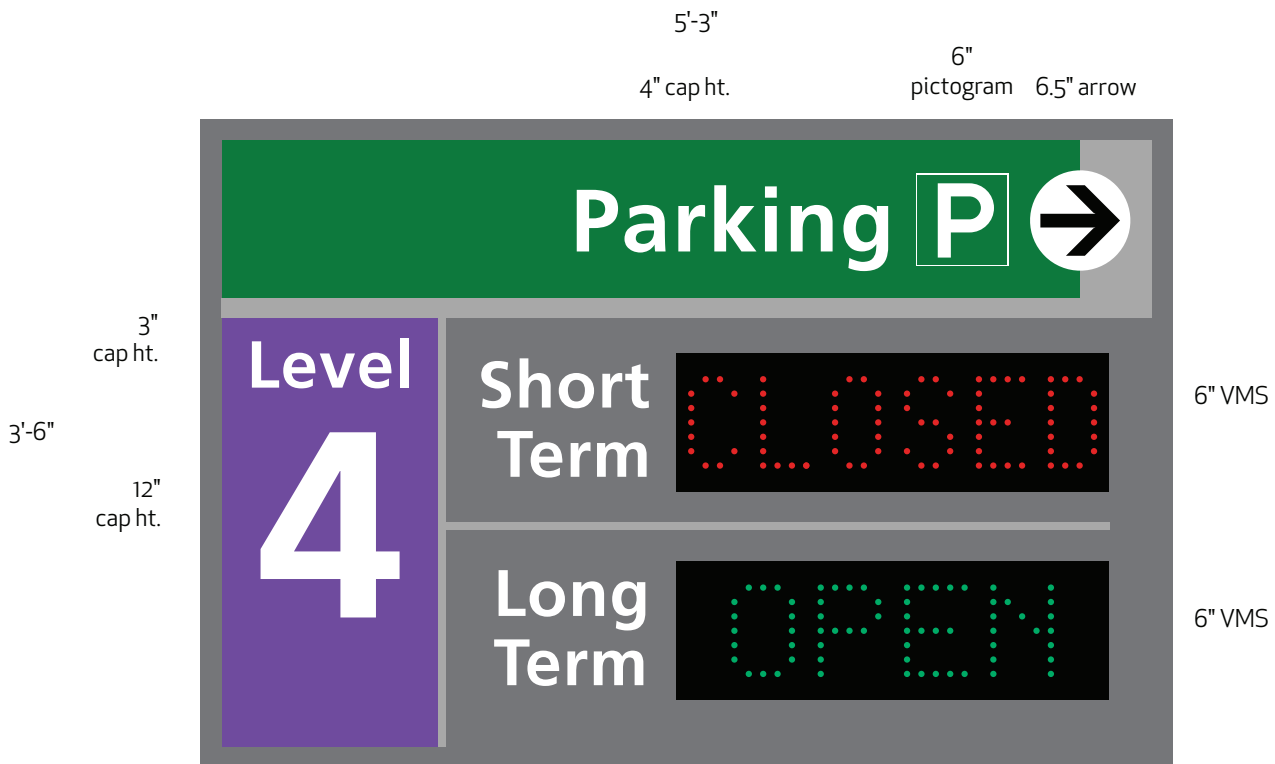
Blank-out light emitting diode (LED) - "OPEN" in green, "CLOSED" in red. Daylight readable fixed message interspersed within a single-line.

Four discreet LEDs per pixel.

Signal-Tech
4985 Pittsburgh Ave.
Erie, PA 16509
(877) 547-9900

Construction:

Sign PL-166 Sheets 0365, 0364



PL-166

Parking

Regulatory Sign Types

Type B - Internally Illuminated Wall-mounted (Regulatory)

Provides regulatory and prohibitive messages within the parking garage.

Materials

Panel:

3/16" clear polycarbonate substrate

Frame:

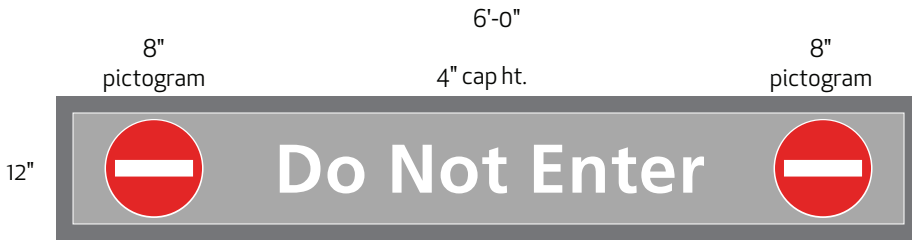
SignComp parts 1602, 1624

Message:

Applied 3M 1172 retroreflective film and 7725-41 background over 3990-T

Construction:

Sign PS-10 Sheets 0357, 0352



PS-10

Level 5 - internally illuminated new sign

Parking Regulatory Sign Types

Type D-5 - Non-illuminated Wall-mounted

Provides regulatory and prohibitive messages within the parking garage.

Materials

Panel:

.100" aluminum

Frame:

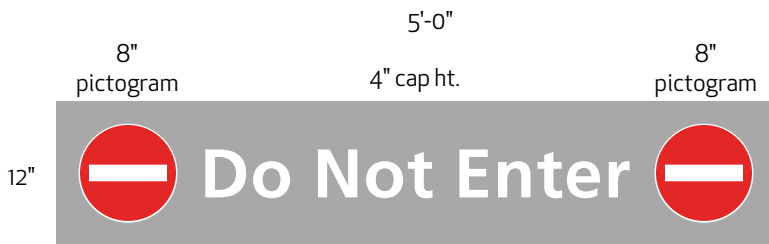
SignComp 1/2 Slide Body 1265

Message:

Reflectorized film 3M series white 3990 applied over either 3872 red (PL-12) or 7725-41 dark gray (PL-07) background

Construction:

Sign PL-07 Sheet 0362
Sign PL-12 Sheet 0362



PL-07



PL-12

Parking Regulatory Sign Types

Type R - Regulatory Signs

Provides vehicular traffic control within parking garage.

Materials

Panel:

.040 aluminum panel

Message:

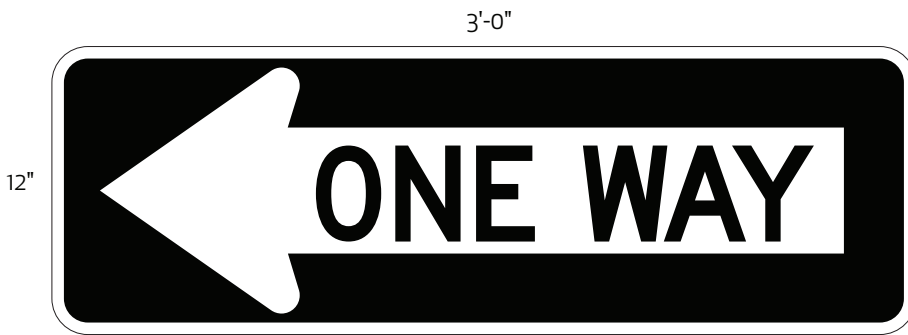
Screen printed over reflectorized film, 3M 3990 series

Mounting:

Use mastic and Hilti metal-hit anchors to attach to round concrete columns

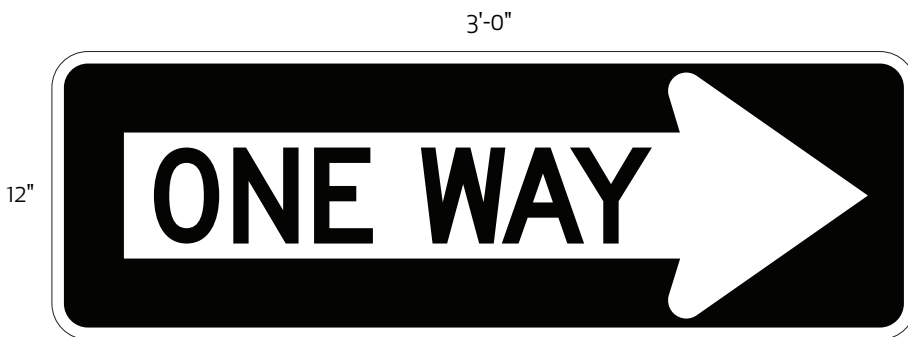
Construction:

Sign PS-40 Sheet 0321
Sign PS-42 Sheet 0321



PS-40M

UTCD sign type R6-1L



PS-42M

UTCD sign type R6-1R

Roadway & Site

6.1 Directional Sign Types

6.2 Identification Sign Types

6.3 Information Sign Types

6.4 Regulatory Sign Types

Roadway & Site

Directional Sign Types

Type S-1 - Site Directional

Provides directions to various facilities and services on the site.

Materials

Panel:

Sign Comp insert panel system, parts 1678 and 1674; 1/8" aluminum back panel

Message:

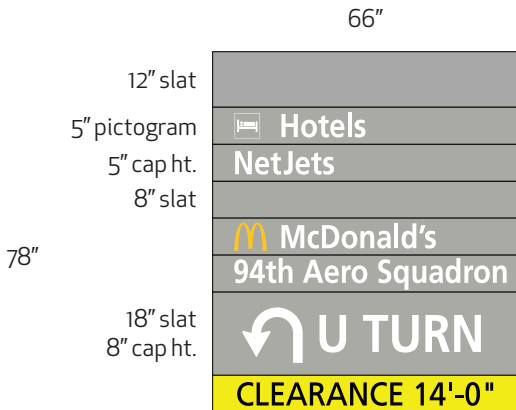
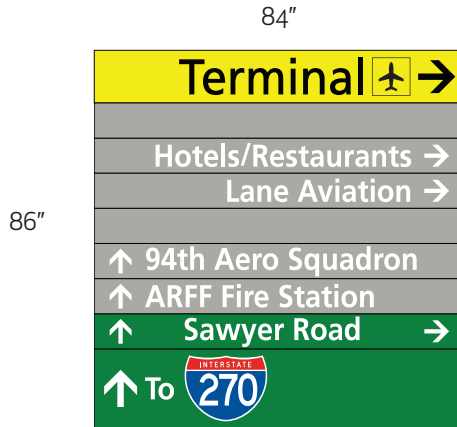
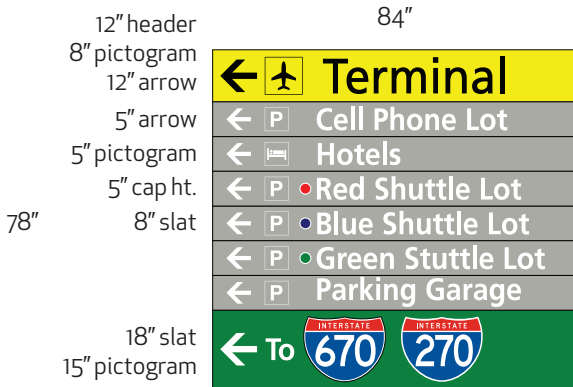
Header - Reflectorized yellow 3871 with black 7725-12 copy
 Slats - paint background to match Gerber Nimbus Grey 220-101
 Copy - Reflectorized white 3M 3990
 Logo and shield - Screen printed translucent on 3M 3990

Frame:

Sign Comp insert panel system, post 1510, reveal 1550, retainer 1632, access frame 1690

Construction:

Fabrication - Similar to SG4.32
 Mounting - Similar to SG4.33



Roadway & Site

Directional Sign Types

Type S-2 - Site Directional with Hotel Logos

Provides directions to various facilities and services on the site, incorporating relevant hotel logos.

Materials

Panel:

1/8" aluminum

Message:

Background - Paint to match Gerber Nimbus Grey 220-101

Copy - ReflectORIZED white 3M 3990

Logos - Screen print in translucent ink on 3M 3990

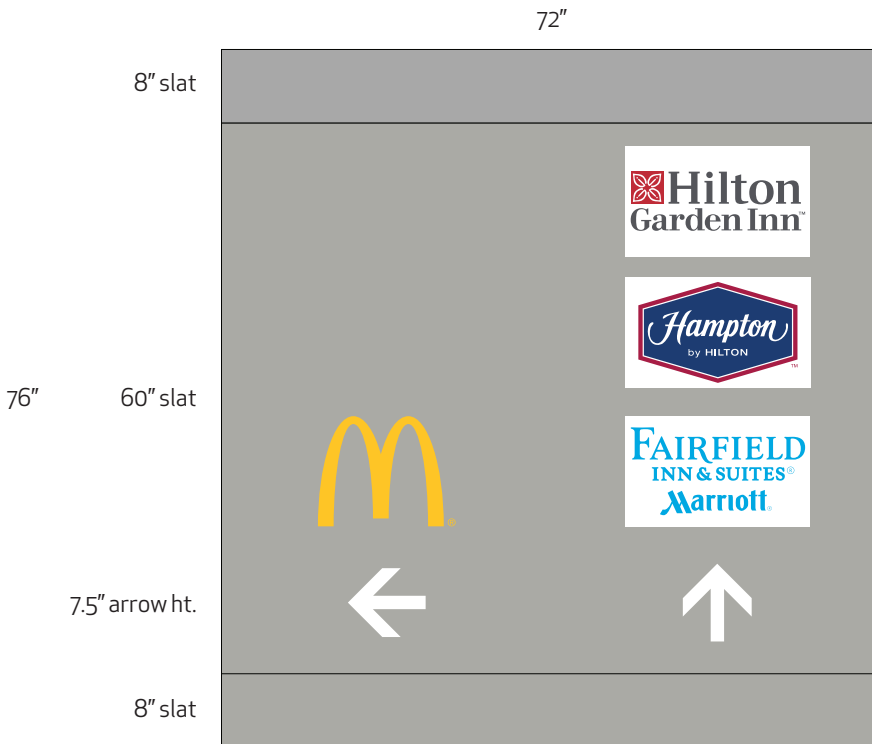
Frame:

Sign Comp insert panel system, post 1510, reveal 1550, retainer 1632, access frame 1690

Construction:

Fabrication - Similar to SG4.32

Mounting - Similar to SG4.33



Roadway & Site
Identification Sign Types

Type SPM - Pylon / Monument Main Facility
Identity Signs

Under development



Main entry monument signage on International Gateway.
Vendor: AGI



Alternate entry monument signage at Sawyer and Hamilton Roads.
Vendor: DaNite

Roadway & Site Identification Sign Types

Type S - Site Identification

Identifies various facilities and services on the site.

Materials

Panel:

1/8" aluminum face panel

Message:

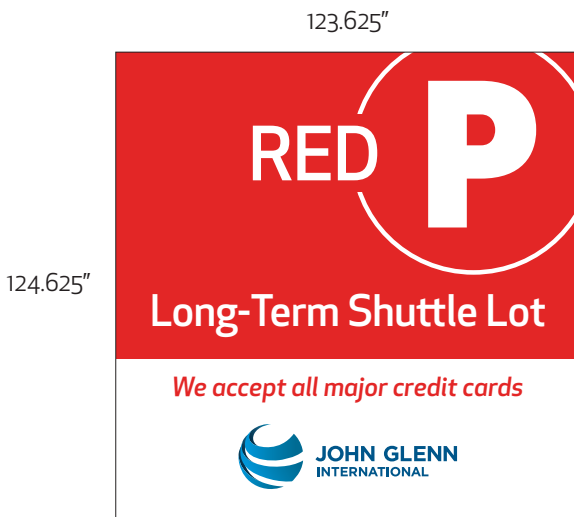
Background - Paint to match 3M Nimbus Grey 220-101
Facility Name - Reflectorized 3M 3990
Address - Applied vinyl Gerber Nimbus Grey 220-101
Logo - screen printed

Frame:

Sign Comp insert panel system

Construction:

Fabrication - Similar to Detail 1/SG4.32
Mounting - Similar to Detail 1/SG4.33



Parking Lot Indicator Signage



Roadside Facility Identification Signage

Roadway & Site
Information Sign Types

Type X-X

Under development

Roadway & Site Regulatory Sign Types

Type T - Traffic and Regulatory Signs

Under development

Traffic and Regulatory Sign Panels

Level 1: Utilitarian

Sign panel is aluminum blank with reflective vinyl film graphics. For short term installations in high finish areas (terminal curb fronts or parking facilities) or permanent installation in low finish areas (non-public roads and maintenance facilities), with utilitarian mounting methods.

Level 2: High Finish

Sign panel is aluminum blank with reflective vinyl film graphics, mounted to a painted aluminum backing panel that provides a border for the sign panel. For permanent installations in high finish areas (terminal curb fronts or parking facilities), with high finish mounting methods.

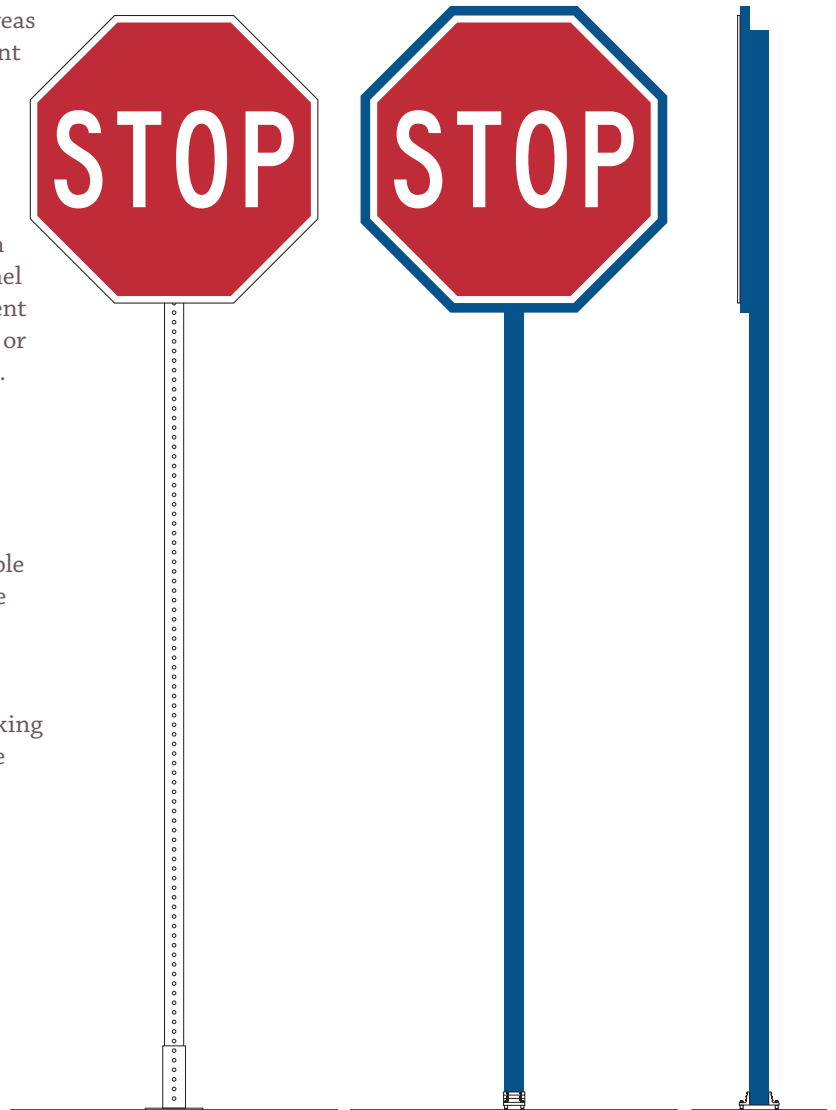
Traffic and Regulatory Sign Mounting Methods

Level 1: Utilitarian

Galvanized steel square tube post connected to frangible base which is directly buried on earth without concrete foundation.

Level 2: High Finish

Painted aluminum square tube post to match sign backing panel connected to frangible base installed on concrete foundation.



Rickenbacker International Airport

7.1 Directional Sign Types

7.2 Identification Sign Types

7.3 Information Sign Types

7.4 Regulatory Sign Types

Rickenbacker International Airport
Directional Sign Types

Type X-X

Under development

Rickenbacker International Airport

Identification Sign Types

Type X-X

Under development

Rickenbacker International Airport
Information Sign Types

Type X-X

Under development

Rickenbacker International Airport *Regulatory Sign Types*

Type X-X

Under development

Bolton Field

8.1 Directional Sign Types

8.2 Identification Sign Types

8.3 Information Sign Types

8.4 Regulatory Sign Types

Bolton Field
Directional Sign Types

Type X-X

Under development

Bolton Field
Identification Sign Types

Type X-X

Under development

Bolton Field

Information Sign Types

Type X-X

Under development

Bolton Field
Regulatory Sign Types

Type X-X

Under development

Sign Construction

9.1 Sign Type Description

9.2 Sources of Materials/Processes

Sign Construction

Sign Type Description

General

1. All symbol background colors are the same as the surrounding area color unless specified otherwise.
2. All arrows shall be black within a white circle unless specified otherwise.
3. All overall borders match PMS Cool Grey 9C.
4. Typeface is to be Frutiger Bold or Frutiger PA Bold Plus. Frutiger PA Bold Plus is used for black on yellow.
5. All internally illuminated faces use translucent 3M Scotchcal film, 3630 series, unless specified otherwise.
6. All ambiently illuminated faces use non-translucent 3M Scotchcal film, 7725 series, unless specified otherwise.
7. Darker vinyl colors always bleed slightly over lighter colors. No acrylic should be visible where colors abut.
8. Stanchions and posts are painted to match PMS Cool Grey 6C unless specified otherwise.

Sign Types A and B

Internally illuminated light boxes. Single or double-faced, suspended or wall-mounted light boxes. Sizes vary.

New internally illuminated signs use a system of extrusions manufactured by SignComp, Inc. Signs use hinge bodies and slide retainers and metal panel dividers.

Graphics are applied using translucent vinyl film onto 3/16" thick translucent white acrylic 7328 colors as indicated on layout sheets. Acrylic white shall drop out of 3630 green background for text and behind arrows/symbols. Black 3630-22 shall be applied over Yellow 3630-25 and over white acrylic as arrow or escalator symbol. Light Grey bisected by arrow is 3630-61, and vertical gray bar separating messages is 3630-61. On Type A and B signs, the overall 1.375" border is the aluminum face retainer painted to match PMS Cool Grey 9C Satin Finish. Rental car logos are machine-cut vinyl using Odyssey process.

Sign Types A-1.1, B-1.1, B-2.1, B-3.1

Internally illuminated signs constructed the same as Types A and B, except that sections of the sign with airline names shall be trapped between a .080 milk-white diffuser and a .125" matte clear acrylic face. The airline names shall be computer-generated 5-mil Lambda Duratrans transparencies.

Sign Type D

Non-illuminated suspended signs are custom-designed frame with slide in/out removable 3/16" thick acrylic face or 1/8" thick aluminum panels. Graphics are applied using non-translucent film in a similar manner as that described for Type F signs.

Sign Type F

Flag-mounted elevator and courtesy phone non-illuminated identification.

Background and message are applied in a similar manner as described for the Type D signs, except there is no border on these signs. Black 7725-12 is applied over Yellow 7725-25. Edges are painted to match PMS Cool Grey 9C Satin Finish. Note that the elevator symbol arrow orientation (up, down, or both up and down) varies per location, as does the symbol size and descriptor.

Signs are constructed of 3/4" thick Sintra inset into 1 1/2" x 1" x 1/8" channel and plate which are painted to match PMS Cool Grey 9C Satin Finish. The panel is secured to the channel bracket with 3/16" dia. aluminum pins.

Sign Types G through G-9

Non-illuminated wall-mounted signs vary in size and are constructed of 1/8" acrylic or etched photopolymer removable panel inserts. Panels are assembled to Sign Track frames manufactured by APCO, Inc. using tamper-resistant (blue) nylon presslocks.

Sign Types G-10 through G-11

Non-illuminated wall-mounted signs vary in size and are constructed of 1/8" opaque acrylic with 1/16" matte clear acrylic face with copy and background applied onto second surface of 1/16" clear face via Gerber edge foil process.

Sign Construction

Sign Type Description

Sign Type G-12

Shuttle identification non-illuminated signs mounted on columns shall be .125" thick aluminum panels with painted background and reflective message.

Sign Type H

Pole-mounted non-illuminated signs are .125" thick aluminum panel with vinyl applied to the first surface and painted edges. The panel bisects an extruded aluminum post manufactured by SignComp, which is anchored to the floor using Hilti Kwik Bolts.

Sign Type H-2

Post-mounted exit directional consists of an internally illuminated double-sided light box mounted atop a post. The post is anchored to concrete using Hilti Kwik Bolts or Hilti Epoxy HAS anchoring system.

Sign Type K

Dynamic signs vary in size and application. Light-Emitting Diode (LED) technology shall be used - amber daylight readable for exterior application. The LED inserts are purchased items to be incorporated into a custom housing. Specification of manufacturer and model number, if used in this contract, are identified in Acceptable Manufacturers section on page 9.4.

Sign Type L

Panels in continuous "shadow box" band existing signs are internally illuminated .187" thick milk-white acrylic 7328. These panels have translucent film applied to the first surface and must be fitted for replacement of existing panels.

Sign Type M

Level/row identification signs on columns are non-illuminated .100" thick aluminum panels used throughout the parking garages. Background colors are screened, and message shall be white reflectorized 3M Diamond Grade 3990. Panels are mounted using silicone adhesive and Hilti Metal-hit Anchors, one in each corner. No sharp edges are allowed.

Sign Type M-2

Level identification on columns in short term parking are non-illuminated .040" thick aluminum panels curved to conform to the round concrete columns. Background and message are applied in the same manner as for Type M signs.

Sign Type N-1

Other post-mounted signs are non-illuminated post-and-panel signs constructed similar to the Type N signs. Message is applied to .100" thick removable aluminum face using reflectorized film for background and copy.

Sign Type P

Overhead airline identification signs are non-illuminated suspended signs along the curbsfronts. Signs are fabricated from a system of extrusions manufactured by SignComp. Message is applied to a .100" thick changeable aluminum panel using non-translucent film for background and black 3M 7725-12 for copy. Airline logos are machine-cut vinyl 3M series 230 using Odyssey process.

Sign Type R

One-way and parking regulatory signs are screen printed on reflective sheeting 3870, applied to .080" aluminum blanks within the long term parking garage and curbsfront. One-way signs applied to round concrete columns within the short term parking garage shall be .040" thick aluminum to conform to round columns.

Sign Type S

Site and roadway signs. Proposed construction for these sign types (final design pending) is to utilize SignComp insert panel system for site directional signs. These signs feature reflective messages in 3M 3990 or other colors applied to painted changeable slats. The background color of the slats and posts is to match Gerber Nimbus Grey 220-101.

Sign Type SPM

Under development

Sign Type T

Under development

Sign Construction

Sources of Materials / Processes

Products utilized in construction of color code signage system in 2015

1. Translucent Acrylic Sheet #7328:
Tubelite
1224 Refugee Lane
Columbus, OH 43207
(614) 443-9734
www.tubelite.com
2. Sign Track System:
APCO
388 Grant Street, SE
Atlanta, GA 30312-2227
(404) 688-9000
www.apcosigns.com
3. Translucent and Non-translucent Vinyl Film:
Scotchcal Film Series 3630 and 7725
3M Commercial Graphics Division
3M Center, Building 220-6W-06
St. Paul, MN 55144-1000
(available through local sign vendor)
www.3m.com

Avery Dennison
Graphics and Reflective Products Division
250 Chester Street
Painesville, OH 44077
(800) 443-9380
(available through local sign vendor)
www.averygraphics.com
4. Courtesy Telephone:
10 Allen Tel GB59VN-34315
Outdoor Phone without ringer or housing
Graybar Electric
Columbus, OH
www.graybar.com
5. Acrylic Polyurethane:
Matthews Paint
760 Pittsburgh Drive
Delaware, OH 43015
(800) 323-6593
www.matthewspaint.com
6. Custom Acrylic Brochure Holder:
PS Plastics
2020 Britains Lane
Columbus, OH 43224
(614) 262-7070
7. Gerber Edge Foil Process:
Signs Unlimited
4091 Venture Place
Groveport, OH 43125
(614) 836-7446
8. Lambda Duratrans Transparencies - 5 mil:
Blue River Digital, Inc.
1624 Santa Clara Drive, Suite 100
Roseville, CA 95661
(800) 706-4276
(computer-generated)
www.blueriverdigital.com
9. Reflective Film: 3M Diamond Grade
4097 (green)
4090 (white)
4091 (yellow)
4092 (red)
4095 (blue)
4095 (brown)
www.3m.com
10. Anchoring Systems:
Super Kwik Bolts and Metal-hit Anchors
Hilti Center
818 Rose Avenue
Columbus, OH 43219
(800) 879-8000
us.hilti.com
11. Dynamic Signs (LED) open/closed 1026TC:
Signal-Tech
4985 Pittsburgh Avenue
Erie, PA 16509
(877) 547-9900
www.signal-tech.com

Sign Construction

Sources of Materials / Processes

Products utilized in construction of color code signage system in 2015

12. Extruded Aluminum Signage Systems:
 - SignComp
 - 3032 Walker Ridge Drive NW
 - Grand Rapids, MI 49544
 - (877) 784-0405
 - (available through local sign vendor)
 - www.signcomp.com
13. Sintra Rigid PVC Sheet:
 - Tubelite
 - 1224 Refugee Lane
 - Columbus, OH 43207
 - (614) 443-9734
 - www.tubelite.com
14. Sign Mounting Hardware Systems:
 - Unistrut
 - Loeb Electric
 - 915 Williams Avenue
 - Columbus, OH 43212
 - (614) 294-7640
 - www.loebelectric.com
15. Concourse B Phosphor Fluorescent Lamps:
 - (for service of existing signs only until retrofitted with LED illumination)
 - F96T12SPXHO
 - F72T12SPXHO
 - F48T12SPXHO
 - Rexel
 - 3670 Parkway Lane, Suite A-C
 - Hilliard, OH 43206
 - (614) 771-7373
 - www.rexelusa.com
16. Airline and Rental Car Logos:
 - Odyssey Printing Process
 - Cutting 3M 230 vinyl
 - Signs Unlimited
 - 4091 Venture Place
 - Groveport, OH 43125
 - (614) 836-7446
17. Screen Printing Inks:
 - Match Pantone colors.
 - Nazdar Inks
 - (available through local sign vendor)
 - www.sourceone.nazdar.com/inks
18. Traffic & Regulatory Sign Mounting Systems:
 - Galvanized Steel Posts
 - TAPCO
 - 5100 West Brown Deer Road
 - Brown Deer, WI 53223
 - (800) 236-0112
 - www.tapconet.com
 - Painted Aluminum Posts
 - Vinyl Guard Posts
 - 45 Industry Parkway
 - Woburn, MA 01801
 - (866) 254-5201
 - www.vinylguardposts.com
19. Light Emitting Diode (LED) Sign Illumination:
 - Sloan LED
 - 5725 Olivas Park Drive
 - Ventura, CA 93003
 - (888) 747-4533
 - www.sloanled.com
 - GE LED Lighting
 - www.gelighting.com
 - Tubelite
 - 1224 Refugee Lane
 - Columbus, OH 43207
 - (614) 443-9734
 - www.tubelite.com

Program Management

10.1 Sign Request Process

Program Management

Sign Request Process

Introduction

The Columbus Regional Airport Authority (CRAA) Planning & Engineering Division is responsible for the control and maintenance of signage and other information devices in the John Glenn Columbus International Airport, Rickenbacker International Airport and Bolton Field public circulation areas. CRAA has endorsed a policy to encourage sign uniformity and consistent information dissemination throughout the airport, which complies with the Airport Wayfinding Signage Master Plan and Sign Standards Manual.

CRAA utilizes this policy to create awareness of official signage standards, review procedure and expedite production/ installation. Your participation, understanding and cooperation in this process are appreciated.

Process

The following describes the steps of the sign request process. Only essential information, i.e., wayfinding directions, airline identification, passenger processing and passenger services, should be considered for wayfinding signage.

Internal Requests

CRAA internal sign requests are to use the CRAA Internal Work Notification Form. Internal requests should follow the notification, project design, construction, and inspection guidelines found on the back of the form, in place of the steps listed below.

External/Tenant Requests

1. A written request with proposed signage message and layout design should be submitted to the CRAA Properties Division. A determination of the proposed location(s) of the new or revised sign message should be made. If the request is for a revised message of an existing sign, the existing sign identification number (on side of overhead signs) should be determined. The justification for the sign request and message required, as well as date required, quantity, budget, contact, etc., should be described in the written request.

2. Obtain a Tenant Work Permit Application and Construction Manual from the Planning & Engineering Division at (614) 239-5010. Three complete sets of the Design and Construction documents, along with a completed Tenant Work Permit application, should be submitted to the CRAA Tenant Work Permit Project Manager.

Mailing Address:

Tenant Work Permit Program
Columbus Regional Airport Authority
4600 International Gateway
Columbus, OH 43219
ATTN: Tenant Work Permit Project Manager

The Tenant Work Permit Project Manager will forward copies of the design/construction documents to the CRAA Planning & Engineering Division for compliance with wayfinding signage design standards. Concurrently, the Tenant Work Permit Project Manager will forward a copy of the design/construction documents to the CRAA Facilities Division for review. For all parking, roadway, or rental car signage requests, the Tenant Work Permit Project Manager will forward a copy of the design/construction documents to the CRAA Ground Transportation Division and the CRAA Legal Division (Rental Car signage requests) for review.

3. Once the Tenant Work Permit is approved by the CRAA Planning & Engineering Division, the requestor may solicit prices for construction and the signage may be installed with proper advance scheduling, and in compliance with the CRAA Tenant Work Permit.
4. After installation of the signage, the requestor will follow the "Project Close Out" steps outlined in the Tenant Work Permit application.
5. The signage inventory database will be updated by the CRAA Planning & Engineering Division.

For questions regarding the Work Permit Program, contact the Work Permit Program Manager (Kitty Daehnke) at 614-238-7814.

Index

11.1 *Under development*



COLUMBUS
REGIONAL AIRPORT AUTHORITY