Date:  June 25, 2013

Re:  San Diego International Airport Concessions Program
     Concession Blade Sign Standards

Attached are the updated documents for the fabrication and installation of the blade signs that will be installed at the Airport for the new Concessions Development Program.

Included in these documents is the following information:

✓  Airport Concession Blade Sign Plan
✓  Updated Concessions Blade Sign Program Designs (correction of sign depth)
✓  Standards for the Concession Blade Signs
✓  Shop drawings of the basic Concession Blade Signs
✓  NEW-Terminal 1 Blade Sign locations
✓  NEW-Terminal 2 East Blade Sign locations
✓  NEW-Terminal 2 West Blade Sign location
Airport Concessions Blade Sign Map
Concessions Blade Sign Program Design
San Diego International Airport Concessions Program

Concession Blade Signs

System Overview:

PART 1 - MOUNTING BRACKETS (M)
Use based upon architectural conditions.

M1 - Mounting Bracket
Universal wall and column mounting bracket to be used in all Terminals.

M2 - Mounting Bracket
Special conditions column mounting bracket to be used on stainless steel column covers with reveals and center fins, located in Terminal 2 West.

M3 - Mounting Bracket
Ceiling mounted bracket to be used in all Terminals.

PART 2 - IDENTIFICATION SIGNS (S)
Shape based upon concession branding. Size based upon architectural conditions. Attaches to mounting bracket.

S1 - Circular Identification Sign
Internally illuminated identification sign with three size options. Size to be determined based upon where the sign is located within the Terminals.

S2 - Oval Identification Sign
Internally illuminated identification sign with three size options. Size to be determined based upon where the sign is located within the Terminals.

S3 - Square Identification Sign
Internally illuminated identification sign with three size options. Size to be determined based upon where the sign is located within the Terminals.

S4 - Rectangular Identification Sign
Internally illuminated identification sign with three size options. Size to be determined based upon where the sign is located within the Terminals.

Identification Sign Face Fabrication

Identification Sign Face Examples

Approach and Objectives

The San Diego County Regional Airport Authority (SDCRAA) has standardized the concession blade signage program for its Tenants. These standards consist of design requirements and specifications which provide specific sizes, materials, performance criteria and locations for which the Tenant is responsible to implement.

This program includes standard mounting brackets (M) of which there are three sizes, each specific to its application as they vary depending upon where the blade sign is located in each terminal.

Mounted to the bracket will be an internally illuminated identification sign (I). Four standard shapes are available to the Tenant. Tenants are allowed to select the shape that best coordinates with their brand identity.

These standards achieve two primary goals: the first goal is to ensure that all blade signs present a cohesive and consistent look throughout the terminals; the second goal is to allow the Tenant full flexibility in projecting their image - branding message.

The Tenant is responsible for procuring and installing its blade sign in coordination with SDCRAA. This document makes reference to the signage being ‘properly’ installed. This term is used to generally address that all code requirements shall be met by jurisdictions having authority.
Concessions Program

The M1 mounting bracket shall be properly, safely, and securely installed onto the reinforced concession columns or walls surrounding the concession openings. The blade sign shall always be perpendicular to the terminal corridor. The M1 mounting bracket shall support the internally illuminated identification sign (S1).

<table>
<thead>
<tr>
<th>M1 - Mounting Bracket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wall or Column Mounted</td>
</tr>
</tbody>
</table>

1. **Circular Concession Blade Signs**
   - **Sign Types:** Sign Type S1.12, S1.18, S1.24
   - **Shape:** Circular shape
   - **Size:** Three standard heights: 12", 18", and 24".
   - **Illumination:** Internally illuminated by concealed LEDs.

2. **Concessions Column / Wall**
   - Coordinate the mounting for the concessions blade signs with the wall materials and conditions at each installation location.

3. **M1 - Mounting Bracket**
   - The M1 mounting bracket shall be properly, safely, and securely installed onto the reinforced concession columns or walls surrounding the concession openings. The blade sign shall always be perpendicular to the terminal corridor. The M1 mounting bracket shall support the internally illuminated identification sign (S1).

4. **S1 - Circular Identification Signs**
   - **Sign Types:** Sign Type S1.12, S1.18, S1.24
   - **Shape:** Circular shape
   - **Size:** Three standard heights: 12", 18", and 24".
   - **Illumination:** Internally illuminated by concealed LEDs.

5. **Concessions Column / Wall**
   - Coordinate the mounting for the concessions blade signs with the wall materials and conditions at each installation location.

6. **M1 - Mounting Bracket**
   - The M1 mounting bracket shall be properly, safely, and securely installed onto the reinforced concession columns or walls surrounding the concession openings. The blade sign shall always be perpendicular to the terminal corridor. The M1 mounting bracket shall support the internally illuminated identification sign (S1).

7. **S2 - Oval Identification Signs**
   - **Sign Types:** Sign Type S2.12, S2.18, S2.24
   - **Shape:** Oval shape
   - **Size:** Depending on the location, one of three standard heights: 12", 18", and 24".
   - **Illumination:** Internally illuminated by concealed LEDs.

8. **Concessions Column / Wall**
   - Coordinate the mounting for the concessions blade signs with the wall materials and conditions at each installation location.

9. **M1 - Mounting Bracket**
   - The M1 mounting bracket shall be properly, safely, and securely installed onto the reinforced concession columns or walls surrounding the concession openings. The blade sign shall always be perpendicular to the terminal corridor. The M1 mounting bracket shall support the internally illuminated identification sign (S1).

10. **S3 - Square Identification Signs**
    - **Sign Types:** Sign Type S3.12, S3.18, S3.24
    - **Shape:** Square shape
    - **Size:** Depending on the location, one of three standard heights: 12", 18", and 24".
    - **Illumination:** Internally illuminated by concealed LEDs.

11. **Concessions Column / Wall**
    - Coordinate the mounting for the concessions blade signs with the wall materials and conditions at each installation location.

12. **M1 - Mounting Bracket**
    - The M1 mounting bracket shall be properly, safely, and securely installed onto the reinforced concession columns or walls surrounding the concession openings. The blade sign shall always be perpendicular to the terminal corridor. The M1 mounting bracket shall support the internally illuminated identification sign (S1).

13. **S4 - Rectangular Identification Signs**
    - **Sign Types:** Sign Type S4.12, S4.18, S4.24
    - **Shape:** Rectangular shape
    - **Size:** Depending on the location, one of three standard heights: 12", 18", and 24".
    - **Illumination:** Internally illuminated by concealed LEDs.

14. **Concessions Column / Wall**
    - Coordinate the mounting for the concessions blade signs with the wall materials and conditions at each installation location.

15. **M1 - Mounting Bracket**
    - The M1 mounting bracket shall be properly, safely, and securely installed onto the reinforced concession columns or walls surrounding the concession openings. The blade sign shall always be perpendicular to the terminal corridor. The M1 mounting bracket shall support the internally illuminated identification sign (S1).

16. **S5 - Square / Rectangular Identification Signs**
    - **Sign Types:** Sign Type S5.12, S5.18, S5.24
    - **Shape:** Square or rectangular shape
    - **Size:** Depending on the location, one of three standard heights: 12", 18", and 24".
    - **Illumination:** Internally illuminated by concealed LEDs.

17. **Concessions Column / Wall**
    - Coordinate the mounting for the concessions blade signs with the wall materials and conditions at each installation location.
San Diego International Airport Concessions Program

Concession Blade Signs

M1 - Mounting Bracket Universal Wall and Column Mounting

1. **M1 - Mounting Bracket**
   Fabricated stainless steel bracket. All visible components shall have a brushed finish, horizontal grain. The bracket shall be properly, safely, and securely mounted to the reinforced concession columns or walls surrounding the concession openings using appropriate concealed anchors and hardware. The M1 mounting bracket shall properly, safely, and securely support an identification sign (S). Power shall be routed through the mounting bracket to the identification sign. Coordinate the fabrication of the identification signs with the M1 mounting bracket. The M1 mounting bracket shall be fabricated so that the identification signs can be easily removed and replaced.

2. **Identification Sign (S)**
   Internally illuminated identification sign.

3. **Concessions Column / Wall**
   Coordinate the mounting for the concessions blade signs with the wall materials and conditions at each installation location.

See the Specifications for additional information and requirements.
M1 - Mounting Bracket Fabrication

1. **M1 - Mounting Bracket**
   - Fabricated stainless steel mounting bracket for wall or column mounted blade signs. All visible surfaces shall have a brushed finish, horizontal grain. Coordinate the fabrication of identification sign (S) with the mounting bracket so that any identification sign can be mounted to any M1 - mounting bracket. Mounting bracket shall safely, securely, and properly support wall or column mounted blade signs in a variety of locations.

2. **Visible Stainless Steel Bolts**
   - Provide all hardware required to properly, safely, and securely attach the identification sign (S) to the mounting bracket (M1).

3. **Concealed Electrical Supply**
   - Power for the blade signs shall be brought to the sign locations by the concessions tenant. Route power to the identification sign (S) through the mounting bracket (M1). No conduit shall be visible.

4. **Identification Sign (S)**
   - Internally illuminated fabricated aluminum, double-sided signs with stainless steel mounting arms.

5. **Mounting Hardware**
   - Provide all hardware required to properly, safely, and securely mount the M1 - mounting bracket. The mounting hardware shall meet all applicable code requirements, including all applicable requirements for additional seismic bracing.

6. **Concealed Additional Structural Elements**
   - Provide additional structural elements, behind the finished wall or column surface, as required to safely, securely, and properly support the blade signs. Structural elements must be concealed. Coordinate the structural elements with the wall or column materials and construction. Maintain all wall and column warranties and fire resistance ratings. If required, restore finished wall or column surfaces to match the surrounding area.

7. **Finished Concessions Column / Wall**
   - Verify the wall finishes, materials, dimensions, and conditions at each installation location on site. Coordinate the blade sign fabrication and installation with the wall or column conditions, materials, and dimensions at each installation location. See the Specifications for additional information and requirements.
San Diego International Airport Concessions Program

Concession Blade Signs

Identification Sign with M1 - Mounting Bracket

1 Identification Sign (S)

Internally illuminated, double-sided, fabricated identification sign (S). The identification sign shall display the concession tenant’s identity. The identification sign (S) shall be fabricated so that it can be removed from the mounting bracket (M1) without removing the mounting bracket, damaging the identification sign or the mounting bracket, or damaging the wall or column surface onto which the sign is mounted.

Typical wall or column mounted identification signs can be produced in one of four shapes: circular (S1), oval (S2), square (S3), or rectangular (S4). There are three overall heights for identification signs: 12”, 18”, and 24”. The different S designations provide information about the sign size and shape.

2 M1 - Mounting Bracket

Fabricated stainless steel bracket. Coordinate the fabrication of the identification signs (S) with the mounting bracket (M1) so that the identification signs are removable. The mounting bracket (M1) shall be fabricated so that the identification signs (S) can be easily removed and replaced.

3 Concessions Column / Wall

Coordinate the mounting for the concessions blade signs with the wall or column materials and conditions at each installation location.

See the Specifications for additional information and requirements.
Identification Sign Fabrication Details
Front Elevation shown with S4 Sign Face
with M1 - Mounting Bracket
Wall or Column Mounted
Scale: 3" = 1'-0"

Identification Sign Fabrication Details
Side Elevation
with M1 - Mounting Bracket
Wall or Column Mounted
Scale: 3" = 1'-0"

 Identification Sign (S) - Fabrication Details with M1 - Mounting Bracket

1. Identification Sign (S)
   The identification sign (S) shall consist of a fabricated aluminum sign with painted returns and a fabricated stainless steel mounting arm with a brushed finish. Signs shall be internally illuminated and double-sided. Sign faces and graphics shall be produced using the push-through content method outlined in this document. Provide concealed internal LED illumination. Interiors of the signs shall be painted gloss white. Provide concealed, vandal-resistant access to the interiors of the signs for maintenance. No hardware shall be visible on the sign faces. The identification sign (S) shall be removable.

2. Concealed Internal Framing
   Provide concealed internal framing as required for the signs to be rigid and structurally sound. The internal framing shall not interfere with the sign face graphics or the internal illumination.

3. Concealed Internal LED Illumination
   Provide concealed internal LED illumination as required to properly and evenly illuminate the sign face graphics.

4. Concealed Electrical Power Supply
   Power will be brought to the sign locations by the concession tenant. Route power from the building to the identification sign through the M1 mounting bracket. No conduit shall be visible.

5. Stainless Steel Mounting Arm
   The identification sign (S) shall include a fabricated stainless steel mounting arm. All visible surfaces of the mounting arm shall have a brushed finish, horizontal grain. The fabricated aluminum sign shall be securely attached to, and properly supported in the correct position by, the mounting arm. The mounting arm shall fit into, and securely be held in position by, the M1 mounting bracket.

6. M1 - Mounting Bracket
   Provide concealed internal framing and mounting components as required to properly, safely, and securely mount the identification sign to the M1 - mounting bracket. The mounting components shall allow the identification sign (S) to be removed from the mounting bracket without damaging the sign or the mounting.

See the Specifications for additional information and requirements.
Circular Concession Blade Signs

1 M2 - Mounting Bracket
   The M2 mounting bracket shall be properly, safely, and securely installed onto the stainless steel column cover adjacent to the concessions openings. The blade sign shall always be perpendicular to the terminal corridor. The M2 mounting bracket shall support the internally illuminated identification sign (S1).

2 S1 - Circular Identification Signs
   Sign Types: Sign Type S1.12
   Sign Type S1.18
   Sign Type S1.24

   The circular S1 identification sign shall display the concession tenant's identity. S1 shall be fabricated so that it can be removed from the M2 mounting bracket and replaced without removing the mounting bracket, damaging the mounting bracket, or damaging the stainless steel reveal channel with center fin onto which M2 is mounted. The S1 identification sign shall be a circular shape, and, depending on the location, one of three standard heights: 12”, 18”, and 24”. S1 shall be internally illuminated by concealed LEDs.

3 Stainless Steel Column Cover
   Coordinate the mounting for the concessions blade signs with the stainless steel column covers with reveal channels and center fins, for installation locations in Terminal 2 West.

Oval Concession Blade Signs

1 M2 - Mounting Bracket
   The M2 mounting bracket shall be properly, safely, and securely installed onto the stainless steel column cover adjacent to the concessions openings. The blade sign shall always be perpendicular to the terminal corridor. The M2 mounting bracket shall support the internally illuminated identification sign (S2).

2 S2 - Oval Identification Signs
   Sign Types: Sign Type S2.12
   Sign Type S2.18
   Sign Type S2.24

   The oval S2 identification sign shall display the concession tenant's identity. S2 shall be fabricated so that it can be removed from the M2 mounting bracket and replaced without removing the mounting bracket, damaging the mounting bracket, or damaging the stainless steel reveal channel with center fin onto which M2 is mounted. The S2 identification sign shall be an oval shape, and, depending on the location, one of three standard heights: 12”, 18”, and 24”. S2 shall be internally illuminated by concealed LEDs.

3 Stainless Steel Column Cover
   Coordinate the mounting for the concessions blade signs with the stainless steel column covers with reveal channels and center fins, for installation locations in Terminal 2 West.

Square / Rectangular Concession Blade Signs

1 M2 - Mounting Bracket
   The M2 mounting bracket shall be properly, safely, and securely installed onto the stainless steel column cover adjacent to the concessions openings. The blade sign shall always be perpendicular to the terminal corridor. The M2 mounting bracket shall support the internally illuminated identification sign (S3/S4).

2 S3 - Square Identification Signs
   Sign Type S3.12
   Sign Type S3.18
   Sign Type S3.24

   The square S3 or rectangular S4 identification sign shall display the concession tenant's identity. S3 / S4 shall be fabricated so that it can be removed from the M2 mounting bracket and replaced without removing the mounting bracket, damaging the mounting bracket, or damaging the stainless steel reveal channel with center fin onto which M2 is mounted. The S3 / S4 identification sign shall be a square / rectangular shape, and, depending on the location, one of three standard heights: 12", 18", and 24”. S3 / S4 shall be internally illuminated by concealed LEDs.

3 Stainless Steel Column Cover
   Coordinate the mounting for the concessions blade signs with the stainless steel column covers with reveal channels and center fins, for installation locations in Terminal 2 West.
Concession Blade Signs

M2 - Mounting Bracket
Mounting to Column Covers in Terminal 2 West

1. **M2 - Mounting Bracket**
   - Fabricated stainless steel bracket. All visible components shall have a brushed finish, horizontal grain. The bracket shall be properly, safely, and securely mounted to the stainless steel column covers with center fins in Terminal 2 West using appropriate hardware. The M2 mounting bracket shall properly, safely, and securely support an identification sign. The power to the sign shall come from the ceiling and be discretely surface mounted into the column reveal, adjacent to the stainless steel fin. Coordinate the fabrication of the identification signs with the M2 mounting bracket. The M2 mounting bracket shall be fabricated so that the identification signs can be easily removed and replaced.

2. **Identification Sign (S)**
   - Internally illuminated identification sign.

3. **Stainless Steel Column Cover**
   - Coordinate the mounting for the concessions blade signs with the column cover materials, reveal depth, fin depth, and conditions at each installation location.

See the Specifications for additional information and requirements.
Concession Blade Sign
Design Intent Documentation

M2 - Mounting Bracket Fabrication

1. Mounting Bracket
   Fabricated stainless steel mounting bracket for mounting blade signs to stainless steel column covers having reveals with center fins in Terminal 2 West. All visible surfaces shall have a brushed finish, horizontal grain. Coordinate the fabrication of identification sign (S) with the mounting bracket so that any identification sign can be mounted to any M2 - mounting bracket. Mounting bracket (M2) shall safely, securely, and properly support wall or column mounted blade signs in a variety of locations.

2. Visible Stainless Steel Bolts
   Provide all hardware required to properly, safely, and securely attach the identification sign (S) to the mounting bracket (M2). Provide all hardware required to properly, safely, and securely mount the M2 - mounting bracket. The mounting hardware shall meet all applicable code requirements, including all applicable requirements for additional seismic bracing.

3. Electrical Supply
   Power for the blade signs shall be brought to the sign locations by the concession tenant. Route power to the mounting bracket (M2) from the ceiling, within the stainless steel reveal and adjacent to the fin. Conduit shall be discretely installed and painted to match the color of the stainless steel column cover. Route power to the identification sign (S) through the mounting bracket (M2).

4. Identification Sign (S)
   Internally illuminated fabricated aluminum, double-sided signs with stainless steel mounting arms.

5. Concealed Internal Framing
   Provide concealed internal framing as required for the signs to be rigid and structurally sound.

6. Finished Concessions Column
   Verify the finishes, materials, dimensions, and conditions at each installation location on site. Coordinate the blade sign fabrication and installation with the column cover conditions, dimensions and materials at each installation location. Maintain all column warranties and fire resistance ratings. If required, restore finished column surfaces to match the surrounding area.

   See the Specifications for additional information and requirements.
Concession Blade Signs
Identification Sign with M2 - Mounting Bracket

1. Identification Sign (S)
   Internally illuminated, double-sided, fabricated identification sign (S). The identification sign shall display the concession tenant’s identity. The identification sign (S) shall be fabricated so that it can be removed from the mounting bracket (M2) without removing the mounting bracket, damaging the identification sign or the mounting bracket, or damaging the wall or column surface onto which the sign is mounted.

Typical wall or column mounted identification signs can be produced in one of four shapes: circular (S1), oval (S2), square (S3), or rectangular (S4). There are three overall heights for identification signs: 12”, 18”, and 24”. The different S designations provide information about the sign size and shape.

2. M2 - Mounting Bracket
   Fabricated stainless steel bracket. Coordinate the fabrication of the identification signs (S) with the mounting bracket (M2) so that the identification signs are removable. The mounting bracket (M2) shall be fabricated so that the identification signs (S) can be easily removed and replaced.

3. Column Cover
   Coordinate the mounting for the concessions blade signs with the column cover materials, dimensions and conditions at each installation location.

See the Specifications for additional information and requirements.
Identification Sign (S) – Fabrication Details with M2 - Mounting Bracket

**Identification Sign (S)**

- The identification sign (S) shall consist of a fabricated aluminum sign with painted returns and a fabricated stainless steel mounting arm with a brushed finish.
- Signs shall be internally illuminated and double-sided.
- Sign faces and graphics shall be produced using the push-through content method outlined in this document.
- Provide concealed internal LED illumination. Interiors of the signs shall be painted gloss white. Provide concealed, vandal-resistant access to the interiors of the signs for maintenance. No hardware shall be visible on the sign faces. The identification sign (S) shall be removable.

**Concealed Internal Framing**

Provide concealed internal framing as required for the signs to be rigid and structurally sound. The internal framing shall not interfere with the sign face graphics or the internal illumination.

**Concealed Internal LED Illumination**

Provide concealed internal LED illumination as required to properly and evenly illuminate the sign face graphics.

**Concealed Electrical Power Supply**

Power will be brought to the sign location by concession tenant. Route power from the building to the identification sign through the M2 mounting bracket. Visible conduit will be permitted for this M2 - mounting bracket.

**Stainless Steel Mounting Arm**

The identification sign (S) shall include a fabricated stainless steel mounting arm. All visible surfaces of the mounting arm shall have a brushed finish, horizontal grain. The fabricated aluminum sign shall be securely attached to, and properly supported in the correct position by, the mounting arm. The mounting arm shall fit into, and securely be held in position by, the M2 mounting bracket.

**M2 - Mounting Bracket**

Provide concealed internal framing and mounting components as required to properly, safely, and securely mount the identification sign (S) to the M2 - mounting bracket. The mounting components shall allow the identification sign (S) to be removed from the mounting bracket without damaging the sign or the mounting.

See the Specifications for additional information and requirements.
Circular Concession Blade Signs - Ceiling Mounted

- **M3 - Mounting Bracket**
  - The M3 mounting bracket shall be properly, safely, and securely installed onto the terminal ceiling adjacent to the concession openings. The blade sign shall always be perpendicular to the terminal corridor. The M3 mounting bracket shall support the internally illuminated identification sign (S1C).

- **S1C - Circular Identification Signs - Ceiling Mounted**
  - The circular S1C identification sign shall display the concession tenant’s identity. S1C shall be fabricated so that it can be removed from the M3 mounting bracket and replaced without removing the mounting bracket, damaging the ceiling onto which M3 is mounted. The S1C identification sign shall be a circular shape, and, depending on the location, one of two standard heights. S1C shall be internally illuminated by concealed LEDs.

- **Ceiling**
  - Coordinate the mounting for the concessions blade signs with the ceiling materials and conditions at each installation location.

Oval Concession Blade Signs - Ceiling Mounted

- **M3 - Mounting Bracket**
  - The M3 mounting bracket shall be properly, safely, and securely installed onto the terminal ceiling adjacent to the concession openings. The blade sign shall always be perpendicular to the terminal corridor. The M3 mounting bracket shall support the internally illuminated identification sign (S2C).

- **S2C - Oval Identification Signs - Ceiling Mounted**
  - The oval S2C identification sign shall display the concession tenant’s identity. S2C shall be fabricated so that it can be removed from the M3 mounting bracket and replaced without removing the mounting bracket, damaging the mounting bracket, or damaging the ceiling onto which M3 is mounted. The S2C identification sign shall be an oval shape, and, depending on the location, one of two standard heights. S2C shall be internally illuminated by concealed LEDs.

- **Ceiling**
  - Coordinate the mounting for the concessions blade signs with the ceiling materials and conditions at each installation location.

Square / Rectangular Concession Blade Signs - Ceiling Mounted

- **M3 - Mounting Bracket**
  - The M3 mounting bracket shall be properly, safely, and securely installed onto the terminal ceiling adjacent to the concession openings. The blade sign shall always be perpendicular to the terminal corridor. The M3 mounting bracket shall support the internally illuminated identification sign (S3C / S4C).

- **S3C / S4C - Rectangular Identification Signs - Ceiling Mounted**
  - The square S3C or rectangular S4C identification sign shall display the concession tenant’s identity. S3C / S4C shall be fabricated so that it can be removed from the M3 mounting bracket and replaced without removing the mounting bracket, damaging the mounting bracket, or damaging the ceiling onto which M3 is mounted. The S3C / S4C identification sign shall be a square / rectangular shape, and, depending on the location, one of two standard heights.

- **Ceiling**
  - Coordinate the mounting for the concessions blade signs with the ceiling materials and conditions at each installation location.
San Diego International Airport
Concessions Program

Concession Blade Signs

M3 - Mounting Bracket
Ceiling Mounting

1. M3 - Mounting Bracket
   Fabricated stainless steel bracket. All visible components shall have a brushed finish, horizontal grain. The bracket shall be properly, safely, and securely mounted to ceilings near concession openings using appropriate concealed anchors and hardware. The M3 mounting bracket shall properly, safely, and securely support a ceiling mounted identification sign (S). Power shall be routed through the mounting bracket to the identification sign. Coordinate the fabrication of the identification signs with the M3 mounting bracket. The M3 mounting bracket shall be fabricated so that the identification signs can be easily removed and replaced.

2. Ceiling Mounted Identification Sign (S)
   Internally illuminated identification sign.

3. Ceiling
   Coordinate the mounting for the concessions signs with the ceiling materials and conditions at each installation location.

See the Specifications for additional information and requirements.
Concession Blade Sign Design Intent Documentation

M3 - Mounting Bracket Fabrication

1. **M3 - Mounting Bracket**
   Fabricated stainless steel mounting bracket for ceiling mounted blade signs. All visible surfaces shall have a brushed finish, horizontal grain. Coordinate the fabrication of the ceiling mounted identification sign (S) with the mounting bracket. Mounting bracket (M3) shall safely, securely, and properly support ceiling mounted blade signs in a variety of locations.

2. **Visible Stainless Steel Bolts**
   Provide all hardware required to properly, safely, and securely attach the identification sign (S) to the mounting bracket (M3).

3. **Concealed Electrical Supply**
   Power for the blade signs shall be brought to the sign locations by the concession tenant. Route power to the ceiling mounted identification sign (S) through the mounting bracket (M3). No conduit shall be visible.

4. **Ceiling Mounted Identification Sign (S)**
   Internally illuminated fabricated aluminum, double-sided signs with stainless steel mounting arms.

5. **Mounting Hardware**
   Provide all hardware required to properly, safely, and securely mount the M3 - mounting bracket. The mounting hardware shall meet all applicable code requirements, including all applicable requirements for additional seismic bracing.

6. **Concealed Additional Structural Elements**
   Provide additional structural elements, behind the ceiling surface, as required to safely, securely, and properly support the blade signs. Structural elements must be concealed. Coordinate the structural elements with the ceiling materials and construction. Maintain all ceiling warranties and fire resistance ratings. If required, restore finished ceiling surfaces to match the surrounding area.

7. **Finished Ceiling**
   Verify the ceiling finishes, materials, dimensions, and conditions at each installation location on site. Coordinate the blade sign fabrication and installation with the ceiling conditions, materials, and dimensions at each installation location.

See the Specifications for additional information and requirements.
San Diego International Airport
Concessions Program

Identification Sign with M3 - Mounting Bracket

Ceiling Mounted Identification Sign (S)

Ceiling mounted, internally illuminated, double-sided, fabricated identification sign (S). The ceiling mounted identification sign shall display the concession tenant’s identity. The identification sign (S) shall be fabricated so that it can be removed from the mounting bracket (M3) without removing the mounting bracket, damaging the identification sign or the mounting bracket, or damaging the ceiling surface onto which the sign is mounted.

Typical ceiling mounted identification signs can be produced in one of four shapes: circular (S1C), oval (S2C), square (S3C), or rectangular (S4C). There are two overall heights for ceiling mounted identification signs: 12” and 18”. The different S designations provide information about the sign size and shape. The C designation indicates the sign is ceiling mounted.

M3 - Mounting Bracket

Fabricated stainless steel bracket. Coordinate the fabrication of the identification signs (S) with the mounting bracket (M3) so that the identification signs are removable. The mounting bracket (M3) shall be fabricated so that the identification sign (S) can be easily removed or replaced.

Ceiling

Coordinate the mounting for the concessions blade signs with the ceiling materials and conditions at each installation location.

See the Specifications for additional information and requirements.
Identification Sign Fabrication Details
Front Elevation shown with S4C Sign Face
with M3 - Mounting Bracket
Ceiling Mounted
Scale: 3” = 1’-0”

Identification Sign Fabrication Details
Top Elevation
with M3 - Mounting Bracket
Ceiling Mounted
Scale: 3” = 1’-0”

Identification Sign Fabrication Details
S1C, S2C, S3C, S4C with 12”, 18” Sign Faces
with M3 - Mounting Bracket
Ceiling Mounted

San Diego International Airport
Concessions Program

Concession Blade Sign
Design Intent Documentation

Identification Sign (S) – Fabrication with M3 - Mounting Bracket

1 Ceiling Mounted Identification Sign (S)
The ceiling mounted identification sign (S) shall consist of a fabricated aluminum sign with painted returns and a fabricated stainless steel mounting arm with a brushed finish. Signs shall be internally illuminated and double-sided. Sign faces and graphics shall be produced using the push-through content method outlined in this document. Provide concealed internal LED illumination. Interiors of the signs shall be painted gloss white. Provide concealed, vandal-resistant access to the interiors of the signs for maintenance. No hardware shall be visible on the sign faces. The ceiling mounted identification sign (S) shall be removable.

2 Concealed Internal Framing
Provide concealed internal framing as required for the signs to be rigid and structurally sound. The internal framing shall not interfere with the sign face graphics or the internal illumination.

3 Concealed Internal LED Illumination
Provide concealed internal LED illumination as required to properly and evenly illuminate the sign face graphics.

4 Concealed Electrical Power Supply
Power will be brought to the sign locations by the concession tenant. Route power from the building to the identification sign through the M3 mounting bracket. No conduit shall be visible.

5 Stainless Steel Mounting Arm
The identification sign (S) shall include a fabricated stainless steel mounting arm. All visible surfaces of the mounting arm shall have a brushed finish, horizontal grain. The fabricated aluminum sign shall be securely attached to, and properly supported in the correct position by, the mounting arm. The mounting arm shall fit into, and securely be held in position by, the M3 mounting bracket.

6 M3 - Mounting Bracket
Provide concealed internal framing and mounting components as required to properly, safely, and securely mount the identification sign to the M3 - mounting bracket. The mounting components shall allow the identification sign (S) to be removed from the mounting bracket without damaging the sign or the mounting.

See the Specifications for additional information and requirements.
Concessions Blade Sign - Sign Face Options

Identification Sign (S)
Sign Face Fabrication - Option 1
Push-through with dimensional depth
Scale: 3” = 1'-0"

Identification Sign (S)
Sign Face Fabrication - Option 2
Push-through with flush face
Scale: 3” = 1'-0"

San Diego International Airport
Concessions Program
Concession Blade Sign
Sign Face Fabrication

1 Push-through Graphics
Sign face graphics shall be produced using a painted aluminum sign face with translucent acrylic push-through graphics.

Push-through graphics may project from the sign face or may be flush to the sign face.

Internal illumination shall be provided by LED sign lighting.

2 Aluminium Sign Face
Sign face shall be seamless. The sign face shall be frameless. Sign face shall be opaque except where there are push-through graphics.

See the Specifications for additional information and requirements.
**Concessions Blade Sign Examples Incorporating Branded Identities**

1. **Blade Sign Examples Incorporating Shop Identities**

   Scale: 3/4" = 1'-0"

**San Diego International Airport Concessions Program**

**Concession Blade Sign**

**Concession Blade Signs Examples**

Shown are examples of how branded identities may be incorporated into the Concession Blade sign types.

The concession tenants will coordinate their sign fabrication with their branded identity. They will select one of the three sign shapes that best reflects the shape of their branded identity. Color selection will be based upon their branding, both for the opaque background color and the illuminated content color. The tenant will fabricate the sign face with illuminated push-through content.

The graphics shown are for reference only and are not for reproduction.

See the Specifications for additional information and requirements.
Concessions Blade Sign Standards
SECTION 6.7.1

CONCESSION BLADE SIGNS

PART 1 – GENERAL

1.1 The Work shown in the plans, elevations, sections, Specifications, or other drawings (the Drawings) provided is subject to the requirements of the Contract Documents including, but not limited to, the General Conditions, Special and Supplementary Conditions, Division 00 and Division 01 Specification Sections, and Requirements for Bidding, and Instructions for Bidders.

1.2 The Contract shall be governed by all applicable city, county, state, and federal laws, ordinances, rules, and regulations, and the laws, ordinances, rules, and regulations of any governing bodies, regulatory agencies, authorities, and any other entities having jurisdiction over the place where the Work is performed.

1.3 DEFINITIONS

A. Whenever used in this Section, the following terms shall have the following meanings:

1. **Concession Tenant**: The entity leasing space from San Diego International Airport.

2. **Owner**: The San Diego County Regional Airport Authority and its approved representatives.

3. **Signage Contractor**: The entity contracting for the concession blade signs. Work under this Section is the responsibility of the Signage Contractor and consists of furnishing everything necessary for and incidental to the execution and completion of the concession blade signs. All concession blade signs included in this Section shall be purchased from the Signage Contractor as a single source.

1.4 DESCRIPTION OF WORK

A. The Work shown in the Drawings shall be installed in various locations throughout the passenger terminals at San Diego International Airport in San Diego, California.

B. In addition to review and acceptance of Product Data and Shop Drawings, review and acceptance of all Color Samples, Material Samples, Sign Face Layouts, Mock-ups, and Proofs is required prior to fabrication.

C. The Signage Contractor shall obtain all the necessary licenses, permits, and permissions.

1. Prior to the start of fabrication, the Signage Contractor shall coordinate with the Owner and the Concession Tenant to identify all the governing bodies, regulatory agencies, authorities, and all other entities having jurisdiction over the locations where concession blade signs are to be installed.
2. The Signage Contractor shall work as directed by the Owner and the Concession Tenant to obtain all the necessary licenses, permits, and permissions from each of the governing bodies, regulatory agencies, authorities, and all other entities having jurisdiction over the locations where concession blade signs are to be installed.

3. Attend all required meetings and provide all the necessary fees, presentations, drawings, and any other documentation and submittals required to obtain any necessary licenses, permits, and approvals.

4. Provide written documentation to the Owner and the Concession Tenant verifying that all the required licenses, permits, and permissions have been properly obtained.

D. The Work is as shown in the attached Drawings and as specified herein and includes, but is not limited to, the following:

1. Provide complete drawings and details, fabrication, and installation of new interior concession blade signs, sign mounting brackets, sign frames and structures, sign mounting arms, sign cabinets, letters, faces, graphics, and components, including all engineering.

2. Provide Review Drawings, Shop Drawings, Record Drawings, and incidentals.

3. Provide all required Samples, Submittals, Proofs, and Mock-ups for review and acceptance by the Owner prior to procurement and/or fabrication.

4. Provide all the on-site observations, materials, equipment, tools, labor, and temporary light and power necessary for the installation of the new concession blade signs.

5. Provide all the materials, fasteners, hardware, adhesives, structures, brackets, blocking, miscellaneous steel, embed plates, and all other structural and mounting hardware necessary for the fabrication and installation of the concession blade signs.

6. Provide professional engineering for all concession blade signs. All concession blade sign structures, supports, mounting brackets, mounting components, frames, cabinets, mounting arms, mounting methods, mounting components and hardware, adhesives, embeds, and all other sign structural and mounting components shall be professionally engineered for structural adequacy. The signature and seal of a qualified professional structural engineer, licensed in the State of California, shall appear on the Shop Drawings.

7. Provide all required color, finish, material, and process matching for all the concession blade signs.

8. Assemble messages and prepare digital art and reproduction ready files as required. Provide all required digital file preparation.

9. Provide and install all required sign light fixtures, lamps, power supply units, ballasts, cables, conduit, wiring, and other electrical sign components. Provide the final electrical connections for the concession blade signs.

10. Restore finishes, surfaces and all other building conditions, finishes, and/or features that are affected by the installation of new concession blade signs.

11. Acquire all necessary reviews, licenses, permits, permissions, and approvals. Provide written documentation to the Owner verifying that all the required licenses, permits, and permissions have been properly obtained.
12. Provide all necessary safety barricades per the Concession Development Manual and any other applicable San Diego International Airport safety requirements.

E. Unless otherwise noted or specified, each concession blade sign shall consist of one mounting bracket (M) and one identification sign (S).

1. The mounting bracket and the identification sign may be fabricated and installed by different companies. The Signage Contractor shall coordinate with other entities that may be involved with fabrication of the concession blade signs. All mounting brackets and identification signs must be coordinated. Provide the Owner with information and documentation as required to demonstrate that Work for the concession blade signs shall be properly coordinated.

F. Mounting brackets (M) include the following types:

1. M1 Mounting Bracket
   a. Universal wall and column mounting bracket for use in all Terminals.

2. M2 Mounting Bracket
   a. Column mounting bracket to be used on stainless steel column reveals with center fins in Terminal 2 West.

3. M3 Mounting Bracket
   a. Ceiling mounting bracket for use in select locations in all Terminals.

G. Identification signs (S) include the following types:

1. S1 Circular Identification Sign
   a. Wall or column mounted internally illuminated identification sign with three size options. Size to be determined based upon where the sign is located within the Terminals.

2. S1C Circular Identification Sign – Ceiling Mounted
   a. Ceiling mounted internally illuminated identification sign with two size options. Size to be determined based upon where the sign is located within the Terminals.

3. S2 Oval Identification Sign
   a. Wall or column mounted internally illuminated identification sign with three size options. Size to be determined based upon where the sign is located within the Terminals.

4. S2C Oval Identification Sign – Ceiling Mounted
   a. Ceiling mounted internally illuminated identification sign with two size options. Size to be determined based upon where the sign is located within the Terminals.

5. S3 Square Identification Sign
   a. Wall or column mounted internally illuminated identification sign with three size options. Size to be determined based upon where the sign is located within the Terminals.

6. S3C Square Identification Sign – Ceiling Mounted
a. Ceiling mounted internally illuminated identification sign with two size options. Size to be determined based upon where the sign is located within the Terminals.

7. S4 Rectangular Identification Sign
   a. Wall or column mounted internally illuminated identification sign with three size options. Size to be determined based upon where the sign is located within the Terminals.

8. S4C Rectangular Identification Sign – Ceiling Mounted
   a. Ceiling mounted internally illuminated identification sign with two size options. Size to be determined based upon where the sign is located within the Terminals.

1.5 REFERENCE STANDARDS

A. Where more stringent requirements than those described in the Drawings and the Specifications are set forth under codes, laws, rules, regulations, and ordinances of federal, state, county, and any local governing bodies, regulatory agencies, authorities, and any other entities having jurisdiction, notify the Owner in writing before proceeding with Work. Work is subject to the applicable portions of the following standards:

1. All Work shall comply with the laws, codes, ordinances, guidelines, rules, regulations and requirements of the United States, the State of California, San Diego County, the City of San Diego, the San Diego County Regional Airport Authority, and any other federal, state, or local governing body having jurisdiction.

2. Electrical materials, equipment and installation thereof shall conform to all applicable electrical codes and standards including, but not limited to, the City of San Diego Electrical Code, the National Electrical Code, the standards of the National Electrical Manufacturers Association (NEMA) and of the Underwriters’ Laboratories (UL). Where a UL standard is unavailable, the equipment supplied for the project shall be UL listed and shall bear the UL label.

3. AWS D1.1 “Structural Welding Code,” American Welding Society

4. SSPC SP-6 “Surface Preparation Specification No. 6, Commercial Blast Cleaning,” Steel Structures Painting Council

5. SSPC PA-1 “Painting Application Specifications,” Steel Structure Painting Council


7. “Code of Standard Practice of Steel Buildings and Bridges,” AISC


9. All applicable American Society for Testing and Materials (ASTM) standards including, but not limited to:
e. ASTM E1164 – “Standard Practice for Obtaining Spectrophotometric Data for Object Color Evaluation”
f. ASTM E308 – “Standard Method for Computing the Colors of Objects by Using the CIE System”
g. ASTM E284 – “Standard Definition of Terms Relating to Appearance of Materials”

10. “Specifications for Assembly of Structural Joints Using High-Strength Steel Bolts,” as approved by the Research Council on Riveted and Bolted Structural Joints of the Engineering Foundation


13. All signage to comply with all applicable specifications, guidelines, regulations, and requirements of the Americans with Disabilities Act (ADA), the 2010 ADA Standards for Accessible Design, and applicable State of California accessibility laws and regulations.

14. All applicable rules and regulations of the Occupational Safety and Health Administration (OSHA).


16. All applicable standards of the American National Standards Institute (ANSI).

17. All applicable rules, regulations, and requirements of the U.S. Department of Transportation, the Federal Aviation Administration, the U.S. Department of Homeland Security, and the Transportation Security Administration.

1.6 INTENT OF PLANS AND SPECIFICATIONS

A. The Signage Contractor may not manufacture, reproduce or exhibit the Drawings, or modify them for any other purpose outside of this current Contract, without written approval of the Owner.

B. The intent of the Drawings is to prescribe the outline of Work that the Signage Contractor undertakes to do in full compliance with the Contract. The Signage Contractor shall do all Work provided in the Contract and such additional, extra, collateral, and incidental Work as may be necessary to complete the Work in an acceptable and timely manner.

C. Notify the Owner and the Concession Tenant in writing of discrepancies in the Drawings, in field dimensions, and in field conditions. Notify the Owner and the Concession Tenant in writing of changes required in any aspect of the fabrication and installation of the concession blade signs.

D. The Drawings show design intent only and are not intended to cover every detail of materials, parts, fabrication, construction, mounting, and installation. Furnish all required on-site reviews, inspections, engineering, materials, parts, fabrication, finishing, construction, mounting, and installation necessary to complete the entire
Work in compliance with the design intent, whether or not said details are shown or specified, at no additional cost to the Concession Tenant or the Owner.

E. Concession Blade Sign Locations

1. The final locations for the concession blade signs shall be established on-site by the Signage Contractor, the Owner, and the Concession Tenant.
2. The final locations for the concession blade signs shall be shown in the Shop Drawings. Prior to installation, the final locations for the concession blade signs shall be verified by the Signage Contractor.
3. The Signage Contractor shall obtain all the necessary reviews for the concession blade sign locations. Signs installed in locations that have not been established with, and reviewed and accepted by, the Owner, may need to be removed and reinstalled in new locations determined by the Owner. The Signage Contractor shall provide all repairs required to restore surfaces affected by the installation or the removal of improperly placed signs to like new appearance. Work for relocating such signs and completing required repairs shall be completed at no cost to the Owner.

F. The concession blade signs shown in the Drawings are for reference only and are not for reproduction. The graphics to be reproduced on the concession blade signs shall be provided by the Concession Tenant.

1.7 PROJECT/SITE CONDITIONS

A. Provide all on-site inspections and reviews required to properly, safely, and securely install the concession blade signs.

B. Prior to the start of any fabrication, examine the conditions at each of the concession blade sign locations on-site.

1. Examine the overall site conditions.
2. Verify the site dimensions at each of the concession blade sign installation locations.
3. Verify the site conditions at and around each of the concession blade sign installation locations. Verify that the concession blade signs will be able to be installed as required, fit correctly, and function properly. Verify the concession blade signs will be able to be installed and mounted properly, safely, and securely.
4. Identify and document conditions at the installation locations that would prevent the concession blade signs from being properly, safely, and securely installed, or that will have an effect on the appearance or design intent of the concession blade signs, prevent proper execution of the Work, or jeopardize its permanency. Provide the documentation to the Owner and the Concession Tenant.
5. Work on the concession blade signs shall not proceed until such documented conditions are resolved, corrected, or adjusted, and the Owner provides written notice to continue with the Work.
C. Prior to the start of fabrication, provide the Owner and the Concession Tenant with written notice of locations where the concession blade sign dimensions, or the design intent for the concession sign mounting materials, components, and methods, do not coordinate with the site dimensions or conditions.

1. Coordinate the size, placement, and mounting of all the concession blade signs with the site conditions and to reflect the design intent shown in the Drawings.
2. Provide the Owner and the Concession Tenant with documentation showing the on-site dimensions and conditions.
3. The Owner may adjust the sign sizes, layouts, or the mounting design intent from what is shown in the Drawings to coordinate with the on-site dimensions or conditions.
4. Do not proceed with fabrication of concession blade signs requiring changes or adjustments to coordinate with on-site dimensions or conditions until directed to do so by the Owner.
5. Coordinate concession blade sign production to allow the Owner a minimum of fifteen (15) working days to make the changes or adjustments to the concession blade sign sizes, layouts, or design intent that may be required to coordinate with the on-site dimensions or conditions.

D. Verify on-site conditions at the start of the Work and during the course of the Work as needed to understand the site conditions during all phases of the Project and to confirm the concession blade signs will be coordinated with changes to the site conditions that may occur during the course of the Work.

E. Include on-site dimensions in the Shop Drawings.

F. Obtain measurements at the site and not from the Drawings for correct lengths for concession blade sign supports and other items that must be accurately fitted. Coordinate the sign fabrication with the site conditions. Design (subject to review by the Owner), engineer, fabricate, and install concession blade sign supports, structures, and attachments. The Signage Contractor will be responsible for the engineering, accuracy of measurements, and the precise fitting and assembly of the finished products. Written dimensions on Drawings shall have precedence over scaled dimensions. Modifications to written dimensions shall be made only when accepted in writing by the Owner.

1.8 COORDINATION

A. Before the start of the Work, verify the overall Project Schedule with the Owner and the Concession Tenant. Coordinate the concession blade sign fabrication, installation, and all other Work for the concession blade signs with the overall Project Schedule. Provide the Owner and the Concession Tenant with complete schedule information for the fabrication, installation, and all other Work for the concession blade signs. At a minimum, indicate dates for the review of on-site conditions, Mock-up review dates, and start and end dates for fabrication and installation.
B. Coordinate with the Owner to schedule all site visits, deliveries, installations, and other on-site activities. Coordinate and schedule all Work, deliveries, and installation activities so that airport operations and activities are not disrupted.

C. Coordinate the Work of this Section as required to obtain proper installation of all items. The Signage Contractor shall acquaint himself with other projects or work which abuts, adjoins, is related to, may affect, or is affected by, Work under this Section.

D. Coordinate the concession blade sign installation, and all other on-site activities, with the operational and security rules and requirements of the San Diego International Airport Tenant Improvement Coordinator.

E. Coordinate with other trades involved in the fabrication and installation of the concession blade signs and those trades that may be affected by the Work.

F. Structural Elements

   1. Provide all structural elements, bracing, embeds, blocking, hardware, and miscellaneous steel that may be needed to adequately, securely, safely, and properly support the concession blade signs.

   2. Access proper installation locations and points of attachment as required, including locations that may be concealed by building finishes, building surfaces, or other materials.

   3. Provide all structural elements, bracing, embeds, blocking, hardware, and miscellaneous steel required for the signs to meet or exceed all applicable code requirements, including all seismic code requirements, earthquake protection regulations, requirements for seismic performance, and seismic safety requirements.

G. Coordinate with the appropriate manufacturers, suppliers, and installers so that all the concession blade signs, sign components, and sign graphics can be properly assembled, will function correctly, and can be properly, safely, and securely installed.

1.9 DELIVERY AND PROTECTION

A. Before delivery to the site, each concession blade sign shall be tagged or labeled with its identifying number and installation location. Labeling shall be both on the sign and the protective covering. Labels with identifying numbers or installation location numbers shall be hidden when the sign is installed (unless otherwise specified) or shall be removed without damage to the sign at the time of installation.

B. Finished surfaces shall be adequately protected during all phases of the Work to prevent damage by scratches, stains, discoloration, or other causes. Damage made to concession blade signs during fabrication, handling, shipment, storage, and installation shall be remedied by the Signage Contractor at his own expense.
C. Arrange with the Owner or the Concession Tenant to provide adequate, secure, locked storage for concession blade signs that have been delivered to the site but not yet installed. The Signage Contractor must be present to receive all deliveries.

D. Wherever installed concession blade signs are exposed to possible damage from ongoing construction, install protective barriers or other measures so as to protect the installed signs from becoming dirty, dusty, or damaged.

1.10 QUALITY ASSURANCE

A. All Work shall be done by an experienced sign company, with skilled workmen, especially trained in this type of Work.

B. The Signage Contractor shall supervise and coordinate all subcontractors to ensure that the concession blade signs shall be supplied per the Owner’s requirements.

C. A minimum of 50% of the Work shall be performed by the Signage Contractor’s own forces.

D. The Signage Contractor must be a full service company with at least ten (10) years of successful experience with projects of similar scope. The sign company shall have experience working in the State of California. The sign company shall have in-house sign fabrication capabilities. The sign company shall be a member of a recognized professional sign organization including, but not limited to, SEGD or ISA.

E. Upon request, provide evidence to the Owner that demonstrates compliance with the requirements for Quality Assurance as specified herein.

F. The Owner reserves the right, with just cause, to prohibit subcontractors or vendors from working on the Project. The Owner will inform the Concession Tenant and the Signage Contractor of any subcontractors or vendors it will not allow to participate in the Work. For each subcontractor or vendor prohibited by the Owner, the Signage Contractor may submit the name and contact information of a new subcontractor or vendor for review and acceptance by the Owner.

1.11 WARRANTY/CORRECTION OF WORK

A. Warranties listed below are in addition to and not a limitation of, other rights the Owner or the Concession Tenant may have under the Contract Documents.

B. Provide the Owner and the Concession Tenant with documentation of the manufacturer’s warranties for all products supplied as part of this Work.

C. All fastening devices and adhesives must be durable, suitable for long-term use in exposed exterior locations, vandal-resistant, vibration-resistant, and tamper-resistant. All fastening devices must be corrosion-resistant. All fastening devices and adhesives must be warranted as to permanency of performance.

D. Warrant to the Owner and the Concession Tenant in writing that the materials and equipment furnished under the Contract will be of high quality and new unless
otherwise required or permitted in writing by the Owner, that the Work will conform with the requirements of the Contract Documents, and the Work will be free of defects not inherent in the quality required or permitted in writing by the Owner. Work not conforming to these requirements, including unauthorized substitutions, may be considered defective. If required by the Owner or the Concession Tenant, furnish satisfactory evidence as to the kind and quality of materials and equipment.

E. Warrant to the Owner and the Concession Tenant in writing that the paint finishes, silkscreen inks, and the protective clearcoat finishes furnished under the Contract will be of high quality, free of defects in appearance or application, will not develop excessive fading or excessive non-uniformity of color, and will not yellow, crack, peel, or otherwise fail as a result of defects in materials or workmanship, for a period of at least seven (7) years beginning upon final acceptance of the Work by the Owner.

F. If, within five (5) years after final acceptance of the Work, any of the Work is found to be defective or not in accordance with the requirements of the Contract Documents, the Work shall be corrected promptly after receipt of written notice from the Owner or the Concession Tenant to do so, unless the Signage Contractor has previously received written acceptance of such condition from the Owner. Correction of Work shall be completed at no cost to the Owner or the Concession Tenant. This obligation shall survive termination of the Contract. All Work shall be done at a time convenient to the Owner.

G. Remove from the site and properly dispose of, at no additional cost to the Owner or the Concession Tenant, portions of the Work which are defective or not in accordance with the requirements of the Contract Documents and are neither corrected by the Signage Contractor nor accepted by the Owner.

H. If the Signage Contractor does not proceed with the correction of Work after a reasonable time fixed by written notice from the Owner, the Owner may have the Work corrected. The Signage Contractor shall pay the entire amount of the cost of the corrections to the Owner.

1.12 MAINTENANCE AND SAFETY INSPECTION INSTRUCTIONS

A. Provide complete and detailed maintenance and safety inspection instructions to the Owner and the Concession Tenant. Provide detailed information and instructions on the proper operation, maintenance, and safety inspection procedures for the concession blade signs. Provide both the Owner and the Concession Tenant with three (3) printed copies and one (1) digital copy of the maintenance and safety inspection instructions. Digital copies shall be provided on CD or on a USB flash drive as .pdf files.

1.13 ATTIC STOCK

A. The Signage Contractor shall provide to the Owner in the manufacturer's original packaging, and store at the Project site where directed, the following:
1. One (1) quart of touch up paint in each of the colors specified.
2. Four (4) of each type of tool required for removal of each type of vandal-resistant fastener used.

1.14 SAMPLES AND SUBMITTALS

A. Bid Sample

1. Provide one (1) complete, full size, M1 Mounting Bracket with the Bid as a Bid Sample.
2. Bidders shall deliver their Bid Sample along with their bid. Bid Samples shall be labeled with the bidder’s name. Bidders shall be responsible for the proper packaging, crating, and shipping of the Bid Samples.
3. The Bid Sample shall utilize the same materials, finishes, fabrication, and installation methods that are intended for the final signs. The Bid Sample shall include all the components of the M1 Mounting Bracket, including mounting hardware, materials, and methods.
4. The Bid Sample shall be reviewed by the Owner. The Bid Sample shall demonstrate the capabilities and workmanship of the Bidder. The Bid Sample shall not be returned.
5. The Owner shall determine if the Bid Sample conforms to the Specifications and meets the design intent of the Project. The Owner may choose to disqualify a bidder if their Bid Sample does not conform to the Specifications or does not meet the design intent of the Project.

B. Within ten (10) working days after the Project has been awarded and prior to making any submissions, provide the Owner and the Concession Tenant with a Submittal Schedule. At a minimum, list all Submittals, their content, the planned submission dates, and the review period for each Submittal. Include anticipated dates for the review of the Mock-ups. All Samples and Submittals shall be made with such promptness as to cause no delay in the Work. Schedule the Work so that the Owner and the Concession Tenant shall each have a minimum of ten (10) working days to review each Submittal, excluding shipping time, and without overlap.

C. Prior to the start of Shop Drawings and prior to providing any samples, meet with the Owner and the Concession Tenant to review the Work and coordinate fabrication methods and materials with the design intent.

D. If additional review of any Submittal is required after two (2) resubmittals, the Owner and the Concession Tenant shall be compensated by the Signage Contractor for the time and for the fees and expenses incurred for the work needed to complete all additional reviews required until the Submittal is accepted.

E. The Owner and the Concession Tenant will review all the Samples and Submittals for general conformance with the design intent of the Project. Work undertaken prior to receipt of written acceptance of the Samples and Submittals, shall, based upon the acceptance or rejection of the Samples and Submittals, be corrected at the Signage Contractor’s expense. All notifications of acceptance or rejection shall be
made in writing. All materials furnished for the Project must be as represented by the accepted Samples and Submittals.

F. Product Data

1. Submit manufacturer’s technical data, preparation, installation, storage, handling, and maintenance instructions for all the materials, components, and applied finishes used for the Work.

2. The Product Data should be assembled in a binder with tabbed sections dividing the applicable reference information. Label the spine to identify the binder’s contents along with the project name and the name of the company submitting the information.

3. At a minimum, provide Product Data for the following:
   a. All metal materials and components.
   b. All mounting components and hardware.
   c. Acrylic, polycarbonate, resin, and PVC materials.
   d. Standard and custom extrusions.
   e. Each manufactured component used within fabricated assemblies.
   f. Shop applied painting and priming systems.
   g. Field applied painting and priming systems.
   h. UV resistant and protective clearcoat finishes.
   i. Adhesives and sealants.
   j. Silkscreen printing inks, clearcoats, and sealers.
   k. All graphic sheeting and film materials.
   l. Sign lighting fixtures, lamps, and components.
   m. Electrical components.
   n. Installation accessory materials for each type and condition as applicable.

G. Shop Drawings

1. Fabricate only from Shop Drawings that have been reviewed and accepted by the Owner and the Concession Tenant. Prior to submission, verify submittal and resubmittal formats, quantities, and procedures with the Owner and the Concession Tenant.

2. Prior to the start of fabrication, submit complete and detailed Shop Drawings for the concession blade signs and sign components. Shop Drawings shall show the concession blade sign fabrication, assembly, and mounting methods. Shop Drawings shall show all materials, hardware, fasteners, fittings, accessories, supports, framing, anchors, lighting and electrical components, dimensions, and details. Shop Drawings shall show all lettering, graphics, colors, and finishes. Indicate all color breaks and provide descriptions of all the materials and methods used to produce each of the colors and finishes. Show all the final concession blade sign locations in the Shop Drawings. Provide complete documentation of any adjustments to any of the concession blade sign components required for the signs to respond to site conditions.

3. All concession blade sign structural and mounting components shall be professionally engineered. Submit Shop Drawings that have been signed and sealed by a qualified professional structural engineer, licensed in the State of
California, for all concession blade sign structures, supports, frames, cabinets, mounting methods, mounting components and hardware, adhesives, embeds, and all other sign structural and mounting components.

4. Shop Drawing submittals shall be returned with the appropriate submittal review stamps indicating the submittal’s status. Shop Drawings will be checked only for conformance with the design intent of the Project. Acceptance of the Shop Drawings shall not be construed as permitting departure from the Contract requirements; as relieving the Signage Contractor of the responsibility for errors in details, dimensions, or otherwise; or as permitting departure from additional details, bulletins, and instructions previously furnished by the Owner. Also, Shop Drawing acceptance shall not relieve the Signage Contractor from responsibility for errors that may exist in the items submitted.

5. If the submitted Shop Drawings show variations from the Contract requirements, make specific reference to such variations on the Shop Drawings and in the letter of transmittal with a request for acceptance. Substitutions and modifications shall be made only when accepted in writing by the Owner and the Concession Tenant.

H. Certification Letter

1. Submit written letter of certification, prepared, signed, and sealed by a qualified professional structural engineer, licensed in the State of California, verifying that the concession blade signs and the concession blade sign support systems, structures, and mounting components shall be structurally sound and that the concession blade signs shall be securely, properly, and safely supported and mounted.

2. Include in the letter of certification, verification that maximum stresses and deflections of the concession blade signs and the concession blade sign support systems, structures, and mounting components do not exceed specified and required performance requirements under full design loading, and that the concession blade signs and the concession blade sign support systems, structures, and mounting components shall meet all the performance requirements and design criteria as indicated and specified herein and in the Drawings. Also include verification that all concession blade signs safely and properly withstand all applicable wind loads and seismic events.

I. Reproduction of any portion of the Drawings provided for use in Submittals or Shop Drawings is unacceptable. Such Submittals will be returned unreviewed.

J. Submit Samples of all the materials, finishes, fixtures, fittings, and hardware.

K. Submit Samples of all the fonts, alphabets, symbols, and logos used on the concession blade signs for review and acceptance by the Owner and the Concession Tenant prior to preparing sign face layouts.

L. Concession Blade Sign Face Layouts for Review by the Owner and Concession Tenant
1. Provide dimensioned concession blade sign face layouts for review by the Owner and the Concession Tenant for all concession blade sign locations.

2. The sign face layouts shall show the final concession blade sign graphics.

3. Prepare final artwork as required and provide all required file preparation. Digital art files for all logos and logo typography that are to appear on the concession blade signs shall be supplied by the Concession Tenant.

4. Sign face layouts shall be shown in a minimum scale of 3"=1'-0".

5. All concession blade sign face layouts shall be printed on white paper with a minimum 92 brightness, and shall show actual typographic, symbol, and logo layouts printed in color on white backgrounds with all fonts, dimensions, and the perimeters of the sign faces indicated. Provide the location number for each concession blade sign face on the sign face layouts.

6. Layouts will be reviewed for content, accuracy of alignments, typeface, type weight, letter spacing, word spacing, symbol and logo quality, quality of reproduction, and conformance with the design intent.

7. Incorporate revisions or changes made to the graphics shown on the layouts at no charge to the Owner or the Concession Tenant.

8. All Work shall conform to the quality of letterform, spacing, and acuity of the accepted layouts.

M. Color Samples

1. Submit samples of all the colors that are to appear on the concession blade signs.

2. Submit each of the colors, in each of the reproduction methods, in each of the finishes/coatings, and on each of the substrates or materials used.

3. Submit all the colors with the correct finishes. Show the paint colors and the silkscreen colors with the correct clearcoats and at the correct gloss levels.

4. Submit each of the metal finishes.

N. Samples and Submittals shall be made in accordance with the General Conditions. For each Sample, provide a minimum of two (2) examples to the Owner and two (2) examples to the Concession Tenant. Samples and Submittals shall be a minimum of 6" x 6" and shall show quality, type, color range, finish, texture, etc. The Signage Contractor shall be responsible for the timely delivery of the Samples and Submittals in excellent condition, freight prepaid. All accepted Samples shall be retained by the Owner and the Concession Tenant.

1.15 MOCK-UPS

A. Prior to commencing fabrication of the final concession blade signs, provide the following Mock-up for review by the Owner and the Concession Tenant:

1. Provide an identification sign (S) and mounting bracket (M) Mock-up demonstrating the fabrication and internal illumination of the concession blade sign.
   a. The Mock-up shall show the overall fabrication and finishes of the identification sign, including the fabrication and finishes of the sign cabinet, the fabrication and finish of the stainless steel mounting arm,
and the fabrication and finishes of the sign faces. Include face, corner, reveal, and joint details.

b. The Mock-up shall show the overall fabrication and finishes of the mounting bracket.

c. The Mock-up shall show how the mounting arm coordinates with the sign cabinet and the mounting bracket. Show how the electrical power will be routed through the mounting bracket and mounting arm to the sign cabinet. The Mock-up shall demonstrate the lighting effect produced by the internal illumination. Show the external cut-off switch to be used on the Mock-up.

d. The Mock-up shall demonstrate the fabrication methods and finishes to be used for the graphics and the sign’s general appearance when illuminated and not illuminated.

B. The Mock-up shall be complete, full size sections of each sign or sign component and shall utilize the same materials and fabrication and installation methods that are intended for the final signs. The Mock-up shall demonstrate the overall sign construction. The Mock-up shall be fabricated to include examples of all the hardware, materials, and finishes used in the final signs. The Mock-up shall demonstrate the internal illumination. The Mock-up shall include face, corner, joint, and edge details, and examples of how the interiors of the signs are accessed. The Mock-up shall be produced using the actual, final sign materials and components and shall show the actual colors and finishes. Provide a power supply and standard plug-in cord so the illumination can be reviewed. The Mock-up shall include examples of the mounting hardware, materials, and methods.

C. The Mock-up shall be reviewed at a location to be determined at the San Diego International Airport on a date acceptable to the Owner and the Concession Tenant. Provide the Owner and the Concession Tenant with a minimum of thirty (30) days notice prior to the review of the Mock-up.

D. The Mock-up shall be reviewed by the Owner and the Concession Tenant. The Signage Contractor shall prepare and submit to the Owner and Concession Tenant a written summary of the review documenting any adjustments or changes made to the Mock-up during the review. Any necessary adjustments or changes will be made prior to commencing fabrication of the final signs. Replace unsatisfactory items as directed. When accepted, the Mock-up shall serve as the standard for materials, workmanship, and appearance throughout the Project.

E. The Mock-up shall be retained by the Owner.

F. The Signage Contractor shall be responsible for the proper packaging, crating, shipping, and set-up of the Mock-up. The Signage Contractor shall be responsible for the costs required to ship the Mock-up to and from the review location.
PART 2 – PRODUCTS

2.1 MATERIALS AND MANUFACTURERS

A. Source Quality Control

1. Obtain primary materials from a single manufacturer.
2. Provide secondary materials only as recommended by the manufacturer of the primary materials.
3. Do not change source or brands of materials during fabrication.

B. Aluminum

1. Provide durable, high-grade material of alloy and temper as best suited to furnish the finish and strength required. Provide all aluminum extrusions, plate, sheet, castings, bars, hardware, and all other aluminum sign components required.

C. Steel

1. Provide durable, high-grade material of alloy and temper as best suited to furnish the strength and finish required. Provide all steel sheets, plates, channels, shapes, hardware, and all other steel sign components required.
2. Sheet Steel – cold rolled into channels and other shapes, galvanized, primed. Thickness of material shall be determined by the Signage Contractor to provide the finish and strength required.
3. Structural Steel
   a. When structural steel is required, all steel shapes, pipes, plates, etc. shall comply with all applicable standards.
4. Stainless Steel
   a. Provide durable, high-grade material as best suited to furnish the strength, finish, and durability required. Provide all stainless steel sheets, plates, channels, shapes, hardware, and all other stainless steel sign components required.
   b. Brushed stainless steel shall have a number 4 brushed finish, horizontal grain.

D. Threaded Fasteners

1. ASTM A 300 Series Grade A non-magnetic stainless steel.
2. Vandal and tamper resistant screws – Stainless steel, vandal-resistant and tamper-resistant drilled spanner drive screws or equal as accepted by the Owner.
3. All hardware shall be of non-magnetic stainless steel, or of other non-magnetic corrosion resistant material accepted by the Owner and the Concession Tenant.
E. Mounting Hardware

1. Provide all the mounting hardware and materials required to properly, safely, and securely mount the concession blade signs and sign components.
2. Mount the concession blade signs using materials and hardware that will provide long service life and will properly, securely, and safely support the signs. Provide all the necessary straps, clips, brackets, and all other hardware and components required to safely, securely, and properly mount the concession blade signs.
3. All mounting components and mounting hardware shall be heavy-duty, durable, high quality, long lasting, vandal-resistant, tamper-resistant, vibration-resistant, and corrosion-resistant components. All mounting hardware and mounting components shall be suitable for long-term use in exposed exterior locations.

F. Acrylic Sheet

1. Provide sign grade, scratch-resistant acrylic sheets as required.
2. Unless otherwise indicated in the Drawings, the thickness of material shall be determined by the Signage Contractor, subject to review by the Owner and the Concession Tenant.

G. Translucent Graphic Films and Sheeting

1. Carefully prepare all substrates to receive translucent graphic films and sheeting per the appropriate manufacturer’s specifications.
2. Follow all of the applicable manufacturer’s guidelines and specifications for production, cutting, and application of all translucent graphic films and sheeting.
4. All graphics produced using translucent graphic films and sheeting must be durable and long lasting. Use production and application techniques as recommended by the film and sheeting manufacturer to produce high quality graphics with the longest possible life expectancy.
5. Translucent graphic film shall be 3M Scotchcal ElectroCut Graphic Film, Series 7725SE, or an equivalent translucent graphic film accepted by the Owner and the Concession Tenant.

H. Paint

1. Paint shall be exterior grade acrylic polyurethane, specially formulated for use on signage.
2. All painted finishes shall have a UV inhibiting protective clearcoat. The clearcoat shall have a non-glare finish. The non-glare finish shall conform to all applicable ADA guidelines and requirements. The UV inhibiting protective clearcoat and the color coat paint beneath shall be manufactured by the same company. The UV inhibiting protective non-glare clearcoat shall be formulated to be compatible with the finishes, colors, and substrates underneath.
3. Acceptable paint manufacturers include:
   a. Matthews Paint
b. Akzo Nobel

Other manufacturers as accepted by the Owner and the Concession Tenant.

I. Colors

1. See the Drawings for additional finish specification information.
2. The surfaces of the concession blade signs shall be finished as indicated in the Drawings.
3. Color information for logos, symbols, and logo typography shall be supplied by the Concession Tenant.
4. Match the colors specified.
5. Colors shall be produced using the paint, ink, coating, or material specified.

J. Lettering Style

1. The Signage Contractor shall provide all the required fonts as indicated in the Drawings. If required, the Signage Contractor shall purchase the required fonts. The Owner or the Concession Tenant shall not provide any fonts.
2. Letter weight (Medium, Bold, etc.) and style (Roman, Italic) shall match the Drawings. Enlargement or reduction of artwork applications shall be done photographically or digitally. Hand cut masks or templates will not be accepted.
3. Concession blade sign lettering shall be executed in such a manner that all the edges and corners of the letterforms are true, clean, and photographically precise. All letterforms must be accurately reproduced.

K. Symbols

1. Symbols, logos, and logo typography shown in the Drawings are for reference only.
2. Symbols, logos, and logo typography shall match standards as shown in the Drawings. Digital art for all symbols, logos, and logo typography shall be supplied by the Concession Tenant.
3. Enlargement or reduction of symbols, logos, and logo typography shall be done photographically or digitally. Hand cut masks or templates will not be accepted.
4. Symbols, logos, and logo typography shall be executed in such a manner that all edges and corners are true, clean, and photographically precise. All symbols, logos, and logo typography must be accurately reproduced.

L. Adhesives

1. Provide high quality, high-strength, high-performance, permanent adhesives as required. Adhesives shall be suitable for the components being adhered and the locations where the components are to be mounted or installed.
2. Adhesives shall not react with surface finishes.
M. LED Sign Lighting Components

1. Provide and install concealed white LED sign lighting and all related components for concealed lighting in the concession blade signs.
2. All sign lighting components shall meet all applicable electrical code requirements.
3. All sign lighting components shall be UL listed.
4. Determine the type of fixture and the quantity, layout, and spacing of the LED sign lighting units required to provide bright, even illumination during average and peak light levels (day and night times). The LED sign lighting shall produce a minimum of 110 lumens per foot. Provide all sign lighting fixtures and all related components.
5. The LED sign lighting units and all related components shall be designed for use in signage and shall be suitable for use in exterior locations.
6. The LED sign lighting components shall be sized and positioned to provide even lighting without scalloping, dark areas, hot spots, or any other defects.
7. The LED sign lighting components shall produce bright white light and shall have a service life of at least 50,000 hours. The LED sign lighting components shall produce light with a color temperature similar to fluorescent illumination.
8. Provide all the required components, conduit, and wiring.
9. Provide all required power supply units and related components for the LED sign lighting units.
   a. The LED power supply units shall meet all applicable electrical code requirements.
   b. All LED power supply units shall be matched to the LED lighting components.
   c. All LED power supply units shall be UL listed.
   d. All LED power supply units shall not cause interference with other electronic systems.
   e. All LED power supply units shall be suitable for use in exterior locations.
   f. Provide all code required labels and inscriptions.
10. Acceptable LED sign lighting component manufacturers:
    a. General Electric
    b. Other manufacturers as accepted by the Owner.

2.2 FABRICATION – GENERAL

A. All concession blade signs shall be structurally sound and carefully fabricated using high quality materials and quality craftsmanship. All sign parts and components shall be carefully, properly, securely, and safely assembled and attached. All concession blade signs and sign components shall be carefully, securely, properly, and safely mounted and installed.

B. Provide all the required labor, site inspection, professional engineering, parts, hardware, materials, and components required to completely, properly, safely, and securely fabricate and install all the concession blade signs, sign structures, and sign components. Provide all the durable, corrosion-resistant, internal and external framing and components required to safely, securely, and properly support and
mount the concession blade signs, the sign faces, and any other components that are mounted to or in the concession blade signs.

C. The fabrication information shown in the Drawings is conceptual. All concession blade signs shall be fabricated to have a neat and clean appearance. All concession blade signs shall be rigid and structurally sound. Concession blade sign materials, designs, sizes, finishes, and thicknesses shall be as shown on Drawings and herein specified. Methods of fabrication, assembly, erection, mounting, and installation, however, unless otherwise specifically stated, shall be at the discretion of the Signage Contractor, whose responsibility it shall be to guarantee satisfactory performance as herein specified.

D. Size the concession blade sign frames and sign face panels to allow for expansion and contraction of the concession blade signs and sign components without causing the signs to become damaged or the sign faces to become warped, cracked, or otherwise damaged.

E. Provide mounting hardware, mounting components, and mounting adhesives that are compatible with the conditions at each of the installation locations. The sign mounting information in the Drawings is conceptual. The Signage Contractor shall be responsible for determining the type of mounting hardware, components, and adhesives required to safely, securely, and properly mount the concession blade signs.

1. Determine the type of mounting hardware and components required to properly coordinate with the conditions at each sign location.
2. Determine the type of mounting hardware and components required to safely, securely, and properly mount each concession blade sign.
3. Indicate the mounting hardware and components in the Shop Drawings.
4. All mounting hardware and mounting components shall be properly sized, compatible with the concession blade signs and the structures supporting the signs, and compatible with the conditions at each sign location. All mounting hardware and mounting components shall provide the proper strength and durability.

F. All artwork shall be enlarged photographically or digitally to match the sizes and placement as shown in the Drawings.

1. Provide all file preparation required.
2. Digital art files for all logos and logo typography that are to appear on the concession blade signs shall be provided by the Concession Tenant.
4. Copies of all the digital art files prepared by the Signage Contractor for the Project shall be supplied to the Concession Tenant upon completion and before final acceptance of the Work. Provide each of the files both as native files in the software used to create the files and as .pdf files.

G. All concession blade sign faces and edges shall be flat, rigid, smooth, and free of defects and “oil-canning”.

6.7.1 - 20
1. Edges and corners shall be precise, smooth, true, and free of saw marks, chips, burrs, discoloration, irregularities, and other defects.
2. Faces and returns shall be flat, precise, smooth, true, and free of saw marks, chips, burrs, discoloration, irregularities, and other defects.
3. Corners shall be eased. There shall be no sharp or rough edges, no sharp or rough corners, and no sharp or rough projections anywhere on the concession blade signs, the sign mounting brackets, the mounting hardware, and the sign mounting components.
4. Seams shall have hairline contact.
5. Sign faces shall be of sufficient thickness so that hardware or materials mounted to or attached to the backs of the sign faces shall not distort or discolor the fronts of the sign faces or otherwise detract from the smoothness and appearance of the sign faces.
6. Joints shall be undetectable and completely and permanently sealed.
7. There shall be no visible hardware on the sign faces unless indicated in the Drawings. Unless otherwise indicated in the Drawings, visible hardware shall be finished to match the surrounding material.

H. All illuminated graphics shall be completely, evenly, and adequately lit without shadows, halos, or hot spots. Opaque sign faces and components must be completely and evenly opaque without thin spots, shadows, halos, or light leaks. The Signage Contractor shall determine the quantity and spacing of light fixtures required to provide even and adequate illumination of the entire sign face and to provide the best color reproduction. All concession blade sign lighting fixtures and components shall be designed specifically for use in signage and shall be suitable for exterior applications.

I. Carefully and properly prepare all surfaces and materials that are to be adhered in strict accordance with the adhesive manufacturer’s instructions. Carefully follow the adhesive manufacturer’s preparation and application instructions.

J. Anchor and mounting bolt sizes and types shall be as shown in the Shop Drawings. All anchor and mounting bolts shall be corrosion-resistant, vibration-resistant, and suitable for use in exterior locations. All anchor and mounting bolts shall be properly tightened and equipped with nut-locking devices when structures are assembled and installed.

K. Insofar as practicable, fitting and assembly of the Work shall be done in the shop. Work that cannot be permanently shop-assembled shall be completely assembled, marked, and disassembled before shipment, to insure proper assembly in the field. Unless otherwise noted, field joints in the face of Concession Blade signs will not be allowed. The Signage Contractor shall coordinate the sizes of finished assemblies with access limitations to the final locations.

L. Steel and aluminum shall be well formed to shape and size. Fabrication shall leave clean, true lines and surfaces. Carefully match exposed Work to produce continuity of line and design. Joints and seams, unless otherwise shown or specified, shall be accurately fitted and rigidly secured with hairline contact. The Signage Contractor
shall be responsible for structural details, thickness of metal, and details of assembly and support to give adequate strength and stiffness.

M. Welding shall be in accordance with the appropriate recommendations of the American Welding Society, and shall be done with electrodes and methods recommended by the manufacturers of the alloys being welded. Type, size, and spacing of welds shall be as shown in the Shop Drawings. Welds behind finished surfaces shall be so done as to not allow distortion and discoloration on the finished side. Weld spatter and welding oxides on finished surfaces shall be removed by descaling or grinding. Unless otherwise shown or specified, all weld beads on exposed polished surfaces shall be ground and polished to match and blend with the finish on adjacent parent metal. Remove paint from existing steel members at contact areas and on surfaces within two inches (2") of field welds, in order to attach signage steel supports. Reapply any fireproofing material damaged or removed from the existing structure during the attachment process. Obtain written verification that the Base Building Contractor has inspected the reapplication of the fireproofing material and that the Base Building Contractor is satisfied with the installation and the effectiveness of the reapplied fireproofing material. Provide the Owner with a copy of the written verification received from the Base Building Contractor. At attachments to exposed steel, grind exposed field welded joints smooth and restore to match factory finishes.

N. Welding shall be executed by experienced, certified operators with proper equipment and training and who have been qualified previously by tests as prescribed in the American Welding Society’s “Standard Qualification Procedure” to perform the work required.

O. Translucent Vinyl Graphic Films and Sheeting

1. Translucent vinyl graphic films and sheeting shall be handled and applied in accordance with the material manufacturer’s instructions.
2. Graphics produced using translucent graphic films and sheeting shall be produced in accordance with the material manufacturer’s instructions.
3. Cut-out letterforms, symbols, and logos shall be cut out so that their proportions and details are accurately and precisely reproduced. Vinyl graphic films and sheeting applied to sign faces and panels shall be neatly trimmed and properly placed and aligned. The edges of the vinyl graphic films and sheeting shall be smooth and free of any tears, irregularities, and defects.
4. Properly clean and prepare substrates to receive translucent vinyl graphic films and sheeting.
5. All translucent vinyl graphic films and sheeting shall be carefully installed so that the films and sheeting are properly and completely adhered. There shall be no loose edges or gaps between the applied materials and the substrates to which there are adhered. All vinyl graphic films and sheeting shall be installed so that they are completely smooth, flat, even, and without surface irregularities, wrinkles, air bubbles, and free from trapped dirt or dust. Seal the trimmed edges of the graphic films and sheeting per the appropriate manufacturer’s specifications.
2.3 FABRICATION – ADDITIONAL REQUIREMENTS

A. Internally Illuminated Identification Signs (S)

1. Each internally illuminated identification sign (S) includes an internally illuminated sign cabinet and a stainless steel mounting arm. The stainless steel mounting arm attaches to a mounting bracket (M).
2. Internally illuminated identification signs shall be fabricated from the materials indicated in the Drawings. Thickness of the materials shall be adequate for the size of sign. Finishes shall be as shown in the Drawings and as specified herein.
3. The internal illumination shall be provided by concealed white LEDs.
4. Internally illuminated identification signs shall be fabricated so that the cabinets and mounting arms shall be smooth, free from defects, burrs, and discoloration. Faces, edges, and returns shall be flat, smooth, and free from irregularities and defects. Joints shall be undetectable and completely and permanently sealed.
5. The inside surfaces of the identification sign cabinets shall be painted gloss white over the appropriate primer. The signs shall have bright, even lighting across the entire sign face.
6. Sign faces on identification sign cabinets shall be flat, smooth, and free from irregularities and defects. The sign faces shall be evenly colored and adequately and evenly lit across the entire sign face. Sign faces shall be safely, securely, and properly mounted to the sign cabinets. There shall be no visible hardware on the sign faces.
7. Provide vents in the sign cabinets if required. Position vents to be as unobtrusive as possible without interfering with their functionality or effectiveness. Fabricate the vents so that the interiors of the internally illuminated sign cabinets are not visible through the vents and so that no light is visible through the vents. Show the vents in the Shop Drawings.
8. Identification signs shall be safely, securely and permanently mounted. Provide all the appropriate mounting components, hardware, materials, and methods required. Unless noted otherwise, there shall be no visible hardware, raceways, or conduit.
9. Sign faces on the identification signs shall be removable to provide access to the interiors of the signs to facilitate installation and for maintenance. Sign faces shall be safely and securely held in position by concealed, vandal-resistant hardware. Indicate the type of hardware and its location on the Shop Drawings. No hardware shall appear on the sign faces.
10. Sign faces for identification signs with acrylic push-through graphics shall be frameless, opaque aluminum.
11. Each identification sign shall include a stainless mounting arm. The mounting arm shall attach to the mounting bracket.
12. Identification signs shall be removable.
13. Each identification sign shall include a stainless mounting arm. The mounting arm shall be able to properly, safely, and securely support the sign. The mounting arm shall properly, safely, and securely attach the identification sign to the mounting bracket. Carefully coordinate the identification signs with the mounting brackets so that the mounting arms fit precisely and accurately into the mounting brackets.
14. Coordinate the fabrication of the identification signs and the mounting brackets with the requirements for the sign electrical conduit and wiring. Signs shall be fabricated so that power is safely and properly brought into the sign cabinet. Unless noted otherwise, no conduit or junction boxes shall be visible. Provide electrical components that shall allow signs to be removed and reinstalled.

B. Push Through Acrylic Letters and Graphics

1. Push through letters and graphics shall be translucent acrylic. The faces of the letters and graphics shall be translucent, as indicated in the Drawings. Opaque areas and finishes must be completely and evenly opaque without thin spots, shadows, halos, and light leaks.

2. The faces of the push through letters and graphics may be flush with, or project from, the surrounding concession blade sign faces, as indicated in the Drawings.

3. On concession blade sign faces with push through letters and graphics, the openings in the sign faces for the letters and graphics shall be precisely cut and free of saw marks and any other defects. Letters and graphics shall fit the cut outs precisely. Return edges of the cut outs shall be finished to match the surrounding sign face. There shall be no sharp or rough edges, no sharp or rough corners, and no sharp or rough projections on the cut outs for the push through letters and graphics.

4. The acrylic letterforms, symbols, and logos shall be produced so that their proportions and details are accurately and precisely reproduced. Corners shall be precise, smooth, and free of burrs, discoloration, irregularities, and other defects. Faces, edges, and returns shall be flat, smooth, and free of irregularities and defects. There shall be no sharp or rough edges, no sharp or rough corners, and no sharp or rough projections on the push through acrylic letters and graphics.

5. Push through letters and graphics shall be safely, properly, and securely mounted to the back of the concession blade sign faces without gaps and light leaks. Mounting hardware or materials for the push through letters and graphics must not affect the appearance of the letters and graphics and the sign faces in any way.

6. Opaque letter components not part of continuous sign face, for example, the center of the letter “O”, shall be permanently bonded to the acrylic in the correct position and even with the surface of the surrounding sign face.

C. Mounting Brackets (M)

1. Mounting brackets (M) shall be fabricated from stainless steel. Provide materials and framing as required for the mounting brackets to be rigid and structurally sound and to safely, securely, and properly support the signs mounted to the brackets. Provide all components and framing required for the brackets to be safely, securely, and properly mounted. Visible surfaces of the brackets shall have a number four brushed finish, horizontal grain.

2. Mounting brackets shall be fabricated so that the brackets shall be smooth, free from defects, burrs, and discoloration. Faces, edges, and returns shall be flat,
smooth, and free from irregularities and defects. Joints shall be undetectable and completely and permanently sealed.

3. Mounting brackets shall be safely, securely and permanently mounted. Provide all the appropriate mounting components, hardware, materials, and methods required. Unless noted otherwise, there shall be no visible raceways, or conduit.

4. The mounting brackets shall be properly, safely, and securely mounted. Depending on the location, the mounting brackets may be wall mounted, column mounted, or ceiling mounted. The mounting brackets shall properly, safely, and securely support the identification signs. The mounting brackets shall allow the identification signs to be removed without causing damage to the signs, the brackets, or the surrounding building surfaces.

5. Carefully coordinate the mounting brackets with the identification signs. The mounting brackets shall be fabricated so that the mounting arm that is part of the identification sign shall precisely and accurately fit into the mounting bracket. The identification sign mounting arm shall be properly, safely, and securely attached to the mounting bracket.

6. Coordinate the fabrication of the identification signs and the mounting brackets with the requirements for the sign electrical conduit and wiring. Signs shall be fabricated so that power is safely and properly brought into the sign cabinets. Power shall be routed from the walls, through the mounting brackets and the identification sign mounting arms to the sign cabinets. Unless noted otherwise, conduit or junction boxes shall not be visible. Provide electrical components that shall allow signs to be removed.

2.4 PAINTING AND FINISHING

A. All sign finishes, coatings, and graphic reproduction methods shall be durable, exterior-grade, UV-resistant, and vandal-resistant. Provide Product Data and information on all the finishes, coatings, and graphic reproduction methods to be used for review by the Owner. Paint and clearcoat gloss levels shall be as indicated in the Drawings and specified herein.

B. Finish all concession blade sign components to protect them from corrosion with materials and finishes as appropriate for the component, its location, and its visibility. Indicate all finishes to be used in the Shop Drawings.

C. Thoroughly clean and properly prepare all surfaces to be finished in strict accordance with the finish manufacturer’s instructions. Follow the paint manufacturer’s instructions to properly clean and prepare surfaces to be painted. Remove all dust, dirt, foreign materials, waxes, grease, silicones, and other contaminants from the surfaces to be finished following the manufacturer’s recommendations.

D. Properly protect all surfaces and materials from rust and corrosion at all times.

E. All finishes shall be applied in strict accordance with the manufacturers’ published technical bulletins, procedures, and instructions.
1. Primer and paint shall be applied in the shop as much as possible.

2. Provisions should be made for proper handling of materials at all stages of the primer and paint application and at all stages of the shipping, storing, erection, and installation for protection of primed and painted surfaces from damage or soiling.

3. Apply paint topcoat over compatible primer. Steel material shall be shop coated with one (1) coat of primer. Surfaces that will be inaccessible for painting after assembly or installation shall be given two (2) shop coats of primer. The primer is to be appropriate for the substrate and the finish, as recommended by the manufacturer.

4. Apply a minimum of two (2) coats of the topcoat paint. Apply the paint topcoat to achieve the minimum dry film thickness recommended by the manufacturer to provide a high quality, durable finish and optimum corrosion protection.

F. Apply a non-glare protective clearcoat containing UV inhibitors to external painted and silkscreen printed sign surfaces. Non-glare protective clearcoats shall conform to all applicable ADA standards, guidelines, and requirements. The clearcoat and the color topcoat shall be manufactured by the same company. Formulate the clearcoat to be compatible with the finishes and materials to which it will be applied and to provide maximum protection and longevity. Apply the clearcoat to achieve the minimum dry film thickness recommended by the manufacturer to provide a high quality, durable finish that conforms to ADA standards and guidelines for gloss level and to insure protection of the finish, color, and substrate underneath.

G. Paint and clearcoat surfaces and materials as required to provide proper performance, protection, function, appearance, durability, and longevity. Do not paint surfaces and materials where the paint or clearcoat would in any way interfere with proper assembly, installation, mounting, performance, function, appearance, durability, and longevity. Inform the Owner and the Concession Tenant of any conditions where the sign finishes would interfere with the function or longevity of the sign.

H. Follow the paint manufacturer’s instructions for curing paint. Paint shall be properly cured before graphics are applied.

I. After being brushed, ground and polished, or where subject to severe forming operations, stainless steel surfaces shall be cleaned of all extraneous material, thoroughly rinsed with clean water and dried. Lubricants used in fabrication shall be removed before product leaves the shop.

J. Properly handle stainless steel at all times during storage and all phases of fabrication to prevent contamination from contact with non-stainless steel items.

K. Field touch up primer after erection (all interior surfaces including bolted connections nuts, and washers, etc.) one (1) coat.

L. Protection of metals against galvanic action shall be provided wherever dissimilar metals are in contact. All metals except galvanized steel and stainless steel, which
will be in contact with concrete, mortar, plaster, or other masonry, shall also be protected. Indicate the type of protection to be provided on the Shop Drawings.

2.5 ELECTRICAL FABRICATION

A. Provide all electrical engineering required for all concession blade signs and sign components with electrical service. Coordinate electrical sign requirements with the building electrical systems.

B. All electrical components shall be UL listed. Electrical requirements and information shown in the Drawings are schematic. Identify in the Shop Drawings the materials and wiring to be used. The concession blade signs shall be internally wired with concealed leads for connection to the electrical power service.

C. The concession blade signs shall conform to all applicable codes including, but not limited to, the National Electrical Code and the City of San Diego Electrical Code. The concession blade signs shall also comply with all applicable safety and performance standards including, but not limited to, applicable UL, ANSI, and NEC safety and performance standards. The concession blade signs shall be UL approved. Provide all code required labels and markings. The Signage Contractor’s name shall not appear on the visible surfaces of the signs except as required by code.

D. All the light fixtures and related components used in the concession blade signs shall comply with all applicable codes including, but not limited to, the National Electrical Code and the City of San Diego Electrical Code. All the light fixtures and related components used with the concession blade signs shall comply with all applicable UL, ANSI, and NEC safety and performance standards and all other applicable safety and performance standards.

E. Furnish and install all required electrical conduit, wire, and cable. Power shall be brought to the vicinity of each concession blade sign by the Concession Tenant. The Signage Contractor shall furnish and install all the junction boxes and electrical conduit and wire required to route the building electrical power to the sign. The Signage Contractor shall make the final electrical connections for the concession blade signs.

F. All concession blade signs shall be equipped with an approved external disconnect switch to be flush mounted on the sign/cabinet. The switch shall have circuits and capacity to control all primary wiring within the sign. The external disconnect switch shall comply with all applicable code requirements. The switch is to be shown on the Shop Drawings for review.

G. Wiring for power for concession blade signs shall be routed through the sign mounting brackets and the sign enclosures to the electrical components housed within the signs. There shall be no visible conduit, transformers, or raceways.

H. Coordinate the placement and routing of conduit and placement of cutoff switches and other electrical components with the concession blade sign graphics and sign
structures. Cutoff switches should be consistently placed. Electrical components must not interfere with the functioning or appearance of the signs.

I. All concession blade signs shall be controlled by remote timer, switch, or other architectural lighting control system. Coordinate with the Owner and the Concession Tenant to determine the type of control required for each concession blade sign.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Examination

1. Prior to the start of the installation, examine the locations and conditions where each of the concession blade signs are to be installed. New signs will be installed in a variety of locations, with a variety of existing conditions. Examine the existing conditions to determine the installation requirements at each sign location.

2. Do not install any concession blade signs in locations where they cannot be properly, securely, and safely installed. Do not install any concession blade signs in a way that may be hazardous. Do not install any concession blade signs in locations where they would confuse, or obstruct the view of, or interfere with, exit signs, wayfinding signs, or any other life-safety signs. Installation of the concession blade signs shall not proceed until the conditions at the locations where signs cannot be properly, safely, and securely installed have been resolved, corrected, or adjusted, and the Owner provides written notice to continue with the installation.

3. Notify the Owner in writing of any unsatisfactory conditions or issues that may prevent proper installation of the signs at any of the locations where concession blade signs are to be installed. Do not proceed with the installation until the unsatisfactory conditions have been resolved, corrected, or adjusted, and the Owner provides written notice to continue with the installation.

B. Prepare the locations where concession blade signs are to be installed.

1. Mask off and protect areas which may be stained, damaged, or adversely affected during installation of the concession blade signs.

2. Properly clean and prepare surfaces indicated to receive concession blade signs prior to installation so that the installation may proceed smoothly and the signs may be installed properly.

3. Provide all required warning signs and safety barricades at work areas to prevent accidents, accidental injuries, or property damage.

4. Do not use permanent markings, or markings that damage the existing building finishes, to designate sign installation locations.

5. Work shall be scheduled so that it disrupts normal airport activities as little as possible. Provide all required temporary signage and barricades. Work may be required to be completed after normal hours of operation.
C. The concession blade sign installation shall comply with all applicable San Diego County Regional Airport Authority and Transportation Security Administration safety and security rules and requirements.

D. Properly and legally remove from the site and dispose of all rubbish and debris resulting from the Work. Comply with all safety and regulatory standards and all applicable environmental and antipollution laws, rules, and regulations for cleaning and disposal of all rubbish and debris.

E. Work areas shall be cleaned each day. Keep work areas clean, safe, and orderly. Remove all rubbish, waste, litter, and other foreign materials. Remove any stains, spills, and debris. Remove all tools, installation equipment, and surplus materials.

F. Complete installation shall be in accordance with manufacturers’ printed instructions and accepted Shop Drawings.

G. Maintain the warranties of the surfaces and finishes where signs are mounted.

H. Carefully, securely, properly, and safely install all concession blade signs plumb and level in the correct locations.

I. Protect all installed concession blade signs from damage until acceptance by the Owner and the Concession Tenant.

J. Do not install any items that are improperly sized, damaged, scratched, or with any other defects.

K. Do not remove any existing signs or sign components from a location where a new sign is to be installed until the new signs or components are ready to be installed in that location. Coordinate with the Owner for sign removal and installation so that locations are not left without signs.

L. After installation, clean soiled sign surfaces and the installation area. Remove dirt, dust, fingerprints, shavings, adhesives, packing materials, etc. If directed to do so by the Owner, touch up any scratches in painted surfaces. Replace any damaged applied graphics.

3.2 SITE RESTORATION

A. Repair and restore to original condition and appearance any finishes, surfaces, and any other building conditions, finishes, and features that are affected by the installation of the concession blade signs.

B. Provide new materials and finishes as required to repair and restore the areas affected by the installation of the concession blade signs. The new materials and finishes shall match the existing finishes and materials in the areas surrounding the locations where the signs have been installed.

C. Provide all required repairs at locations where the concession blade signs have been installed so that the repaired areas blend seamlessly with the surrounding areas.
D. Coordinate site restoration with the installation schedule so that areas are restored as soon as possible after concession blade sign installations are completed.

3.3 COMPLETION

A. The Work shall be under the charge and care of the Signage Contractor until final acceptance of the Work by the Owner and the Concession Tenant, including all Punch List Work. The Work shall not be considered as completed and accepted until written notice is received from the Owner confirming the completion and acceptance of all Work, including all Punch List Work.

B. Upon completion and before final acceptance of the Work, provide a complete set of drawings and digital files for all concession blade signs documenting As-Built locations and conditions. Drawings and digital files shall be formatted as specified by the Owner. As-Built Drawings shall completely document all the Work as actually located, built, and installed. As-Built Drawings shall also include complete documentation of any and all changes made to the Work as shown in the Contract Documents and the Shop Drawings.

C. Upon completion and before final acceptance of the Work, provide the Owner with a complete set of digital files for all Submittals and all sign face layouts.

D. All digital files, silkscreens, patterns, and models shall be preserved and shall become the property of the Owner.

END OF SECTION 6.7.1
Concessions Blade Signs-basic shop drawings
San Diego International Airport Concessions Program

Concession Blade Sign - M1 Bracket: Circular, Oval, Square/Rectangular Sign Type Designs
Approach and Objectives

The San Diego County International Airport Authority (SDCAA) has standardized the concession blade signage program for its tenants. These standards consist of design requirements and specifications which provide specific sizes, materials, performance criteria and locations for which the Tenant is responsible to implement.

This program includes standard mounting brackets (M) of which there are three sizes, each specific to its application as they vary depending upon where the blade sign is located in each terminal.

Mounted to the bracket will be an internally illuminated identification sign (I). Four standard shapes are available to the Tenant. Tenants are allowed to select the shape that best coordinates with their brand identity.

These standards achieve two primary goals: the first goal is to ensure that all blade signs present a cohesive and consistent look throughout the terminals; the second goal is to allow the Tenant full flexibility in projecting their image - branding message.

The Tenant is responsible for procuring and installing its blade sign in coordination with SDCAA. This document makes reference to the signage being "properly" installed. This term is used to generally address that all code requirements shall be met by jurisdictions having authority.

San Diego International Airport Concessions Program

Concession Blade Sign - Oval Sign Type

System Overview:

PART 1 - MOUNTING BRACKETS (M)
Use based upon architectural conditions.
M1 - Mounting Bracket
Universal wall and column mounting bracket to be used in all Terminals.

PART 2 - IDENTIFICATION SIGNS (I)
Shape based upon concession branding.
Size based upon architectural conditions.
Attaches to mounting bracket.

I2 - Oval Identification Sign
 Internally illuminated identification sign with three size options. Sites to be determined based upon where the sign is located within the Terminals.
M1 - Mounting Bracket (Wall or Column Mounted) - Fabrication Details w/ A1.12 Armature to hold 12" Diameter Circular Sign

M1 - Mounting Bracket

A1.12 - Armature

Scale: 3" = 1'-0"

Waterjet cut hole in 1/8" thick custom rolled wing bracket. Bracket attached to armature with weld on inside. No exposed welds.

End of arm is custom angle cut to match radius of arm. End of arm is not capped.

End of arm is custom angle cut to match radius of arm. End of arm is not capped.

San Diego International Airport Concessions Program

Concession Blade Sign: S1.12 Round Sign Type

M1 - Mounting Bracket Fabrication

- Mounting Bracket / A1.12 Armature
- Fabricated stainless steel mounting bracket for wall or column mounted blade signs. All visible surfaces shall have a brushed finish, vertical grain. Coordinate the fabrication of identification signs with the mounting bracket so that any identification sign can be mounted to any M1 mounting bracket. Mounting bracket shall be safety, secure, and properly support wall or column mounted blade signs in a variety of locations.
M1 - Mounting Bracket (Wall or Column Mounted) - Fabrication Details w/ A1.18 Armature to hold 12'-Diameter Circular Sign

San Diego International Airport Concessions Program

Concession Blade Sign:
S1.18 Round Sign Type

M1 - Mounting Bracket Fabrication

1. Mounting Bracket / A1.18 Armature
   Fabricated stainless steel mounting bracket for wall or column mounted blade signs. A visible surface shall have a brushed finish, vertical grain. Coordinate the fabrication of identification sign (S) with the mounting bracket so that any identification sign can be mounted to any M1 - mounting bracket. Mounting bracket shall be made safely, securely, and properly support wall or column mounted blade signs in a variety of locations.

2. Visible Stainless Steel Bolts
   Provide all hardware required to properly, safely, and securely attach the identification sign (S) to the mounting bracket (M1). Stainless Steel Button head Allen bolts with threaded inserts (3/8 - 16 x 1"

3. Concealed Electrical Supply
   Power for the blade signs shall be brought to the sign locations by the concessions' tenant. Insulate power to the identification sign (S) through the mounting bracket (M1); no conduit shall be visible.

4. Identification Sign (S)
   Internally illuminated fabricated aluminum, double-sided signs with stainless steel mounting arms.

5. Mounting Hardware
   Provide all hardware required to properly, safely, and securely mount the M1 - mounting bracket. The mounting hardware shall meet all applicable code requirements, including all applicable requirements for additional seismic bracing.

6. Concealed Additional Structural Elements
   Provide additional structural elements, behind the finished wall or column surface, as required to safely, securely, and properly support the blade signs. Structural elements must be concealed. Coordinate the structural elements with the wall or column materials and construction. Maintain all wall and column warranties and fire resistance ratings. If required, restore finished wall or column surfaces to match the surrounding area.

7. Finished Concessions Column / Wall
   Verify the wall finishes, materials, dimensions, and conditions at each installation location on site. Coordinate the blade sign fabrication and installation with the wall or column finishes, materials, and dimensions at each installation location.

See the Specifications for additional information and requirements.
M1 - Mounting Bracket (Wall or Column Mounted) - Fabrication Details w/ A1.18 Armature to hold 12’ Diameter Circular Sign

San Diego International Airport Concessions Program

Concession Blade Sign:
S1.18 Round Sign Type

M1 - Mounting Bracket Fabrication

1. Mounting Bracket / A1.18 Armature
Fabricate stainless steel mounting bracket for wall or column mounted blade signs. All visible surfaces shall have a brushed finish, vertical grain. Coordinate the fabrication of identification sign (S) with the mounting bracket so that any identification sign can be mounted to any M1 - mounting bracket. Mounting bracket shall safety, securely, and properly support wall or column mounted blade signs in a variety of locations.

A1.18 - Armature

- Waterjet cut hole in 0.25” thick custom rolled wing bracket. Bracket attached to armature with weld on inside. No exposed welds.
- End of arm is custom angle cut to match radius of arm. End of arm is not capped.
- End of arm is custom angle cut to match radius of arm. End of arm is not capped.

Scale: 3’ = 1'-0"

Front View
Back View
Side View

Front View
Side View

Scale: 3’ = 1'-0"
Concession Blade Sign: S1.24 Round Sign Type

M1 - Mounting Bracket Fabrication

M1 - Mounting Bracket / A1.24 Armature
Fabricated stainless steel mounting bracket for wall or column mounted blade signs. All visible surfaces shall have a brushed finish, vertical grain. Coordinate the fabrication of identification signs (S) with the mounting bracket so that any identification sign can be mounted to any M1 - mounting bracket. Mounting bracket shall safely, securely, and properly support wall or column mounted blade signs in a variety of locations.

Front View
Back View
Side View

Scale: 3\" = 1 - 0\"
M1 - Mounting Bracket (Wall or Column Mounted) - Fabrication Details w/ A2.12 Armature to hold 12" tall x 19" wide Oval Sign

San Diego International Airport
Concessions Program

Concession Blade Sign:
S2.12 Oval Sign Type

M1 - Mounting Bracket Fabrication

1. Mounting Bracket / A2.12 Armature
   Fabricated stainless steel mounting bracket for wall or column mounted blade signs. All visible surfaces shall have a brushed finish, vertical grain. Coordinate the fabrication of identification sign (S) with the mounting bracket so that any identification sign can be mounted to any M1 - mounting bracket. Mounting bracket shall be safety, securely, and properly support wall or column mounted blade signs in a variety of locations.

2. Visible Stainless Steel Bolts
   Provide all hardware required to properly, safely, and securely attach the identification sign (S) to the mounting bracket (M1). Stainless Steel Button head phillips head bolts with threaded reamed inserts (38P-16 x 1")

3. Concealed Electrical Supply
   Power for the blade signs shall be brought to the sign locations by the concessions tenant, route power to the identification sign (S) through the mounting bracket (M1). No conduit shall be visible.

4. Identification Sign (S)
   Internally illuminated fabricated aluminum, double-sided signs with stainless steel mounting arms.

5. Mounting Hardware
   Provide all hardware required to properly, safely, and securely mount the M1 - mounting bracket. The mounting hardware shall meet all applicable code requirements, including all applicable requirements for additional seismic bracing.

6. Concealed Additional Structural Elements
   Provide additional structural elements, behind the finished wall or column surface, as required to safely, securely, and properly support the blade sign. Structural elements must be concealed. Coordinate the structural elements with the wall or column materials and construction. Maintain all wall and column warranties and re resistance ratings. If required, restore finished wall or column surfaces to match the surrounding area.

7. Finished Concessions Column / Wall
   Verify the wall finishes, materials, dimensions, and conditions at each installation location on site. Coordinate the blade sign fabrication and installation with the wall or column conditions, materials, and dimensions at each installation location.

See the Specifications for additional information and requirements.
M1 - Mounting Bracket (Wall or Column Mounted) - Fabrication Details w/ A2.12 Armature to hold 12" tall x 19" wide Oval Sign

Concession Blade Sign:
S2.12 Oval Sign Type

M1 - Mounting Bracket Fabrication
1. M1 Mounting Bracket / A2.12 Armature
Fabricated stainless steel mounting bracket for wall or column mounted blade signs. All visible surfaces shall have a brushed finish, vertical grain. Coordinate the fabrication of identification sign (S) with the mounting bracket so that any identification sign can be mounted to any M1 - mounting bracket. Mounting bracket shall be securely, and properly support wall or column mounted blade signs in a variety of locations.

Waterjet cut hole in 1/8" thick custom rolled wing bracket. Bracket attached to armature with weld on inside. No exposed welds.

End of arm is custom angle cut to match radius of arm. End of arm is not capped.

End of arm is custom angle cut to match radius of arm. End of arm is not capped.

Front View  Back View  Side View  Side View  Front View

Scale: 1" = 1'-0"  Scale: 1" = 1'-0"
San Diego International Airport Concessions Program

Concession Blade Sign:
S2.18 Oval Sign Type

M1 - Mounting Bracket Fabrication

M1 - Mounting Bracket / A2.18 Armature
Fabricated stainless steel mounting bracket for wall or column mounted blade signs. All visible surfaces shall have a brushed finish, vertical grain. Coordinate the fabrication of identification sign (S) with the mounting bracket so that any identification sign can be mounted to any M1 - mounting bracket. Mounting bracket shall safety, securely, and properly support wall or column mounted blade signs in a variety of locations.
San Diego International Airport
Concessions Program

M1 - Mounting Bracket Fabrication

1. Mounting Bracket / A2.24-Armature
   - Fabricated stainless steel mounting bracket for wall or column mounted blade signs.
   - All visible surfaces shall have a brushed finish, vertical grain.
   - Coordinate the fabrication of identification signs (S) with the mounting bracket so that any identification sign can be mounted to any M1 - mounting bracket. Mounting bracket shall be safely, securely, and properly support wall or column mounted blade signs in a variety of locations.

2. Visible Stainless Steel Bolts
   - Provide all hardware required to properly, safely, and securely attach the identification sign (S) to the mounting bracket (M1). Stainless Steel Button head phillips flat head threaded metal insert (8SF-16 x 1"

3. Concealed Electrical Supply
   - Power for the blade signs shall be brought to the sign locations by the concessions tenant. Route power to the identification sign (S) through the mounting bracket (M1). No conduit shall be visible.

4. Identification Signs (S)
   - Internally illuminated fabricated aluminum, double-sided signs with stainless steel mounting arms.

5. Mounting Hardware
   - Provide all hardware required to properly, safely, and securely mount the M1 - mounting bracket. The mounting hardware shall meet all applicable code requirements, including all applicable requirements for additional seismic bracing.

6. Concealed Additional Structural Elements
   - Provide additional structural elements, behind the finished wall or column surface, as required to safely, securely, and properly support the blade signs. Structural elements must be concealed. Coordinate the structural elements with the wall or column materials and construction. Maintain all wall and column warranties and pedestrian ratings. If required, restore finished wall or column surfaces to match the surrounding area.

7. Finished Concessions Column / Wall
   - Verify the wall finishes, materials, dimensions, and conditions at each installation location on site. Coordinate the blade sign fabrication and installation with the wall or column conditions, materials, and dimensions at each installation location.

See the Specifications for additional information and requirements.
M1 - Mounting Bracket (Wall or Column Mounted) - Fabrication Details w/ A2.24 Armature to hold 24" tall x 38" wide Oval Sign

M1 - Mounting Bracket

Fabricated stainless steel mounting bracket for wall or column mounted blade signs. All visible surfaces shall have a brushed finish, vertical grain. Coordinate the fabrication of identification sign (S) with the mounting bracket so that any identification sign can be mounted to any M1 - mounting bracket. Mounting bracket shall safely, securely, and properly support wall or column mounted blade signs in a variety of locations.

A2.24 - Armature

End of arm is custom angle cut to match radius of arm. End of arm is not capped.

Waterjet cut hole in 1/8" thick custom rolled wing bracket. Bracket attached to armature with weld on inside. No exposed welds.

Scale: 3" = 1'-0"
M1 - Mounting Bracket (Wall or Column Mounted) - Fabrication Details w/ A3.12 Armature to hold 12" tall x 12" wide Square Sign

M1 - Mounting Bracket (Wall or Column Mounted) - Fabrication Details w/ A4.12 Armature to hold 12" tall x 14-3/4" wide Rectangular Sign

3/16" aluminum backplate welded to inner-wall portion of sign construction suitable for tapping to receive bolted hardware.

M1 - Mounting Bracket (Wall or Column Mounted) - Fabrication Details - Elevation

Scale: 3" = 1'-0"

3/16" aluminum backplate welded to inner-wall portion of sign construction suitable for tapping to receive bolted hardware.

M1 - Mounting Bracket (Wall or Column Mounted) - Fabrication Details - Plan View

Scale: 3" = 1'-0"

San Diego International Airport Concessions Program

Concession Blade Sign:
S3.12 Square Sign Type
S4.12 Rectangular Sign Type

M1 - Mounting Bracket Fabrication

1. Mounting Bracket / A3.12/A4.12 Armature
Fabricated stainless steel mounting bracket for wall or column mounted blade signs. A4 visible surfaces shall have a brushed finish, vertical grain. Coordinate the fabrication of identification sign (S) with the mounting bracket so that any identification sign can be mounted to any M1 - mounting bracket. Mounting bracket shall be safe, secure, and properly support wall or column mounted blade signs in a variety of locations.

2. Visible Stainless Steel Bolts
Provide all hardware required to properly, safely, and securely attach the identification sign (S) to the mounting bracket (M1). Stainless Steel Button head phillip head bolt w/ threaded female insert (3BP-16 x 1"

3. Concealed Electrical Supply
Power for the blade signs shall be brought to the sign locations by the concessions' tenant. Route power to the identification sign (S) through the mounting bracket (M1). No conduit shall be visible.

4. Identification Sign (S)
Internally illuminated fabricated aluminum, double-sided signs with stainless steel mounting arms.

5. Mounting Hardware
Provide all hardware required to properly, safely, and securely mount the M1 - mounting bracket. The mounting hardware shall meet all applicable code requirements, including all applicable requirements for additional seismic bracing.

6. Concealed Additional Structural Elements
Provide additional structural elements, behind the finished wall or column surface, as required to safely, securely, and properly support the blade signs. Structural elements must be concealed. Coordinate the structural elements with the wall or column materials and construction. Maintain all wall and column warranties and fire resistance ratings. If required, restore finished wall or column surfaces to match the surrounding area.

7. Finished Concessions Column / Wall
Verify the wall finishes, materials, dimensions, and conditions at each installation location on site. Coordinate the blade sign fabrication and installation with the wall or column conditions, materials, and dimensions at each installation location. See the specifications for additional information and requirements.
San Diego International Airport
Concessions Program
Concession Blade Sign:
S3.12 Square Sign Type
S4.12 Rectangular Sign Type

M1 - Mounting Bracket Fabrication

Fabricated stainless steel mounting bracket for wall or column mounted blade signs. All visible surfaces shall have a brushed finish, vertical grain. Coordinate the fabrication of identification sign (S) with the mounting bracket so that any identification sign can be mounted to any M1 - mounting bracket. Mounting bracket shall be safely, securely, and properly support wall or column mounted blade signs in a variety of locations.

Waterjet cut hole in 1/8" thick custom rolled wing bracket. Bracket attached to armature with weld on inside. No exposed welds.

End of arm is custom angle cut to match radius of arm. End of arm is not capped.

End of arm is custom angle cut to match radius of arm. End of arm is not capped.

Notifications:
- The information contained in this document is confidential and proprietary to Sign Age, Inc. It shall not be used or reproduced in any form or manner without the consent of Sign Age, Inc.
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M1 - Mounting Bracket (Wall or Column Mounted) - Fabrication Details w/ A3.18 Armature to hold 18" tall x 18" wide Square Sign

3/16" aluminum backplate welded to inner-wall portion of sign construction suitable for tagging to receive bolt hardware.

3/16" aluminum backplate welded to inner-wall portion of sign construction suitable for tagging to receive bolt hardware.

M1 - Mounting Bracket Wall or Column Mounted - Fabrication Details - Elevation

Scale: 3" = 1'-0"

M1 - Mounting Bracket Wall or Column Mounted - Fabrication Details - Plan View

Scale: 3" = 1'-0"

San Diego International Airport Concessions Program

Concession Blade Sign: S3.18 Square Sign Type
S4.18 Rectangular Sign Type

M1 - Mounting Bracket Fabrication

1. Mounting Bracket / A3.18/A4.18-Armature
Fabricated stainless steel mounting bracket for wall or column mounted blade signs. All visible surfaces shall have a brushed finish, vertical grain. Coordinate the fabrication of identification sign (S) with the mounting bracket so that any identification sign can be mounted to any M1 - mounting bracket. Mounting bracket shall be safely, securely, and properly support wall or column mounted blade signs in a variety of locations.

2. Visible Stainless Steel Bolts
Provide all hardware required to properly, safely, and securely attach the identification sign (S) to the mounting bracket (M1). Stainless Steel Button head Phillips drive bolt with threaded neet insert (3/8" x 1"

3. Concealed Electrical Supply
Power for the blade signs shall be brought to the sign locations by the concessions tenant. Route power to the identification sign (S) through the mounting bracket (M1). No conduit shall be visible.

4. Identification Sign (S)
Internally illuminated fabricated aluminum, double-sided signs with stainless steel mounting arms.

5. Mounting Hardware
Provide all hardware required to properly, safely, and securely mount the M1 - mounting bracket. The mounting hardware shall meet all applicable code requirements, including all applicable requirements for additional seismic bracing.

6. Concealed Additional Structural Elements
Provide additional structural elements, behind the finished wall or column surface, as required to safely, securely, and properly support the blade signs. Structural elements shall be concealed. Coordinate the structural elements with the wall or column materials and construction. Maintain all wall and column warranties and fire resistance ratings. If required, restore finished wall or column surfaces to match the surrounding area.

7. Finished Concessions Column / Wall
Verify the wall finishes, materials, dimensions, and conditions at each installation location on site. Coordinate the blade sign fabrication and installation with the wall or column conditions, materials, and dimensions at each installation location.

See the Specifications for additional information and requirements.
M1 - Mounting Bracket Fabrication

M1-Mounting Bracket / A3.18/A4.18-Armature
Fabricated stainless steel mounting bracket for wall or column mounted blade signs. All visible surfaces shall have a brushed finish, vertical grain. Coordinate the fabrication of identification sign (S) with the mounting bracket so that any identification sign can be mounted to any M1 mounting bracket. Mounting bracket shall be safely, securely, and properly support wall or column mounted blade signs in a variety of locations.
San Diego International Airport Concessions Program
Concession Blade Sign: 34.24 Square Sign Type
34.24 Rectangular Sign Type

M1 - Mounting Bracket Fabrication

**M1-Mounting Bracket / A3.24/A4.24-Armature**
Fabricated stainless steel mounting bracket for wall or column mounted blade signs. All visible surfaces shall have a brushed finish, vertical grain. Coordinate the fabrication of identification sign (S) with the mounting bracket so that any identification sign can be mounted to any M1 - mounting bracket. Mounting bracket shall safely, securely, and properly support wall or column mounted blade signs in a variety of locations.

Waterjet cut hole in 1/8" thick custom rolled wing bracket, Bracket attached to armature with weld on inside. No exposed welds.

End of arm is custom angle cut to match radius of arm. End of arm is not capped.

End of arm is custom angle cut to match radius of arm. End of arm is not capped.

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**Scale: 3" = 1'-0"**

**Scale: 3" = 1'-0"**
Terminal 1 Concessions Blade Sign Locations
Ryan Bros Coffee
CS 24

Where Traveler
CS 24

Stellar News Express
CS 24

Starbucks
CS 24

NOTE:
-24" SIGN
-SIGN TO BE PLACED ON THE RIGHT HAND SIDE OF STORE
-BOTTOM OF BLADE SIGN TO BE 8' OFF OF FLOOR
Terminal 2 East Concessions Blade Sign Locations
BLADE SIGN LOCATIONS

NOTE:
- BOTTOM OF BLADE SIGN TO BE 76" OFF OF FLOOR AND CENTERED ON COLUMN
- TENANT TO PROVIDE BACKING AND POWER FOR BLADE SIGN

100 Wines (SSP)
Jack In The Box
Panda Express
CPK
Peet's Coffee
Brighton Collectibles
CS12

No Blade Signs
Need Common Sign or Monument Sign for F&B Concessions
100 Wines CS12
BLADE SIGN LOCATIONS

NOTE:
- BOTTOM OF BLADE SIGN TO BE 7'-6" OFF OF FLOOR & CENTERED ON COLUMN
- TENANT TO PROVIDE BACKING & POWER FOR BLADE SIGN
Terminal 2 West Concessions Blade Sign Locations