LEHIGH UNIVERSITY

Wayfinding and Signage Manual

Part 2 of 2
Version 1.0 | 8/15/19

Prepared by Exit Design

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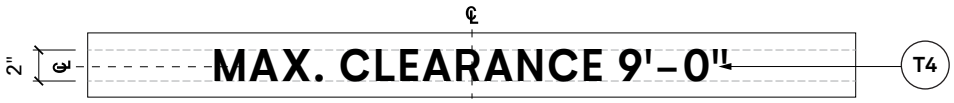
SECTION 2D

Parking

1 **Front Elevation**
Scale: 1/2" = 1'-0"



2 **Graphic Layout**
Scale: 1/2" = 1'-0"

PBB.1 – Garage Clearance Bang Bar

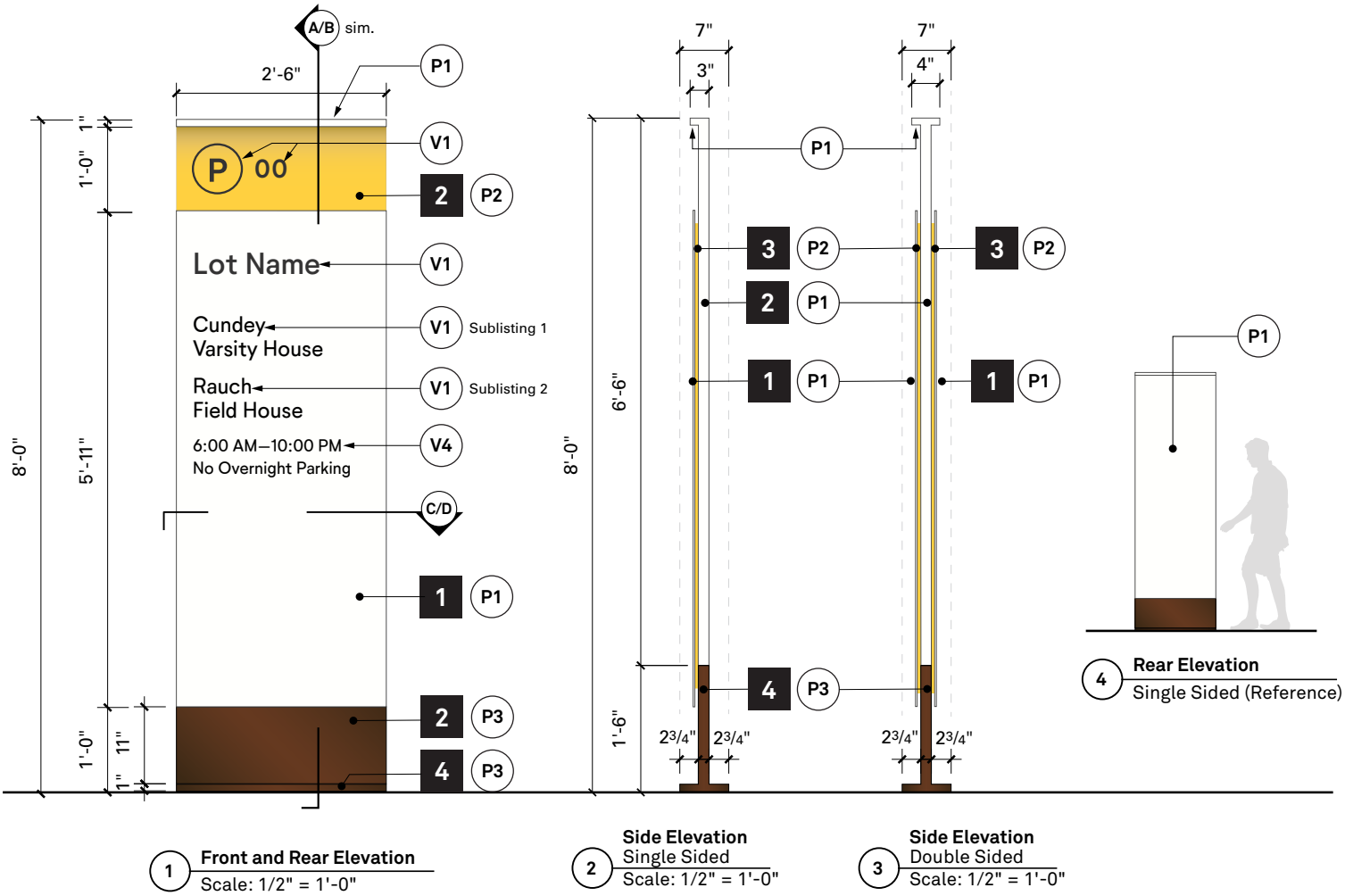
GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

Used to mark the garage clearance upon entry to the garage.

The bottom of this sign should be mounted to match the garage clearance and positioned at each point of clearance change.

32– Clearance Bar
4" diameter PVC pipe, painted, with surface applied graphics. Fasten to concrete structure or Fabricated Sign Core above with stainless steel eye bolt and cable, with crimp if necessary.



PID.1 – Parking Identification: Large

GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

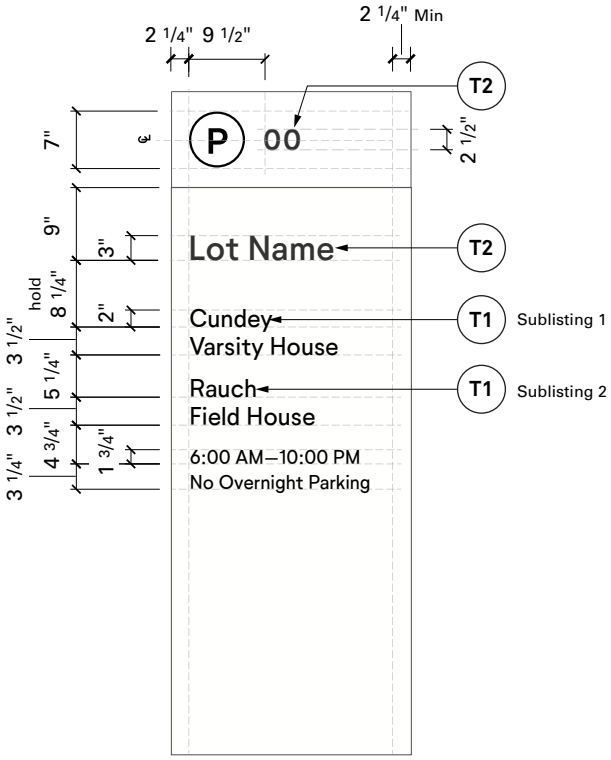
Locate at parking lot entrances. Messaging should include lot name and number, what buildings the lot serves, plus any and all parking restrictions and rules.

1– Sign Panel
1/4" thick aluminum plates chemically welded to mounting angle. Paint all exposed surfaces. Mechanically fastened to mounting frame. Surface applied graphics.

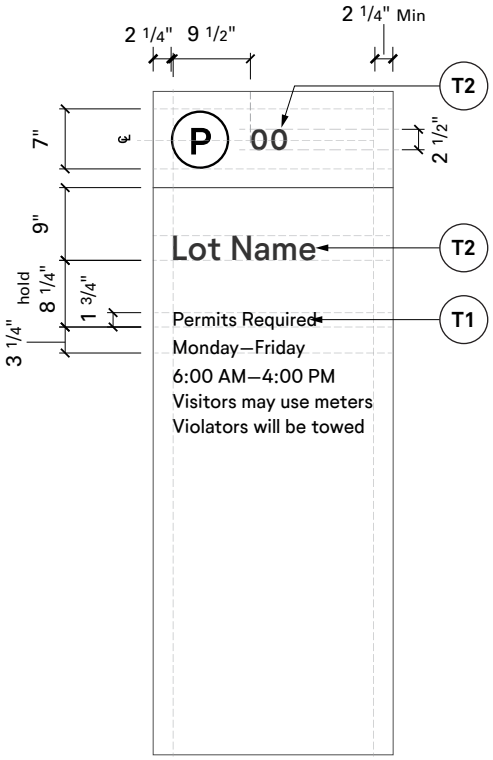
2– Fabricated Sign Core
.063" thick aluminum sheet fastened to 1½" thick aluminum tube frame. Paint all exposed surfaces.

3– Mounting Frame
3/4" x 1" x 1/2" Aluminum Arch Angle, miter jointed mechanically fastened to sign core.

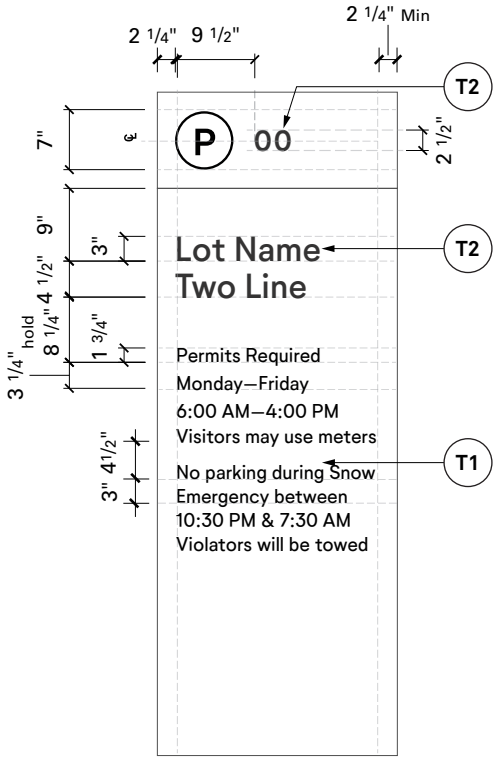
4– Mounting Base
1/2" thick aluminum sheet chemically welded to 1½" aluminum tube. Paint all exposed surfaces and secure to foundation and fabricate sign core.



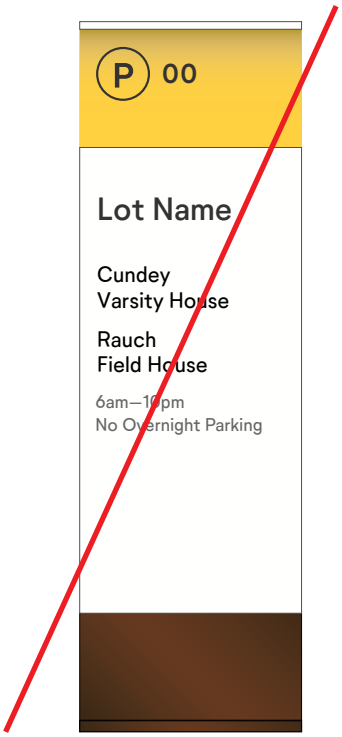
1 **Graphic Layout**
Scale: 1/2" = 1'-0"



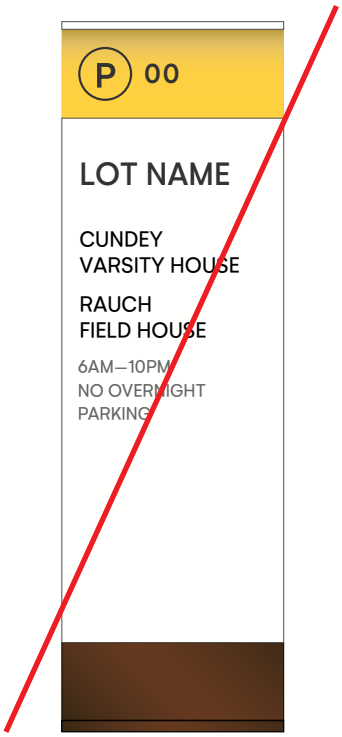
2 **Alternate Graphic Layout**
Scale: 1/2" = 1'-0"



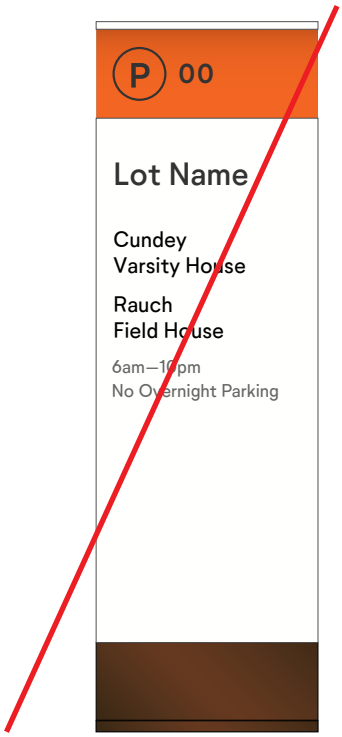
3 **Alternate Graphic Layout**
Scale: 1/2" = 1'-0"



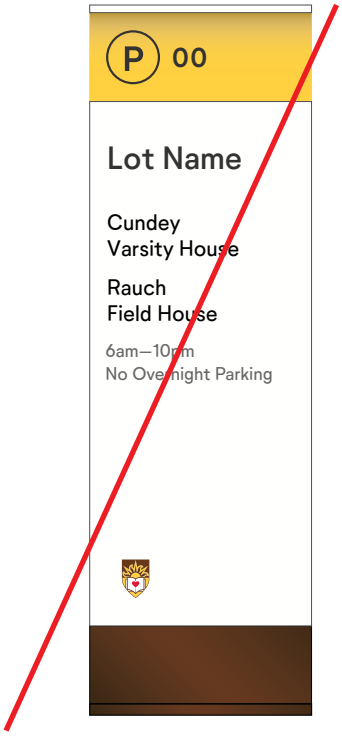
DO NOT increase the yellow or brown color fields/proportions



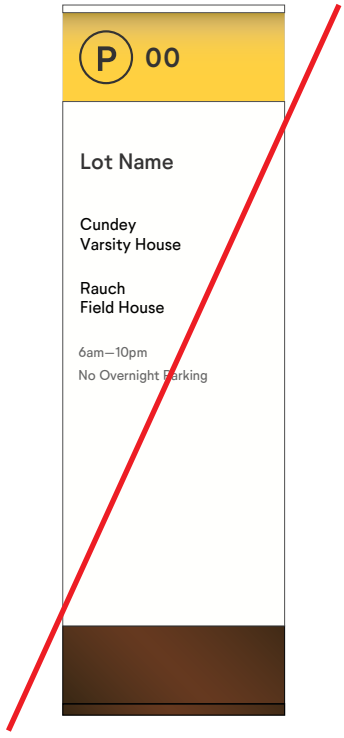
DO NOT use all caps for any messages except when noted



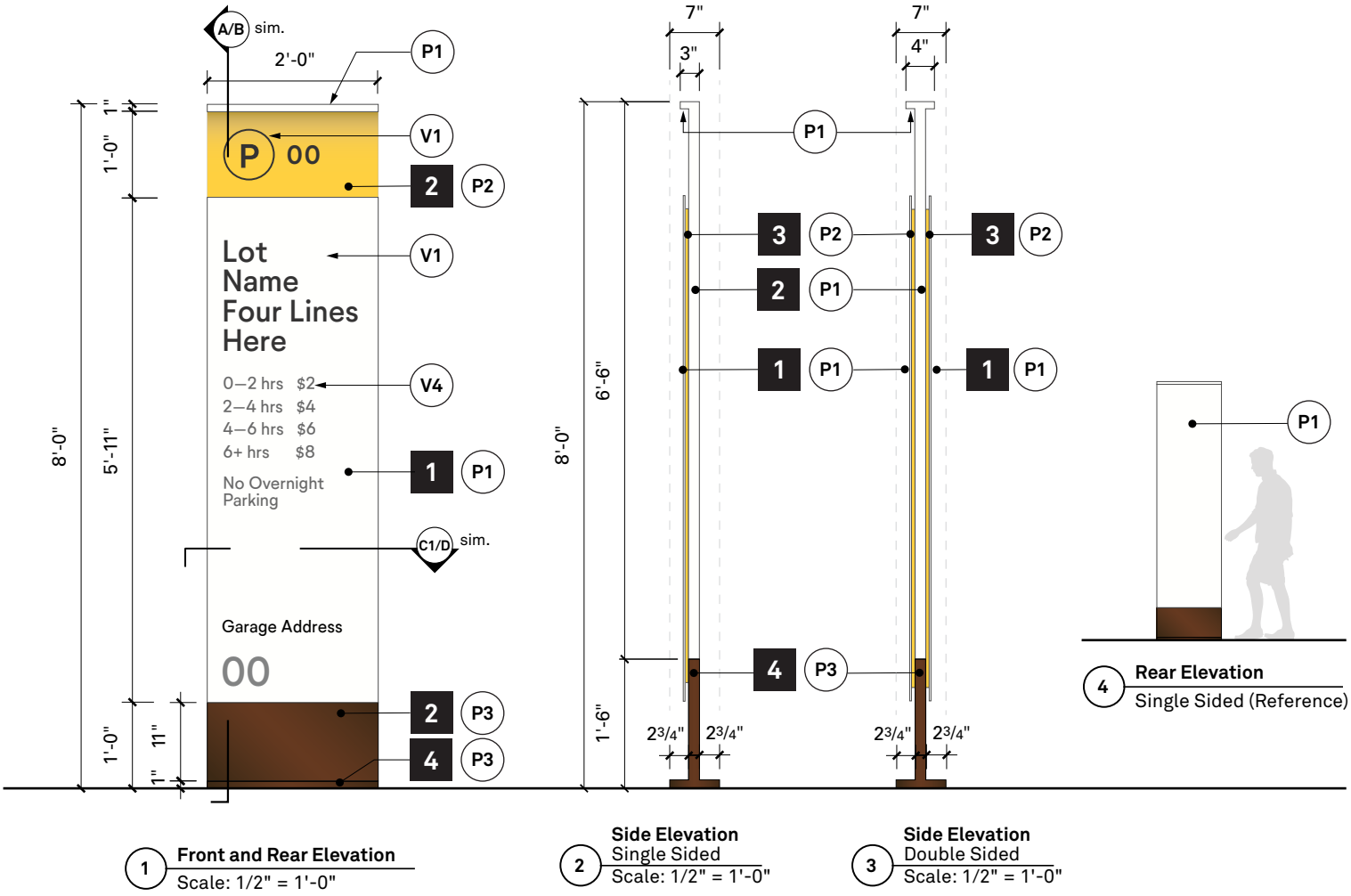
DO NOT use other colors in the yellow or brown color fields.



DO NOT use the University Shield/Brand on this sign type



DO NOT use small pedestrian scale messages on this sign type



PID.2 – Parking Identification: Small

GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

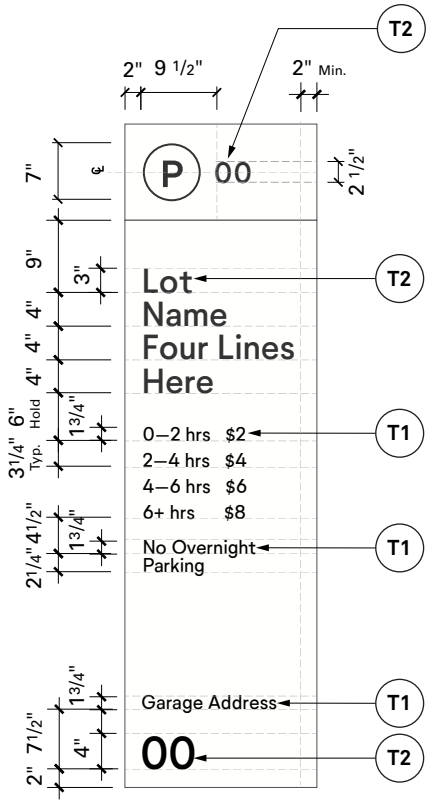
Locate at parking garage entrances. Messaging should include the garage name and number, plus any and all parking restrictions and rules.

1– Sign Panel
1/4" thick aluminum plates chemically welded to mounting angle. Paint all exposed surfaces. Mechanically fastened to mounting frame. Surface applied graphics.

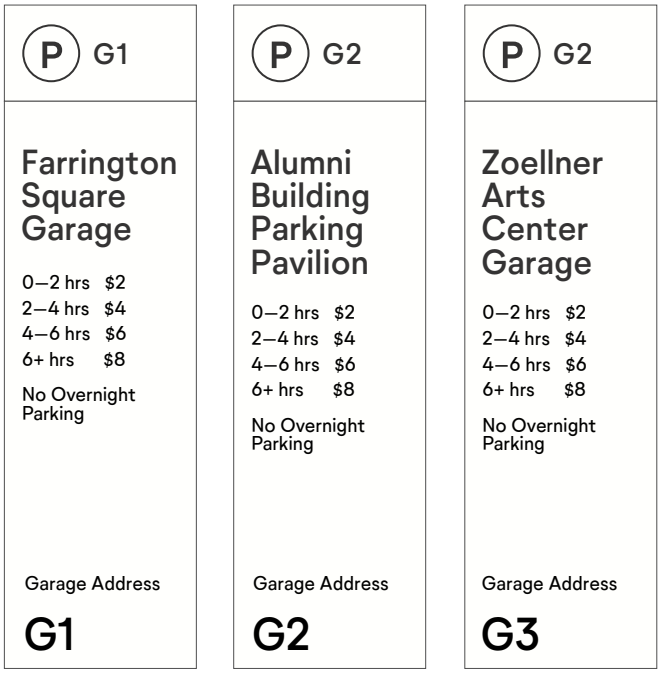
2– Fabricated Sign Core
.063" thick aluminum sheet fastened to 1½" thick aluminum tube frame. Paint all exposed surfaces.

3– Mounting Frame
3/4" x 1" x 1/2" Aluminum Arch Angle, miter jointed mechanically fastened to sign core.

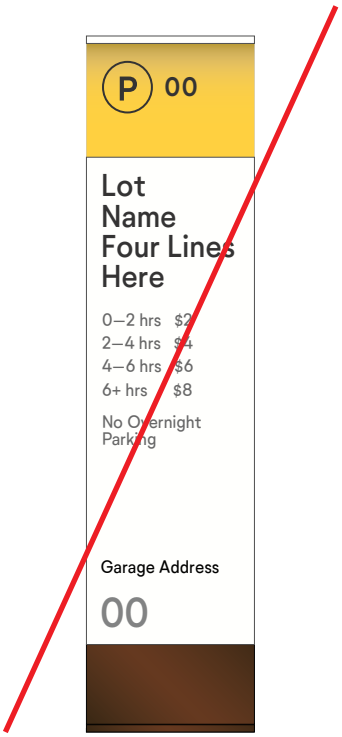
4– Mounting Base
1/2" thick aluminum sheet chemically welded to 1½" aluminum tube. Paint all exposed surfaces and secure to foundation and fabricate sign core.



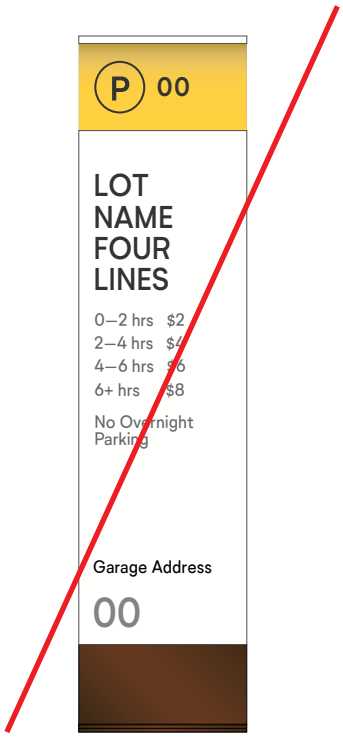
1 **Graphic Layout**
Scale: 1/2" = 1'-0"



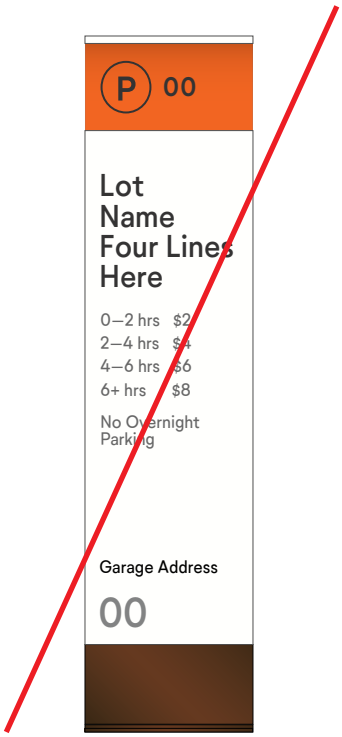
2 **Lehigh University Garage Names**
Scale: 1/2" = 1'-0"



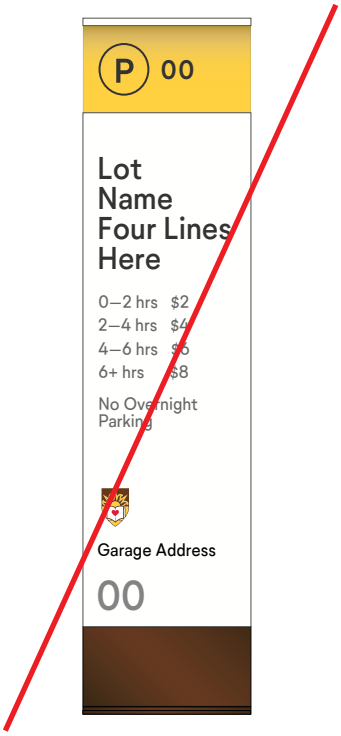
DO NOT increase the yellow or brown color fields/proportions



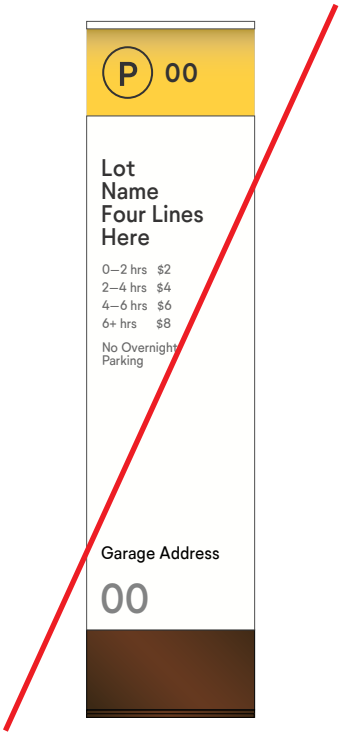
DO NOT use all caps for any messages except when noted



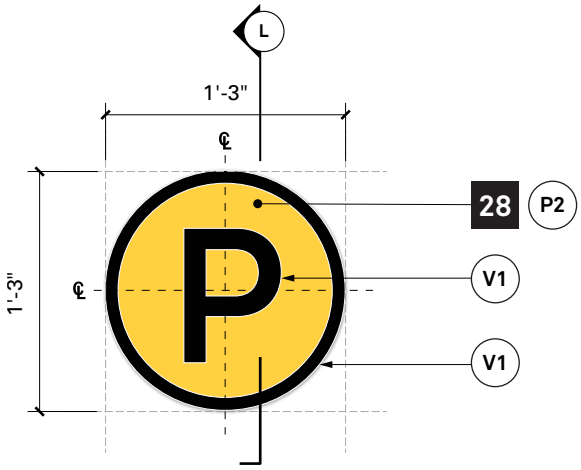
DO NOT use other colors in the yellow or brown color fields.



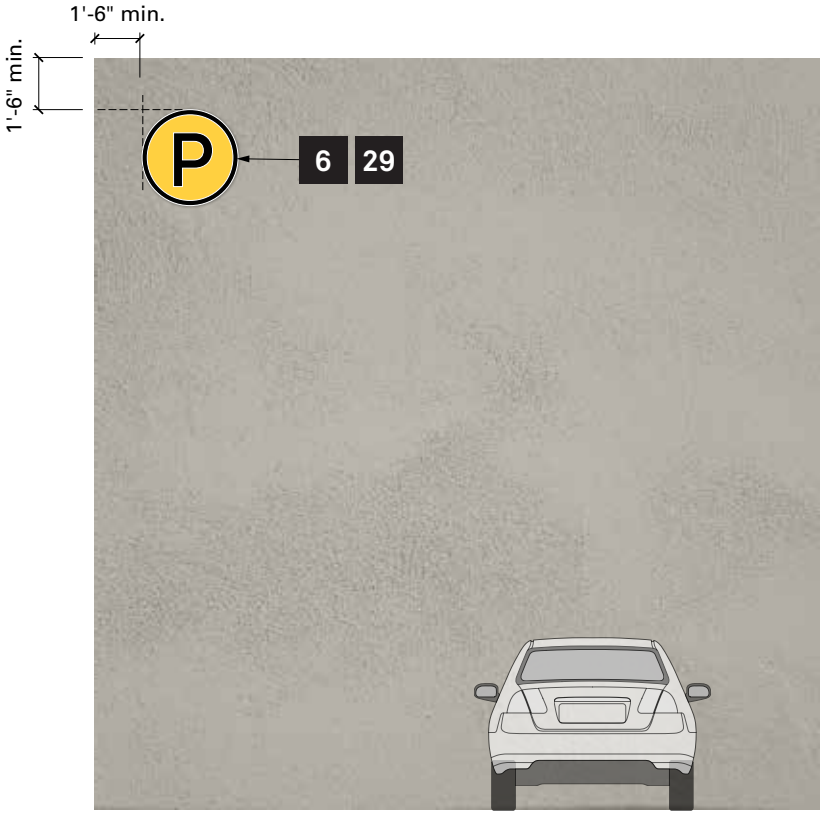
DO NOT use the University Shield/Brand on this sign type



DO NOT use small pedestrian scale messages on this sign type



1 **Front Elevation**
Scale: 1/2" = 1'-0"



2 **Mounting Elevation**
Parking ID
N.T.S.

PID.3 – Parking Symbol: Building Mounted

GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

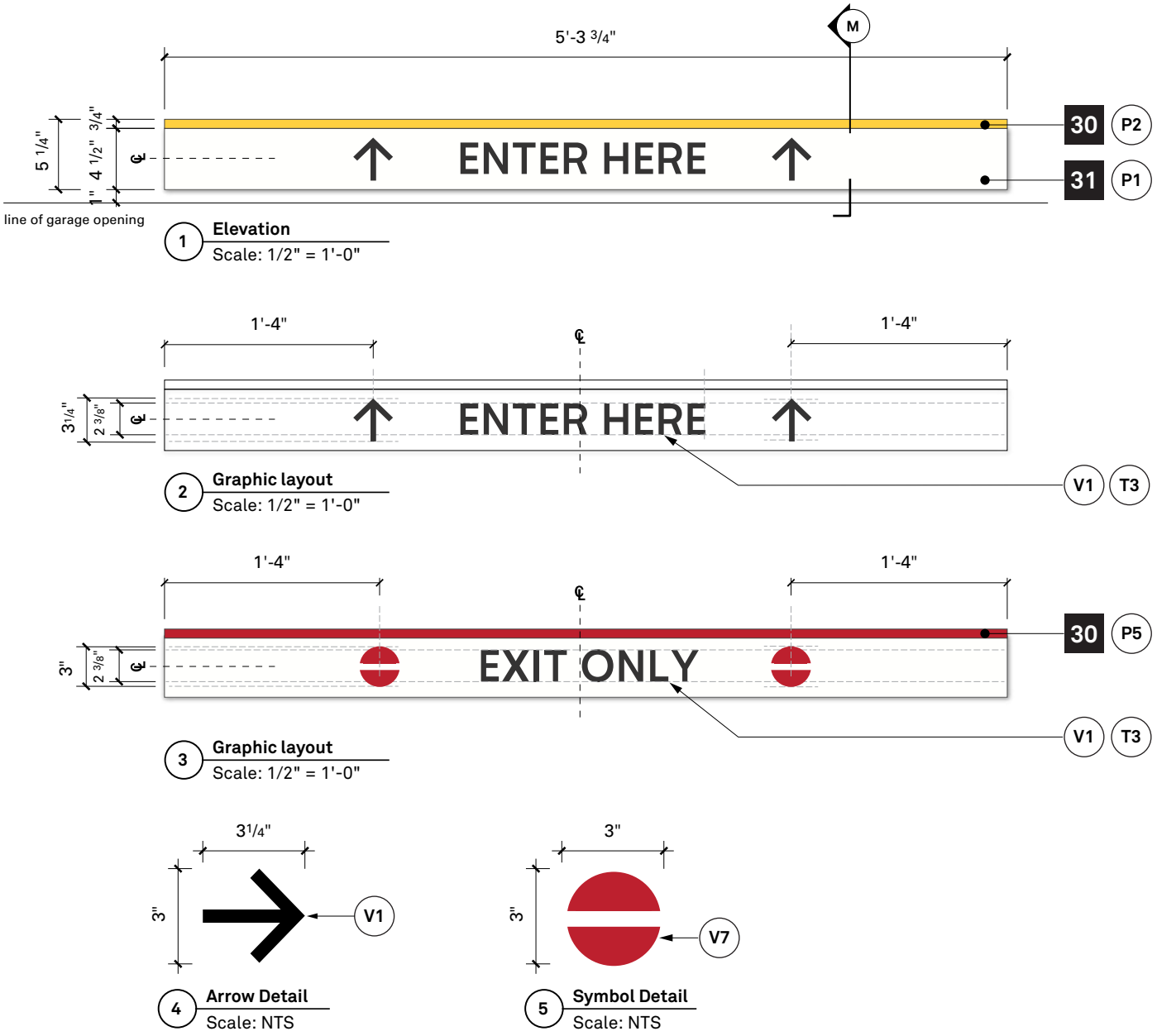
A few guidelines to consider when selecting this sign type.

Used to increase visibility of visitor parking garages. This sign should be placed on the garage facade to optimize visibilty on the garage approach

6– Spacer/Mounting Studs
Refer to construction detail "L" for spacer/mounting studs and backer panel details.

28– Sign Panel
1/8" thick aluminum skin chemically welded to 1" aluminum sign frame. Provide internal bracing as necessary for stability. Paint all exposed surfaces. Mechanically fasten to Backer Panel. Surface applied graphics.

29– Backer Panel
3/16" thick aluminum panel with welded angles for Sign Panel attachment to aluminum sign frame. Paint all exposed surfaces. Stud mount to wall and provide Spacer.



PRG.1 – Garage Entrance/Exit

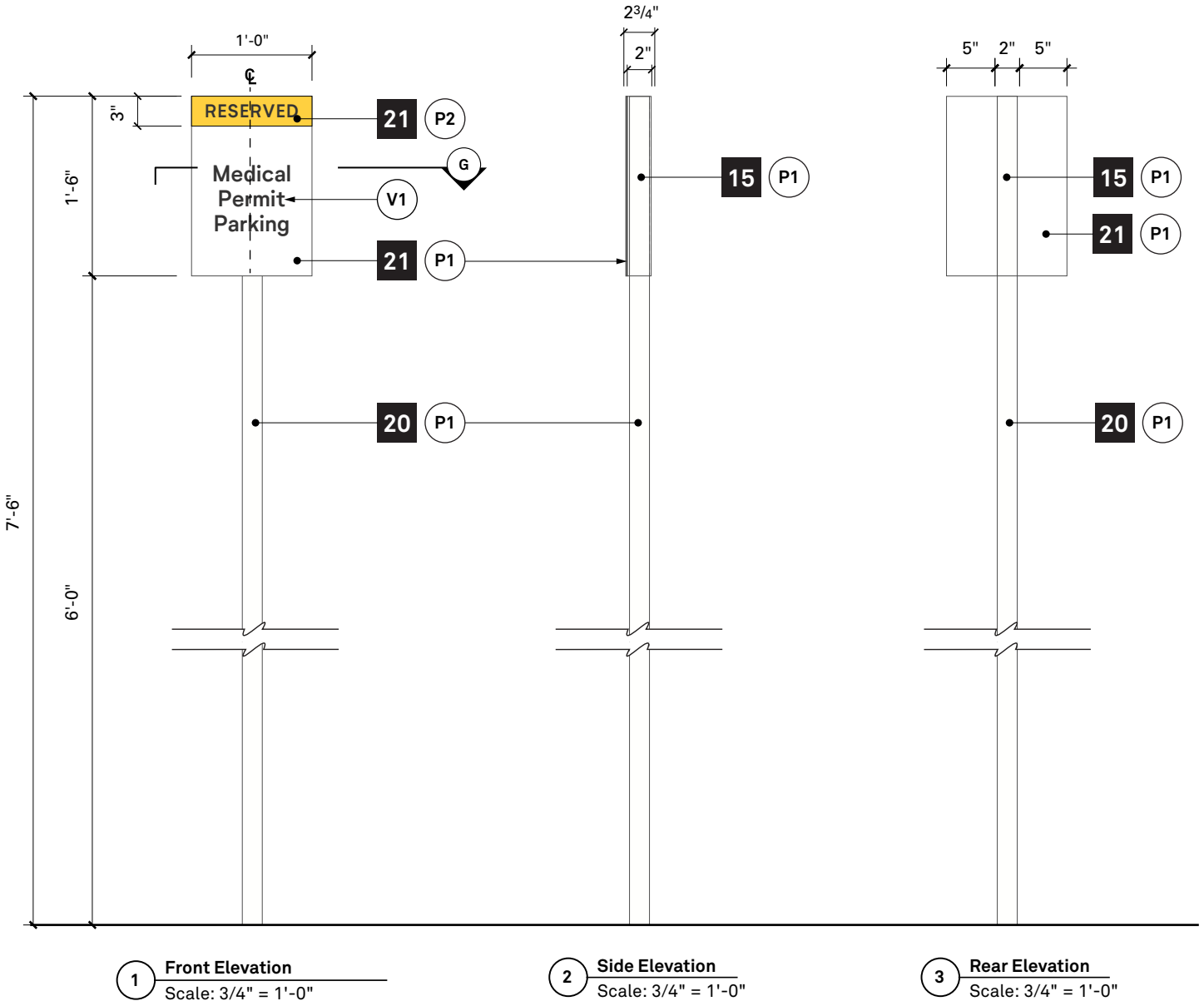
GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

This sign is to be used to mark the lanes of ingress and egress of the garage.

30– Fabricated Sign Core
Aluminum tube frame. All welds and countersunk hardware to be hidden. Paint all exposed surfaces. Anchor to structure behind.

31– Sign Panels
3/16" thick aluminum panels attached to Fabricated Sign Core. Paint all exposed surfaces. Surface applied graphics.



1 **Front Elevation**
Scale: 3/4" = 1'-0"

2 **Side Elevation**
Scale: 3/4" = 1'-0"

3 **Rear Elevation**
Scale: 3/4" = 1'-0"

VRG.1 – Parking Regulatory: Small

GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

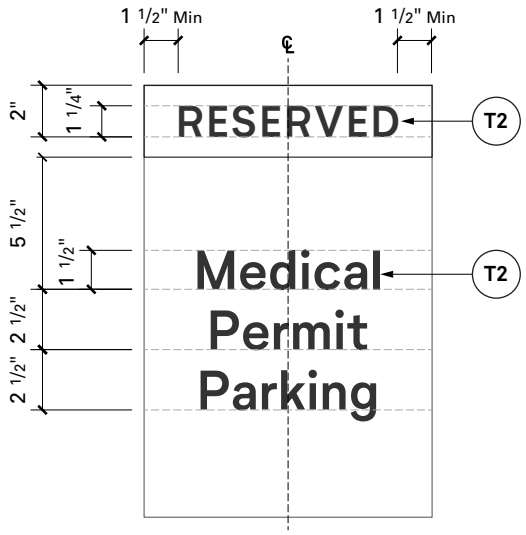
Used to post notices about parking information including: reserved spaces, parking restrictions, limitations, etc.

These are to be located at the head of parking spaces or adjacent to curb parking.

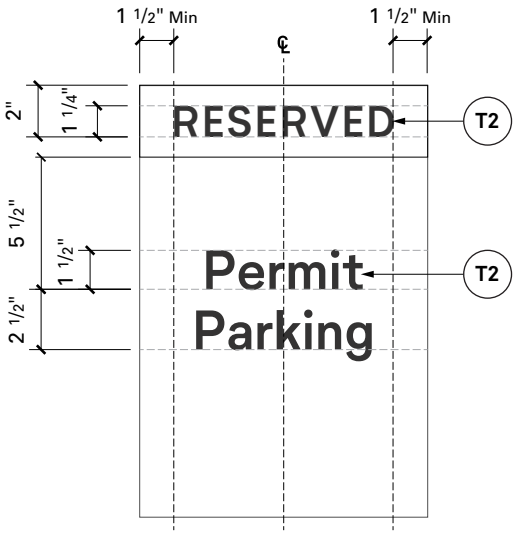
15– Mounting Sleeve
Fabricated as required. Grind and smooth all welds. Mechanically fastened to post with countersunk hardware. Paint hardware to match post.

20– Sign Pole
Painted aluminum 2" square tube. Provide slot to receive Sign Panel mounting bracket. Provide top cap, mechanically fastened.

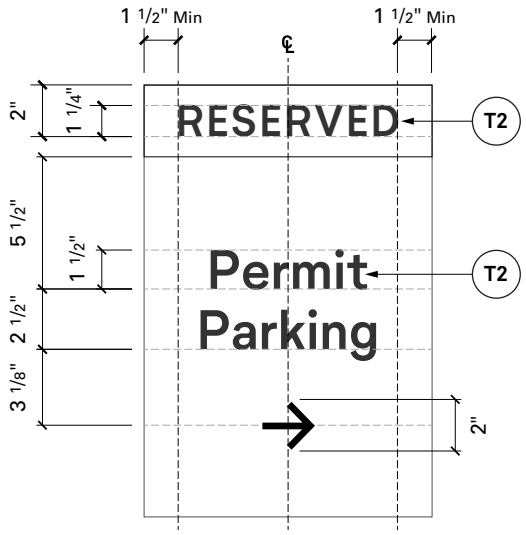
21– Sign Panel
1/8" thick aluminum panel with mounting bracket fastened to second surface. Insert bracket into Sign Pole and secure with top cap. Mask and paint exposed surfaces as shown. Surface applied graphics, unless noted.



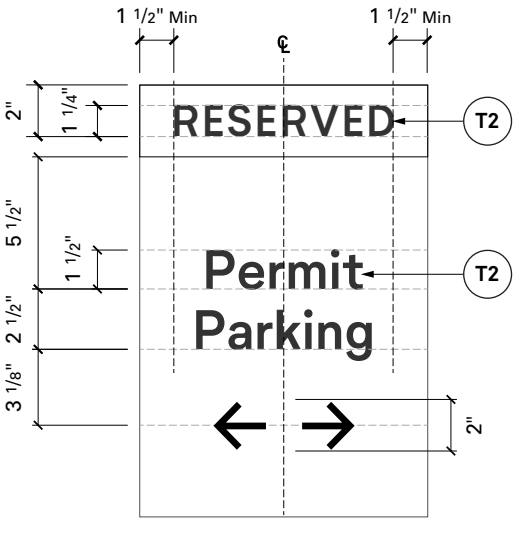
1 **Graphic Layout**
Scale: 1 1/2" = 1'-0"



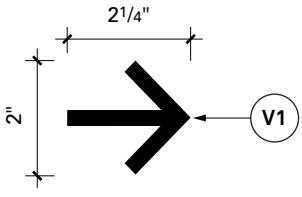
2 **Alternate Graphic Layout**
Scale: 1 1/2" = 1'-0"



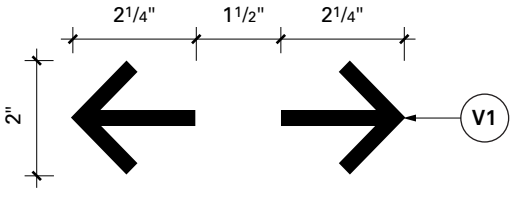
3 **Alternate Graphic Layout**
Scale: 1 1/2" = 1'-0"



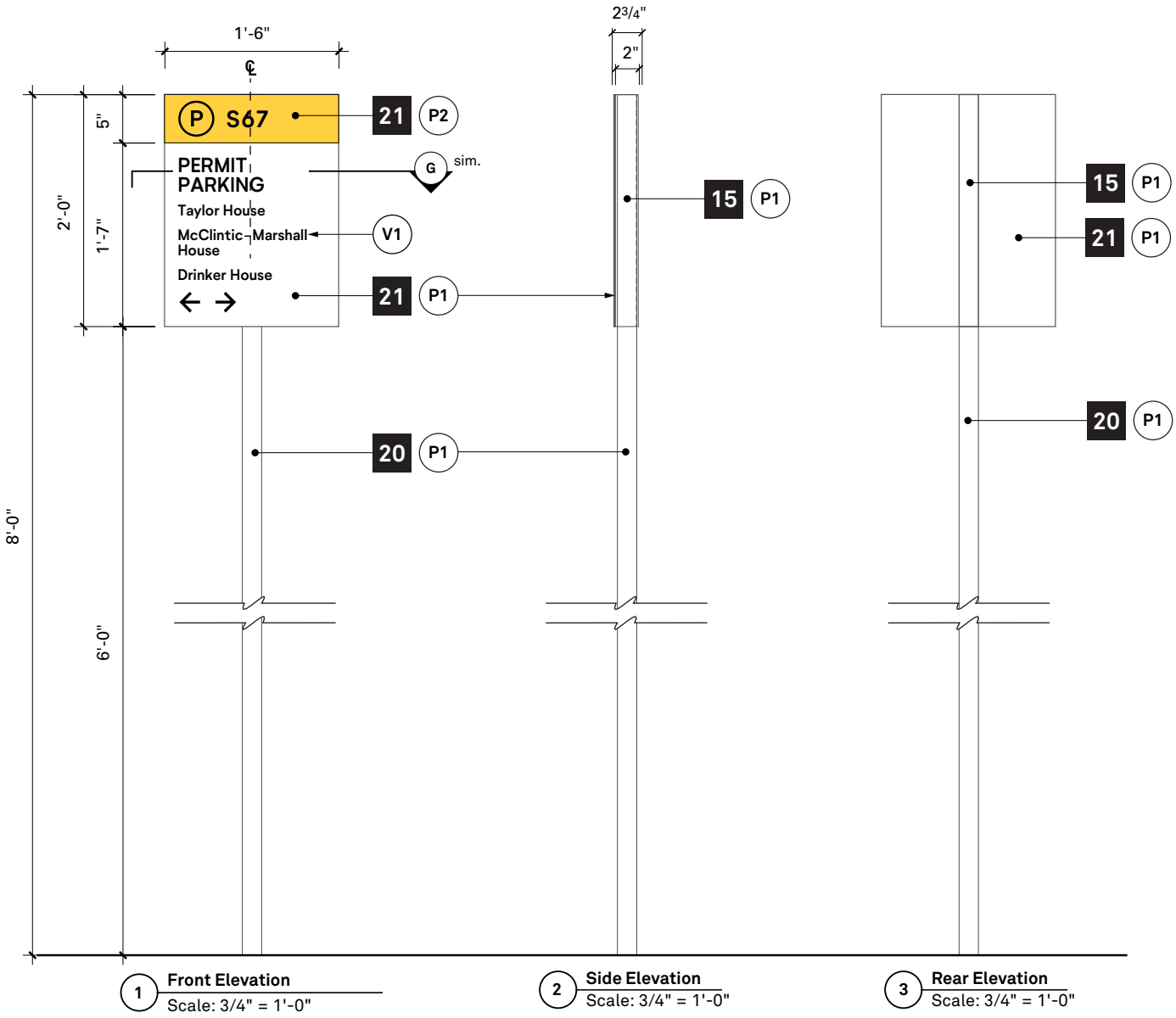
4 **Alternate Graphic Layout**
Scale: 1 1/2" = 1'-0"



5 **Arrow Detail**
Scale: NTS



6 **Arrow Detail**
Scale: NTS



VRG.2 – Parking Regulatory: Large

GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

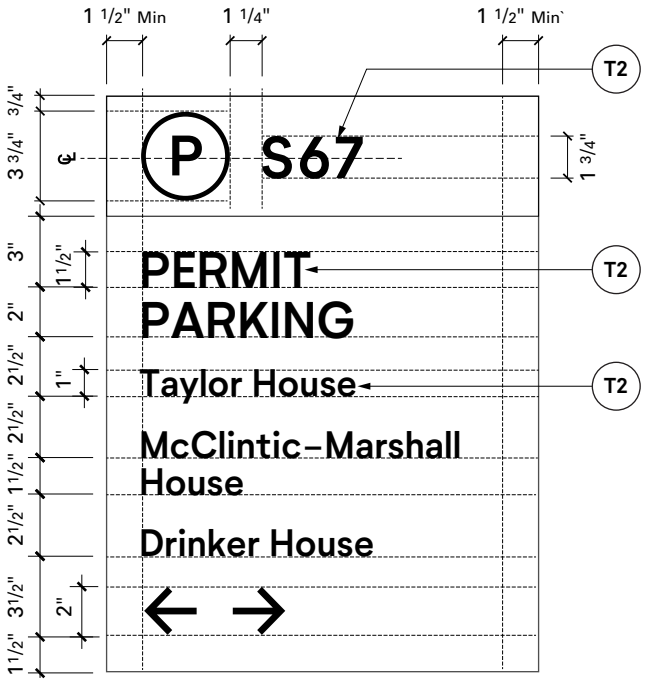
Used to post notices about parking information including: reserved spaces, parking restrictions, limitations, etc.

These are to be located at the head of parking spaces or adjacent to curb parking.

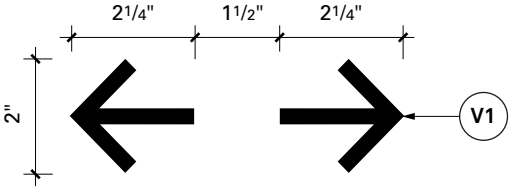
15– Mounting Sleeve
Fabricated as required. Grind and smooth all welds. Mechanically fastened to post with countersunk hardware. Paint hardware to match post.

20– Sign Pole
Painted aluminum 2" square tube. Provide slot to receive Sign Panel mounting bracket. Provide top cap, mechanically fastened.

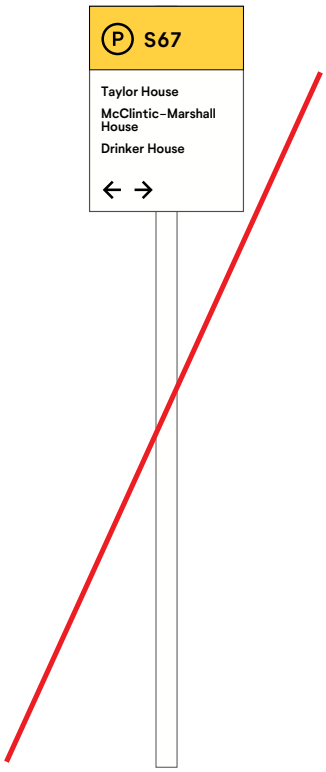
21– Sign Panel
1/8" thick aluminum panel with mounting bracket fastened to second surface. Insert bracket into Sign Pole and secure with top cap. Mask and paint exposed surfaces as shown. Surface applied graphics, unless noted.



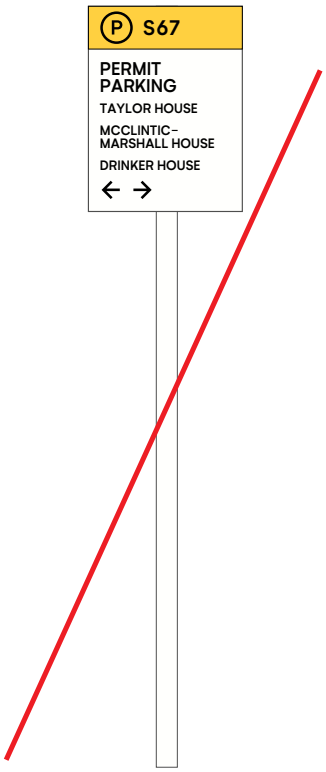
1 **Graphic Layout**
Scale: 1 1/2" = 1'-0"



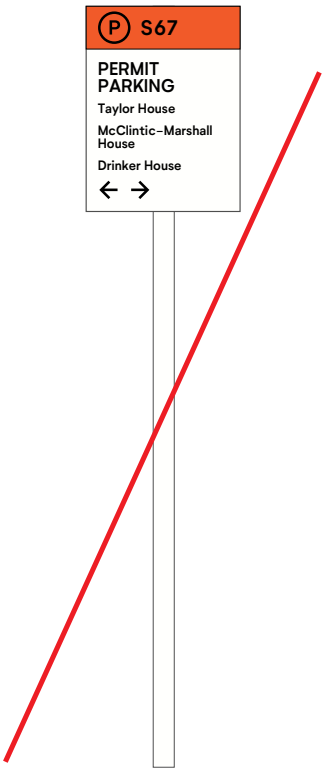
2 **Arrow Detail**
Scale: NTS



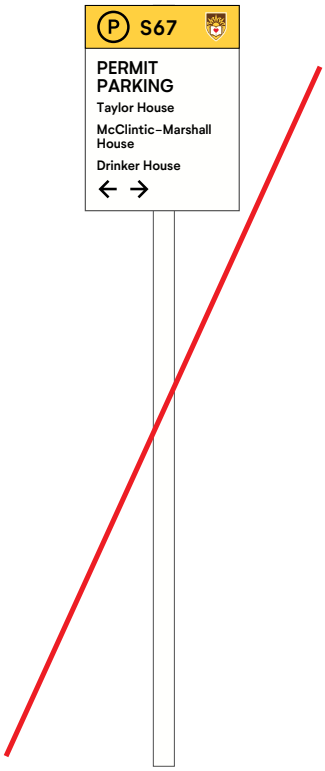
DO NOT increase the yellow color field/proportions



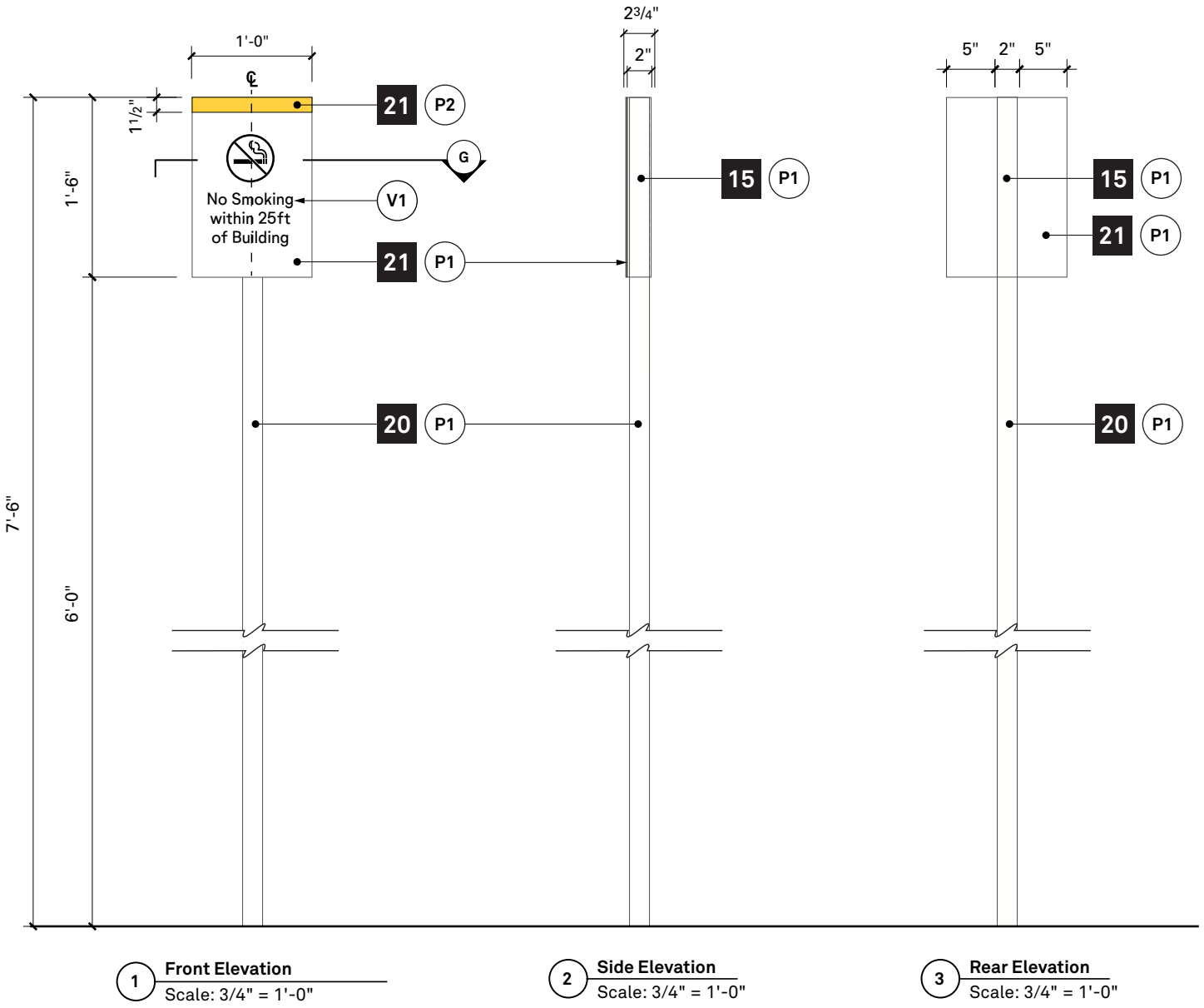
DO NOT use all caps for any messages except when noted



DO NOT use other colors in the yellow color fieldv.



DO NOT use the University Shield on regulatory signs.



1 **Front Elevation**
Scale: 3/4" = 1'-0"

2 **Side Elevation**
Scale: 3/4" = 1'-0"

3 **Rear Elevation**
Scale: 3/4" = 1'-0"

VRG.4 – No Smoking Regulatory: Small

GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

Program and locate this sign type near building perimeter.

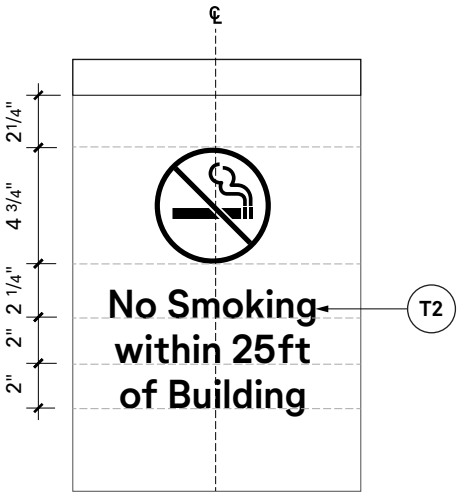
Place signs in areas where smoking could occur within 25ft of a building.

Minimize sign clutter by placing signage 300ft apart if multiple signs are required.

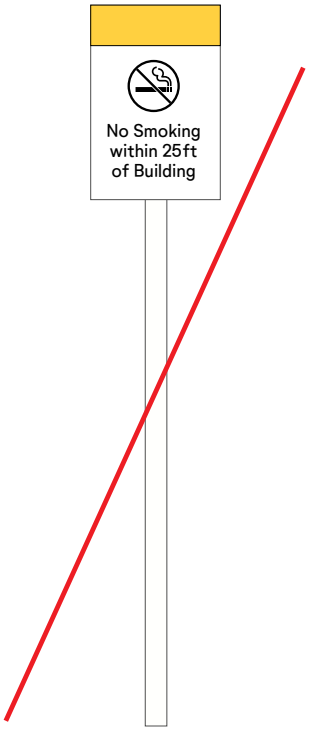
15– Mounting Sleeve
Fabricated as required. Grind and smooth all welds. Mechanically fastened to post with countersunk hardware. Paint hardware to match post.

20– Sign Pole
Painted aluminum 2" square tube. Provide slot to receive Sign Panel mounting bracket. Provide top cap, mechanically fastened.

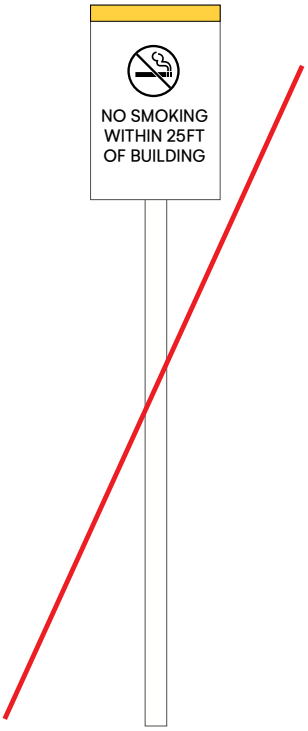
21– Sign Panel
1/8" thick aluminum panel with mounting bracket fastened to second surface. Insert bracket into Sign Pole and secure with top cap. Mask and paint exposed surfaces as shown. Surface applied graphics, unless noted.



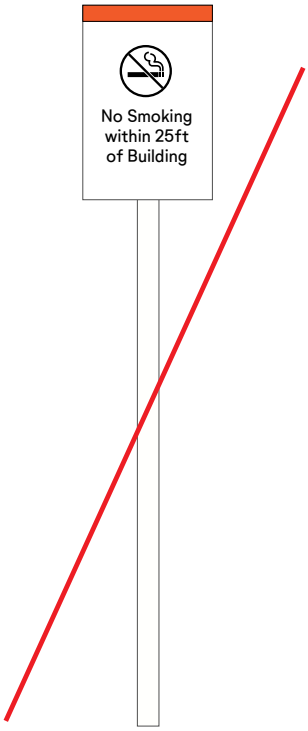
1 **Graphic Layout**
Scale: 1 1/2" = 1'-0"



DO NOT increase the yellow color field/proportions



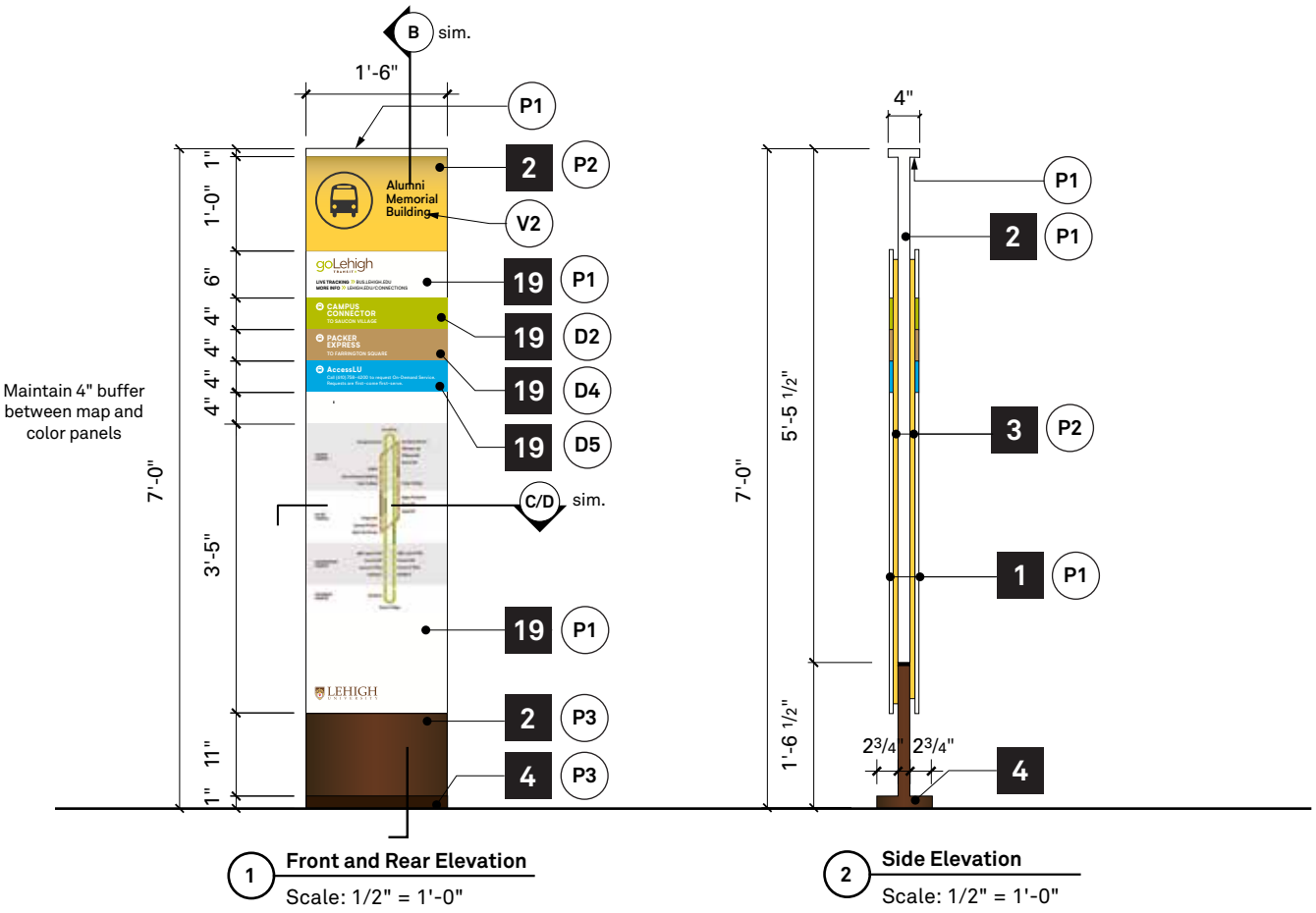
DO NOT use all caps for any messages except when noted



DO NOT use other colors in the yellow color field.

SECTION 2E

Pedestrian



1 **Front and Rear Elevation**
Scale: 1/2" = 1'-0"

2 **Side Elevation**
Scale: 1/2" = 1'-0"

BUS.1 – Shuttle Stop Monolith

GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

This sign type is to be programmed and used to mark shuttle stops on campus.

Program and locate this sign to maximize visbility from all pedestrian and bus approaches and with enough ambient light to maximize visibility both day/night.

Double-sided configurations should always be used.

1– Sign Panel
1/4" thick aluminum plates chemically welded to mounting angle. Paint all exposed surfaces. Mechanically fastened to mounting frame. Surface applied graphics.

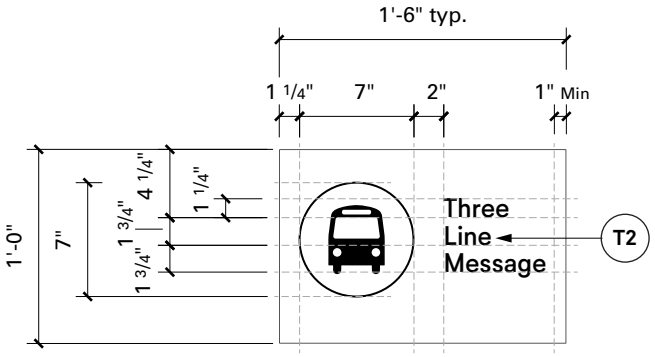
2– Fabricated Sign Core
.063" thick aluminum sheet fastened to 1½" thick aluminum tube frame. Paint all exposed surfaces.

3– Mounting Frame
3/4" x 1" x 1/2" Aluminum Arch Angle, miter jointed mechanically fastened to sign core.

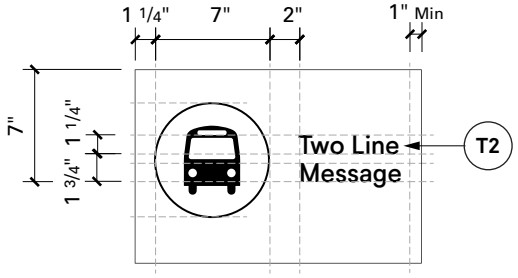
4– Mounting Base
1/2" thick aluminum sheet chemically welded to 1½" aluminum tube. Paint all exposed surfaces and secure to foundation and fabricate sign core.

19– Removable Sign Panel
1/8" thick aluminum plates mechanically fastened to sign panel with blind screws. Paint all exposed surfaces. Mechanically fasten sign panel to mounting frame. Surface printed graphics, unless otherwise noted. Artwork to be provided.

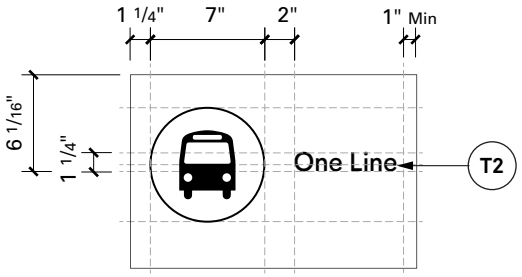
NOTE:
Prior to manufacturing this sign, the fabricator shall confirm with Lehigh University whether a breakaway design is required.



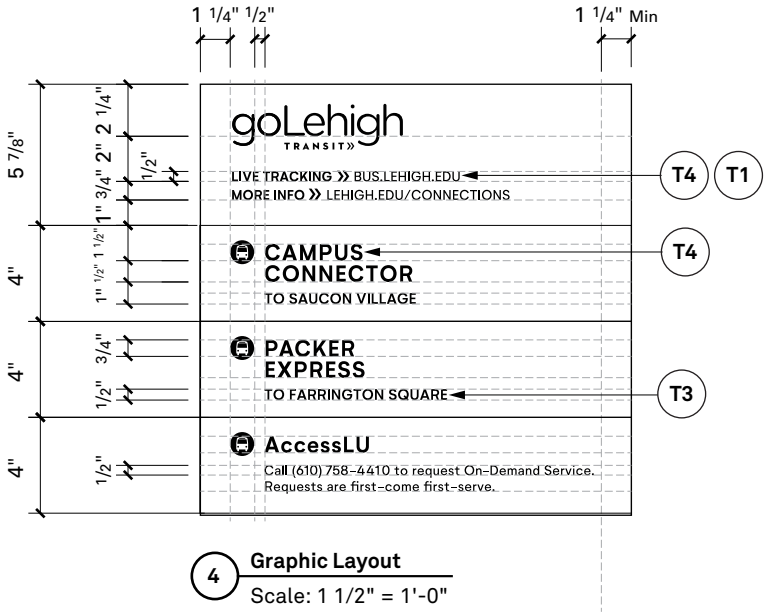
1 **Graphic Layout**
Scale: 1" = 1'-0"



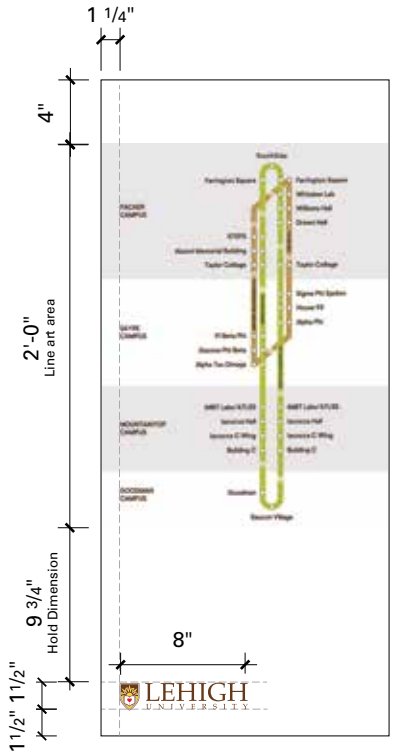
2 **Graphic Layout**
Scale: 1" = 1'-0"



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



4 **Graphic Layout**
Scale: 1 1/2" = 1'-0"

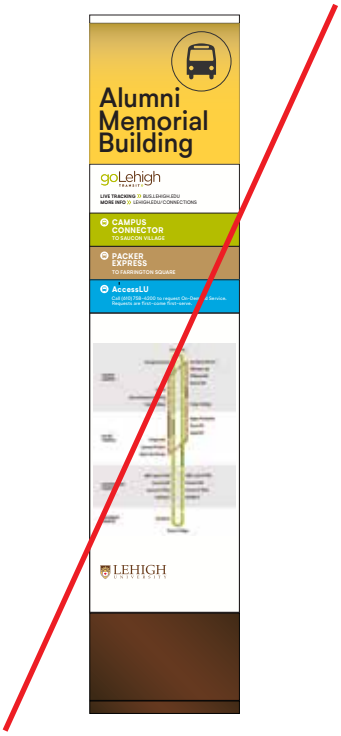


5 **Graphic Layout**
Scale: 1" = 1'-0"

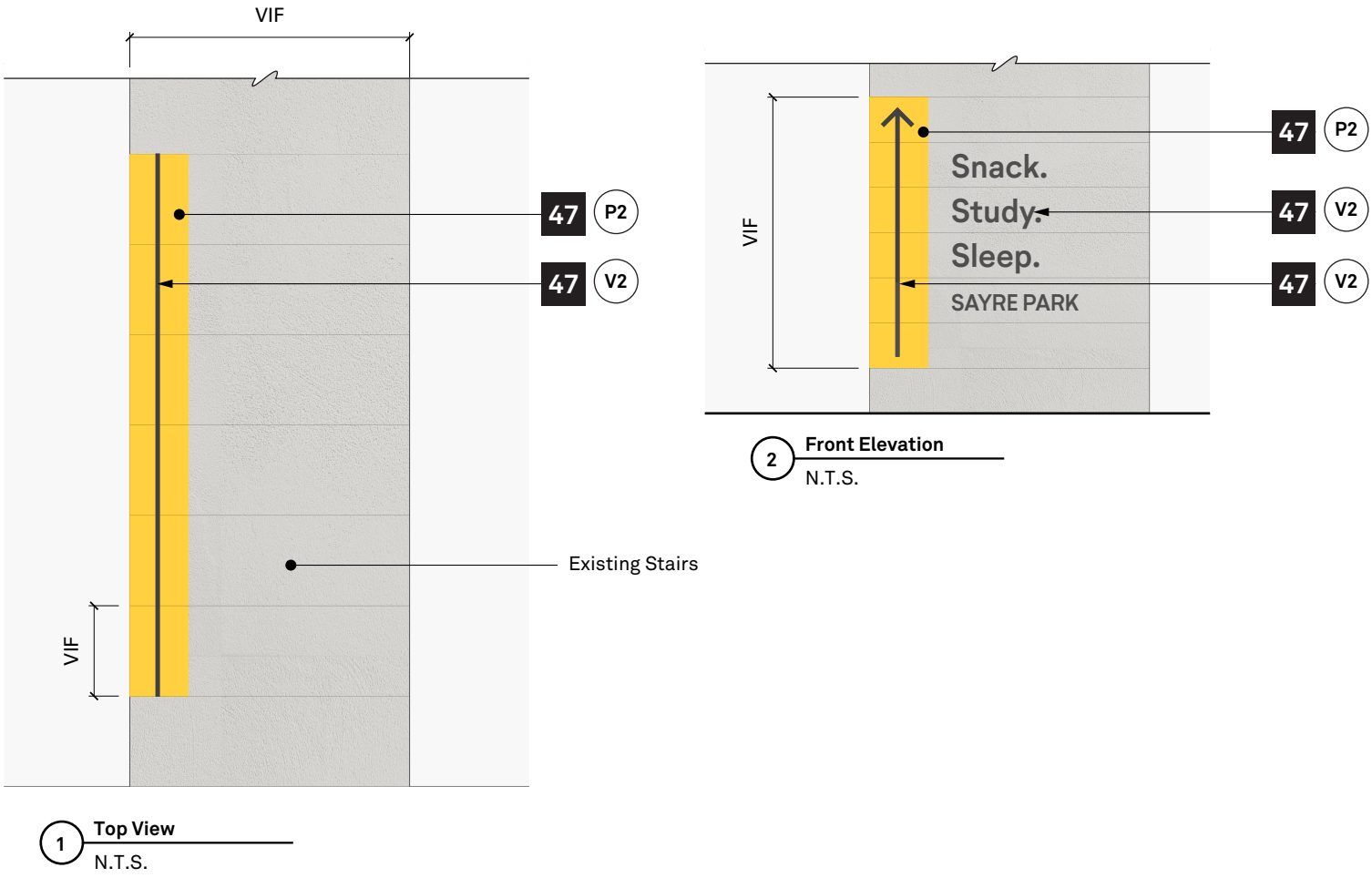
DO NOT increase the yellow or any other color fields/proportions

DO NOT use all caps for any messages except when noted

DO NOT use other colors in the yellow or any pre-established color fields



DO NOT use large vehicular scale messages on this sign type



GR.1 – Stair Graphics

GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

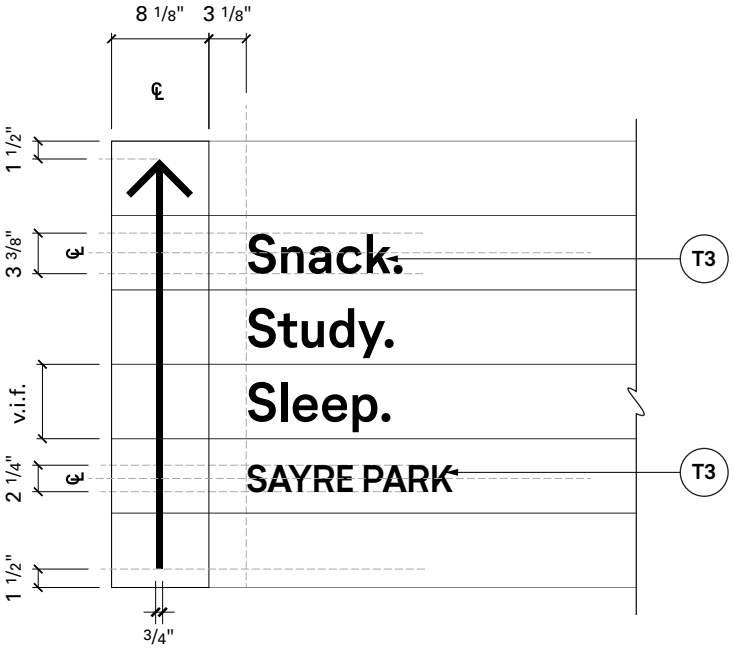
Intended to motivate and incentivize pedestrians to navigate the inclines of campus on foot.

The messaging for these graphics should be developed in conjunction with the brand voice of the University.

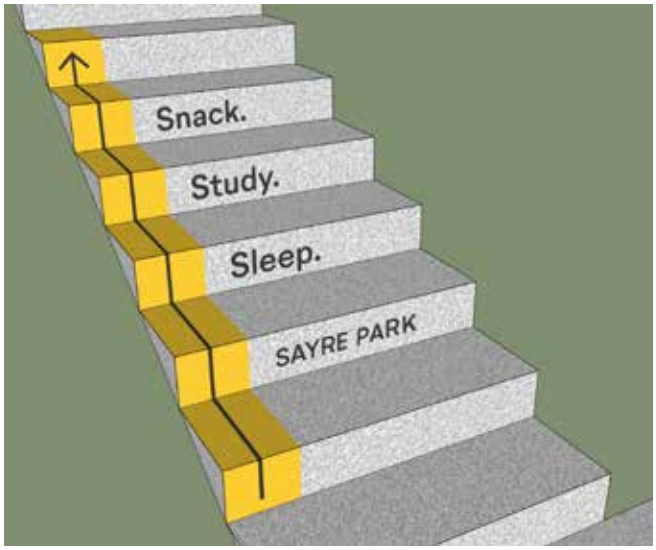
47– Painted Steps
Existing stairs to be masked, and painted as shown. Mix nonskid floor additive into paint before applying. Applied vinyl graphics. Note: Use 3M graphic film for textured surfaces to ensure adhesion and durability.

NOTE:
Verify in field, number of treads and risers per location.

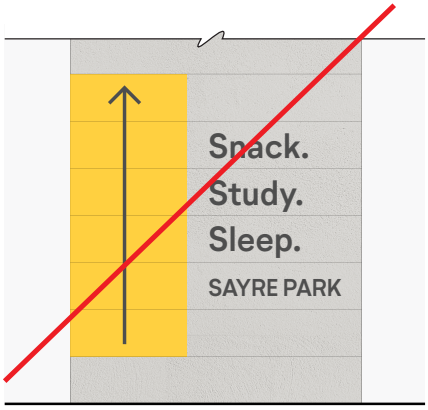
Stair graphics are to be coordinated with disability services with regard to students with depth perception issues.



3 **Graphic Layout**
Scale: 3/4" = 1'-0"

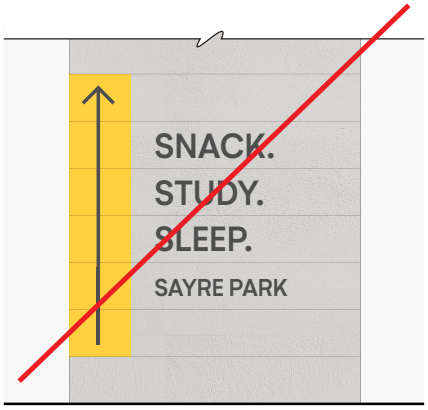


4 **Reference View**
N.T.S.

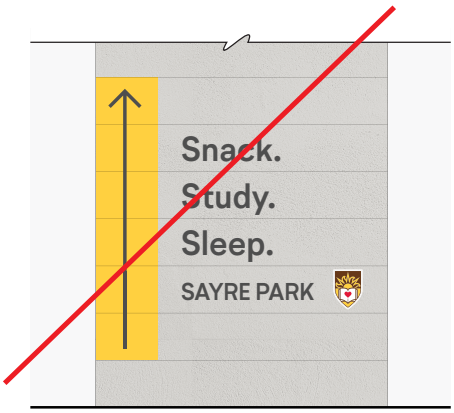


DO NOT increase the yellow color field/proportions

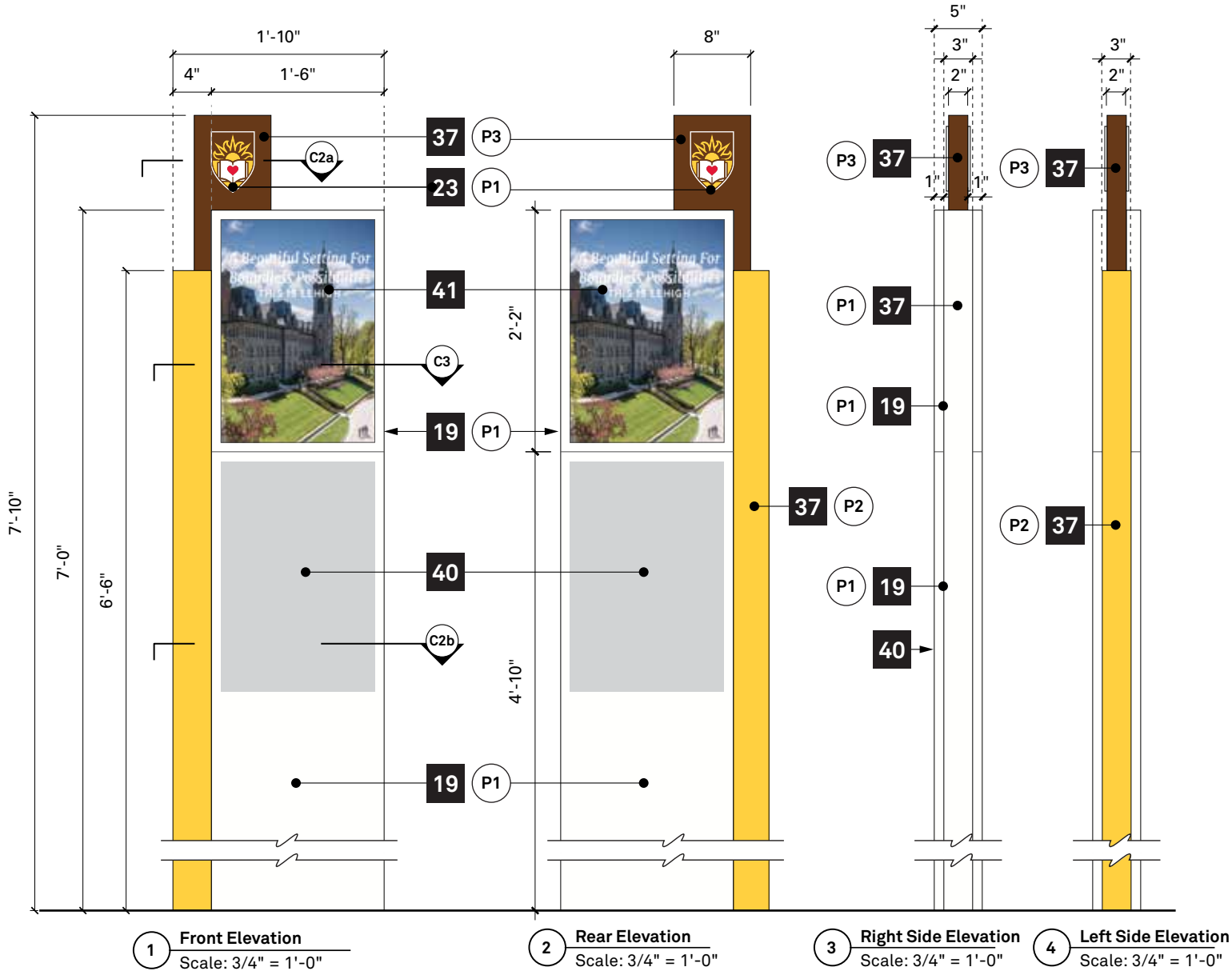
DO NOT use other colors in the yellow color field.



DO NOT use all caps for any messages except when noted



DO NOT use the University Shield/Brand on this sign type.



IHB.1MS – Information Hub: Multi–sided (Static Option)

GENERAL FABRICATION/GRAPHIC NOTES

Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

Structure that provides University–wide orientation and information as well as campus specific orientation and information.

This sign type is located at key gathering spots and/or public destinations.

The layout content on this sign is to be coordinated with Disability Services and positioned in keeping with ADA guidelines.

8– Shield
.125" thick painted aluminum plate with digital printed graphic on face plate adhered to sign core and all exposed edges painted.

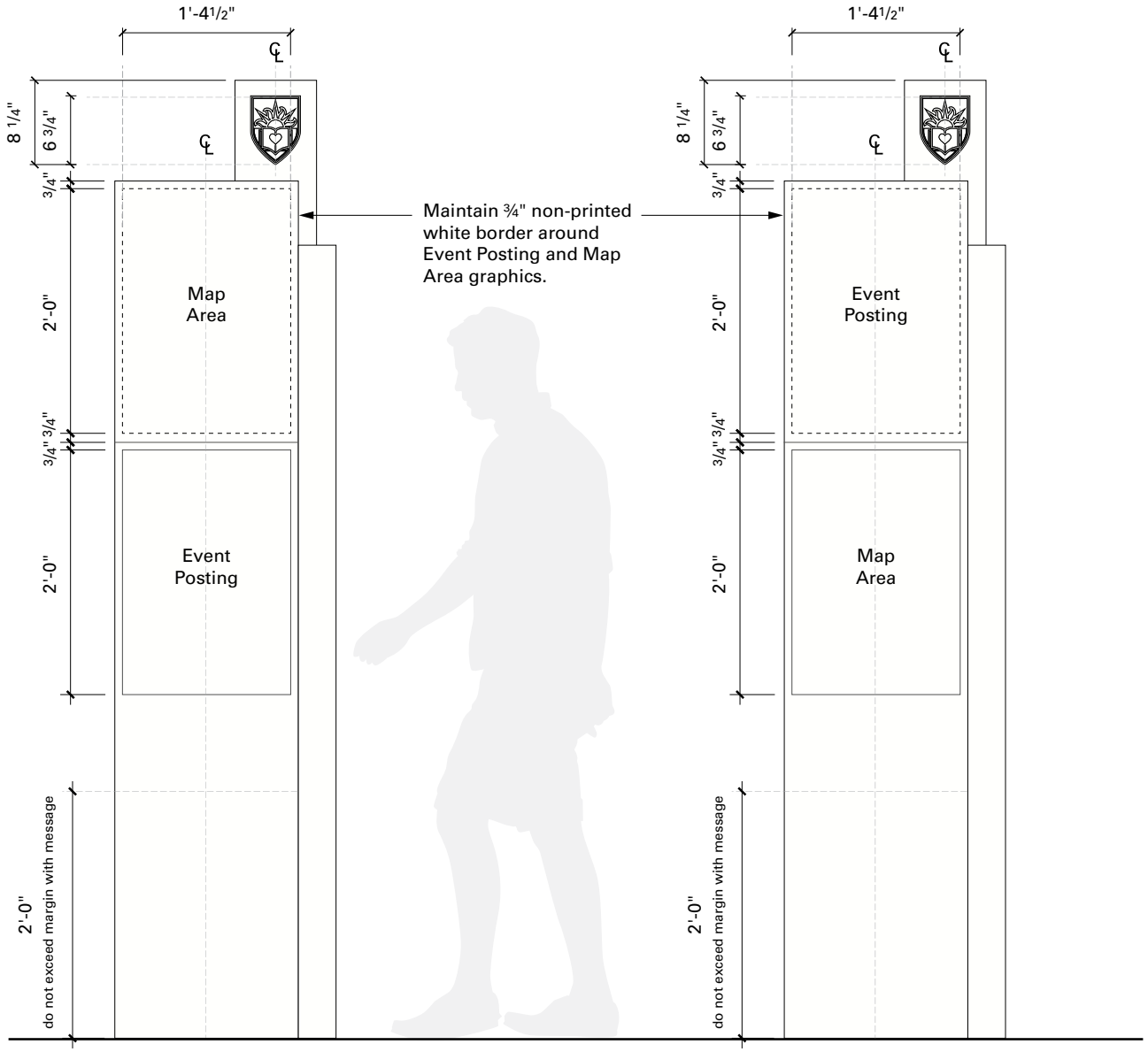
19– Removable Sign Core Panel
.125" thick aluminum plates mechanically fastened to sign panel with blind screws. Paint all exposed surfaces. Mechanically fasten sign panel to mounting frame. Surface printed graphics, unless otherwise noted.

37– Fabricated Sign Core
.125" thick aluminum sheets fastened to aluminum tube frame. Paint all exposed surfaces. Mount on 1/2" aluminum plate fastened to bolts embedded in reinforced concrete foundation, as required by engineering.

40– Map
To be surface printed onto Removable Sign Core Panel. Artwork to be provided. Map to show only a portion of campus.

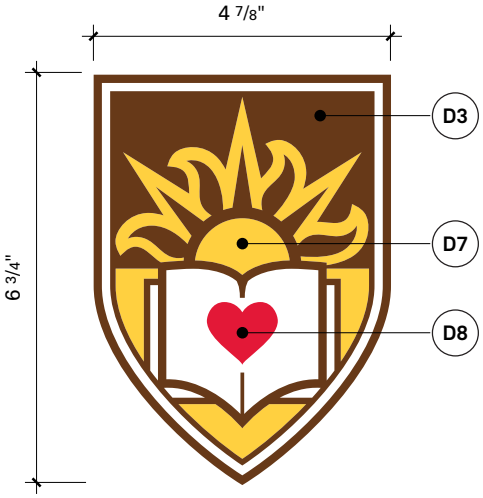
41– Magnetic Sign
Provide a 1/4" thick acrylic backer panel mechanically fastened to Removable Sign Panel. Backer panel to have routed holes to fit rare earth magnets, mechanically fastened to backer panel.

Provide 1/4" thick acrylic face panel with steel discs mounted to second surface with epoxy. Paint all exposed sides to match Removable Sign Panel. Image to be digitally printed on face panel with UV inks. Apply clear coat.



1 **Graphic Layout**
Scale: 3/4" = 1'-0"

2 **Alternate Graphic Layout**
Scale: 3/4" = 1'-0"



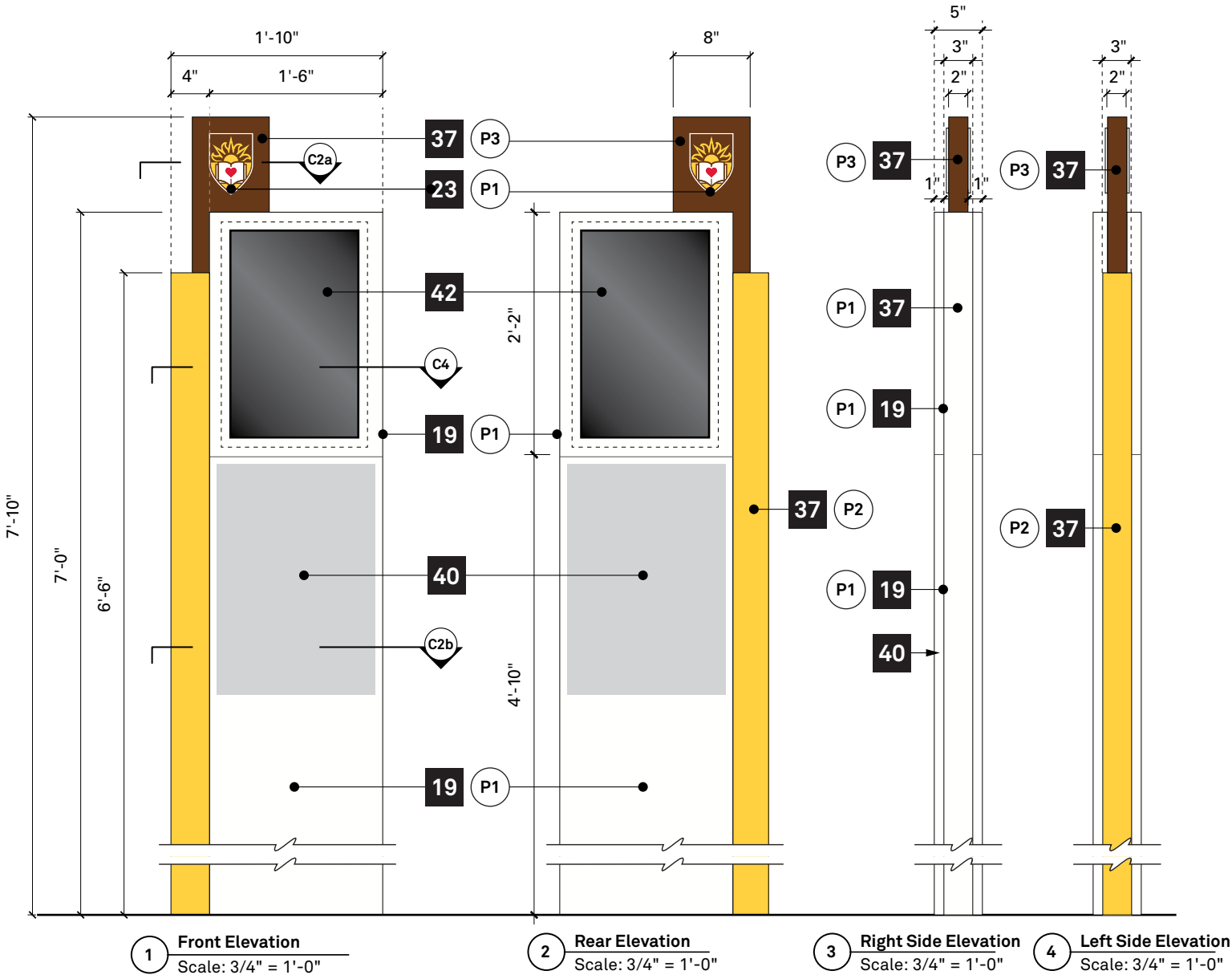
3 **Shield Detail**
NTS

MAP + CONTENT:
Side A map should depict area of campus the viewer is standing and event postings should be focused on local campus.

Side B map should depict broad picture of Lehigh University bounds (with top level detail) and event postings should focus across the University.

DO NOT increase the yellow or brown color fields/proportions

DO NOT use other colors in the yellow or brown color fields.



IHB.1MD – Information Hub: Multi-sided (Digital Option)

GENERAL FABRICATION/GRAPHIC NOTES

Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

Structure that provides University-wide orientation and information as well as campus specific orientation and information.

This sign type is located at key gathering spots and/or public destinations.

The layout content on this sign is to be coordinated with Disability Services and positioned in keeping with ADA guidelines.

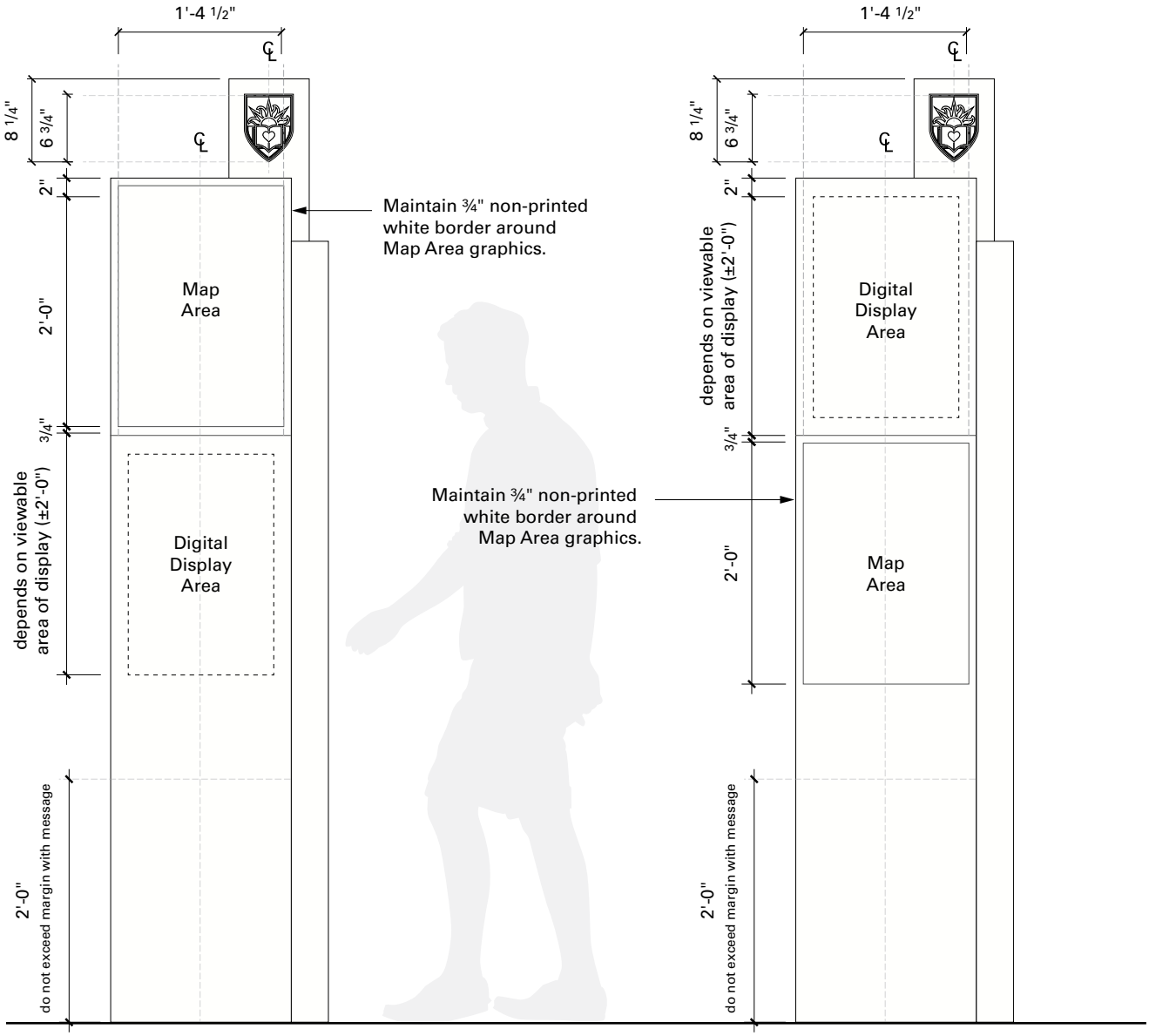
8– Shield
.125" thick painted aluminum plate with digital printed graphic on face plate adhered to sign core and all exposed edges painted.

19– Removable Sign Core Panel
.125" thick aluminum plates mechanically fastened to sign panel with blind screws. Paint all exposed surfaces. Mechanically fasten sign panel to mounting frame. Surface printed graphics, unless otherwise noted.

37– Fabricated Sign Core
.125" thick aluminum sheets fastened to aluminum tube frame. Paint all exposed surfaces. Mount on 1/2" aluminum plate fastened to bolts embedded in reinforced concrete foundation, as required by engineering.

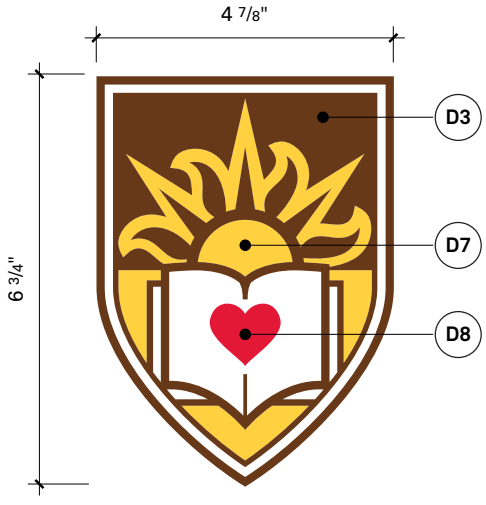
40– Map
To be surface/embed printed onto Removable Sign Core Panel. Artwork to be provided. Map to show only a portion of campus.

42– Digital Display & Player
Sunlight readable, waterproof high definition, LCD monitor, (model TBD), to be mounted on brackets inside sign cabinet. Install behind 3/16" optically clear polycarbonate panel attached to second surface of sign panel. Secure with vandal-resistant hardware. Provide adequate ventilation as recommended by manufacturer. Provide all required electrical components.



1 **Graphic Layout**
Scale: 3/4" = 1'-0"

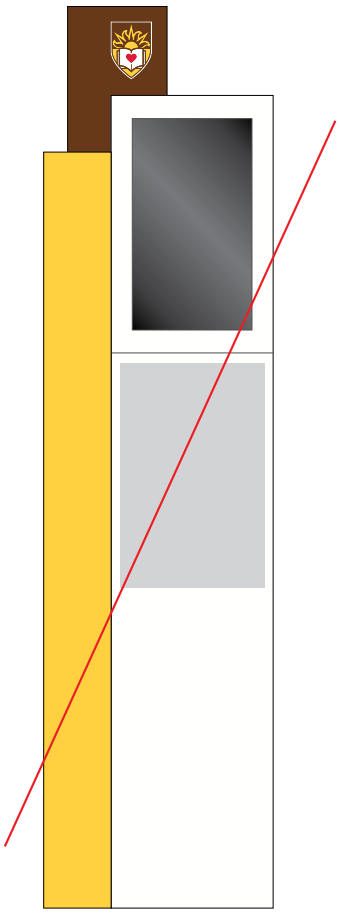
2 **Alternate Graphic Layout**
Scale: 3/4" = 1'-0"



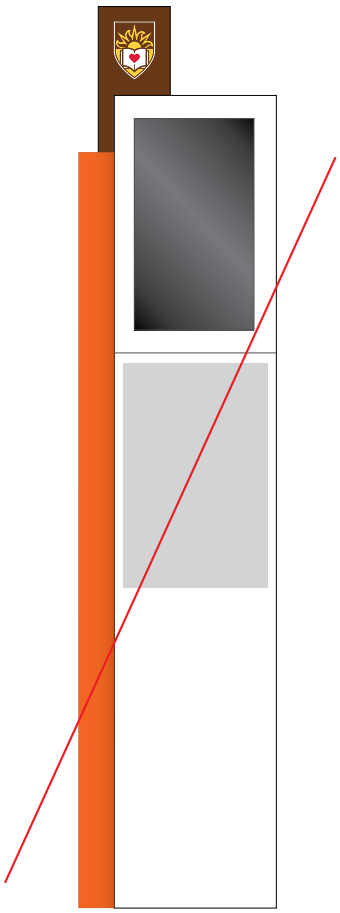
3 **Shield Detail**
NTS

MAP + CONTENT:
Side A map should depict area of campus the viewer is standing and event postings should be focused on local campus.

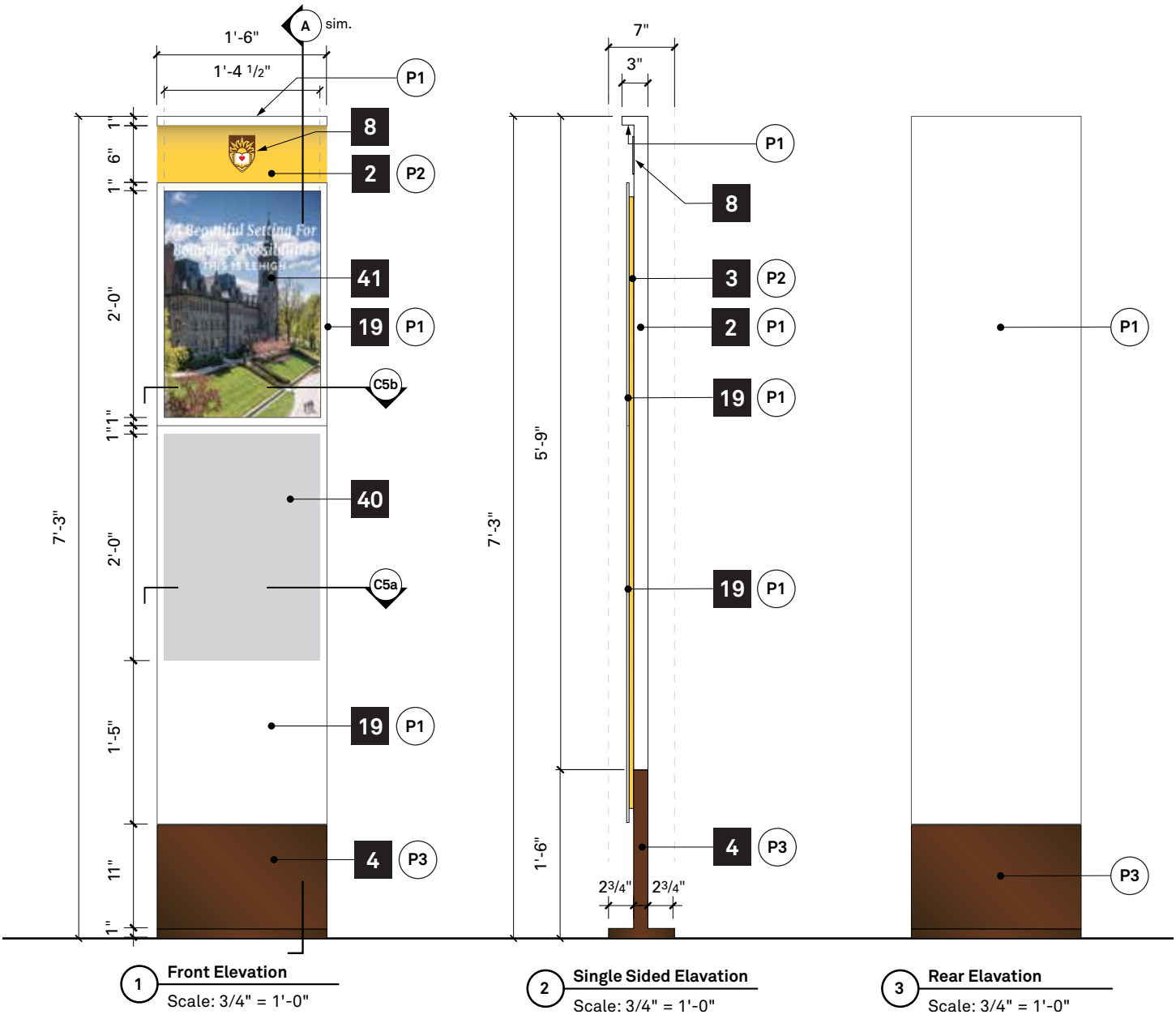
Side B map should depict broad picture of Lehigh University bounds (with top level detail) and event postings should focus across the University.



DO NOT increase the yellow or brown color fields/proportions



DO NOT use other colors in the yellow or brown color fields.



IHB.2SS – Information Hub: Single-sided (Static Option)

GENERAL FABRICATION/GRAPHIC NOTES

Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

Structure that provides University-wide orientation and information as well as campus specific orientation and information.

This sign type is located at key gathering spots and/or public destinations where a double-sided sign doesn't work.

The layout content on this sign is to be coordinated with Disability Services and positioned in keeping with ADA guidelines.

2– Fabricated Sign Core
.063" thick aluminum sheet fastened to 1½" thick aluminum tube frame. Paint all exposed surfaces.

3– Mounting Frame
3/4" x 1" x 1/2" Aluminum Arch Angle, miter jointed mechanically fastened to sign core.

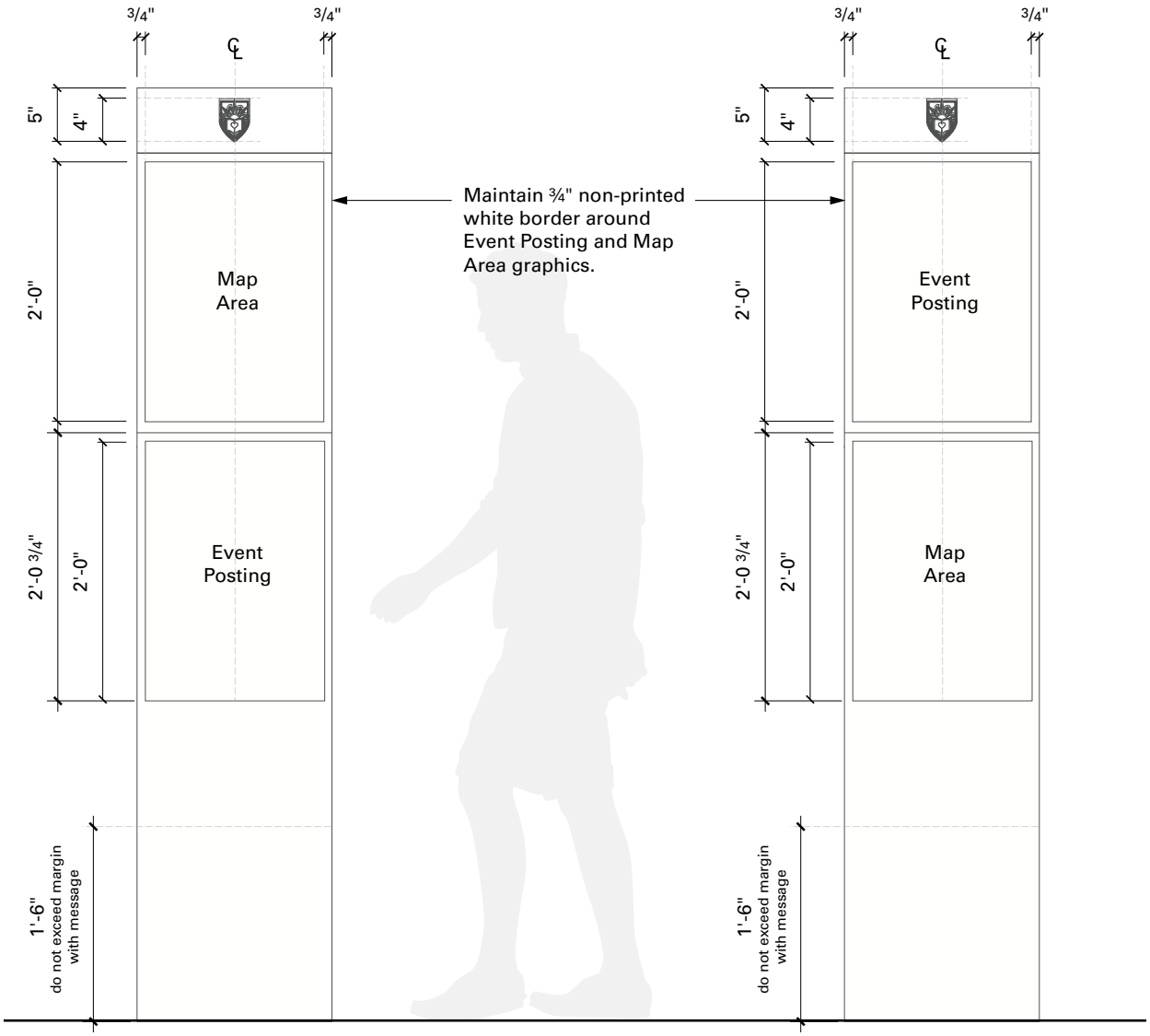
4– Mounting Base
1/2" thick aluminum sheet chemically welded to 1½" aluminum tube. Paint all exposed surfaces and secure to foundation and fabricate sign core.

8– Shield
.125" thick painted aluminum plate with digital printed graphic on face plate adhered to sign core and all exposed edges painted.

19– Removable Sign Core Panel
.125" thick aluminum plates mechanically fastened to sign panel with blind screws. Paint all exposed surfaces. Mechanically fasten sign panel to mounting frame. Surface printed graphics, unless otherwise noted.

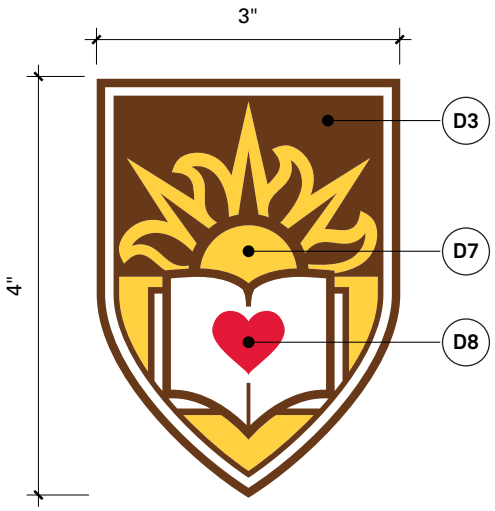
40– Map
To be surface/embed printed onto Removable Sign Core Panel. Artwork to be provided. Map to show only a portion of campus.

41– Magnetic Sign
Provide a 1/4" thick acrylic backer panel mechanically fastened to Removable Sign Panel. Backer panel to have routed holes to fit rare earth magnets, mechanically fastened to backer panel. Provide 1/4" thick acrylic face panel with steel discs mounted to second surface with epoxy. Paint all exposed sides to match Removable Sign Panel. Image to be digitally printed on face panel with UV inks. Apply clear coat.



1 **Graphic Layout**
Scale: 3/4" = 1'-0"

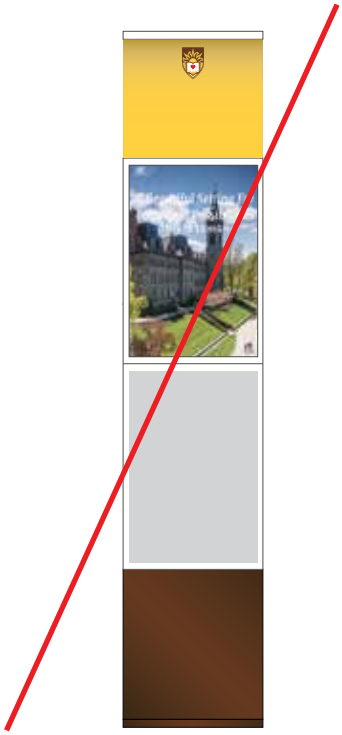
2 **Alternate Graphic Layout**
Scale: 3/4" = 1'-0"



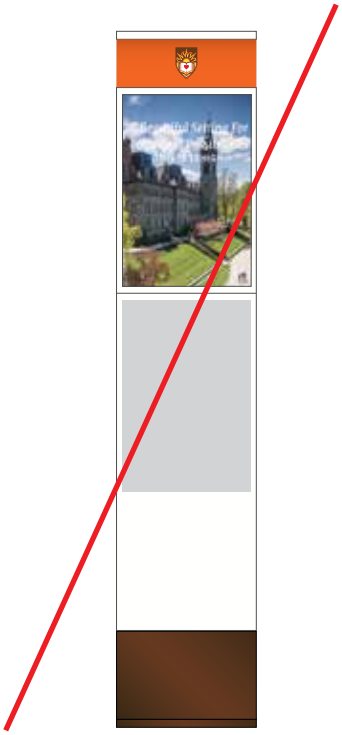
3 **Shield Detail**
NTS

MAP + CONTENT:
Side A map should depict area of campus the viewer is standing and event postings should be focused on local campus.

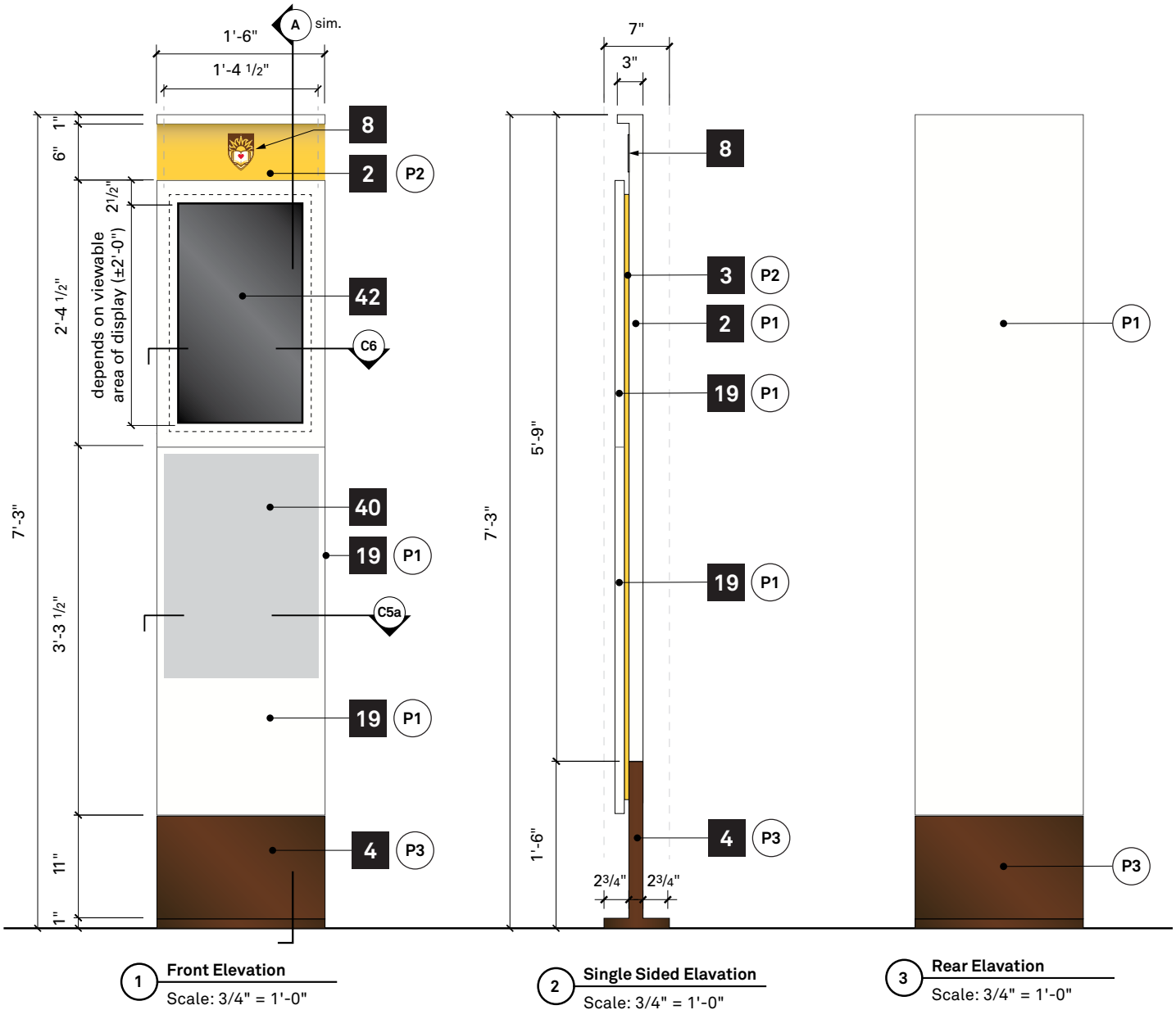
Side B map should depict broad picture of Lehigh University bounds (with top level detail) and event postings should focus across the University.



DO NOT increase the yellow or brown color fields/proportions



DO NOT use other colors in the yellow or brown color fields.



IHB.2SD – Information Hub: Single-sided (Digital Option)

GENERAL FABRICATION/GRAPHIC NOTES

Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

Structure that provides University-wide orientation and information as well as campus specific orientation and information.

This sign type is located at key gathering spots and/or public destinations.

The layout content on this sign is to be coordinated with Disability Services and positioned in keeping with ADA guidelines.

2– Fabricated Sign Core
.063" thick aluminum sheet fastened to 1½" thick aluminum tube frame. Paint all exposed surfaces.

3– Mounting Frame
3/4" x 1" x 1/2" Aluminum Arch Angle, miter jointed mechanically fastened to sign core.

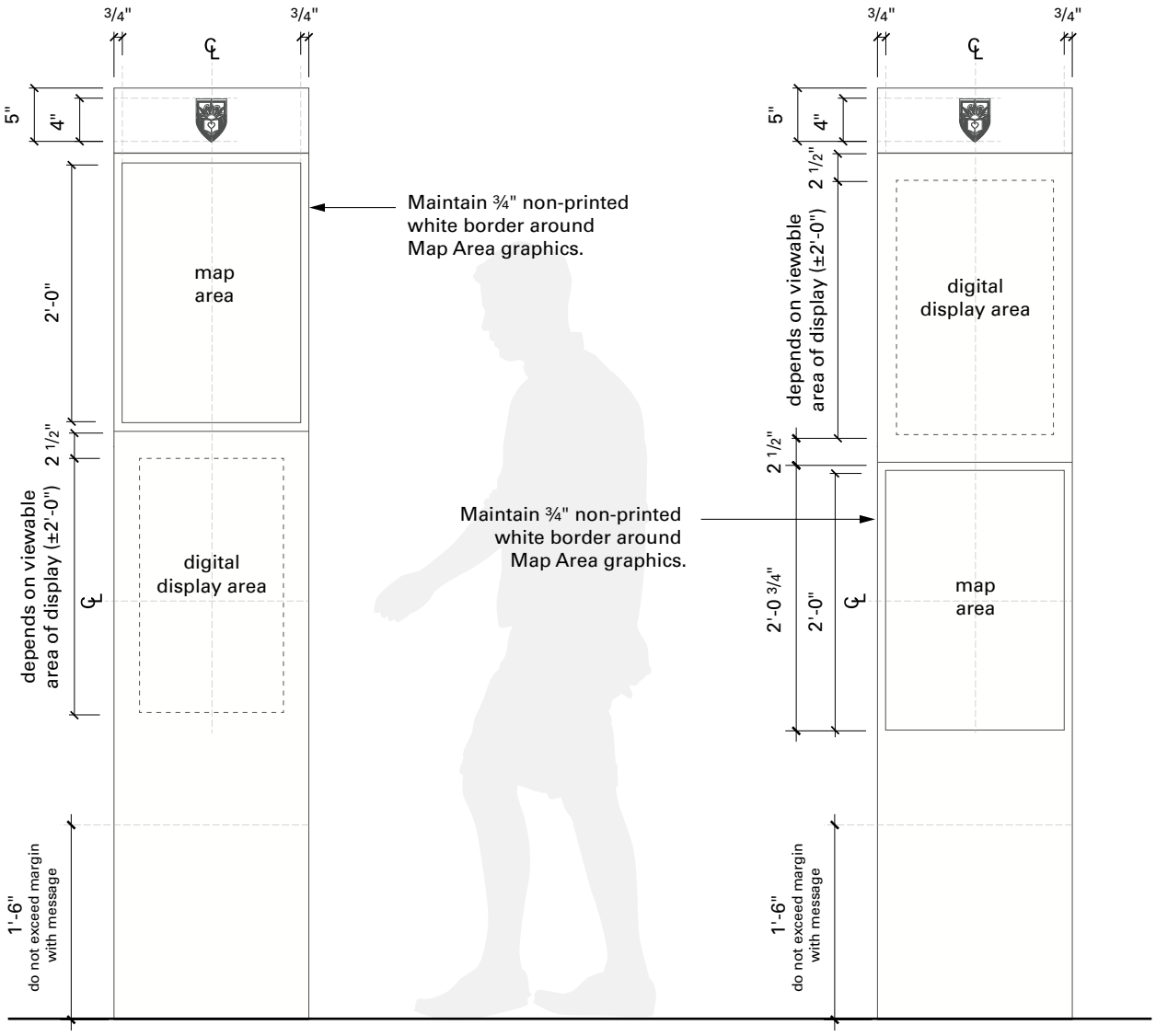
4– Mounting Base
1/2" thick aluminum sheet chemically welded to 1½" aluminum tube. Paint all exposed surfaces and secure to foundation and fabricate sign core.

8– Shield
.125" thick painted aluminum plate with digital printed graphic on face plate adhered to sign core and all exposed edges painted.

19– Removable Sign Core Panel
.125" thick aluminum plates mechanically fastened to sign panel with blind screws. Paint all exposed surfaces. Mechanically fasten sign panel to mounting frame. Surface printed graphics, unless otherwise noted.

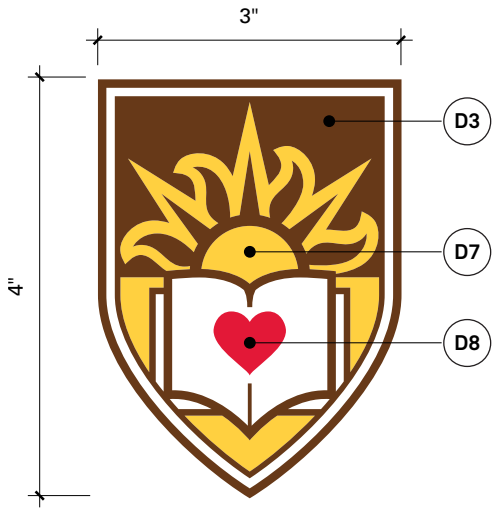
40– Map
To be surface/embed printed onto Removable Sign Core Panel. Artwork to be provided. Map to show only a portion of campus.

42– Digital Display & Player
Sunlight readable, waterproof high definition, LCD monitor, (model TBD), to be mounted on brackets inside sign cabinet. Install behind 3/16" optically clear polycarbonate panel attached to second surface of sign panel. Secure with vandal-resistant hardware. Provide adequate ventilation as recommended by manufacturer. Provide all required electrical components.



1 **Graphic Layout**
Scale: 3/4" = 1'-0"

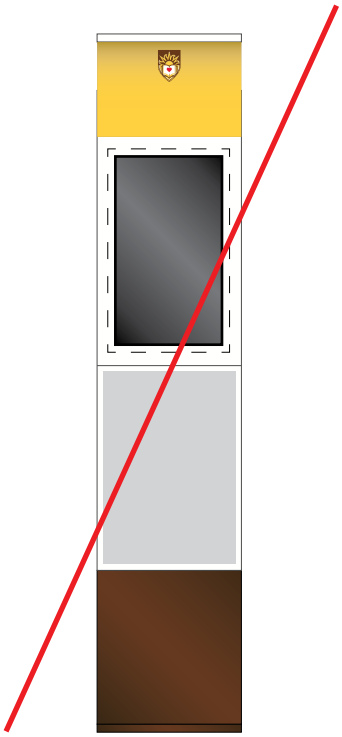
2 **Alternate Graphic Layout**
Scale: 3/4" = 1'-0"



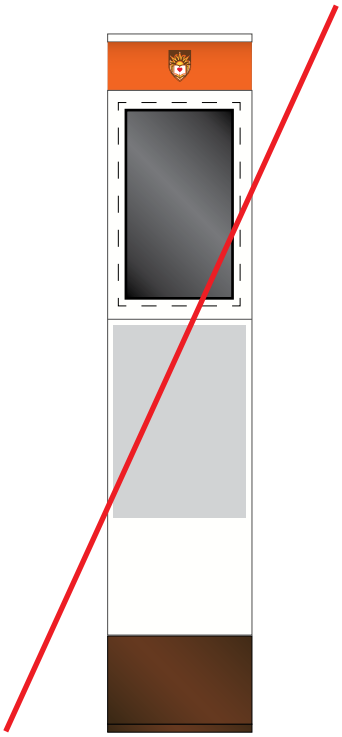
3 **Shield Detail**
NTS

MAP + CONTENT:
Side A map should depict area of campus the viewer is standing and event postings should be focused on local campus.

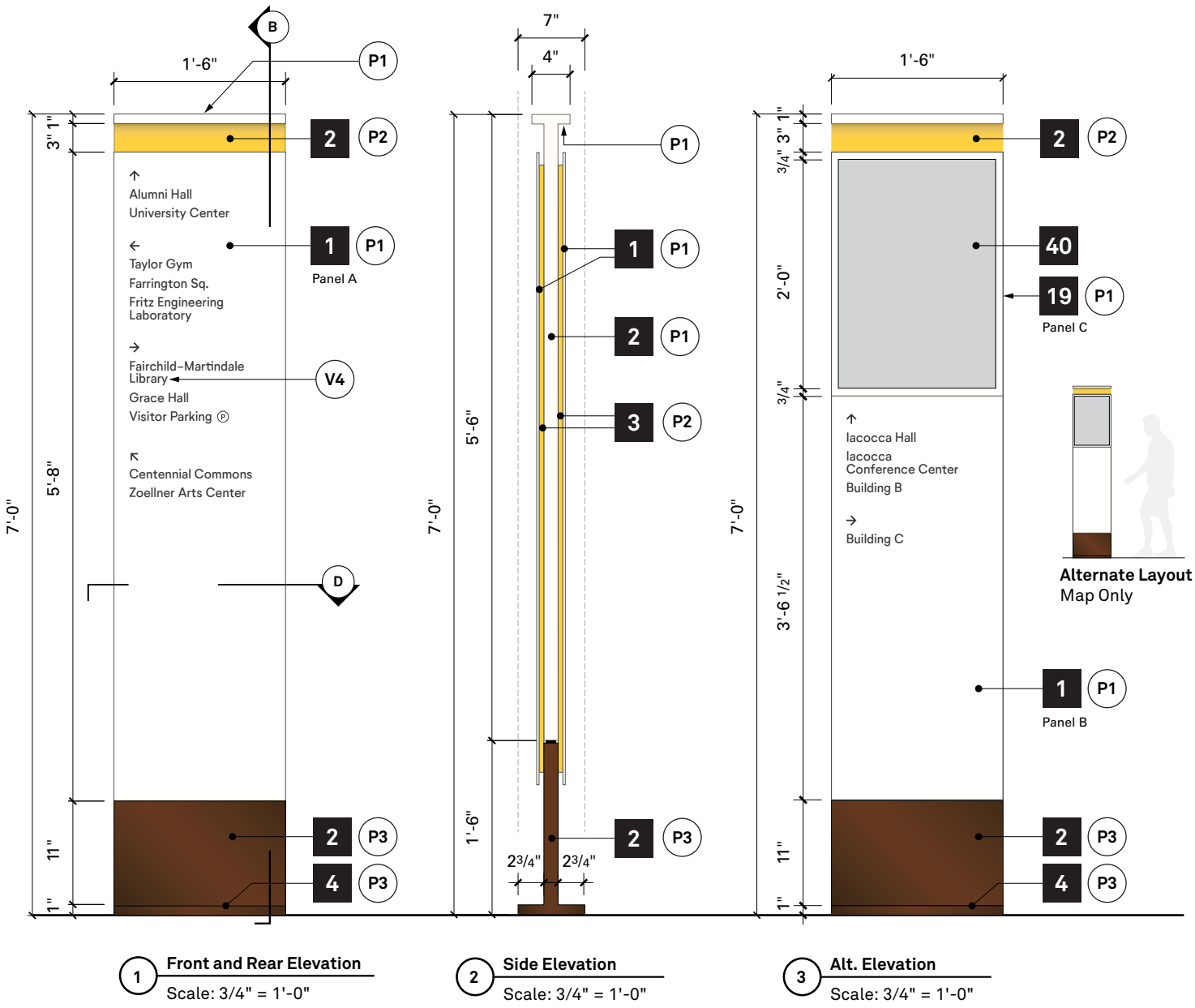
Side B map should depict broad picture of Lehigh University bounds (with top level detail) and event postings should focus across the University.



DO NOT increase the yellow or brown color fields/proportions



DO NOT use other colors in the yellow or brown color fields.



1 **Front and Rear Elevation**
Scale: 3/4" = 1'-0"

2 **Side Elevation**
Scale: 3/4" = 1'-0"

3 **Alt. Elevation**
Scale: 3/4" = 1'-0"

PDR.1 – Pedestrian Directional

GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

A few guidelines to consider when selecting this sign type.

Locate at each decision point along primary pedestrian paths (or spines) throughout campus.

On Packer Campus use the map/destination as primary layout to manage destinations

On Sayre use orientation maps only and key touchpoints to help manage breadcrumbs on Goodman and Packer. Mix of directional layouts can be paired on one sign or use directionals with maps.

The layout content on this sign is to be coordinated with Disability Services and positioned in keeping with ADA guidelines.

1– Sign Panel
1/4" thick aluminum plates chemically welded to mounting angle. Paint all exposed surfaces. Mechanically fastened to mounting frame. Surface applied graphics.

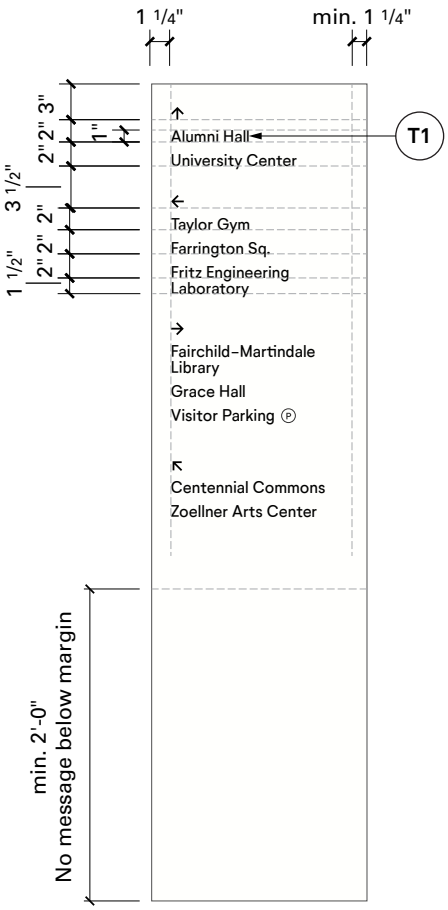
2– Fabricated Sign Core
.063" thick aluminum sheet fastened to 1½" thick aluminum tube frame. Paint all exposed surfaces.

3– Mounting Frame
3/4" x 1" x 1/2" Aluminum Arch Angle, miter jointed mechanically fastened to sign core.

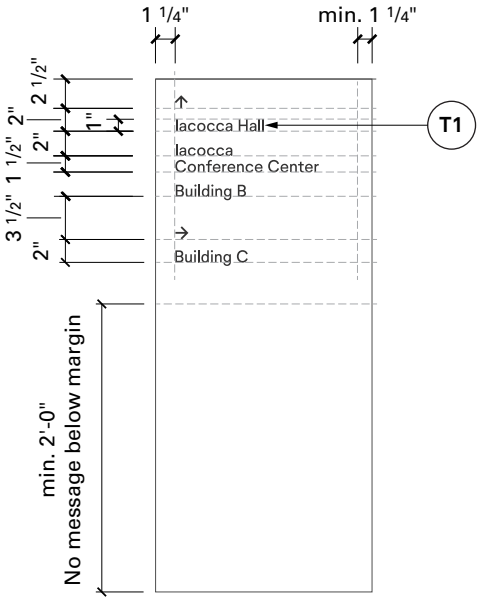
4– Mounting Base
1/2" thick aluminum sheet chemically welded to 1½" aluminum tube. Paint all exposed surfaces and secure to foundation and fabricate sign core.

19– Removable Sign Core Panel
.125" thick aluminum plates mechanically fastened to sign panel with blind screws. Paint all exposed surfaces. Mechanically fasten sign panel to mounting frame. Surface printed graphics, unless otherwise noted.

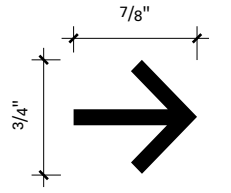
40– Map
To be surface printed onto Removable Sign Panel. Artwork to be provided. Map to show only a portion of campus.



1 **Graphic Layout- Panel A**
Scale: 3/4" = 1'-0"

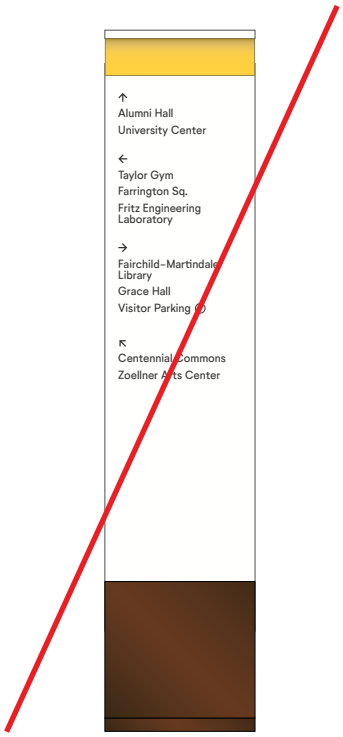


2 **Graphic Layout- Panel B**
Scale: 3/4" = 1'-0"

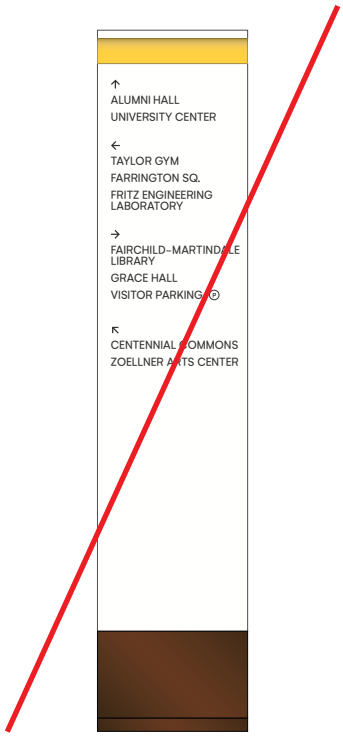


4 **Arrow Detail**
Scale: NTS

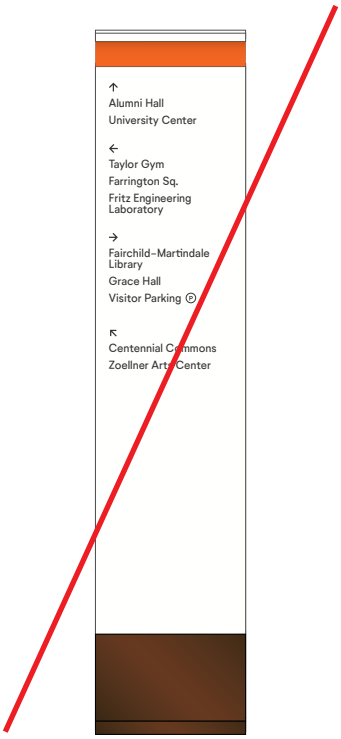
5 **Message Detail**
Scale: NTS



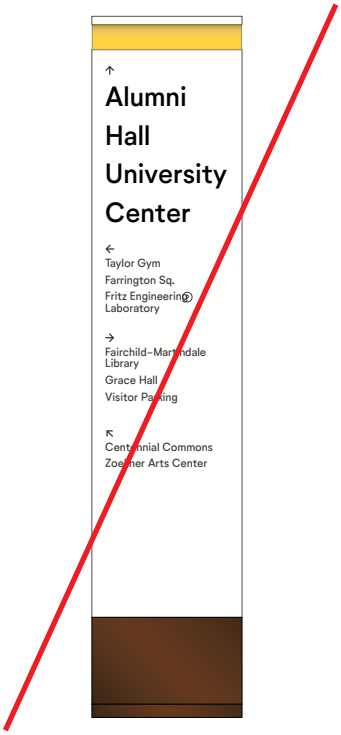
DO NOT increase the yellow or brown color fields/proportions



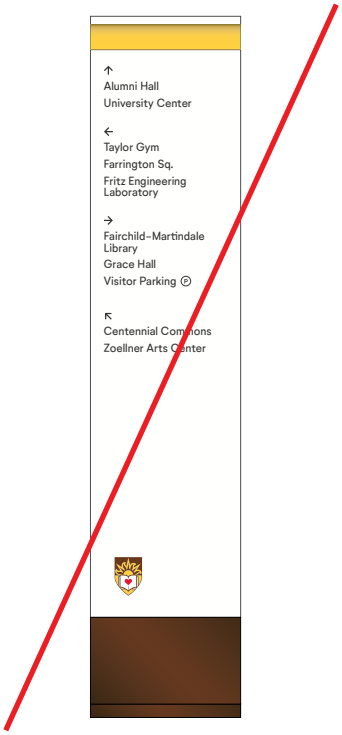
DO NOT use all caps for any messages except when noted



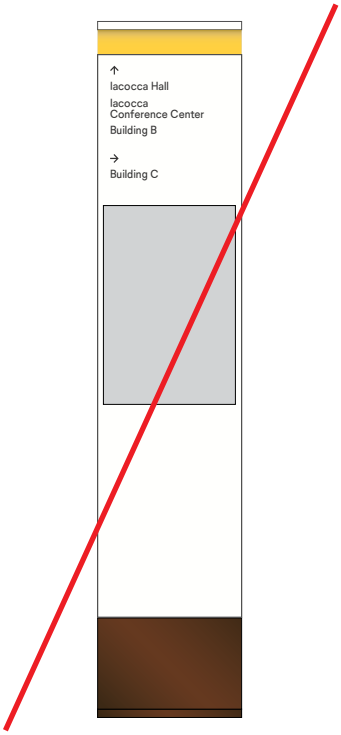
DO NOT use other colors in the yellow or brown color fields.



DO NOT use large vehicular scale messages on this sign type



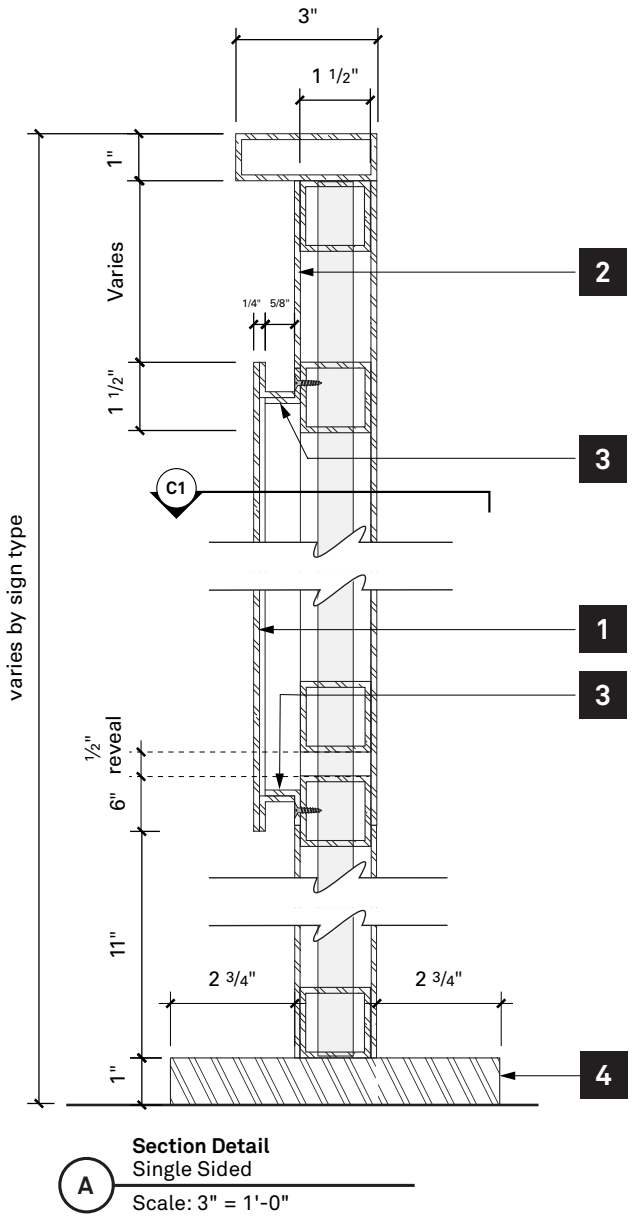
DO NOT use the University Shield/Brand on this sign type



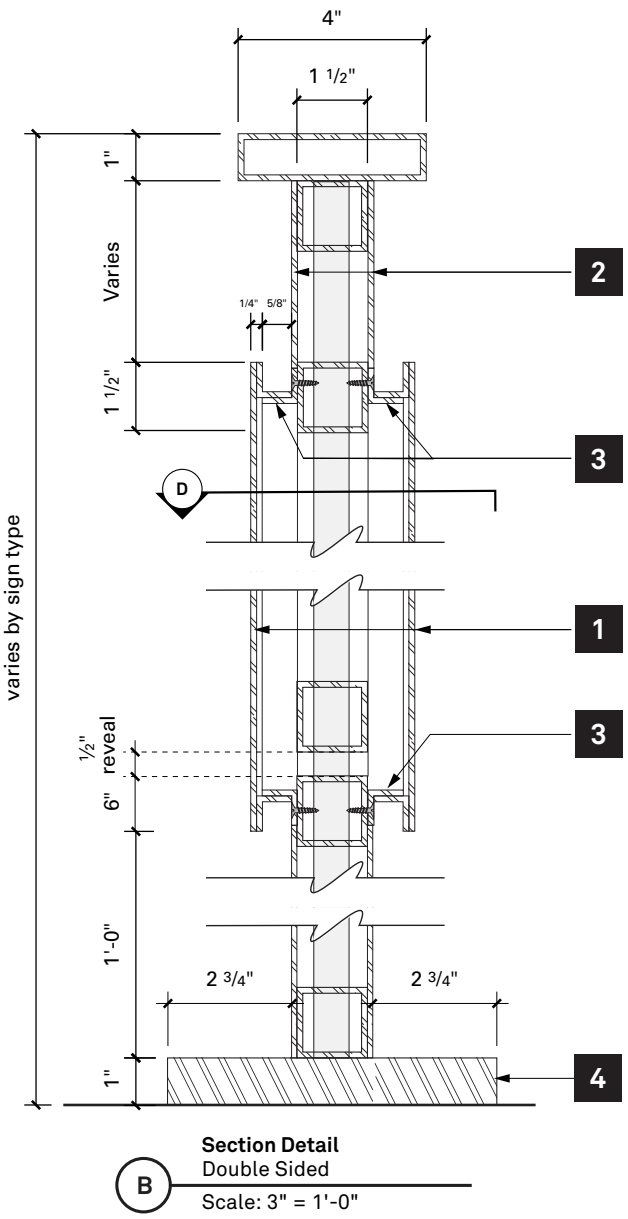
DO NOT place the map below directional messages

SECTION 2F

Construction Details



Section Detail
Single Sided
A
Scale: 3" = 1'-0"



Section Detail
Double Sided
B
Scale: 3" = 1'-0"

Section View

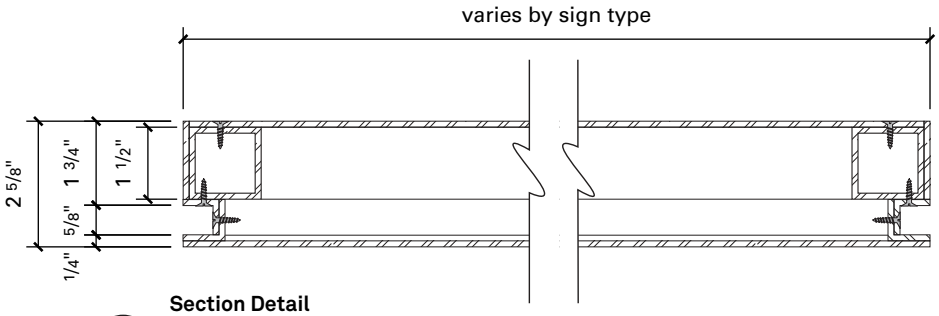
1– Sign Panel
1/4" thick aluminum plates chemically welded to mounting angle. Paint all exposed surfaces. Mechanically fastened to mounting frame. Surface applied graphics.

2– Fabricated Sign Core
.063" thick aluminum sheet fastened to 1½" thick aluminum tube frame. Paint all exposed surfaces.

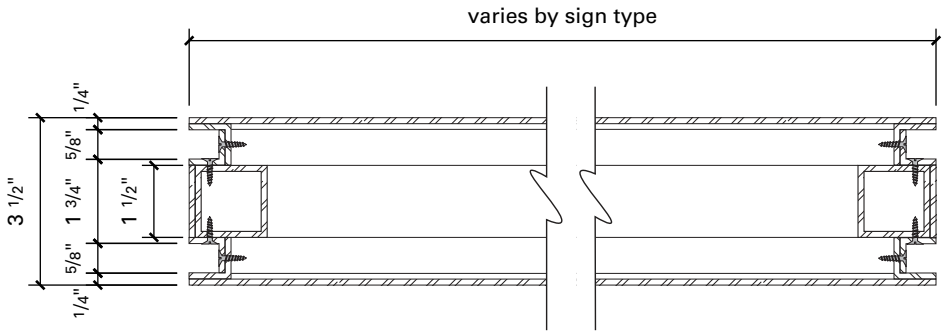
3– Mounting Frame
3/4" x 1" x 1/2" Aluminum Arch Angle, miter jointed mechanically fastened to sign core.

4– Mounting Base
1" thick aluminum sheet welded to 1½" aluminum tube. Paint all exposed surfaces and secure to foundation and fabricate sign core.

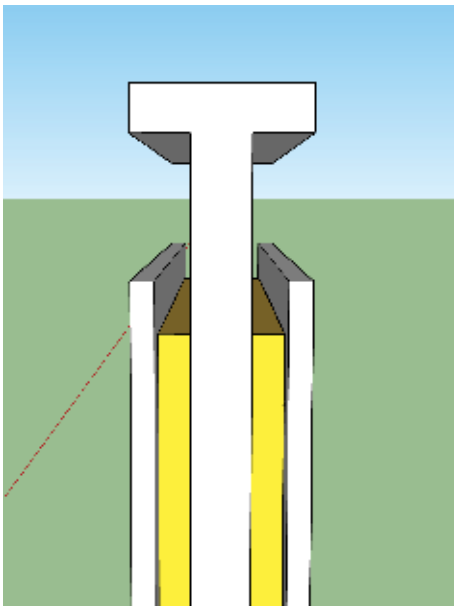
USE THIS DETAIL FOR THE FOLLOWING:
CTB.1 Campus Trailblazer
BID.1 Building ID: Pedestrian
BID.2 Building ID: Vehicular
BID.6 Building ID:
IHB.1MS Information Hub: Multi-sided
IHB.2SS Information Hub: Single-sided
PID.1 Parking ID: Large
PID.2 Parking ID: Small
BUS.1 Shuttle Stop Monolith
PDR.1 Pedestrian Directional
VDR.1 Veh. Directional: Ground Mounted



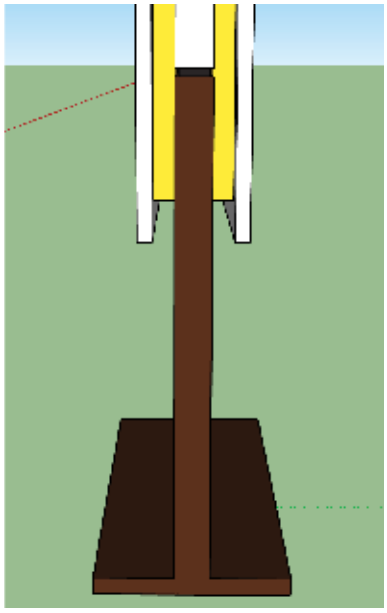
Section Detail
Single Sided
C1
Scale: 3" = 1'-0"



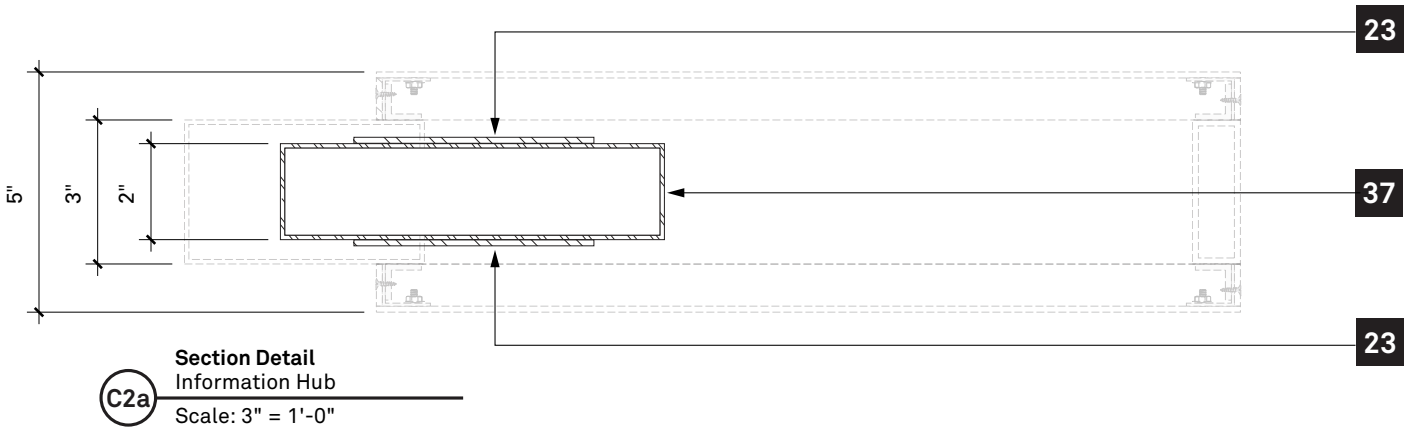
Section Detail
Double Sided
D
Scale: 3" = 1'-0"



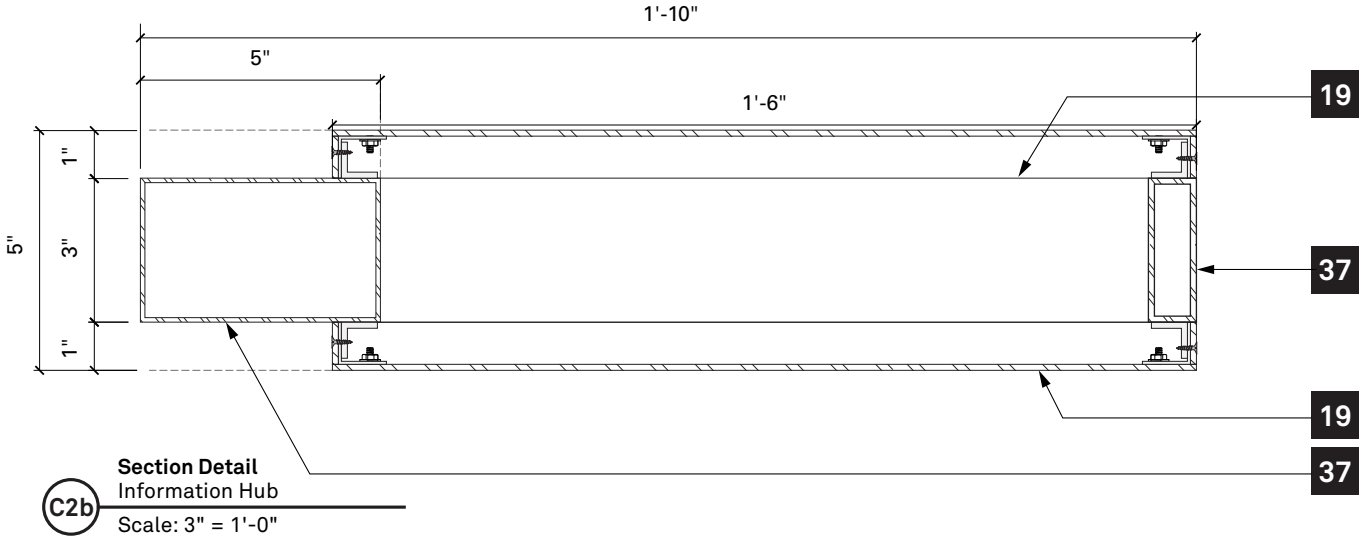
1 **Reference View - Double-sided**
Scale: NTS



2 **Reference View - Double-sided**
Scale: NTS



Section Detail
Information Hub
C2a
Scale: 3" = 1'-0"



Section Detail
Information Hub
C2b
Scale: 3" = 1'-0"

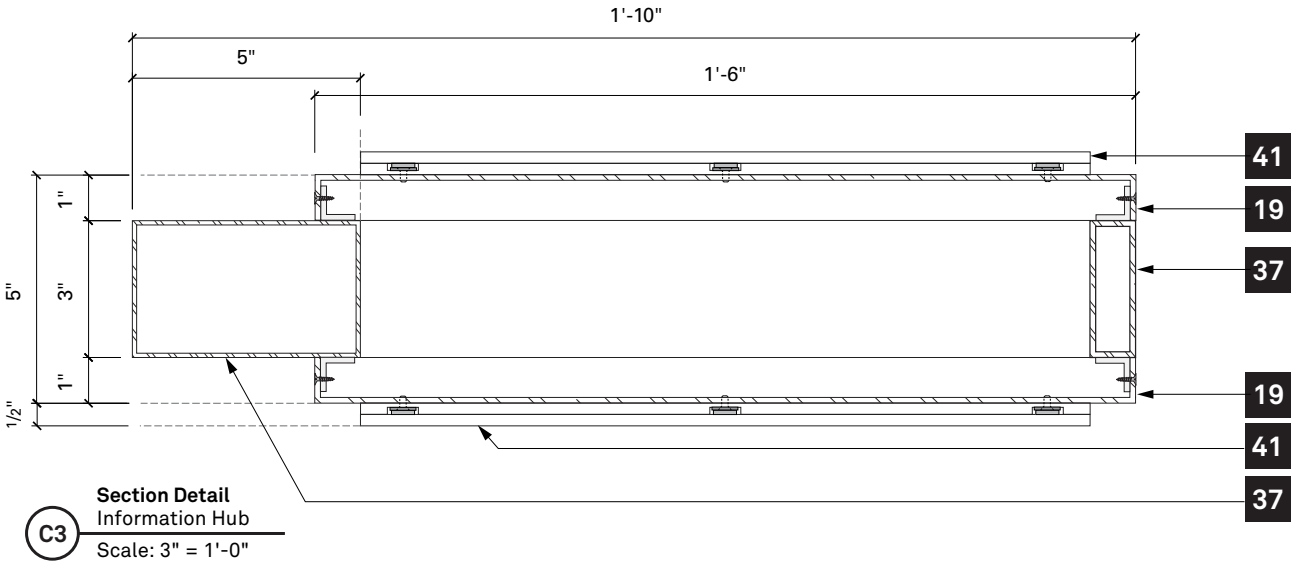
USE THIS DETAIL FOR THE FOLLOWING:

IHB.1MS Info Hub Multi-sided (Static)

Section Details: Multi-sided (Static Option)

19- Removable Sign Core Panel
1/8" thick aluminum plates mechanically fastened to sign panel with blind screws. Paint all exposed surfaces. Mechanically fasten sign panel to mounting frame. Surface printed graphics, unless otherwise noted.

37- Fabricated Sign Core
.125" thick aluminum sheets fastened to aluminum tube frame. Paint all exposed surfaces.



USE THIS DETAIL FOR THE FOLLOWING:

IHB.1MS Info Hub Multi–sided (Static)

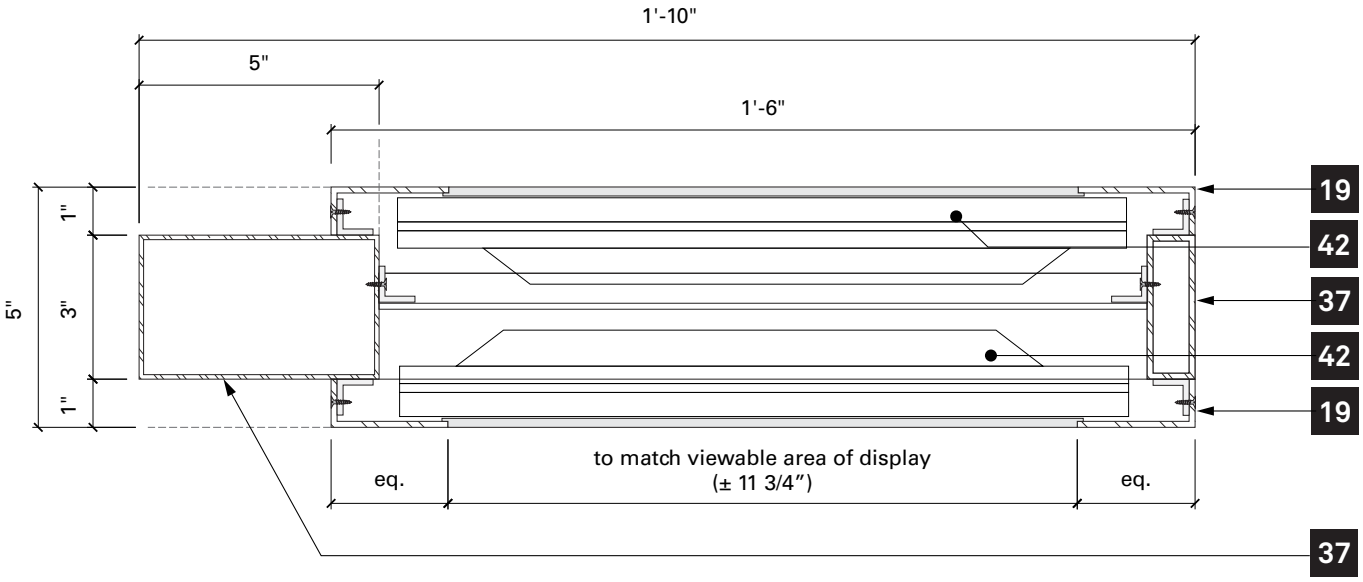
Section Detail: Multi–sided (Static Option)

19– Removable Sign Core Panel
.125" thick aluminum plates mechanically fastened to sign panel with blind screws. Paint all exposed surfaces. Mechanically fasten sign panel to mounting frame. Surface printed graphics, unless otherwise noted.

37– Fabricated Sign Core
.125" thick aluminum sheets fastened to aluminum tube frame. Paint all exposed surfaces.

41– Magnetic Sign
Provide a 1/4" thick acrylic backer panel mechanically fastened to Removable Sign Panel. Backer panel to have routed holes to fit rare earth magnets, mechanically fastened to backer panel.

Provide 1/4" thick acrylic face panel with steel discs mounted to second surface with epoxy. Paint all exposed sides to match Removable Sign Panel. Image to be digitally printed on face panel with UV inks. Apply clear coat.



Section Detail
Information Hub- Digital
C4
Scale: 3" = 1'-0"

USE THIS DETAIL FOR THE FOLLOWING:

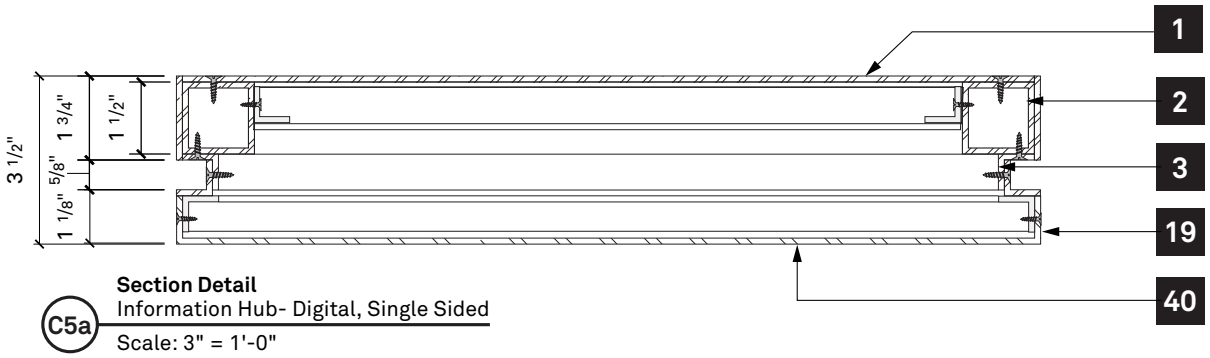
IHB.1MD Info Hub Multi–sided (Digital)

Section Detail: Multi–sided (Digital Option)

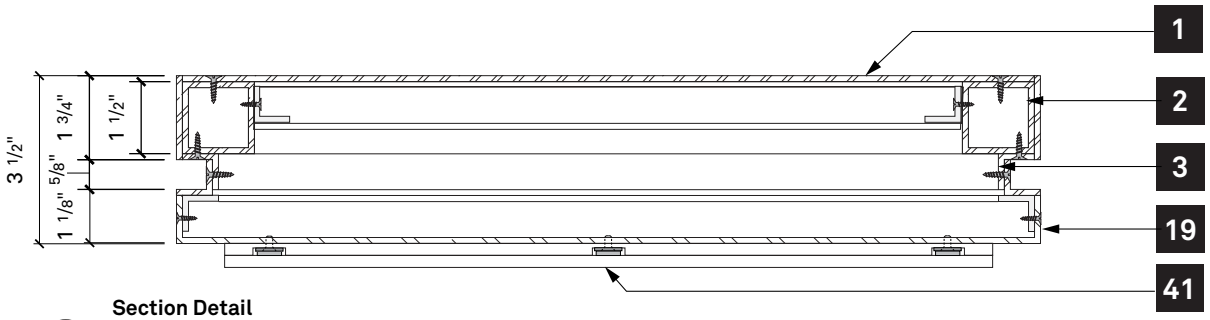
19– Removable Sign Core Panel
.125" thick aluminum plates mechanically fastened to sign panel with blind screws. Paint all exposed surfaces. Mechanically fasten sign panel to mounting frame. Surface printed graphics, unless otherwise noted.

37– Fabricated Sign Core
.125" thick aluminum sheets fastened to aluminum tube frame. Paint all exposed surfaces.

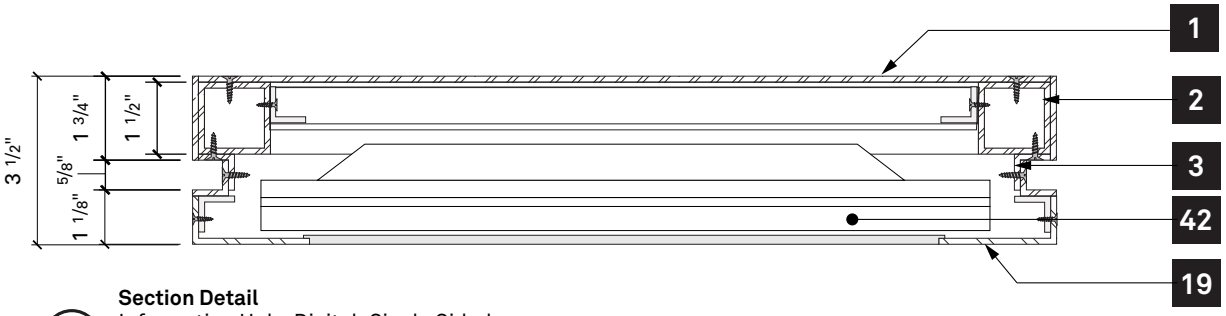
42– Digital Display & Player
Sunlight readable, waterproof high definition, LCD monitor, (model TBD), to be mounted on brackets inside sign cabinet. Install behind 3/16" optically clear polycarbonate panel attached to second surface of sign panel. Secure with vandal–resistant hardware. Provide adequate ventilation as recommended by manufacturer. Provide all required electrical components.



Section Detail
Information Hub- Digital, Single Sided
C5a
Scale: 3" = 1'-0"



Section Detail
Information Hub- Digital, Single Sided
C5b
Scale: 3" = 1'-0"



Section Detail
Information Hub- Digital, Single Sided
C6
Scale: 3" = 1'-0"

USE THIS DETAIL FOR THE FOLLOWING:

IHB.2SD Info Hub Single-sided (Digital)

Section Detail: Single-sided (Digital Option)

1- Sign Panel
1/4" thick aluminum plates chemically welded to mounting angle. Paint all exposed surfaces. Mechanically fastened to mounting frame. Surface applied graphics.

2- Fabricated Sign Core
.063" thick aluminum sheet fastened to 1½" thick aluminum tube frame. Paint all exposed surfaces.

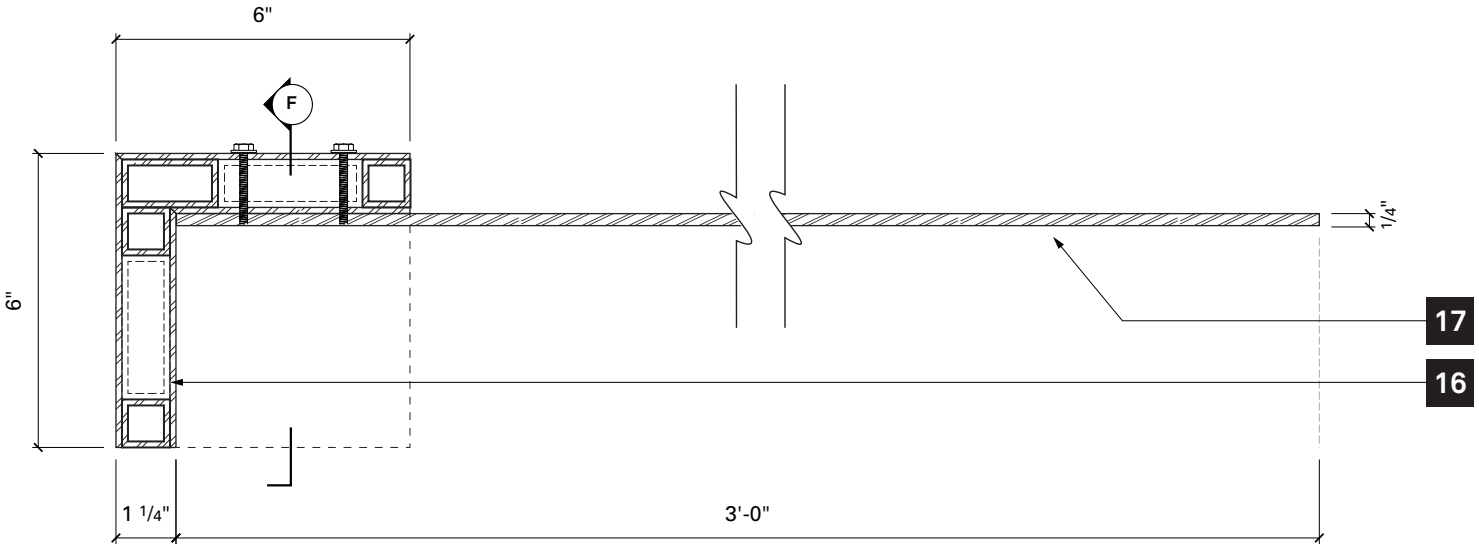
3- Mounting Frame
3/4" x 1" x 1/2" Aluminum Arch Angle, miter jointed mechanically fastened to sign core.

19- Removable Sign Core Panel
.125" thick aluminum plates mechanically fastened to sign panel with blind screws. Paint all exposed surfaces. Mechanically fasten sign panel to mounting frame. Surface printed graphics, unless otherwise noted.

41- Magnetic Sign
Provide a 1/4" thick acrylic backer panel mechanically fastened to Removable Sign Panel. Backer panel to have routed holes to fit rare earth magnets, mechanically fastened to backer panel.

Provide 1/4" thick acrylic face panel with steel discs mounted to second surface with epoxy. Paint all exposed sides to match Removable Sign Panel. Image to be digitally printed on face panel with UV inks. Apply clear coat.

42- Digital Display & Player
Sunlight readable, waterproof high definition, LCD monitor, (model TBD), to be mounted on brackets inside sign cabinet. Install behind 3/16" optically clear polycarbonate panel attached to second surface of sign panel. Secure with vandal-resistant hardware. Provide adequate ventilation as recommended by manufacturer. Provide all required electrical components.



Section Detail
VDR2, VDR3, VRG.3
E
Scale: 3" = 1'-0"

USE THIS DETAIL FOR THE FOLLOWING:

VDR.2 Veh. Directional: Post Panel Small

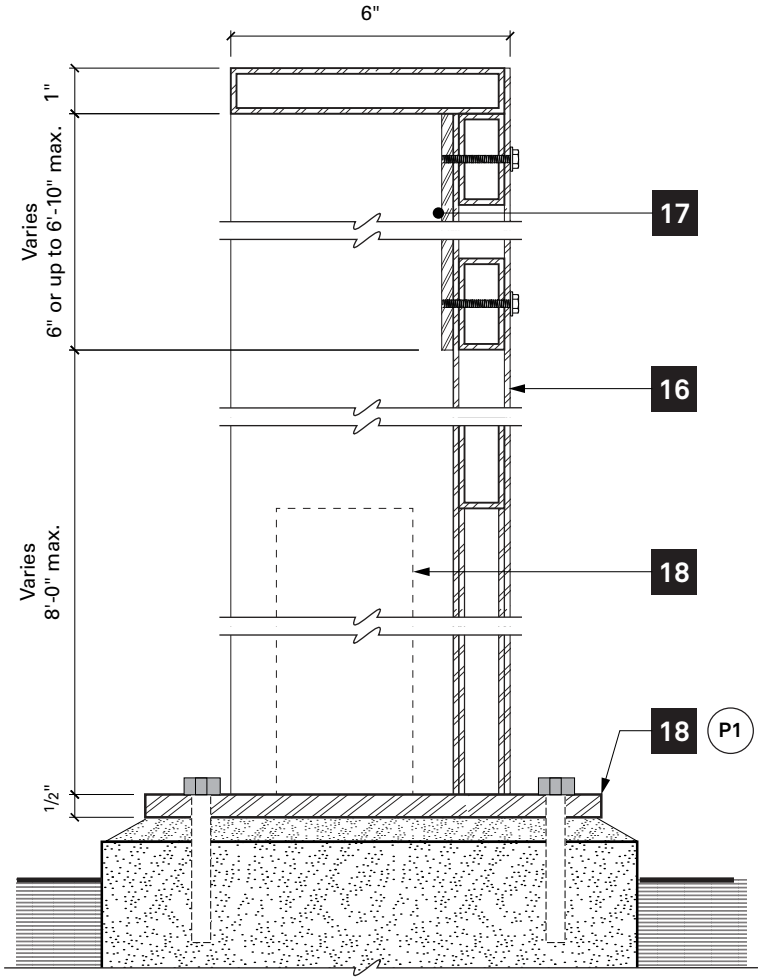
VDR.3 Veh. Directional: Post Panel Large

VRG.3 Street Name

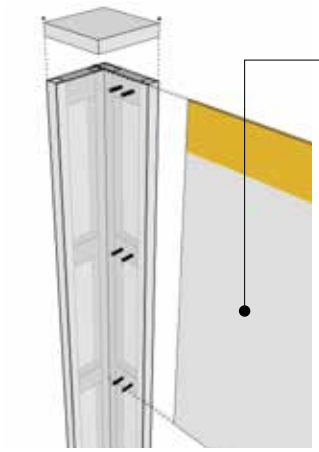
Section Detail: Vehicular Directional, Street Name (Post and Panel)

16– Fabricated Sign Pole
Aluminum frame with 1/8" thick aluminum skins. Cap any open ends. Paint all exposed surfaces.

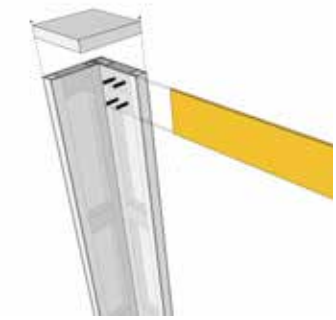
17– Sign Panel
1/4" thick aluminum panel. Mask and paint exposed surfaces as shown. Surface applied graphics. Mechanically fasten to Fabricated Sign Pole.



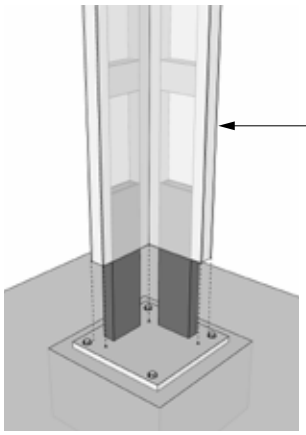
F **Section Detail**
VDR2, VDR3, VRG.3
N.T.S.



1 **Reference View: VDR2, VDR3**
N.T.S.



2 **Reference View: VRG.3**
N.T.S.



3 **Reference View: VDR2, VDR3, VRG.3**
N.T.S.

Section Detail: Vehicular Directional (Post and Panel)

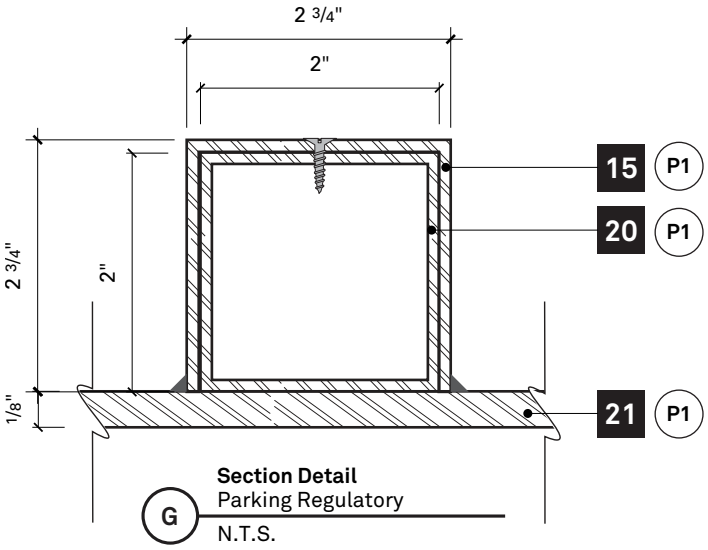
16– Fabricated Sign Pole
Aluminum frame with 1/8" thick aluminum skins. Cap any open ends. Paint all exposed surfaces.

17– Sign Panel
1/4" thick aluminum panel. Mask and paint exposed surfaces as shown. Surface applied graphics. Mechanically fasten to Fabricated Sign Pole.

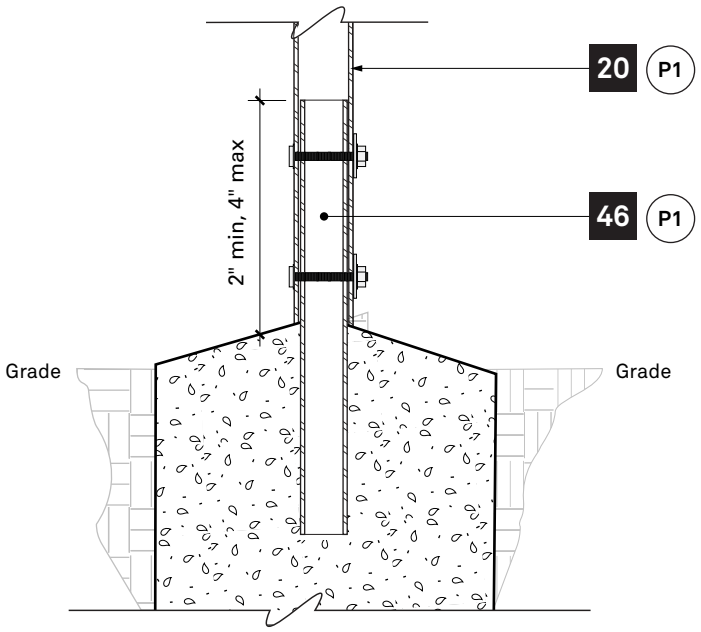
18– Mounting Base
1/2" thick aluminum sheet chemically welded to 1" x 3" aluminum tubes. Secure to foundation, mount Fabricated Sign Pole and mechanically fasten. Paint all exposed surfaces.

USE THIS DETAIL FOR THE FOLLOWING:

VDR.2 Veh. Directional: Post Panel Small
VDR.3 Veh. Directional: Post Panel Large
VRG.3 Street Name



Section Detail
Parking Regulatory
G
N.T.S.



Direct Bury
Parking Regulatory
1
Scale: NTS

Section and Mounting Detail: Parking Regulatory

15– Mounting Sleeve
Aluminum sleeve, painted to match color as noted. Fabricated as required.

20– Sign Pole
Painted aluminum square tube. Provide slot to receive Sign Panel mounting bracket. Provide top cap, mechanically fastened.

21– Sign Panel
1/8" thick aluminum panel with mounting bracket fastened to second surface. Insert bracket into Sign Pole and secure with top cap. Mask and paint exposed surfaces as shown. Surface applied graphics, unless noted.

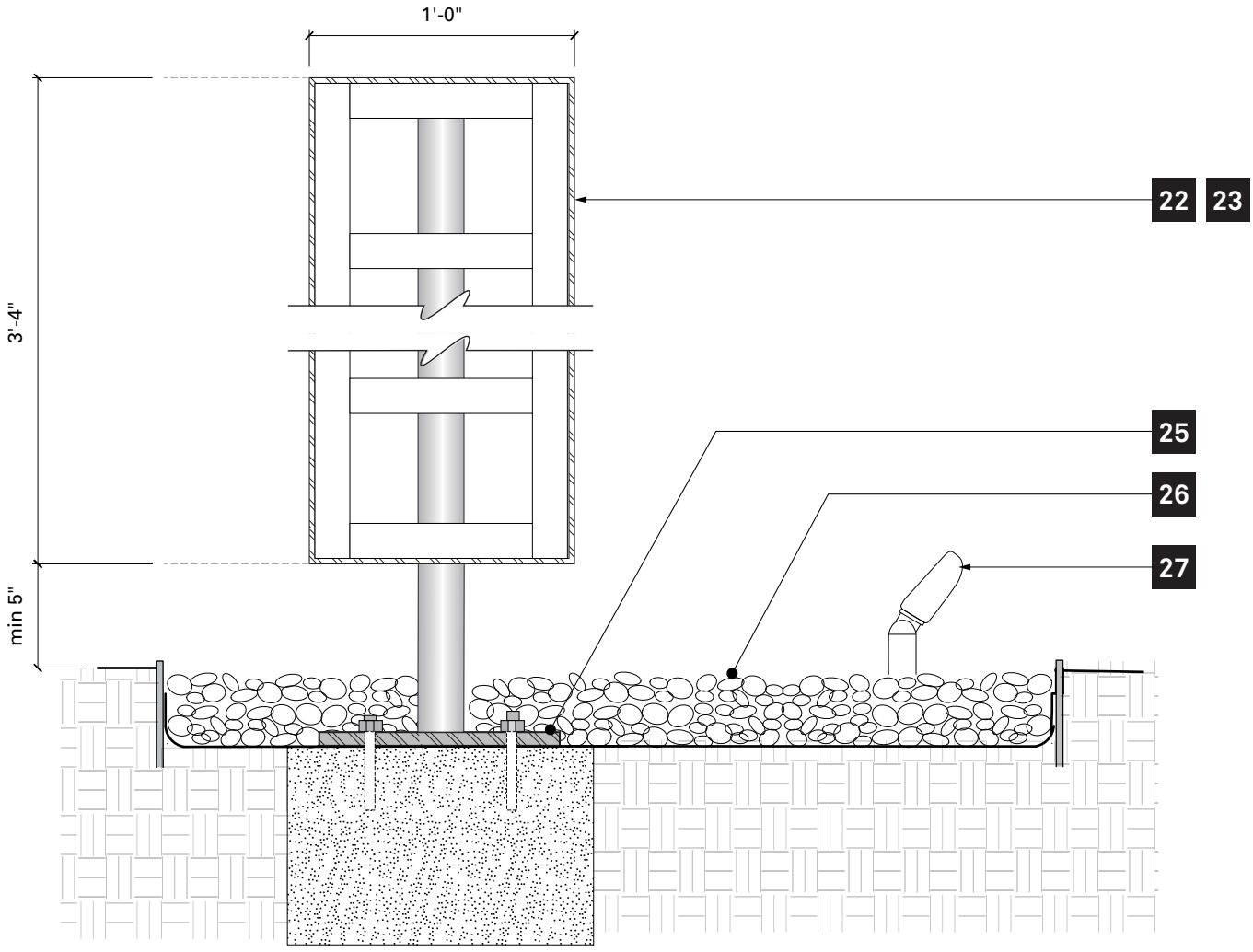
46– Support Tube
2" square aluminum tubing, directly buried into concrete footing. Mount Sign Pole over it and mechanically fasten.

USE THIS DETAIL FOR THE FOLLOWING:

VRG.1 Parking Regulatory: Small
VRG.2 Parking Regulatory: Large
VRG.4 No Smoking Regulatory: Small

NOTE:
Use breakaway, direct bury, and spread foundations based on site conditions of each location.

Breakaways are needed on DOT roadways. Confirm breakaways with Lehigh University prior to fabrication



Section Detail
Gateway Letters and Shield
H
N.T.S.

USE THIS DETAIL FOR THE FOLLOWING:

GWY.1 Signature Gateway

Section Detail: Gateway Letters

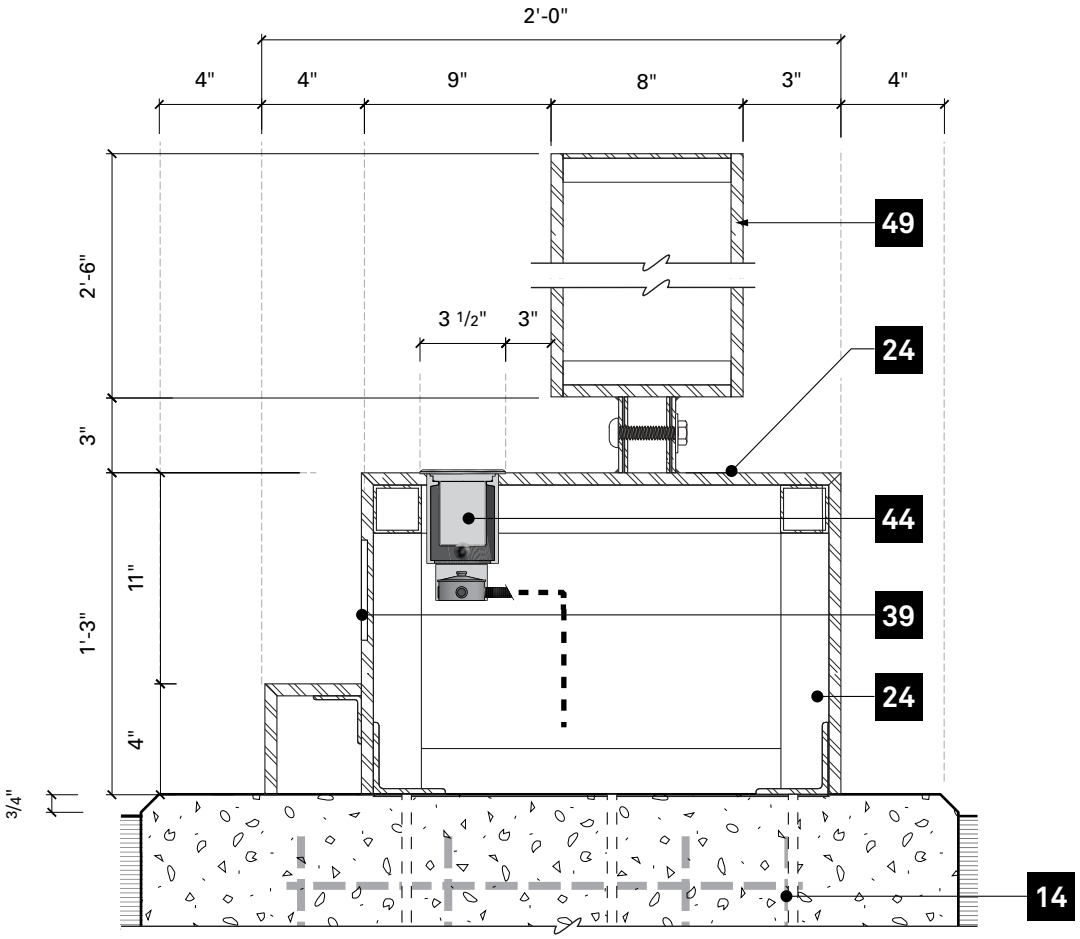
22– Channel Letters
Painted fabricated aluminum letterforms. To be externally illuminated. Provide internal structure and bracing, as required by engineering. Mount on aluminum posts welded to Support Plate.

23– Lehigh Shield
Fabricated aluminum form, painted, artwork to be provided. Details to be laser cut and chemically welded to aluminum skin. To be externally illuminated. Provide internal structure and bracing, as required by engineering. Mount on aluminum posts welded to Support Plate.

25– Support Plate
3/8" aluminum plate welded to posts, as required by engineering. To be fastened to bolts embedded in Support Wall or concrete foundation.

26– Gravel Bed
Provide stainless steel landscape edging all around and fill with grey river pebbles.

27– Light Fixtures
Hubbell Lighting ALF 12LV–5K–BZ linear LED flood light, or approved similar. Set back 2 feet from sign. Provide necessary electrical components, boxes, wiring, transformers, manual switch and photo sensor switch.



Section Detail
Gateway Letters
K1
N.T.S.

USE THIS DETAIL FOR THE FOLLOWING:

GWY.2 Secondary Gateway Horizontal

Section Detail –Gateway Letters

14– Rebar
Typical rebar, as required.

24– Support Wall
Fabricated steel cabinet for support of Channel Letters, painted as per specs. Mount to concrete footer, as required by engineering.

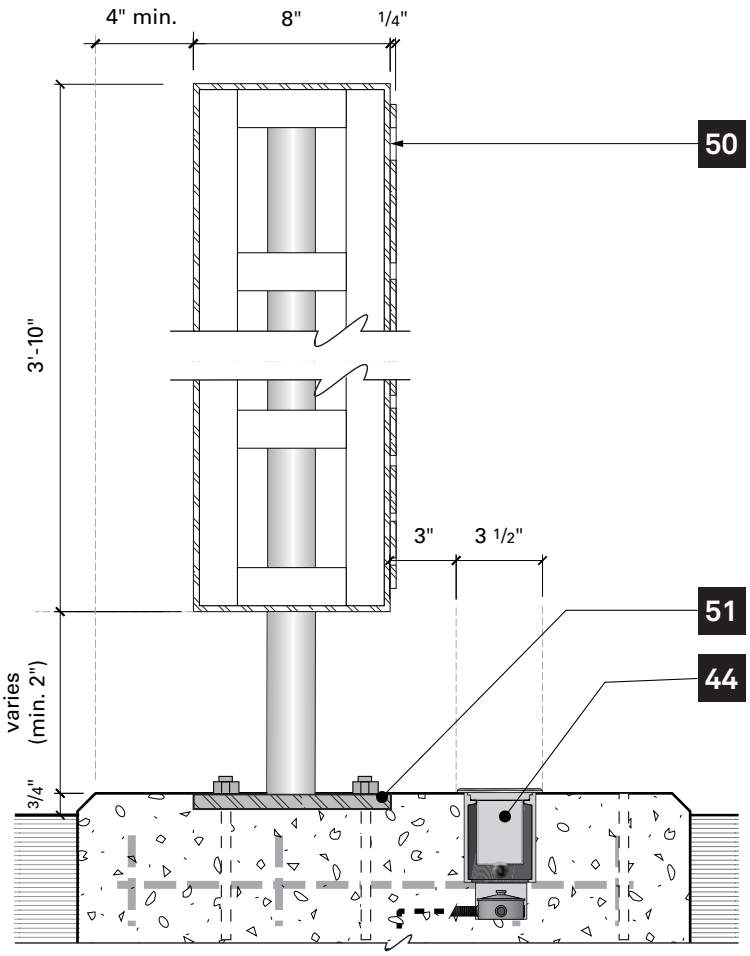
39– Recessed Letters
Engraved letters, 1/4" deep into Support Wall. Paint infill as per specs.

44– Light Fixtures
Bega #77917 Rectangular LED In–Grade Floodlight Asymmetrical Flood, Warm White Color (20 7/8" x 3 1/2"), or approved similar. Bottom of Faceplate sits slightly above finished surface. Provide necessary electrical components, boxes, wiring, transformers, manual switch and photo sensor switch.

49– Channel Letters
Painted fabricated steel letterforms, 1/2" thick faces, 3/16" returns. To be externally illuminated. Provide internal structure and bracing, as required by engineering. Weld 2" O.D. sleeves to bottom of letters and mount on steel posts welded to Support Wall.

50– Lehigh Shield
Fabricated steel form, painted, artwork to be provided. Details to be laser cut and welded to first surface. To be externally illuminated. Provide internal structure and bracing, as required by engineering. Mount on steel posts to be direct buried into concrete.

51– Steel Support Plate
3/8" steel plate welded to posts, as required by engineering. To be fastened to bolts embedded in Support Wall or concrete foundation.



Section Detail
Gateway Shield
K2
N.T.S.

USE THIS DETAIL FOR THE FOLLOWING:

GWY.2 Secondary Gateway Horizontal

Section Detail – Gateway Shield

14– Rebar
Typical rebar, as required.

24– Support Wall
Fabricated steel cabinet for support of Channel Letters, painted as per specs. Mount to concrete footer, as required by engineering.

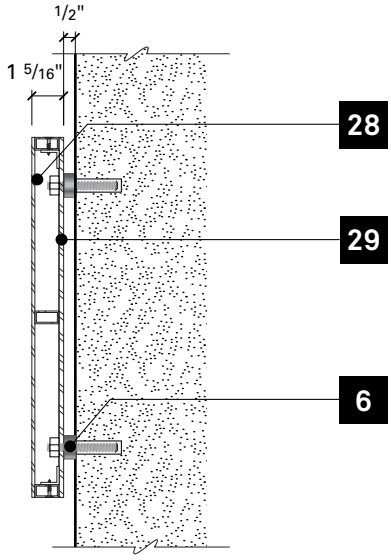
39– Recessed Letters
Engraved letters, 1/4" deep into Support Wall. Paint infill as per specs.

44– Light Fixtures
Bega #77917 Rectangular LED In–Grade Floodlight Asymmetrical Flood, Warm White Color (20 7/8" x 3 1/2"), or approved similar. Bottom of Faceplate sits slightly above finished surface. Provide necessary electrical components, boxes, wiring, transformers, manual switch and photo sensor switch.

49– Channel Letters
Painted fabricated steel letterforms, 1/2" thick faces, 3/16" returns. To be externally illuminated. Provide internal structure and bracing, as required by engineering. Weld 2" O.D. sleeves to bottom of letters and mount on steel posts welded to Support Wall.

50– Lehigh Shield
Fabricated steel form, painted, artwork to be provided. Details to be laser cut and welded to first surface. To be externally illuminated. Provide internal structure and bracing, as required by engineering. Mount on steel posts to be direct buried into concrete.

51– Steel Support Plate
3/8" steel plate welded to posts, as required by engineering. To be fastened to bolts embedded in Support Wall or concrete foundation.



Section Detail
Parking Symbol
L
N.T.S.

USE THIS DETAIL FOR THE FOLLOWING:

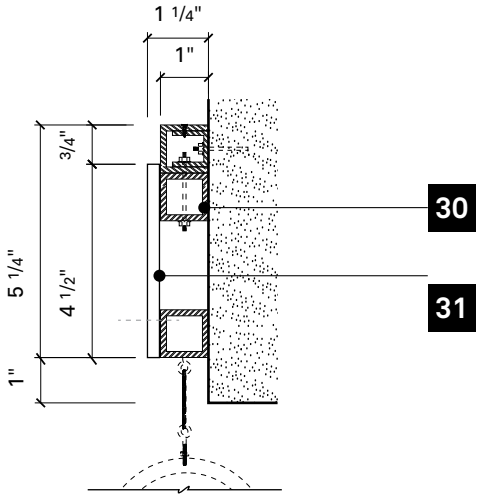
PID.3 Parking Symbol

Section Detail – Parking Symbol

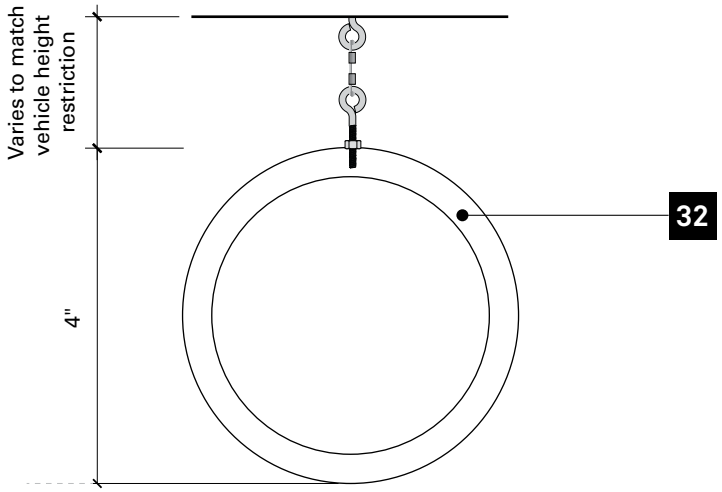
6– Spacer
1/2" aluminum spacer. Stud diameter to be appropriate for letter size and thickness. Set studs with clear epoxy.

28– Sign Panel
1/8" thick aluminum skin chemically welded to 1" aluminum sign frame. Provide internal bracing as necessary for stability. Paint all exposed surfaces. Mechanically fasten to Backer Panel. Surface applied graphics.

29– Backer Panel
3/16" thick aluminum panel with welded angles for Sign Panel attachment to aluminum sign frame. Paint all exposed surfaces. Stud mount to wall and provide Spacer.



Section Detail
M Garage Entrance/Exit
N.T.S.



Section Detail
N Clearance Bar
N.T.S.

Section Details: Garage Entrance/Exit and Bang Bar

30– Fabricated Sign Core
Aluminum tube frame. All welds and countersunk hardware to be hidden. Paint all exposed surfaces. Anchor to structure behind.

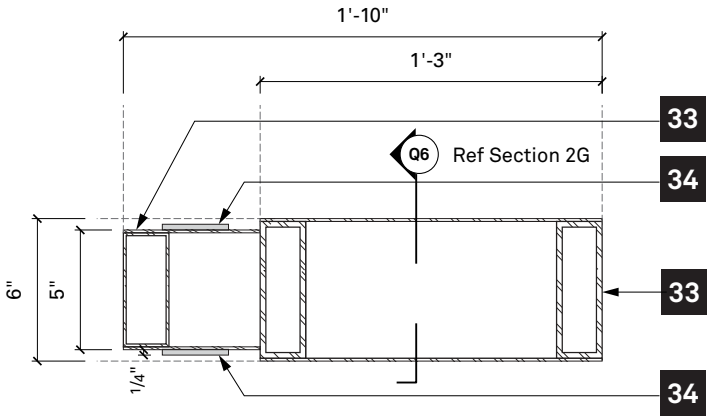
31– Sign Panels
3/16" thick aluminum panels attached to Fabricated Sign Core. Paint all exposed surfaces. Surface applied graphics.

32– Clearance Bar
4" O.D., .226 wall thickness, PVC pipe, painted, with surface applied graphics. Fasten to concrete structure or Fabricated Sign Core above with stainless steel eye bolt and cable, with crimp if necessary.

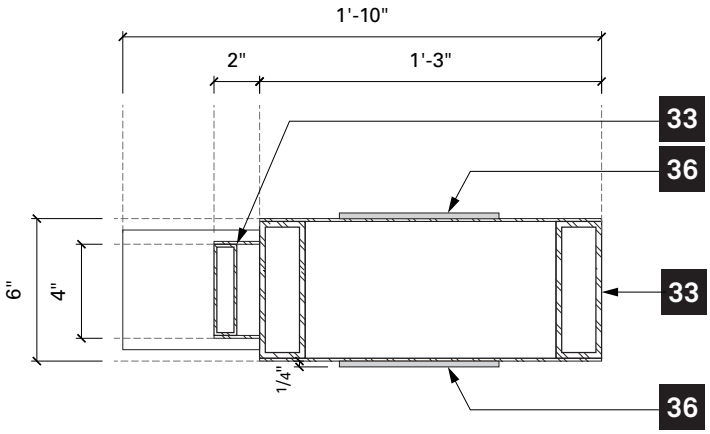
USE THIS DETAIL FOR THE FOLLOWING:

PRG.1 Garage Entrance/Exit

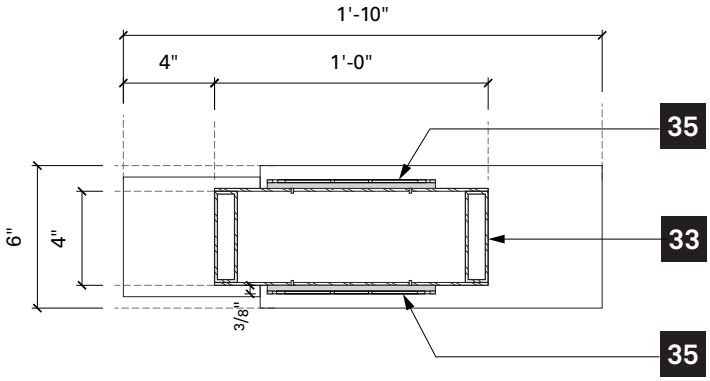
PBB.1 Garage Clearance Bang Bar



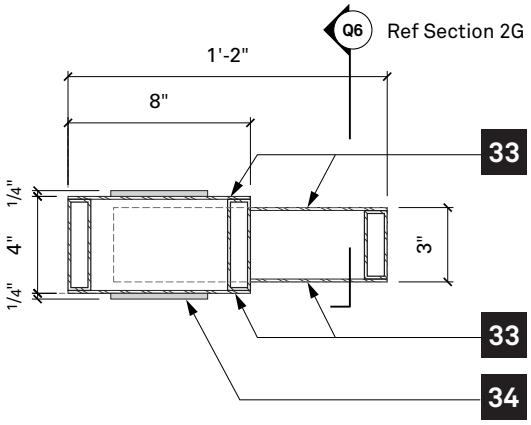
Q1 **Section Detail**
Gateway Panels- GWY.3
Scale: 1 1/2" = 1'-0"



Q2 **Section Detail**
Gateway Panels- GWY.3
Scale: 1 1/2" = 1'-0"



Q3 **Section Detail**
Gateway Panels- GWY.3
Scale: 1 1/2" = 1'-0"



Q4 **Section Detail**
Gateway Panels- GWY.4
Scale: 1 1/2" = 1'-0"

Section Details – Secondary Gateway Vertical, Campus Identification

33– Gateway Panels
Fabricated aluminum cabinets, paint all exposed surfaces as per specs. Mount on 1/2" aluminum plate fastened to bolts embedded in reinforced concrete foundation, as required by engineering.

34– Dimensional Letters
Aluminum letter forms, to be laser cut and painted, as per specs. Stud mount to Gateway Panels.

35– Gateway Shield
Laser cut aluminum shape, painted, artwork to be provided. Details to be laser cut and chemically welded. Stud mount to Gateway Panel.

36– Gateway Letters
Laser cut aluminum shape, painted, artwork to be provided. Stud mount to Gateway Panel.

USE THIS DETAIL FOR THE FOLLOWING:

GWY.3 Secondary Gateway Vertical

GWY.4 Campus Identification

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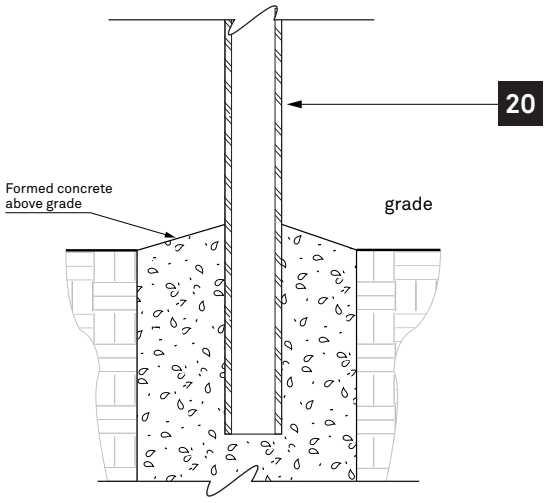
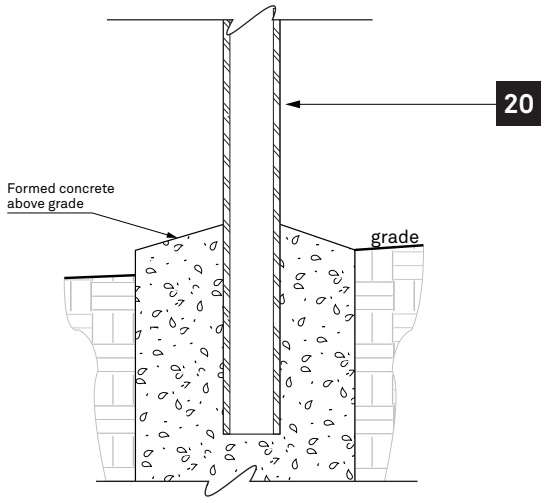
SECTION 2G

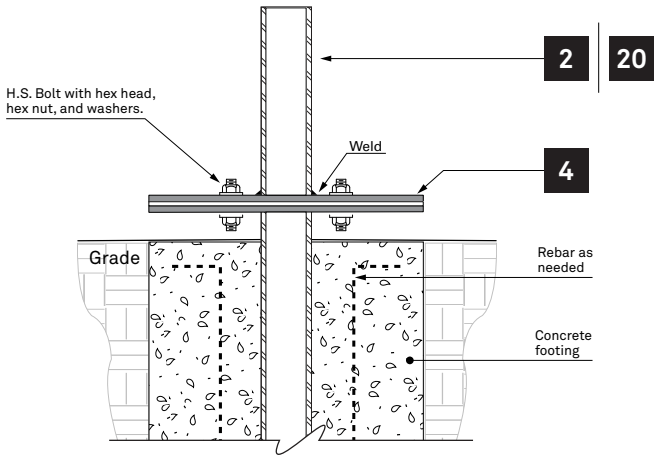
Installation Details



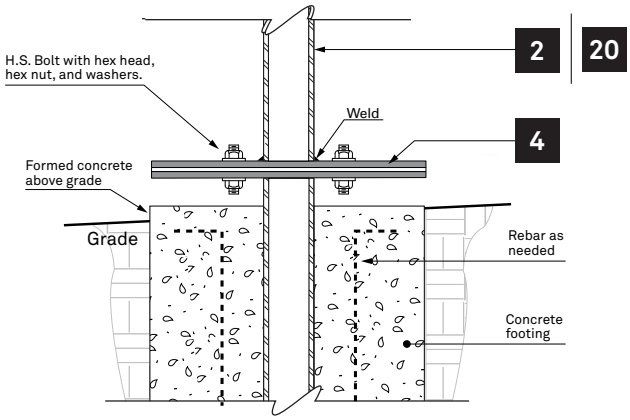
Direct Bury: Post and Panel Level Grade Condition
1 Scale: NTS



Direct Bury: Post and Panel Sloped Elevation Condition
2 Scale: NTS



Break Away: Post and Panel Level Grade Condition
3 Scale: NTS



Break Away: Post and Panel Sloped Elevation Condition
3 Scale: NTS

Direct Bury / Break Away

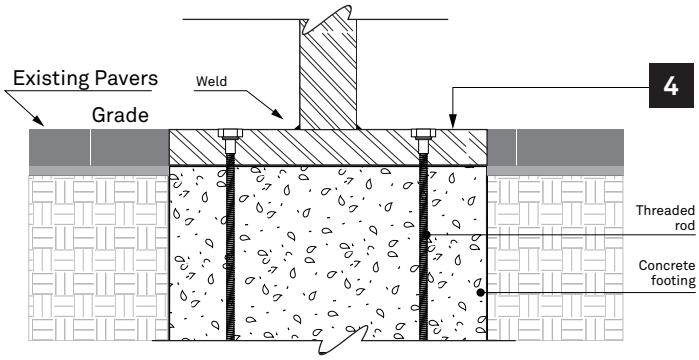
GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

2– Fabricated Sign Core
.063" thick aluminum sheet fastened to 1½" thick aluminum tube frame. Paint all exposed surfaces.

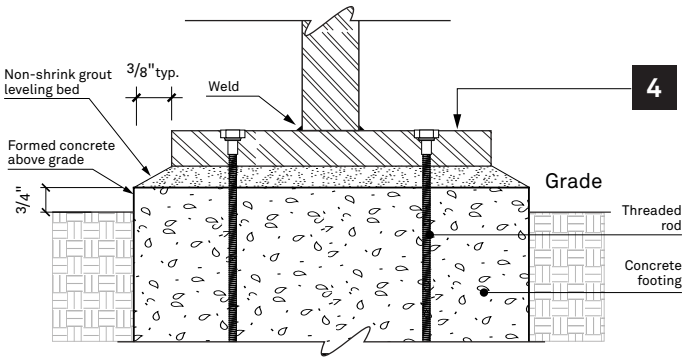
4– Mounting Plates
1/2" thick aluminum sheet welded to aluminum tube. Paint all exposed surfaces and secure to foundation and fabricated sign core.

20– Sign Pole
Painted aluminum tube, either directly buried into concrete footer or welded to Mounting Base. Provide top cap, mechanically fastened.

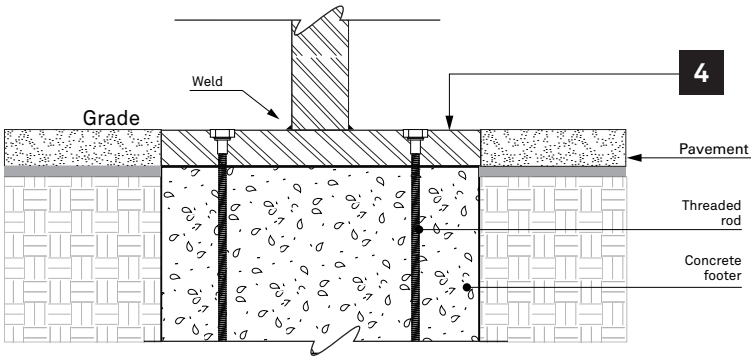
USE DETAILS FOR THE FOLLOWING:
VRG.1 Parking Regulatory Small
VRG.2 Parking Regulatory Large
VRG.3 Street Name
VDR.2 Veh. Directional: PP Small
VDR.3 Veh. Directional: PP Large



Monolith Mounting: Paver Surface
1 Scale: NTS

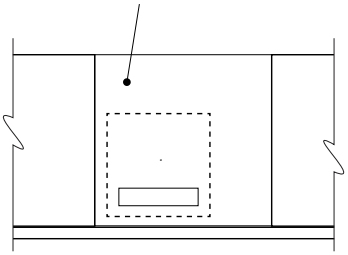


Monolith Mounting: Grass Surface
2 Scale: NTS



Monolith Mounting: Concrete Surface
3 Scale: NTS

NOTE: For either monoliths or post & panel signs, when locating a footing within a single pavement block, adjacent to at least two expansion joints, the entire block of pavement shall be removed and replaced with the same materials and finish of adjacent sidewalk areas.



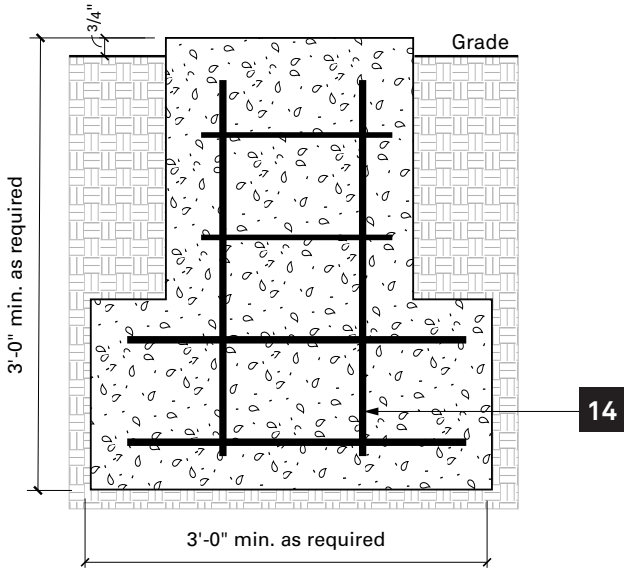
Paver, Ground, and Concrete Surfaces

GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

4– Mounting Base
1/2" thick aluminum sheet welded to aluminum tube. Paint all exposed surfaces and secure to foundation and fabricated sign core.

USE DETAILS FOR THE FOLLOWING:
BID Building Identification
BUS Shuttle Stop
CTB Campus Trailblazer
IHB Information Hub
PDR Pedestrian Directional
PID Parking Identification
VDR Vehicular Directional
VRG Vehicular Regulatory

Design Wind load 300 PSF 120 MPH,
3 Sec Gust Wind, Exp C



Section View:
Typical Concrete Footing
A
Scale: NTS

This represents the general requirements when pouring and installing concrete footings:

All concrete footers are to be poured in place and poured from thoroughly mixed and agitated concrete in order prevent unreasonable voids in the finished casting.

Concrete to meet specified "PSI Test" for strength: 3,500 psi minimum. Re-bar cages to be used in larger footings as determined by a registered structural engineer.

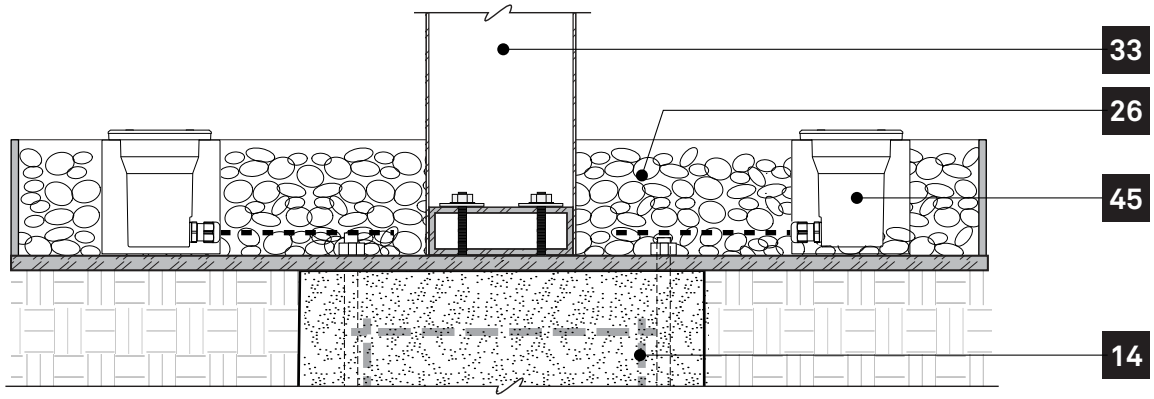
Concrete to meet specified "Slump test" before pouring footing. All footings to extend past the frost line. Any footers or posts for signs will be placed in wet concrete and allowed to fully cure in place before any signage is attached or mounted to it in any way.

All exposed faces of concrete shall receive a finish to match existing, adjacent surfaces.

Typical Concrete Footing

GENERAL FABRICATION/GRAPHIC NOTES
Field verification of each sign location and site conditions will be required prior to fabrication.

14– Rebar
Typical rebar, as required.



Q5 **Footing Detail**
GWY.3, GWY.4
Scale: N.T.S.

USE THIS DETAIL FOR THE FOLLOWING:

GWY.3 Secondary Gateway Vertical

GWY.4 Campus Identification

Section Detail: Secondary Gateway Vertical

14– Rebar
Typical rebar, as required.

26– Gravel Bed
Provide stainless steel landscape edging all around and fill with grey river pebbles.

33– Gateway Panels
Fabricated aluminum cabinets, paint all exposed surfaces as per specs. Mount on 1/2" aluminum plate fastened to bolts embedded in reinforced concrete foundation, as required by engineering.

45– Light Fixtures
Bega #77008 LED In–Grade Floodlight Asymmetrical Flood, Warm White Color, or approved similar. Bottom of Faceplate sits slightly above finished surface. Provide necessary electrical components, boxes, wiring, transformers, manual switch and photo sensor switch.

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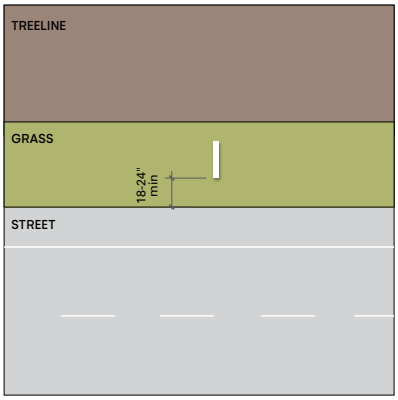
SECTION 2H

Placement Guidelines

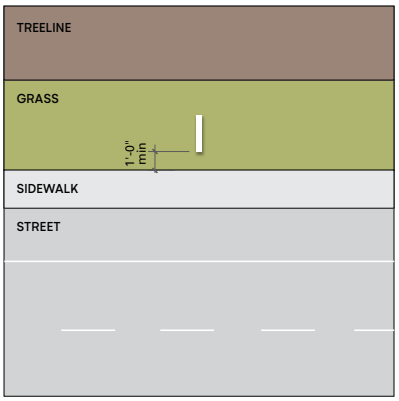
Vehicular Signage

The following drawings provide guidance and rules for signage placement within and along the campus.
These guidelines anticipate the various conditions that will be encountered for each sign type.

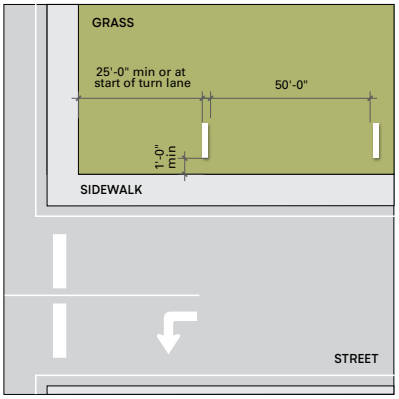
Sign types include: Campus Trailblazers (CTB), Vehicular Directionals (VDR), Gateways (GWY), and Building Identification (BID)



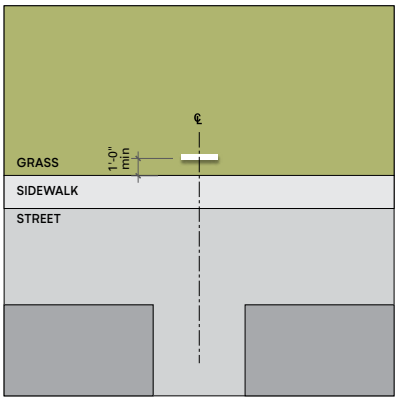
CTB, VDR



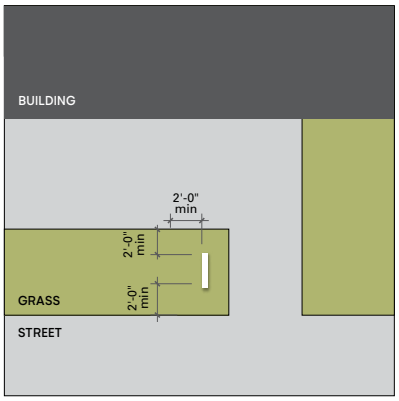
CTB, VDR



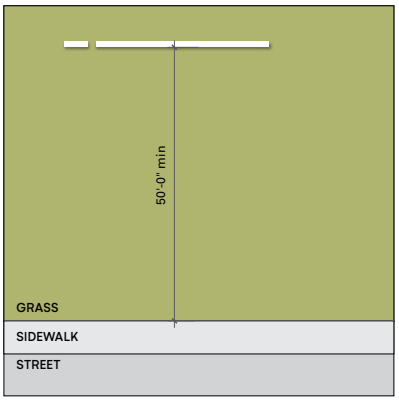
CTB, VDR, GWY.3, GWY.4
Place outside of sight-triangles and road-rights-of-way where possible



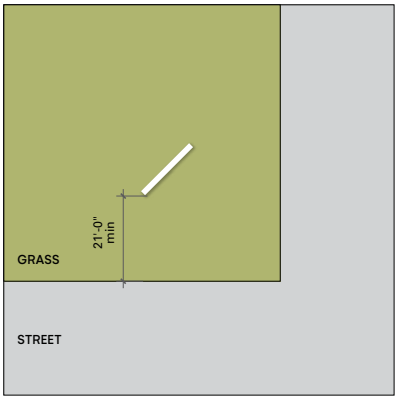
CTB, VDR, BID.2, GWY.2



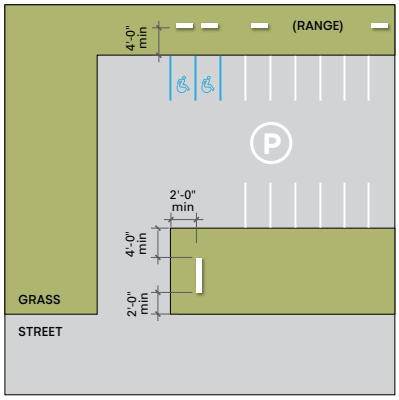
BID.2, BID.6
Place outside of sight-triangles and road-rights-of-way where possible



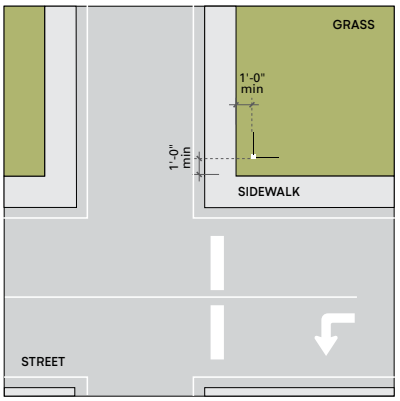
GWY.1



GWY.2
Place outside of sight-triangles and road-rights-of-way where possible



PID, VRG
Place outside of sight-triangles and road-rights-of-way where possible

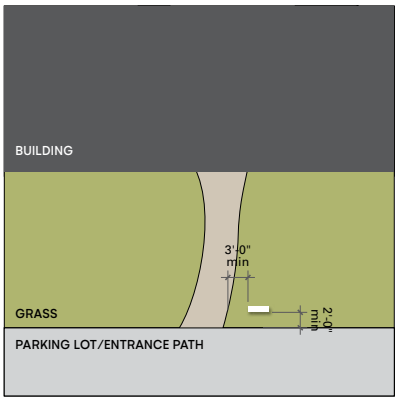


VRG.3
Place outside of sight-triangles and road-rights-of-way where possible

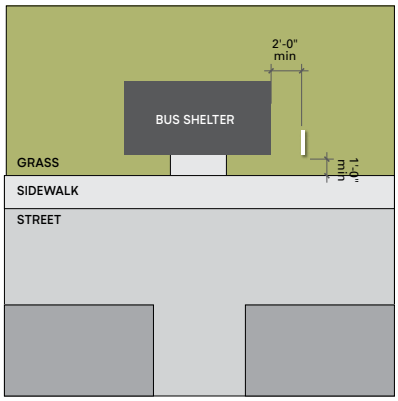
Pedestrian Signage

The following drawings provide guidance and rules for signage placement within and along the campus. These guidelines anticipate the various conditions that will be encountered for each sign type.

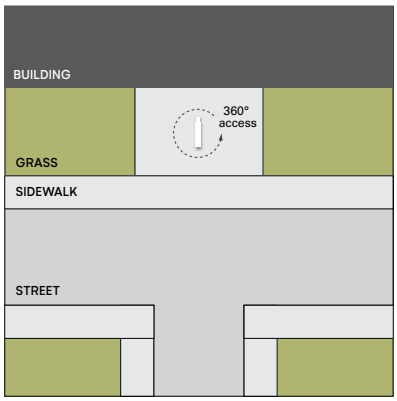
Sign types include: Pedestrian Directionals (PDR), and Building Identification (BID)



BID.1

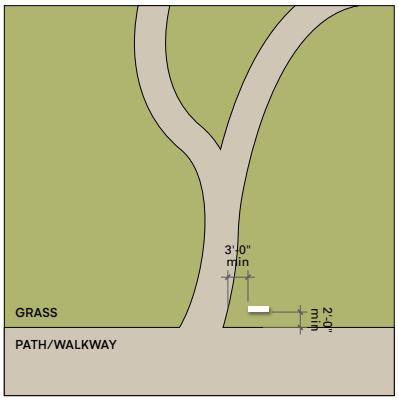


BUS.1

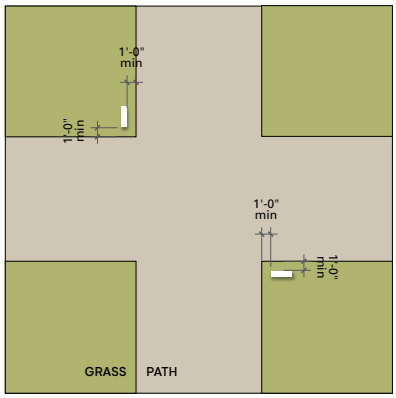


IHB

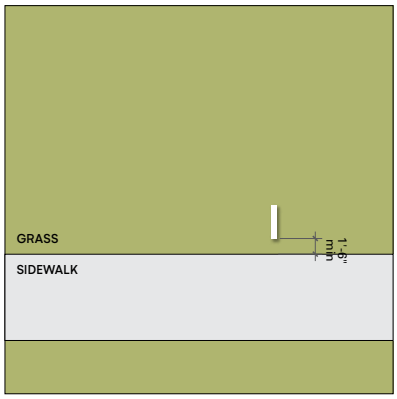
Place outside of main gathering destinations (e.g. Gym, Library) and allow for full 360° access.



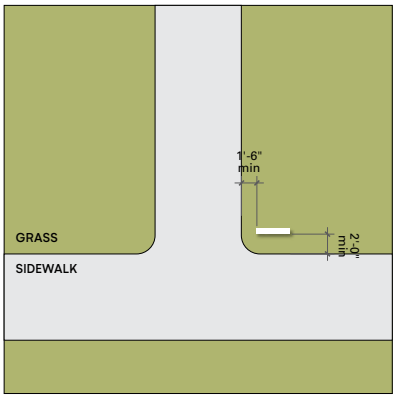
PDR



PDR



PDR



PDR

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SECTION 2J

Performance Specifications

Required Submittals

Qualifications

The awarded Fabricator will have provided their qualifications at or prior to the time of bid. Qualifications should include: a minimum of 5—10 years relevant experience and shall provide information that illustrates the following:

1. Firm/personnel qualifications.
2. Projects of similar size and complexity.
3. Demonstration of of high quality craftsmanship.
4. Project management team and experience.

The Fabricator is required to submit as part of the submittal process additional qualifications for any subcontractors; including, but not limited to: installers, electrician, specialty subcontractor, and/or project managers not included or accepted with the bid award of the project. The Owner reserves the right to accept or reject any subcontractor and/or project manager submitted for review.

Shop Drawings

Submit one (1) electronic set of shop drawings as outlined below:

Include plans, elevations, sections and large-scale details of sign construction, wording, and lettering layout. Show anchorages and accessory items.

Provide graphic layouts of each individual sign face and message for each sign location.

Show fabrication and installation details, including all sign components such as: extrusions, brackets, bracing, hardware, internal framing, etc.

Alphabet of each type style required by the contract documents; upper and lowercase, with numerals, punctuation and accents.

Shop drawings must include all field verified conditions and dimensions and show installation and mounting heights.

Product Spec and Warranty Information

Provide documentation outlining all project warranties, including both product and manufacturing.

Submit cut sheets for all specified products.

Sign Samples

Samples shall be clearly labeled on the back (where possible), designating item number, name of manufacturer, sign type and location.

Fabricator shall submit a minimum of two (2) samples of each color and finish applied on each material type as indicated in the drawing package.

Samples should represent the final finish of each element and will be used as control samples for production approval.

Samples should represent extreme variations in color and texture that might occur during fabrication. Please submit the following samples as specified in the drawing package.

Color Samples

Color sample(s) for each specified color, process, and finish. Color submittal(s) shall be submitted on each relevant substrate specified.

Material Samples

Material samples of each specified material, color, and finish specified.

Submit manufacturer's standard color palette where required for color and finish selection.

Digital Print Samples

Digital print samples as specified (orientation maps, message strips, digital wall coverings, etc.). Digital printed copy or graphics shall be submitted on the background colors specified for each instance to validate color, finish and legibility. Submittals should be made using project messages, typography and/or artwork.

Paper Templates

Templates should be fully assembled or have complete registration marks for assembly. Fabricator shall provide for designer approval, full size paper templates of specified sign types for review and approval in the field.

Sign Samples

Sign contractor shall construct specified sign samples and/or mockups.

Review Process

Each reviewing party, i.e. Designer, Owner, Architect, etc., will each require a minimum of 10 business days to review all submittals.

The process and sequence of submittal submissions and review shall be discussed and agreed to during the project kickoff meeting.

Designer reserves the right to reject any submittal (shop drawings, samples, etc.) that does not satisfy the requirements as outlined in this document; including, but not limited to: field conditions, construction, finish or color requirements. Submit additional drawings/samples as required to obtain final approval.

Project Requirements

Work Included

Site verification, fabrication, delivery, and installation of all sign types and quantities indicated in the final approved copy list and sign location plan. Fabricator to verify the sign quantities from the copy list and sign location plans and if discrepancies exist, notifying the designer of any such discrepancies.

Work shall include all support structures and fasteners required for installation.

Work shall include all design engineering needed to produce the project to comply with all applicable municipal, state and federal code, and structural soundness.

When required, Fabricator is responsible for submitting engineered drawings signed and sealed by structural engineer.

Fabricator to provide all services, subcontractors, labor, materials, and equipment needed to complete the work described in this sign standards manual.

Upon award of the bid, the selected Fabricator shall arrange a meeting with the Designer to review the scope of work.

Fabricator will be responsible for providing the Designer and Owner a project schedule that outlines durations for all work including delivery dates for submittals and Designer and Owner review time. Fabricator shall update and reissue the schedule throughout the project and communicate all changes/impacts on the schedule to Designer and Owner.

Prior to installation, the Fabricator shall conduct a preinstall walkthrough with the Designer and Owner to address any potential issues/questions.

At the substantial completion of the project the Fabricator shall perform a walkthrough with the Designer and Owner to inspect the installation and create a punch list of all unsatisfactory items. Fabricator is required to complete all items within 3–4 weeks of receipt of punch list.

Work Quality

All work to be done in a professional manner and to the highest trade standards.

Fabricator is responsible for insuring the quality standards above for all related professional and trade subcontracted work including: general carpentry, masonry, electrical, landscaping, or utilities required for the installation of all sign types as described, unless otherwise agreed to by Owner.

All subcontracted work must meet the general accepted professional standards.

Reference Standard

The following materials reference standards will apply to the work materials (use most current version of reference standards):

ASTM A36 Structural steel

ASTM A123 Zinc (hot galvanized) coatings on products fabricated from rodded, pressed and forged steel shape, plates and bars.

ASTM B221 Aluminum–alloy extruded bars, rods, wire, shapes and tubes.

ASTM D822 Light and water exposure apparatus (carbon–arc type) for testing paint, varnish, lacquer, and related products.

ASTM E84 Surface–burning characteristics of building materials, lacquer and related products.

AWI Comply with applicable requirements of “Architectural Woodwork Quality Standards" published by the Architectural Woodwork Institute.

CDA Copper Development Association, inc.

FS L–P–391 Plastic sheet, rods and tubing, rigid, cast materials

FS L–P–387 Plastic sheet, laminated, thermosetting

PS–1 Construction and industrial plywood

PEI Porcelain Enamel Institute

TM B135 QQ–B–613 (Fed spec) Brass, Muntz 280

UL–48 Electric Signs (LED)

Warranties

Warrant all products (including, but not limited to: materials, hardware and finishes) against any and all defects based on manufacturers’ supplied warranties from date of installation. All manufacturer warranties should be submitted to the Designer and Owner for review.

Vinyl die cut letters: warranted against delamination from substrate.

Paint finishes: warranted against fading or chalking, corrosion developing beneath paint surfaces of the support systems (except for obvious vandalism or other external damage to the paint surfaces).

Corrosion of the fastenings.

The sign panels not remaining true and plumb on their supports during normal wear.

Fading of the colors when matched against a sample of the original color and material.

Discoloration of metal finishes.

Adhesives (Laminating Adhesive, VHB Tape, Silicone Adhesive, Epoxy)

Project Requirements (continued)

The fabricator shall correct any and all material and/or workmanship defects which may appear during the warranty period by restoring defective work to the standard of the contract documents at no cost to the Owner and to the Owner's satisfaction. Corrections include, but are not limited to: disfiguring of any surface due to chalking, rusting, bubbling, or other disintegration of the sign face or of the messages or of the edge finish of the sign panel.

Quality Assurance

Work done and materials furnished shall meet the highest industry standards in every respect and, unless otherwise specified, materials and equipment shall be new and of the latest design.

The design intent package should provide everything necessary for a complete contract.

In the event of conflict or omission, the Fabricator shall consult the Designer and Owner for resolution. All clarifications are to be made in writing in the form of an RFI from the fabricator to the Designer and Owner.

Use only personnel thoroughly skilled and experienced with the products and method for fabrication and installation of signage specified.

The Owner shall reserve the right to reject any shop drawings, samples or other submittals, as well as any finished product or installation, that cannot meet the standard of quality established. Any such decision will be considered final and not subject to recourse.

Materials and hardware not specified, but necessary to the complete functioning of the sign, shall conform to the quality level established.

Substitutions of items specifically indicated in this sign standards manual that serve the same function with equal performance will be considered upon submission of substitution.

Protection And Storage

Fabricator is responsible for storage of signs and assemblies and protection from damage at the shop, in transit and until erected in place, complete, inspected and accepted by Owner.

Fabricator is responsible for the replacement pilferage both prior to and until inspection and acceptance of installation by the Owner.

Inspection

All production materials, color samples and paints, fabricated or partially fabricated items shall be available for inspection, onsite or in the shop, by the Owner or Designer during the manufacturing process and until final delivery, installation and acceptance, to determine compliance with the requirements of these specifications.

Shop inspection approvals do not guarantee final acceptance of installed work.

Installation

Install sign units and components with concealed fasteners unless otherwise shown. Refer to drawings for general method of installation. Verify each surface in field to determine appropriate mounting hardware. Fabricator is responsible for determining where below ground or in–wall structural tie–ins may be required.

All elements should be installed true and plumb in accordance with the design intent of this document.

Sign location drawings show approximate locations of signs. Fabricator, Designer and Owner shall conduct a preinstall markout walkthrough to confirm all locations and identify areas of conflict. Fabricator is responsible for determining the location of underground structures and utilities on ground mounted signs. A PA One Call is required prior to digging. Any conflicts should be brought to the attention of the Designer and Owner.

Regulatory Requirements

All installation work shall comply with applicable municipal, state and federal codes, sign ordinances, and ADA guidelines for handicapped and fire/life safety signing.

All OSHA safety requirements will be implemented during fabrication and installation as needed or required to comply with safety regulations.

All field/site work shall be conducted in compliance with the Owner/construction manager's requirements/regulations for the site, particularly areas open and accessible to the public.

Work area protection shall be required as needed and all site specific rules should be reviewed and outlined during the project kickoff meeting.

Clean Up

Daily and upon completion of installation remove all waste, dirt, wrappings and excess materials, tools and equipment, and thoroughly clean all surfaces to the satisfaction of the Owner. Any areas disturbed during installation shall be restored to original condition by the sign installer.

Reordering

All items specified in this package shall be available to the Owner in additional quantities for a period of 10 years after completion of all work called for in this specification.

Quality of Materials

METALS

Aluminum

Aluminum shall be of best commercial quality and the various forms shall be straight and true.

There shall be no scratches, scars or buckles. Size thickness, and finish of aluminum shall be per NAAMM “Metal Finishes Manual" and comply with the following industry standards:

Aluminum sheets shall conform to ASTM B209 6061-T6

Aluminum extrusions shall conform to ASTM B241 6063 T6. Wall thickness shall be a minimum of 1/8" thick unless otherwise shown.

Brushed finishes—brush with abrasive of increasing grit# in a linear directional pattern.

Final surface shall have visible grain pattern to match sample approved by Designer and Owner. Spray with clear protective finish.

Polished finish—brush with abrasive of increasing grit#. Buff to a mirror finish with no visible grain. Match sample approved by Designer and Owner. Spray with clear protective finish.

Nondirectional finish—brush with abrasive mounted in an random orbital sander. Match sample approved by Designer and Owner. Spray with clear protective finish.

Stainless Steel

Structural stainless steel shapes to be rolled or laser fused, as manufactured by stainless structurals, LLC. (936-538-7600, www.stainless-structurals.com)

Chromium stainless steel sheet. Use Type 304 or Type 316 stainless steel with 16% chromium and 10% nickel.

For steel exposed to view on completion, provide materials having flat, smooth surfaces without blemishes. Do not use materials whose surfaces exhibit pitting, seam marks, roller marks, rolled trade names, or roughness.

Stainless steel plate, sheet and strip: provide stainless steel plate, sheet, or strip, AISI Type 302, complying with requirements of ASTM A 167.

Stainless steel finishes: finish designations prefixed by “AISI" conform to the system established by the American Iron and Steel Institute for designating finishes.

Finish: Beadblasted & pickled.

VINYL FILM

Non-reflective graphics provide 3.0 Mil thick 3M Scotchcal film 220 series or approved equal.

Color of vinyl material is to be integral and not surface applied except as specifically noted.

Reflective graphics provide 3M Scotchlite enclosed lens reflective sheeting or approved equal

Translucent graphics provide 3M Scotchcal translucent film or approved equal

CONCRETE

All concrete footings are to be poured in place.

All concrete footings are to be poured from thoroughly mixed and agitated concrete in order to prevent unreasonable voids in the finished casting.

Concrete to meet specified “PSI test" for strength: 3,500 PSI minimum. If required by Owner, concrete to meet specified “slump test" before pouring footing. All footings to extend past the frost line.

Any footing or posts for signs will be placed in wet concrete and allowed to fully cure in place before any signage is attached or mounted to it in any way. All exposed faces of concrete shall receive a finish to match existing, adjacent surfaces.

Quality of Materials (continued)

ADHESIVES AND TAPES

Laminating Adhesive

Provide Flexcon V9590 D/FPFW clear or equal

VHB Tape

High bond, exterior grade, UV and temperature stable. Suitable for signage assembly and is a proven alternative to screws, rivets, welds, and other forms of mechanical fasteners.

Silicone Adhesive

TTS–00230C, ASTM C920 clear, (acetoxy cure)

Epoxy

033M DP–110 or equal

LIGHTING

LED

High efficiency, long life series parallel lighting system. Sign housings and frame shall be fully sealed against light leakage.

Other Light Sources

Provide all specific call–outs on shop drawings for lamp type, necessary transformers or ballasts and all necessary electrical draws for service installation. Locate all transformers on shop drawings. All necessary electrical hardware must be hidden. Refer to Lehigh University site lighting design standards for additional guidance.

CUT LETTERFORMS

Letters shall be cut from sheet stock to thickness specified in the design intent package.

All letterforms, logo symbols, graphics and icons shall exactly replicate the form as specified in the standards of this design intent package. Manual filling of interior shapes to remove material left by router bit may be required to create accurate forms.

Return edges shall be painted to match the letter face unless otherwise specified.

Brushed finished aluminum letters to have sand blasted edges unless otherwise specified.

FABRICATED CHANNEL LETTERFORMS

Metal face and side returns formed free from warping and distortion; with uniform faces, sharp corners, and precisely formed lines and profiles; internally braced for stability and for securing fasteners; and as follows:

Internally illuminated characters: backlit character construction with led lighting including transformers, insulators, and other accessories for operability, with provision for servicing and concealing connections to building electrical system. Use tight or sealed joint construction to prevent unintentional light leakage. Space lamps apart from each other and away from character surfaces as needed to illuminate evenly.

Provide weep holes to drain water at lowest part of exterior characters. Equip weeps with permanent baffles to block light leakages with inhibiting drainage.

ACCESSORIES

Anchors and Fastenings

Provide anchors and fasteners required to secure work in place. Do not expose fastenings on surface of sign panels unless specifically noted otherwise. Do not deform, distort or discolor sign face surfaces by attachment of concealed fastenings.

All fastenings shall be non–corrosive and resistant to oxidation or other corrosive action, of the same composition completely through their cross sections, particularly when used below grade. Use highest quality stainless steel hardware and fasteners.

Anchors, inserts or fasteners shall be compatible with sign materials, shall not result in galvanic action or chemical interaction of adhesives and shall have demonstrable and sufficient strength for intended use.

Steel anchors and fastenings for exterior use shall be galvanized in accordance with ASTM A153.

Fabricate and install signs with fastenings to withstand all actions imposed by use; 30 PSF wind perpendicular to surfaces, water, ice, snow loads and similar forces.

Anchor bolts in concrete shall be cast in place. Fabricator shall furnish instructions for the setting of anchors and bearing plates. Fabricator shall ascertain that the items are properly set during the process of the work.

Secure work with fastenings of same color and finish as the components they secure where they are exposed to view, unless noted otherwise. All exposed fasteners must be vandal resistant and have vandal proof “spanner" type slots to be removed only with a special driver head.

Construction Standards

GENERAL

Fabricate signs to comply with the requirements indicated for materials, thicknesses, finishes, colors, designs, shapes, sizes and details of construction. Sign panel surfaces shall be smooth, even and fabricated to remain flat under installed conditions. Where specification calls for painted edges, they shall be routed and painted to match face color. For framed units, edges shall be painted or brushed to match finish of face of unit unless otherwise indicated on drawings.

This work may be produced by multiple contractors. Coordination with designer and other contractors is required to provide for consistent signage across the entire project area, including color, material sizes and design intent.

DIGITALLY PRINTED MEDIA

Printer to have direct-to-substrate printing capabilities with CMYK and White ink options. White ink should have full coverage.

All media is to be opaque, with full even coverage, and free from dust bubbles, blemishes and other foreign matter.

Fabricator should seek to minimize visible banding over color fields and large graphics. Designer and Owner reserve the right to reject print samples that display excessive banding.

CUT VINYL LETTERS

Letters shall be cut from sheet stock to thickness specified in this sign standards manual.

All letterforms, logo symbols, graphics, and icons shall exactly replicate the form as specified in the standards of this sign standards manual.

CUT METAL AND ACRYLIC LETTERS

Aluminum, stainless steel, bronze (hydrocut).

Acrylic (computer driven router cut)

Letters shall be cut from sheet stock to thickness specified in this sign standards manual.

All letterforms, logo symbols, graphics and icons shall exactly replicate the form as specified in the standards of this document. Manual filing of interior shapes to remove material left by router bit may be required to create accurate forms.

ALUMINUM AND ACRYLIC LETTER FINISHES

Return edges shall be painted to match letter face unless otherwise specified.

Brushed finished aluminum letters to have sandblasted edges unless otherwise specified.

Cut metal letter forms shall be mounted on surfaces as indicated in the design documentation package.

FABRICATED LETTERS

Metal face and side returns formed free from warp and distortion; with uniform faces, sharp corners, and precisely formed lines and profiles; internally braced for stability and for securing fasteners.

ASI Sign Systems, Inc. (Or equal)- fabricated aluminum letters

ILLUMINATED CHARACTERS

Backlighted character construction with LED lighting including transformers, insulators, and other accessories for operability, with provision for servicing and concealing connections to building electrical system. Use tight or sealed joint construction to prevent unintentional light leakage.

Space lamps apart from each other and away from character surfaces as needed to illuminate evenly.

Power

Submit signed and sealed electrical drawings.

Weeps

Provide weep holes to drain water at lowest part of exterior characters. Equip weeps with permanent baffles to block light leakage without inhibiting drainage.

Character material

Sheet or plate aluminum.

Material thickness

Manufacturer's standard for size and design of character.

Finishes

Baked enamel or powdercoat finish: manufacturer's standard, in color as indicated.

Overcoat

Manufacturer's standard baked-on clear coating, satin finish.

Mounting

Projecting studs

Hold characters at 1 1/2" distance from wall surface.

Wiring and controls

Dimmer: Lutron 0-10v with OSRAM Optronic power, or equal, or as required.

Power Supply: #OT96W/24v/UNV/DIM or equal, or as required

Photocell: 120 Volt Dusk to Dawn Photocell Photoeye Light Sensor Switch-Auto On/Off, or as required

Construction Standards (continued)

FINISHES AND COATINGS

General

All exposed paint finishes shall be durable and resistant to scratching and chipping.

Finishes shall be spray painted according to manufacturer's specifications for environment, curing time, etc. All paints, inks, coatings and finishes, including primers, and other surface preparations shall be of the highest quality, manufactured specifically for the surface materials to which they are applied, and shall be compatible with the materials to which they are applied.

Surfaces shall be smooth and free of flaws such as scratches, bumps or over-sprayed paint.

All paints, inks, and coatings shall be heavy duty grade to withstand chalking, fading, discoloration, chipping, cracking, and peeling for a minimum of 7 years, or to the maximum manufacture warranty specifications.

Aluminum

Aluminum surfaces shall be spray painted with acrylic polyurethane enamel

Primer coat: Matthews 74 760

Catalyst—43 270

Color coat: Matthews Acrylic Polyurethane Nuance

Acrylic

Translucent or transparent acrylic specified for the purpose of transmitting light should be free from internal flaws or variations in color.

Vinyl Films

All vinyl films shall be matte finish unless otherwise specified. Vinyl shall be applied following manufacturer's instructions and should meet or exceed requirements for chalking, fading, discoloration, chipping, cracking, and peeling for a minimum of 7 years, or to the maximum manufacture warranty specifications.

MASONRY/STONE STRUCTURES

Raised concrete footings (above grade): Formed foundation with reinforced concrete. Provide rebar as required by engineering.

Wiring and Connections

All means of internal illumination for signs shall be positioned in accordance with the copy layout to provide even light distribution to the copy. Sign contractor must apply diffuser materials as necessary to eliminate hot spots created by the illumination (especially with LED signs).

All exterior fixtures and those in wet/damp locations shall be fitted with seals and gaskets to form a weatherproof, watertight assembly and shall be of rust resistant construction and finish.

Provide all step-down transformers and connection devices necessary for electrician to connect to service. Hide any external connections or j-boxes within the structure of the sign. Provide emergency shutoff switches on exterior of sign, per UL regulations.

Provide means of adjustment for light output/intensity (rheostat) and operation schedule (photocell sensor or electronic timer) as preferred by owner. Encase all electrical wiring in flexible metal conduit or metal raceways.

ALTERNATE FABRICATION

The drawings show design intent only. The Fabricator is responsible for fabrication and overall level of quality. Any changes in design, materials, fabrication techniques or details necessary to the successful completion of this project should be communicated to the Designer and Owner in a timely fashion.

Further development and engineering of designer's details (for fabrication and installation) is expected and should be shown in the shop drawings.

The Designer recognizes that manufacturers may have shop fabrication techniques that differ from details shown. Suggested changes in fabrication that do not alter the design intent nor reduce the quality will be considered by the Designer and Owner, provided they are submitted in sketch form, as soon as possible, prior to shop drawing preparation.

Graphic Standards

Typography

All type shall be computer typeset using typefaces specified in the design intent package with letter spacing adjusted where needed to ensure optical spacing. Absolutely no letters are to touch. Only typefaces specified in the sign standards manual are to be used.

Sign type drawings indicate which copy is uppercase and which is lowercase. These should be followed as much as possible. When the message on the copy list differs from the drawing, the copy list should be followed.

Graphics

All text, arrows and symbols shall be provided in the sizes, colors, typefaces and letter spacing specified in the sign standards manual. All text shall be a true, clean photo–mechanically accurate reproduction of the typeface(s) specified as shown in the graphic standards section.

Text shown in drawings is for layout purposes only; final text for all signs is shown in the copy list.

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SECTION 3

Sign Maintenance

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SECTION 3A

Wayfinding Champion

Program Management

The success of a wayfinding program relies on a team to plan, design, implement and manage the wayfinding signage program. An experienced wayfinding champion will be responsible for handling all communications among the team members, including, but not limited to: graphic design consultants, Lehigh University staff, and other stakeholders.

The Wayfinding Champion will coordinate a series of specific procedures that have been designed and implemented to ensure the successful completion of each sign project.

The Wayfinding Champion, design team (when appropriate), stakeholders (such as architects or interior designers), fabricators, and installers should meet throughout the project to ensure the project meets the overall goals, stays consistent with the University–approved standards, and is on time and budget.

CHAMPION REQUIREMENTS

The Wayfinding Champion should have a direct relationship with the University staff who will clean, repair and fabricate new signage when needed.

This person should be a part of the Lehigh organization and have the authority to review and approve brand signage requests, and to update and add to the system. Their primary role is to ensure adherence to the standards (similar to a brand manager).

A signage committee (inclusive of operations, marketing and maintenance) should stay engaged in this program and convene on a regular basis to review ongoing messaging needs.

Larger implementation projects in the system may require the assistance of an outside environmental graphic design and wayfinding firm, while the champion and/or committee should be able to complete smaller projects.

SECTION 3B

Existing Sign Removal & New Sign Implementation

Existing Sign Removal

There are three typical removal conditions which cover nearly all the mounting conditions found throughout Lehigh University: Ground, Wall Surface, and Pole mounted signs.

Audit documentation exists in the university GIS system for the existing signage at Lehigh University and can be provided for additional information regarding existing signage conditions.

Sequencing of signage removal should be coordinated with the implementation of the new sign standards. Signs should be removed as new signs are installed to replace them.

Proper recycling and/or disposal of signage and materials to be coordinated by Sign Installer and Lehigh University.

GROUND MOUNTED SIGNS

Ground mounted signs are signs that are directly buried into the earth, typically in grass, landscaping, or a variety of paved surfaces. Removal of ground mounted signs require removal of the sign post or cabinet, as well as the concrete footing below grade.

Sign Installer and Lehigh University are to coordinate touch-up and/or repair of landscaping or paved surfaces after sign removal.

WALL SURFACE

Wall-mounted signs are usually mechanically fastened to a wall surface or adhered with adhesives like silicone or epoxy. Wall surfaces vary across all Lehigh University facilities, but typical conditions include: stucco, concrete, brick, tile and stone. Sign removals from a wall surface should be done carefully as to cause minimal damage to the wall surface. Sign Installer and Lehigh University are to coordinate touch-up, painting, or repair of wall surface after sign removal.

POLE SIGNS

This removal condition refers to sign panels that are mechanically fastened to poles or other structures where only the sign panel is to be removed. In some instances, the pole may remain to accept the new sign.

Sign Installer and Lehigh University are to coordinate touch-up painting, or repair of existing pole after sign removal. The condition of the poles are noted in the existing audit.

Important Note: The majority of wall surfaces that have signs removed will be damaged and will need to be repaired. Depending on the surface, a typical patch and paint repair should be sufficient. Coordination of sign removal and repair should be done prior to the installation of new signs.

Implementation Overview

Implementing a sign program—whether reordering existing signs or extending the sign program—takes an interdisciplinary, phased approach that considers and respects time and budget. The sign standard program and manual should be used to guide strategies, sign locations, messaging, fabrication details and installation methods.

PHASED IMPLEMENTATION

Since many sign locations rely on another location or sign to create a navigational pathway or order of information, implementation phases may be divided by campus, sign purpose, or campus section.

Signs along a set journey must be implemented together so that users do not experience any gaps in their wayfinding journey. While it may seem that starting on the outer edge of campus makes sense, it may be most beneficial to start with interior campus arrivals so, as the system is phased, the path is completed.

Sample phasing by Sign Type may be as follows:

Phase 1: Campus Gateways
Phase 2: Parking Signage
Phase 3: Building Identification
Phase 4a: Campus Trailblazers
Phase 4b: Vehicular Directionals
Phase 5a: Campus Orientation Maps and Info Hubs
Phase 5b: Pedestrian Directionals

These phases can be reordered based upon available funds, however arrival signs (building and parking ID) should always be installed with or before directional signs.

Sample phasing by Area may be as follows:

Phase 1: Campus Connections and Gateways
Phase 2: Goodman Campus
Phase 3: Packer Campus
Phase 4: Mountaintop Campus
Phase 5: Sayre Campus

Levels of Implementation

Exterior signage is often required in a variety of circumstances at varying levels. The phased implementation talks about the initial rollout of the system, while levels of implementation speaks to ongoing Main Entrance and Campus changes.

NEW CONSTRUCTION OR CAMPUS EXPANSION

Campus is reorganized, expanded or an area on campus has changed.	Estimated Lead-time for Fabrication/Installation: **12—16 Weeks**
Programming (Internal/External) Follow strategies outlined in standards manual. New signs may need to be programmed and existing signs may have parts that need to be replaced. If custom design is required, an outside designer should be hired to create a solution using the standards as a baseline. Orders to go through Wayfinding Champion/Facilities.	**Fabrication (External)** Hire approved fabricator with knowledge of standards.

SYSTEM UPDATE

New building is built or building function/occupant changes.	Estimated Lead-time for Fabrication/Installation: **8—12 Weeks**
Programming (Internal/External) Follow strategies outlined in standards manual. New signs may need to be programmed and existing signs may have parts that need to be replaced. If custom design is required, an outside designer should be hired to create a solution using the standards as a baseline. Orders to go through Wayfinding Champion.	**Fabrication (Internal/External)** Hire approved fabricator with knowledge of standards.

MAINTENANCE REORDERING

Building function/occupant changes.	Estimated Lead-time for Fabrication/Installation: **6—8 Weeks**
Programming (Internal) Follow strategies outlined in standards manual. New signs may need to be programmed and existing signs may have parts that need to be replaced. Orders go through Wayfinding Champion.	**Fabrication (Internal/External)** Hire approved fabricator with knowledge of standards.

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SECTION 3C

How to Maintain Your System

Maintaining The System

Sign systems need continuous updating to remain current and to operate at their fullest potential. Once the first phase of the system is implemented, the ongoing addition to and maintenance of the system will require an adoption of strategies and procedures, outlined below.

HOW TO CARE FOR THE SYSTEM

A wayfinding system is made up of two parts—the assets and tools of the system and the methodology and logic of direction-giving. Both of these parts must be maintained and cared for over the lifespan of the system. Caring for the system includes, but may not be limited to the following strategies shown in the chart on the next page.

REGULAR MAINTENANCE

Signs will need regular maintenance and cleaning. Exterior signage should be cleaned annually to prolong the life of the signs. Exterior signs should be washed to remove dirt and grime.

A strategy for quick cleaning of vandalism should be in place so these events are dealt with in a timely manner throughout the year. Poles and sign faces may get graffiti or sticker damage in high-traffic areas. These pieces can be carefully cleaned with soap and water, or Goo Gone for stickers and a mild paint thinner for graffiti.

Professional or highly trained staff should complete this cleaning to ensure additional damage is not incurred.

AUDIT, CONSOLIDATE AND PURGE

An audit of the existing signage and removal of what is inaccurate, unnecessary, or redundant, is key to maintaining a well organized and easy-to-understand system. This can be done in tandem with the installation of new programs or at regular intervals throughout the year.

This should be completed at least once per year, if not more frequently. Facilities staff must be diligent in removing paper signage put up by staff or students that are outside of the wayfinding system.

WHEN TO UPDATE

The Lehigh University Wayfinding and Signage standards have been designed for longevity and flexibility. Typically, signage systems of this scale have a lifespan of 10 to 15 years before the design standards must be reviewed to meet the brand requirements of the University.

In addition, new codes and regulatory requirements may arise so that the signage may need to be refreshed to meet ever-changing regulations. When changes need to be made to the standards, a qualified designer (in-house or external) should be brought onto the team to revise and extend the program following the original design principles.

UNIVERSITY MANAGEMENT OF THE SYSTEM

Lehigh University Facilities Services, Campus Planning & Projects (FSCPP) will ensure that the program is maintained and implemented accurately. FSCPP will clean, repair and coordinate fabrication of new signage when needed.

A review process to approve signage requests to update and add to the system will ensure adherence to the standards.

Maintenance Matrix for Permanent Signs

Sign Longevity	0–4 Years	5–9 years	9+ years
Design and Planning	Extensive design and planning program continues even after sign system in place.	Moderate amount of design and planning.	Re-evaluate program to determine effectiveness and adjust to match property changes and brand updates.
Sign System Flexibility	Develop a kit of parts for maximum changeability to accommodate phased implementation and future growth of the organization.	Grow and adapt system using kit of parts.	Grow and adapt system using kit of parts. Add new parts as necessary to accommodate growth.
Cleaning	Annual cleaning to maintain appearance and trust of system.	Annual cleaning to maintain appearance and trust of system.	Annual cleaning to maintain appearance and trust of system.
Replacement	Phased replacement schedule based upon roll out of implementation plan	Yearly replacement based upon wear and tear and/or property changes.	Yearly replacement based upon wear and tear and/or property changes.
Management	Day-to-Day management during initial roll out of standard	Semi/Bi-Annual ongoing management or as new facilities come online	Semi/Bi-Annual ongoing management or as new facilities come online

Process for Adding, Changing or Removing a Sign at Lehigh University

Determine what sign type is needed, using this manual as a guide. Identify a desired location for the sign.

Write the message for the sign. Is there another sign with similar message as a sample, or do you need to create a new message from scratch?

Make an official request for assistance with the sign by submitting a work order by phone or email to FSCPP. The Wayfinding Champion will be notified of your request and manage the completion of the sign design, construction, and installation process.

The Wayfinding Champion will assemble the design documents required to construct and install the sign as needed. A graphic design consultant may be retained to assist with the sign design, depending upon the uniqueness and complexity of the sign. Any special conditions will be noted.

FSCPP will obtain a quote and schedule from fabricators based upon the design documents and place an order with the selected fabricator to build and install the sign.

FSCPP will review the fabricator's work to confirm the sign meets all standards outlined in this manual.

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SECTION 3D

Ordering

Ordering Instructions

The order form on the next page should be used to submit a sign request to FSCPP. This form is to be used for new sign orders as well as maintenance requests. A sign location plan, copy list, and/or photo documentation may accompany the request to further articulate the signage needs.

LEHIGH UNIVERSITY

Campus Wayfinding Signage Order Form

Order Date | _____

LOCATION OF NEED

❑ PACKER ❑ GOODMAN ❑ MOUNTAINTOP

❑ SAYRE

Requested by _____

Phone _____

Email _____

NEW SIGN REQUEST

SIGN TYPE + QUANTITIES

❑ GWY.1 ____	❑ PID.1 ____	❑ CTB.1 ____
❑ GWY.2 ____	❑ PID.2 ____	❑ GR.1 ____
❑ GWY.3 ____	❑ PID.3 ____	❑ IHB.1MS ____
❑ GWY.4 ____	❑ PID.4 ____	❑ IHB.1MD ____
❑ BID.1 ____	❑ PBB.1 ____	❑ IHB.2SS ____
❑ BID.2 ____	❑ PRG.1 ____	❑ IHB.2SD ____
❑ BID.3 ____	❑ VRG.1 ____	❑ PDR.1 ____
❑ BID.4 ____	❑ VRG.2 ____	❑ VDR.1 ____
❑ BID.5 ____	❑ VRG.3 ____	❑ VDR.2 ____
	❑ BUS.1 ____	❑ VDR.3 ____

SIGN FEATURES

❑ single-sided message ❑ alternate elevation

❑ double-sided message

MESSAGING

❑ new message(s) (see copy list attached)

❑ message needs to be edited/updated (see copy list attached)

❑ use/replace existing message

notes:

ATTACHMENTS:

❑ map indicating location(s) of requested sign(s)

❑ photograph(s) of location(s) are attached

MAINTENANCE / REPLACEMENT REQUEST

SIGN TYPE + QUANTITIES

❑ GWY.1 ____	❑ PID.1 ____	❑ BUS.1 ____
❑ GWY.2 ____	❑ PID.2 ____	❑ CTB.1 ____
❑ GWY.3 ____	❑ PID.3 ____	❑ GR.1 ____
❑ GWY.4 ____	❑ PID.4 ____	❑ IHB.1 ____
❑ BID.1 ____	❑ PBB.1 ____	❑ IHB.2 ____
❑ BID.2 ____	❑ PRG.1 ____	❑ PDR.1 ____
❑ BID.3 ____	❑ VRG.1 ____	❑ VDR.1 ____
❑ BID.4 ____	❑ VRG.2 ____	❑ VDR.2 ____
❑ BID.5 ____	❑ VRG.3 ____	❑ VDR.3 ____

MAINTENANCE ISSUE

❑ sign face/cabinet damage

❑ faded color/message

❑ sign structure/ support damaged

❑ foundation damage

❑ out-of-date messaging

❑ out-of-date branding

❑ power/data outage

❑ hardware replacement

describe issue:

_____

_____

_____

_____

_____

❑ photographs of issue are attached

DESIGN + PLANNING USE

INSTALLATION NEEDS

❑ new foundation

❑ use existing foundation

❑ requires power/data

❑ requires lighting

❑ break-away design

❑ concrete slump test

INSTALLATION/DELIVERY

❑ deliver to site + LU to install

❑ install on location

Requested Approved By | _____ Date | _____

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SECTION 3E

Contacts

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Signage Design

Exit Design

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Philadelphia, PA 19123
215.561.1950

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Lehigh University

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