



# SamTrans BSIP Amenity Designs



External Agency Resource Guide

May 2026

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# Background

# Bus Stop Improvement Program (BSIP)

## SamTrans' Plan to Improve Bus Stops

- BSIP was adopted by the SamTrans Board of Directors in May 2024
- The plan defined and prioritized amenities for all of SamTrans' bus stops.
- Includes guidance on which stops should receive shelters, seating, lighting, and other amenities
- The plan was developed with the feedback from a robust community and stakeholder engagement process
- Included an updated Bus Stop Design Guidelines



# BSIP's Recommended Amenities

## Where should we install these amenities?

- SamTrans' bus stop design guidelines list which amenities should be installed at stops, based on the type of service provided at that location.
- Stops are categorized into frequent, standard, and school-oriented, based on the frequency of SamTrans bus service
- BSIP conducted an inventory of what amenities are already provided at each bus stop and used those service categories to identify what amenities are missing at each stop location

Recommended Improvements by Jurisdiction

| Jurisdiction                    | Total Stops | Standard Pole and Sign | Shelter with Seating | Shade Structure | Bench | System Map | Route Schedule | Bus Bulb/ Boarding Island | Real-Time (Digital) | Real-Time (QR) |
|---------------------------------|-------------|------------------------|----------------------|-----------------|-------|------------|----------------|---------------------------|---------------------|----------------|
| Atherton                        | 24          | 1                      | 7                    | 4               | 4     | 11         | 12             | 0                         | 12                  | 24             |
| Belmont                         | 74          | 6                      | 10                   | 19              | 15    | 33         | 35             | 9                         | 35                  | 74             |
| Brisbane                        | 17          | 0                      | 0                    | 4               | 3     | 8          | 12             | 0                         | 12                  | 17             |
| Burlingame                      | 56          | 2                      | 18                   | 14              | 4     | 39         | 46             | 5                         | 46                  | 56             |
| Colma                           | 11          | 0                      | 6                    | 0               | 0     | 7          | 11             | 8                         | 11                  | 11             |
| Daly City                       | 241         | 6                      | 76                   | 83              | 78    | 180        | 203            | 26                        | 203                 | 241            |
| East Palo Alto                  | 68          | 3                      | 16                   | 33              | 30    | 58         | 60             | 5                         | 60                  | 68             |
| Foster City                     | 81          | 3                      | 0                    | 13              | 13    | 14         | 16             | 0                         | 16                  | 81             |
| Half Moon Bay                   | 38          | 1                      | 3                    | 27              | 25    | 35         | 36             | 0                         | 36                  | 38             |
| Menlo Park                      | 120         | 6                      | 14                   | 24              | 20    | 38         | 47             | 6                         | 47                  | 120            |
| Millbrae                        | 16          | 0                      | 12                   | 0               | 0     | 13         | 16             | 14                        | 16                  | 16             |
| Pacifica                        | 117         | 8                      | 9                    | 66              | 65    | 77         | 85             | 0                         | 86                  | 117            |
| Palo Alto                       | 27          | 6                      | 5                    | 13              | 7     | 27         | 27             | 4                         | 27                  | 27             |
| Portola Valley                  | 17          | 2                      | 0                    | 0               | 0     | 0          | 0              | 0                         | 0                   | 17             |
| Redwood City                    | 180         | 13                     | 19                   | 73              | 54    | 102        | 109            | 16                        | 109                 | 180            |
| San Bruno                       | 105         | 6                      | 15                   | 50              | 45    | 70         | 68             | 15                        | 73                  | 105            |
| San Carlos                      | 64          | 3                      | 11                   | 22              | 21    | 36         | 39             | 10                        | 39                  | 64             |
| San Francisco                   | 58          | 8                      | 10                   | 23              | 23    | 53         | 54             | 1                         | 54                  | 58             |
| San Mateo                       | 190         | 9                      | 44                   | 68              | 62    | 132        | 137            | 19                        | 138                 | 190            |
| South San Francisco             | 180         | 21                     | 46                   | 48              | 47    | 111        | 123            | 20                        | 123                 | 180            |
| Unincorporated San Mateo County | 171         | 13                     | 12                   | 70              | 64    | 106        | 98             | 2                         | 106                 | 171            |
| Woodside                        | 11          | 1                      | 0                    | 1               | 1     | 2          | 2              | 0                         | 2                   | 11             |

Source: SamTrans 2024.

SamTrans

# Updating SamTrans' Bus Stop Amenities

## The Future of SamTrans' Bus Stops

- BSIP recommended what amenities should go where, but it did not include designs for these amenities.
- The plan added amenities that are not currently provided by SamTrans, like real-time arrival screens and shade structures.
- SamTrans' existing amenity portfolio does not align with the agency's brand identity.
- As a second phase of BSIP, SamTrans commissioned a consultant team to help develop new amenity designs based on the feedback received in a stakeholder engagement process.



*Existing SamTrans Amenities*

# Design Development Process

# Design Goals

- Goal: Develop a refreshed “look and feel” for all SamTrans bus stop amenities
- New amenity design menu should:



Align with best practices from other transit agencies



Address maintenance and operational concerns with existing shelter designs



Be flexible so they can be used in various locations in the county



Use cost effective designs that align with the conceptual costs in BSIP Phase 1



Be consistent with the SamTrans brand



Use off the shelf components and parts

# BSIP & Related Projects Timeline

## 2022 - 2024

### 1) BSIP Development

- Design Guidelines
- Prioritized List of Amenity Needs for each City

2) SamTrans Board Adoption (May 2024)

## 2024

1) Phased Implementation of BSIP

2) Bus Stop Shelter Replacement Program

3) ADA Plan Implementation

All are proceeding concurrently

## 2025

### BSIP Amenity Design Refresh & Bench Pilot

1) Develop an updated menu of bus stop amenities

2) Design to be flexible for varying site conditions and climates across San Mateo County

## 2026 and Beyond

1) Board Adoption of updated amenity designs (February 2026)

2) Future Phases of BSIP Implementation to use the updated amenity designs (ongoing)

# Internal Stakeholder Workshops

- Two internal workshops were held with SamTrans staff to seek feedback on potential design options
- **Workshop #1: Project Scoping and Fact Finding**
  - Held in March 2025
  - Presented project goals and best practices research to key internal stakeholders
  - Focused on fact finding / understanding existing practices
  - What is working, not working with existing shelter and amenity designs?
  - Reviewed shelter designs in other jurisdictions (SFMTA, LADOT, San Diego, SACRT, NYC MTA, Chicago, and others)

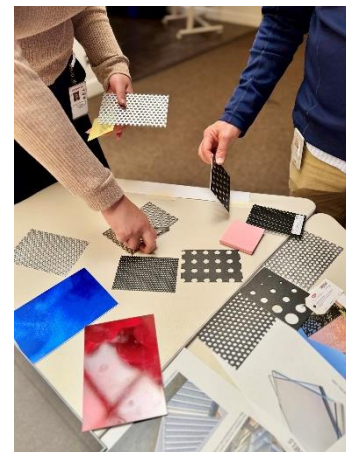
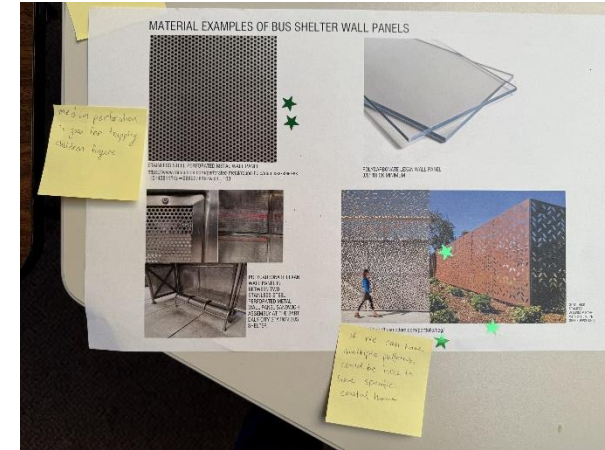


*Existing SamTrans Shelter Designs*

# Internal Stakeholder Workshops

## Workshop #2: Design Workshop

- Held in May 2025
- Open to all SamTrans staff. Diverse attendance from executive, administrative, and operational/field teams
- Hosted interactive activities to seek feedback on amenity features and design alternatives
- Provided sample materials to help attendees visualize various design options
- Included several workshop stations to receive feedback on potential designs for various amenities:
  - Shelters
  - Shade Structures
  - Benches
  - Lighting
  - Real Time Arrival Displays
  - Color/Branding
  - Technology
  - Advertising



# Draft Amenity Concepts



- The project team used the feedback from those internal workshops to prepare draft amenity concepts in Summer 2025
- These draft concepts included a range of design options and shelter configurations
- Conceptual cost estimates were developed for each option to highlight tradeoffs between different shelter designs and material options

# Seating & Bench Pilot

## Rider Outreach and Survey

- In Summer 2025 (July 31<sup>st</sup> to September 13<sup>th</sup>, 2025), SamTrans conducted a bus bench pilot that tested five different seating types at four stops in Redwood City, Pacifica, Daly City, and South San Francisco.
- Riders were asked questions on the specific bench they used at the pilot location, and were asked to rank the options from their preferred to least preferred bench
- The rider survey received over 200 responses, and outreach staff were sent to these pilot locations to encourage riders to participate in the survey

*Perforated Metal Bench*



*TerraBound Richmond Bench*



*Simme-Seat*



*Tolar Mesa Perch Bench*



*Tolar Mesa Perch Bench*

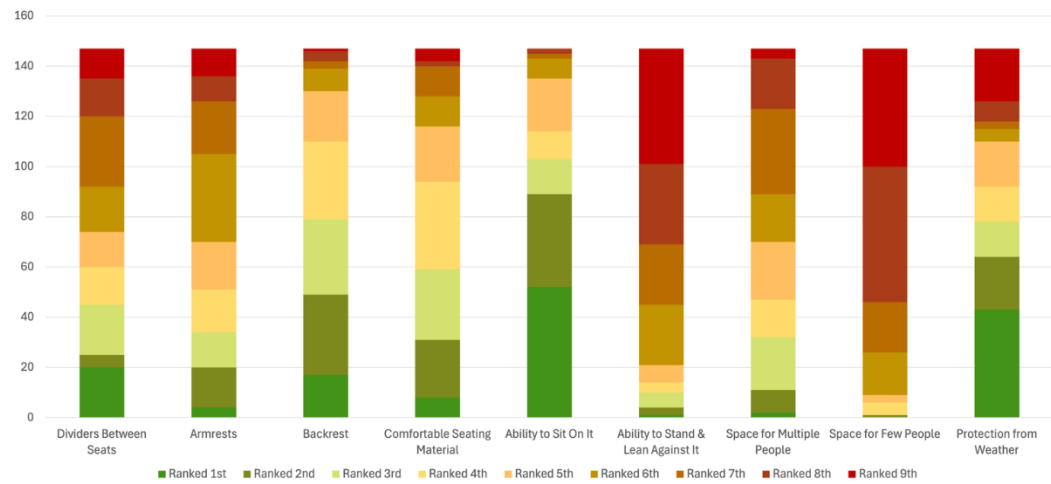


# Seating & Bench Pilot

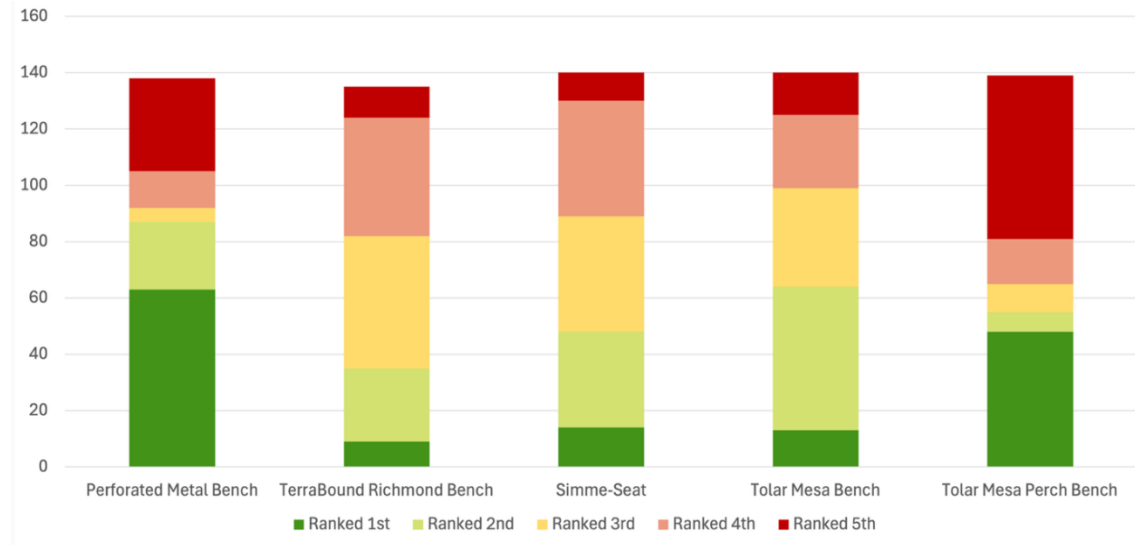
## Survey Results

- Riders shared that the perforated metal bench is their preferred option
- Respondents gave detailed feedback on each bench design and what they liked and didn't like

*What parts of a bench are most important to you?*



*How would you rank these benches, with (1) being the bench you'd most prefer?*



Source: Lighthouse Public Affairs

# External Stakeholder Engagement

- In summer 2025, SamTrans met with external stakeholders to seek feedback on draft designs
  - Citizens Advisory Committee (CAC): July 2, 2025
  - Paratransit Advisory Council (PAC): July 8, 2025
  - Stakeholder Advisory Group/Technical Advisory Group (SAG/TAG): August 26, 2025
- Following Board adoption of the new BSIP Amenities in February 2026, letters were sent to external stakeholders and C/CAG to formally introduce the new bus stop amenity designs

# Internal Subject Matter Expert Discussions

- The consultant team took the feedback from the staff workshops and external stakeholders and used it to develop draft amenity designs
- These draft designs were vetted with subject matter experts from several SamTrans departments for additional feedback:



## Branding & Marketing

- Color Scheme
- SamTrans Logo/Branding
- Digital Advertising



## Facilities & Procurement

- Materials
- Operations & Maintenance
- Installation
- Purchasing



## Customer Experience

- Overall look and feel
- Customer and user experience
- Real time information



## Safety & Operations

- Shelter structures
- Visibility
- Operational considerations
- Lighting

# Key Design Feedback

## Materials:

- Discontinue use of glass shelter panels due to vandalism concerns
- Preference for aluminum vs stainless steel shelter panels

## Color and Branding:

- Preference for blue and silver color scheme

## Design:

- Curved roof design is preferred
- Lighting (pole or shelter) should make it easier for operators to see customers waiting at the stop
- Design of shelters and seating should be flexible to respond to various site conditions (space constraints, weather)
- Full-size shelter should be able to accommodate both static and digital advertising

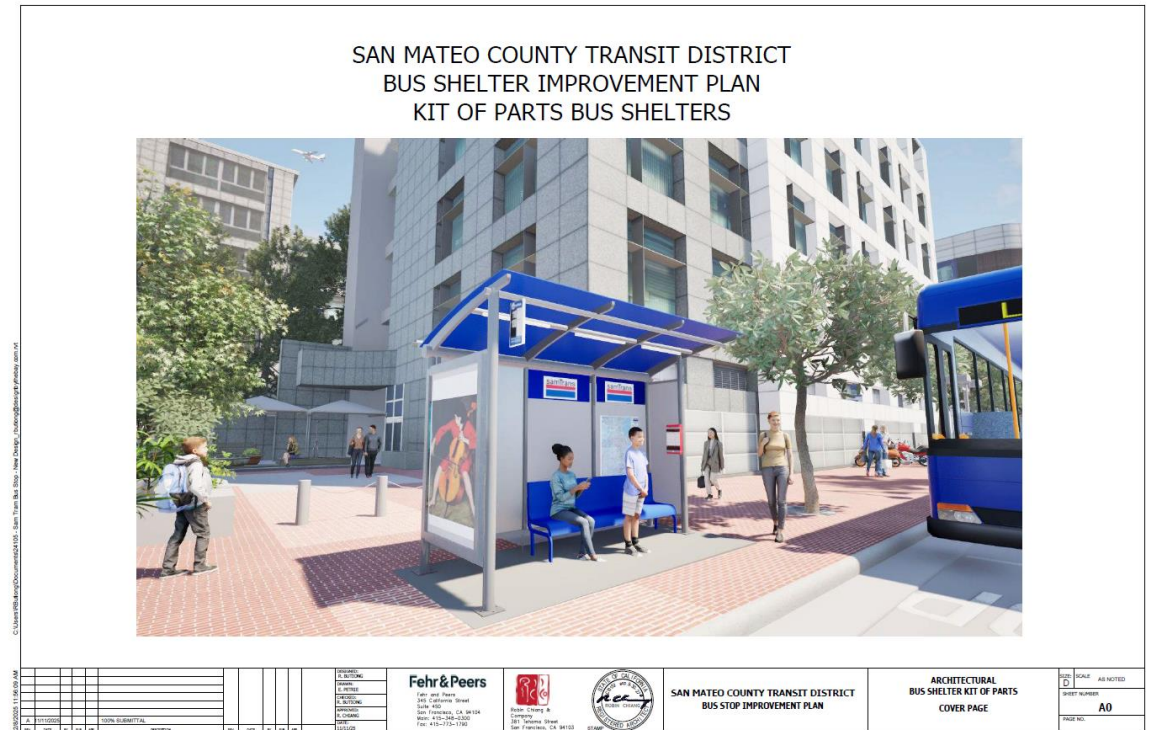
## Other:

- QR Code and E-paper technologies preferred for real-time signage displays
- Full color/LED real-time displays should be limited due to need for external power source
- Ease of procurement and maintenance is a priority

# Final Amenity Designs

## Design Process

- SamTrans and the design team reviewed the feedback heard in the Subject Matter Expert Discussions and revised the amenity designs to prepare a final design package in Winter 2025.
- These amenity designs were further reviewed and refined by SamTrans in December 2025, with Board approval in February 2026.



# New SamTrans Bus Stop Amenity Designs

# Toolkit of Amenity Options

- The new SamTrans bus stop amenities work together as a toolkit.
- Various amenity design options are available for different stops. The toolkit accounts for San Mateo County's various climates, and is based on best-practice research, public engagement, and internal expertise
- This approach provides flexibility and avoids using a one-sized fits all approach for our county:
  - Use different types of amenities due site constraints, weather, constructability, and advertising needs
  - Maintain a consistent brand identity and uniform look and feel throughout the SamTrans service area
  - Maintain, repair and replace amenity components in a cost-effective manner



Standard Four-Post Shelter



Narrow Four-Post Shelter



Two-Post Shelter



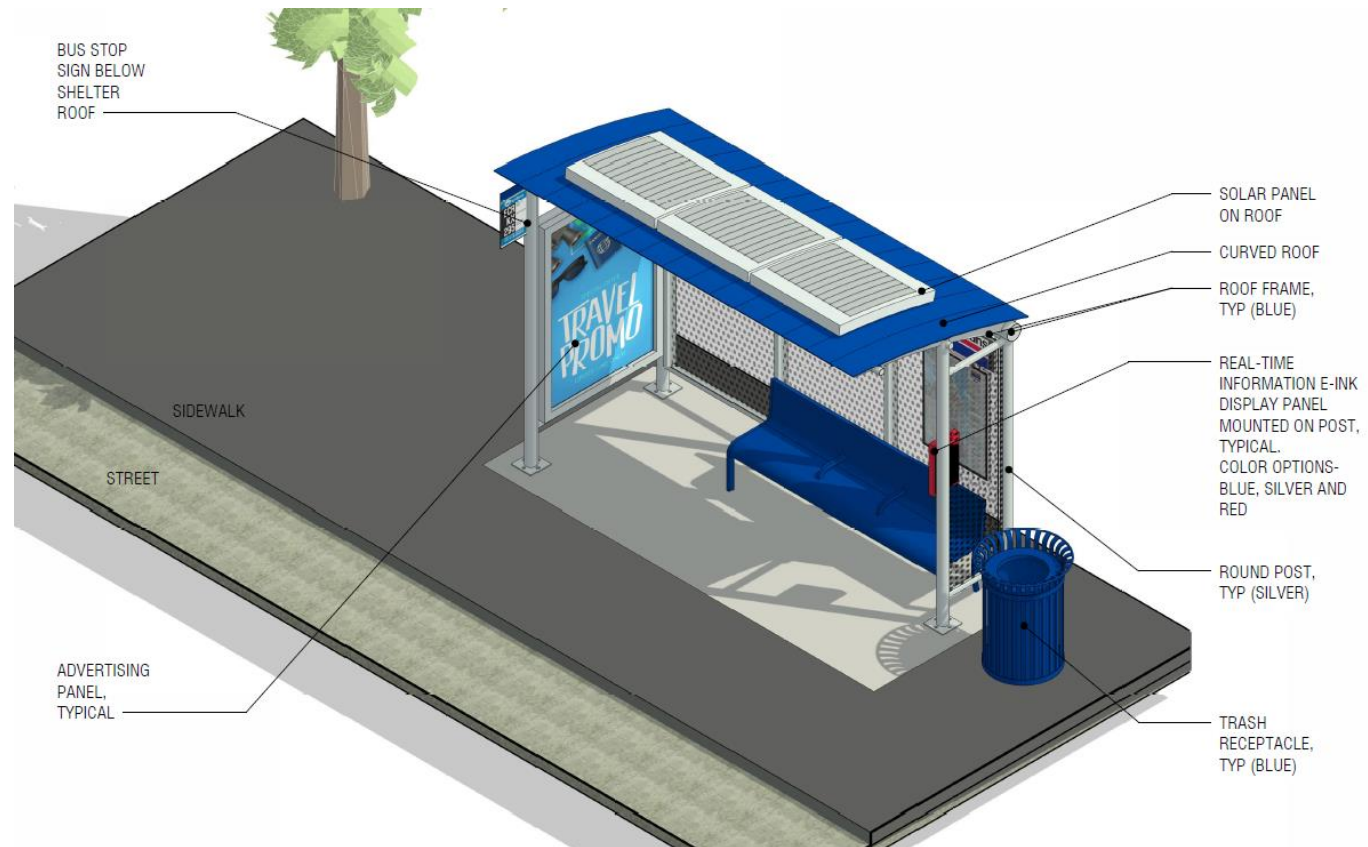
Four-Post Shelter with Foliage Wall Panels

*Amenity Toolkit Shelter Options*

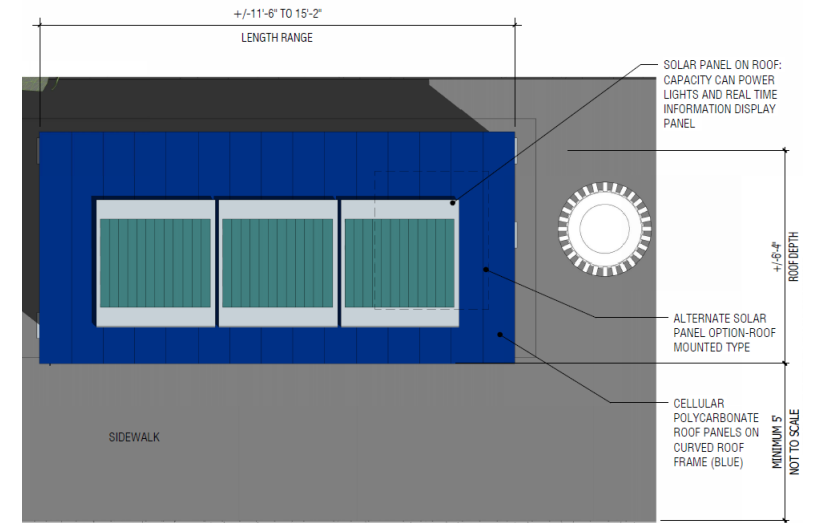
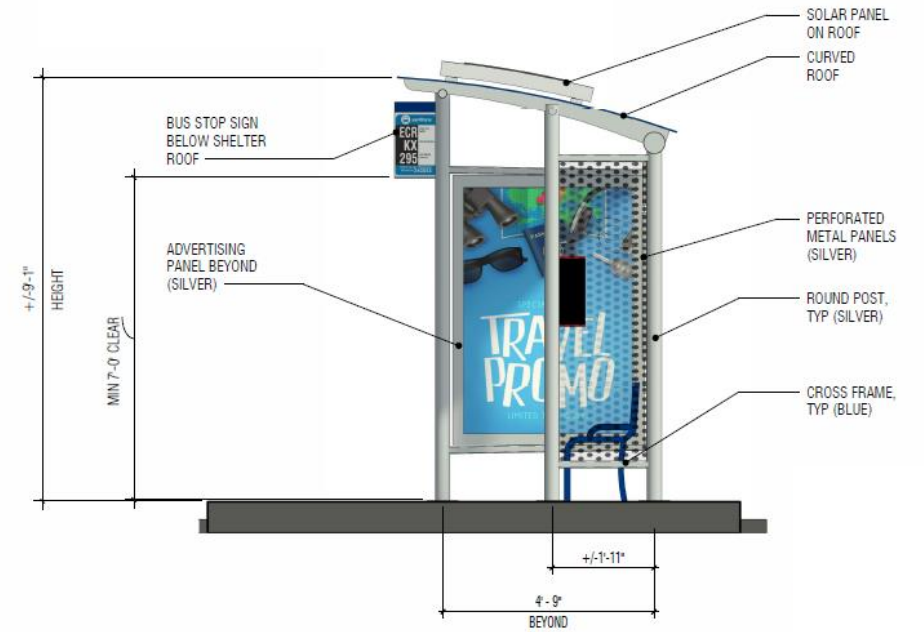
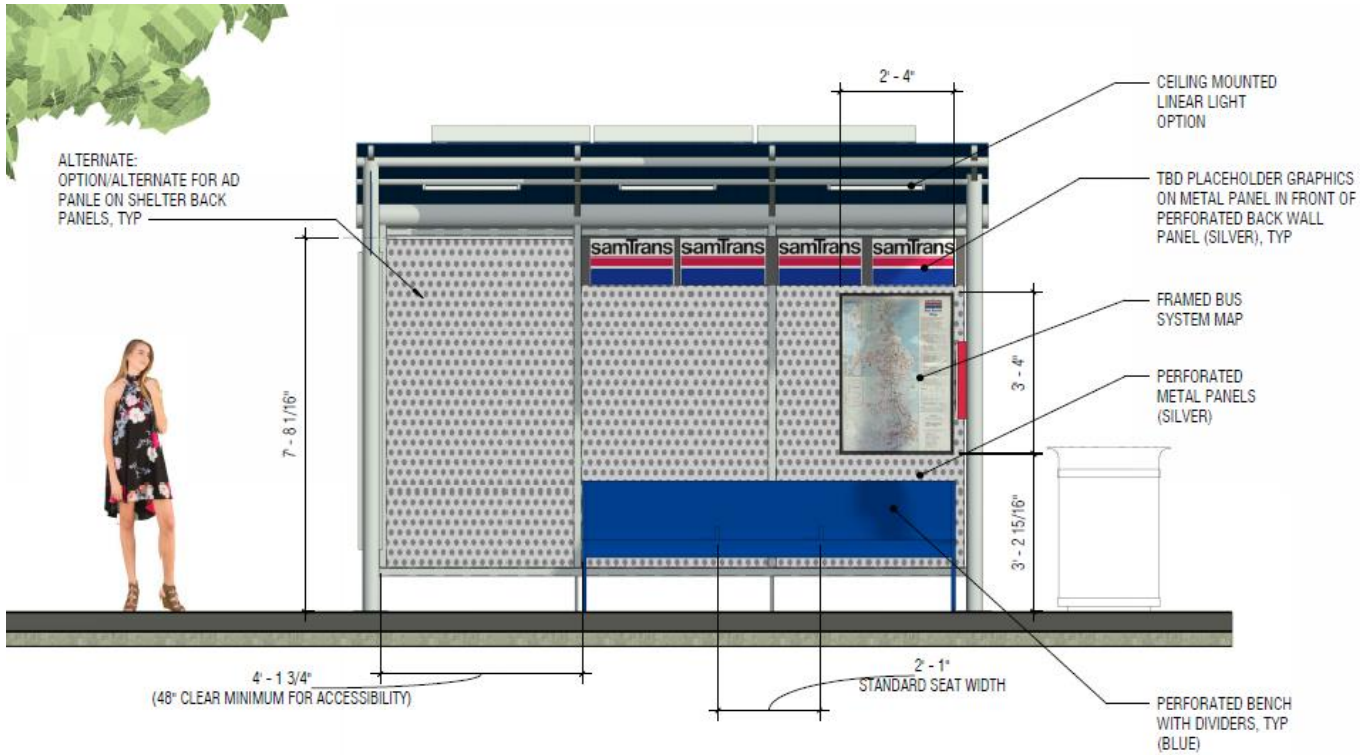
# Shelter Options

# Standard Four-Post Shelter

- Our new standard shelter
- This is the SamTrans default design for bus stops that are recommended to receive a shelter in BSIP



# Standard Four-Post Shelter



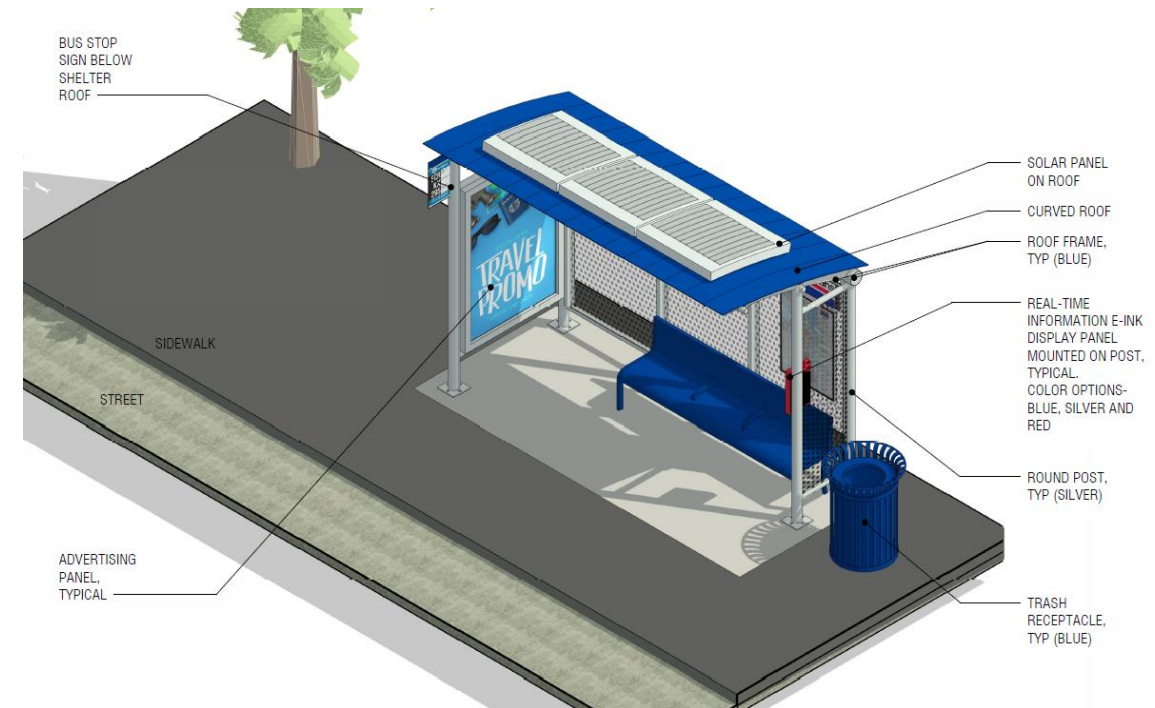
# Standard Four-Post Shelter

## Additional Details

- Standard Four-Post Shelters include two different lengths which can be used for locations with space availability.

Option 1: 11'-6" in length | Option 2: 15'-2" in length

- Shelter will be accompanied by other amenities, such as benches and real time arrival screens, based on the recommendations in BSIP for each stop location.
- The shelter design includes a solar panel, which can power lights and real time arrival screens (if provided). There are two solar power placement options. The standard option is rooftop solar, with an alternative option to place it on the back of the shelter.
- The shelter structure can be bolted into the ground into a concrete slab, like SamTrans's existing shelter designs.
- The shelter includes an advertising panel. These will mostly be static paper ads, like the existing shelters, with the capability to include digital ad screens in very select locations in the future.\*

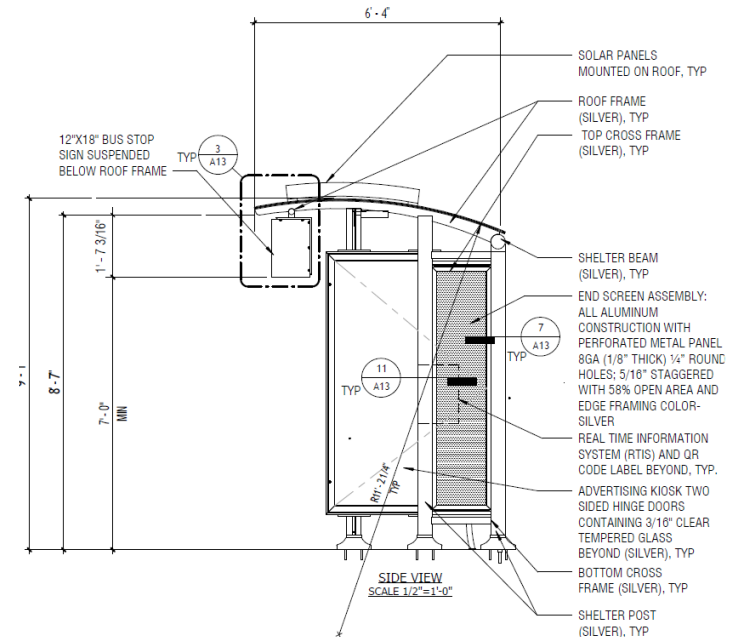
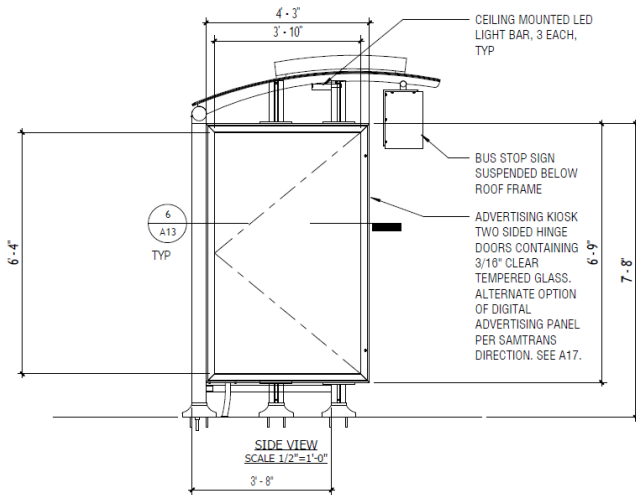
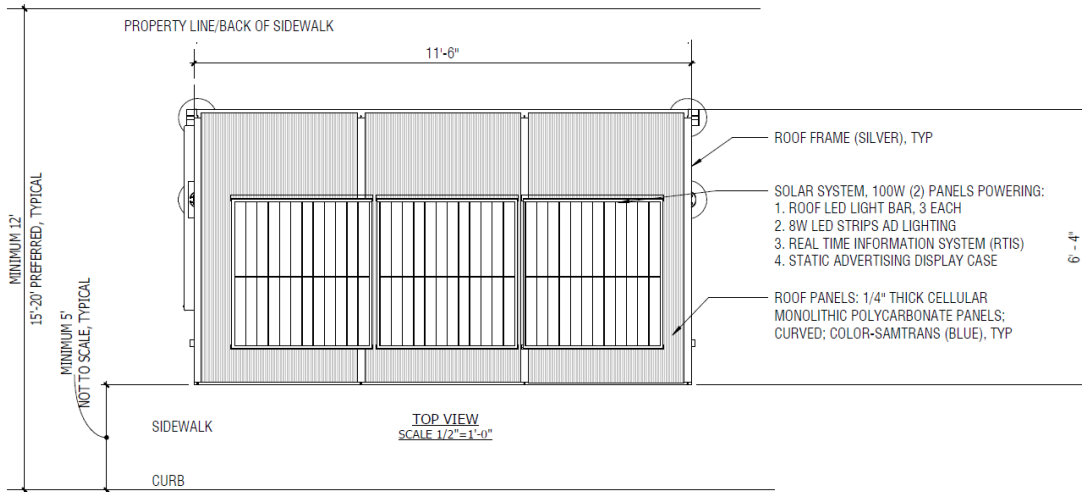
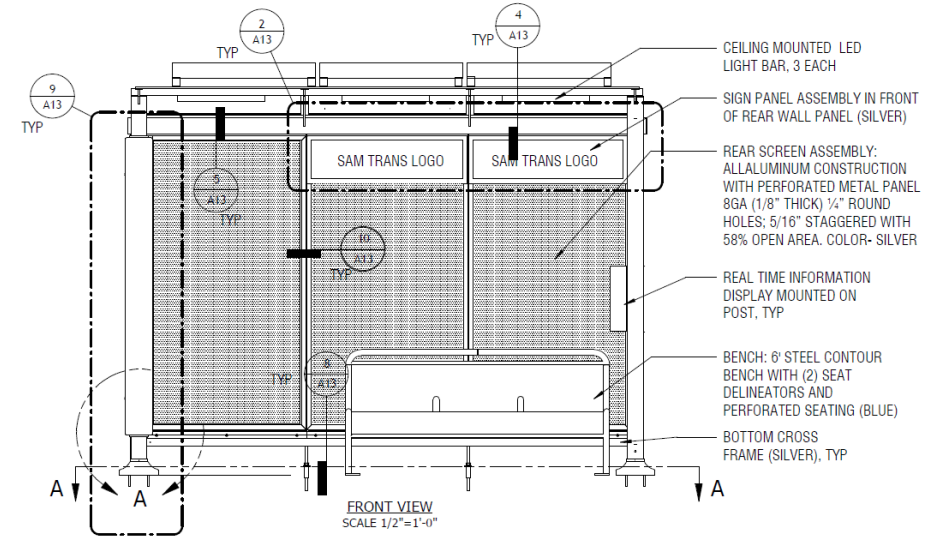
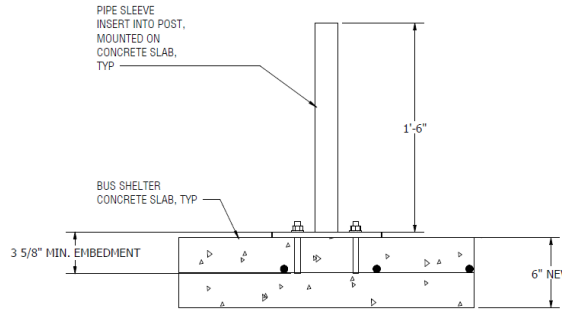


\* Digital ad panels requires external power source, and they cannot be powered with solar

# Standard Four-Post Shelter

## Shelter Dimensions (Standard)

|               |            |
|---------------|------------|
| <b>Height</b> | 9 ft 1 in  |
| <b>Length</b> | 11 ft 6 in |
| <b>Depth</b>  | 6 ft 4 in  |



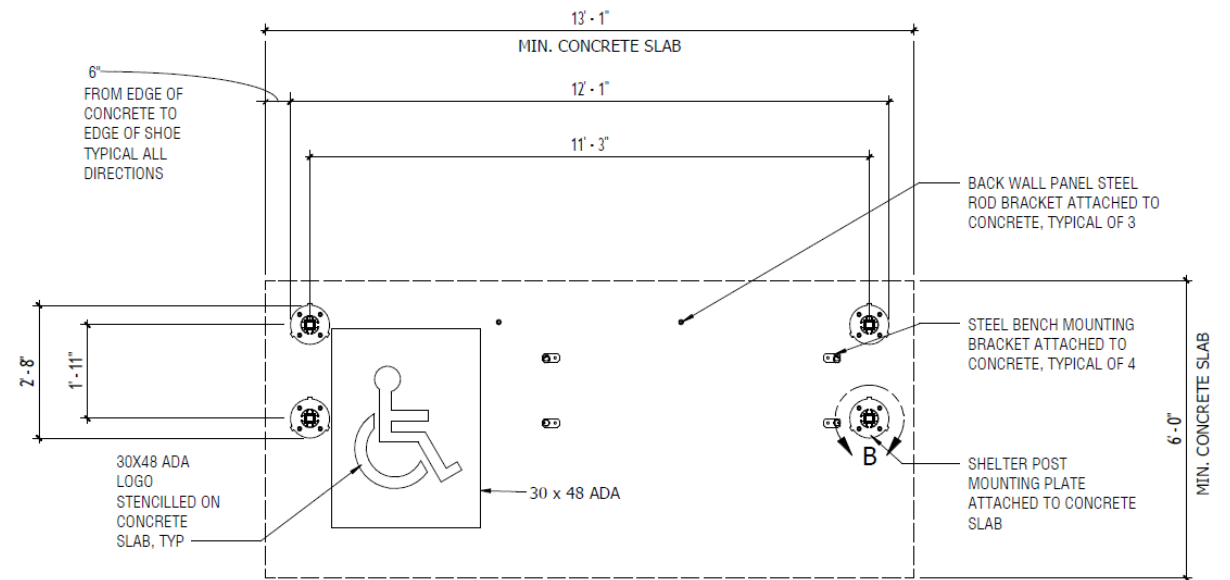
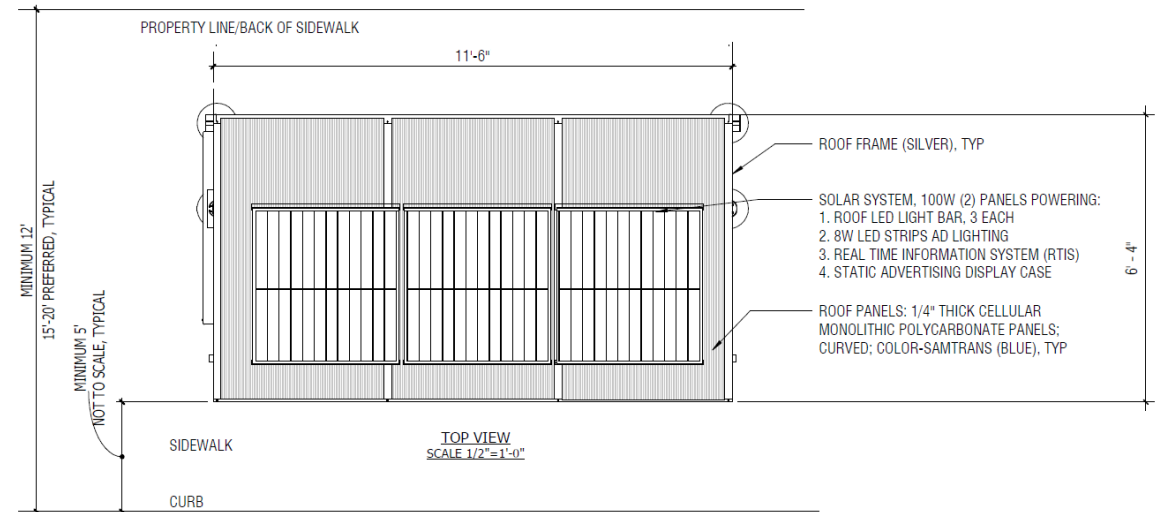
# Standard Four-Post Shelter

## Concrete Slab for Shelter

|               |                          |
|---------------|--------------------------|
| <b>Length</b> | 13 ft 1 in concrete slab |
| <b>Width</b>  | 6 ft 0 in concrete slab  |

## Minimum Sidewalk Space

|   |   |
|---|---|
| <b>Curb to Property Line</b>                  | 8 ft 6 in minimum<br>>10 ft preferred   |
| <b>Curb to Front of Shelter Width</b>         | 4 ft minimum<br>>5 ft preferred   |
| <b>Back of Shelter to Property Line Width</b> | Building Setback: Place near the back of sidewalk.<br><br>No Building Setback: Provide 4 ft (minimum) >5ft (preferred) between shelter and building<br><br><i>Narrow shelter, two-post, or bench only may be better suited to sidewalks &lt;10 ft and high-pedestrian volume sidewalks &lt;15 ft (e.g. downtowns and commercial streets).</i> |

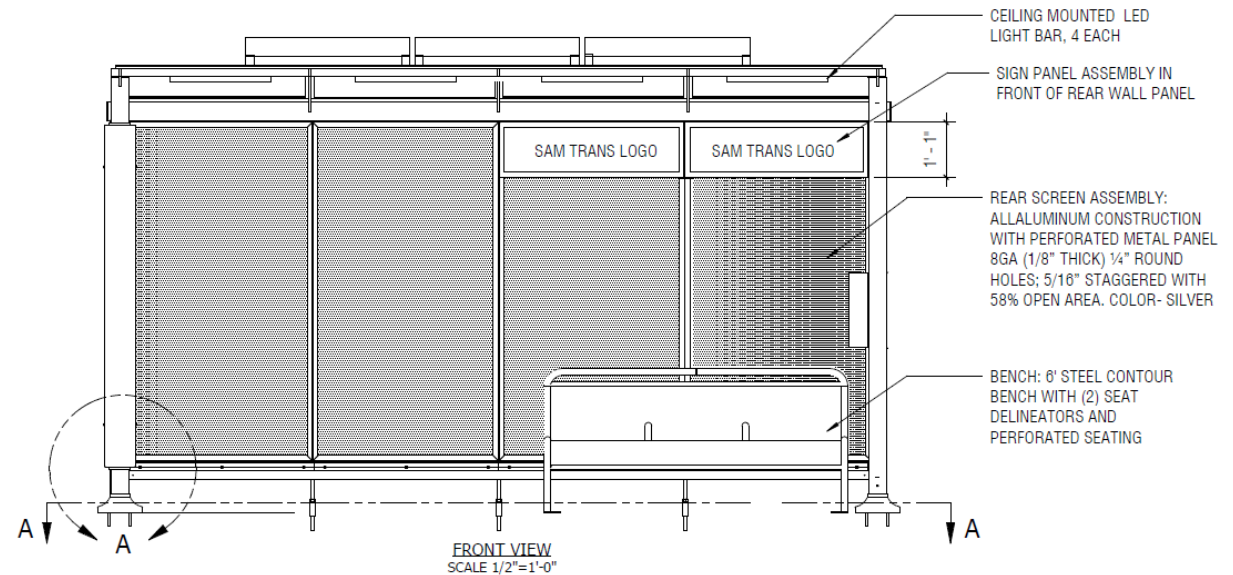
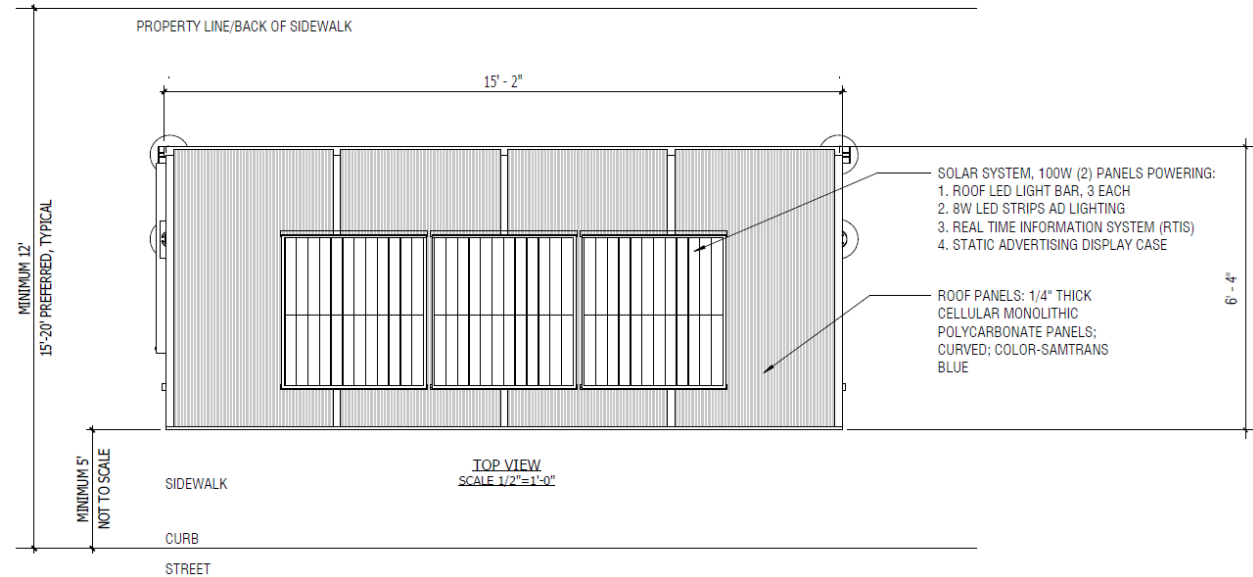


# Standard Four-Post Shelter

## Shelter Dimensions (High Capacity)

- This longer shelter option can accommodate more passengers at high ridership stops.
- Other than length, it has the same dimensions as the standard four-post design. A longer concrete slab is required.
- This alternative will be used in limited circumstances, such as along El Camino Real. *In special cases where very high ridership is present, it may be necessary to pursue an even larger shelter or put multiple shelters together.*

|                   |            |
|-------------------|------------|
| <b>Height</b>     | 9 ft 1 in  |
| <b>Length</b>     | 15 ft 2 in |
| <b>Roof Depth</b> | 6 ft 4 in  |



# Standard Four-Post Shelter

## Key Specifications\*

| Component                | Material                             | Dimensions  | Notes  |
|--------------------------|--------------------------------------|---|--|
| <b>Shelter Structure</b> | Powered coated aluminum              | Height: 9 ft 1 in<br>Length: 11 ft 6 in (standard) or 15 ft 2 in (high capacity)  | Lighter weight material and is more resistant to rust. Option for high-capacity, longer shelter at high ridership stops to add passenger capacity. |
| <b>Roof</b>              | Polycarbonate cellular roof (curved) | Roof Depth: 6 ft 4 in   | Light weight and strong material   |
| <b>Wall Panels</b>       | Perforated aluminum panels           | 8 gage (1/8th in thick) panels with 1/4th in round holes. Holes are staggered 5/16th in with 58% open area for visibility | Options for 3 or 4 wall panel shelter, the 4 <sup>th</sup> wall panel makes the shelter 3 ft 8 in longer for higher ridership stops                |
| <b>Placement</b>         | Bolted into concrete slab            | Slab Length: 13 ft 1 in (standard) to 16 ft 9 in (high capacity)<br>Slab Width: 6 ft 0 in<br>Slab Depth: 0 ft 6 in        | Longer concrete slabs are needed for the high-capacity shelter. Shelter will be embedded 3 3/5ths inches into the concrete (minimum depth)         |

\* Full specifications, such as fastener types, coat finish, and other considerations are available upon request

# Narrow Four-Post Shelter

## Description

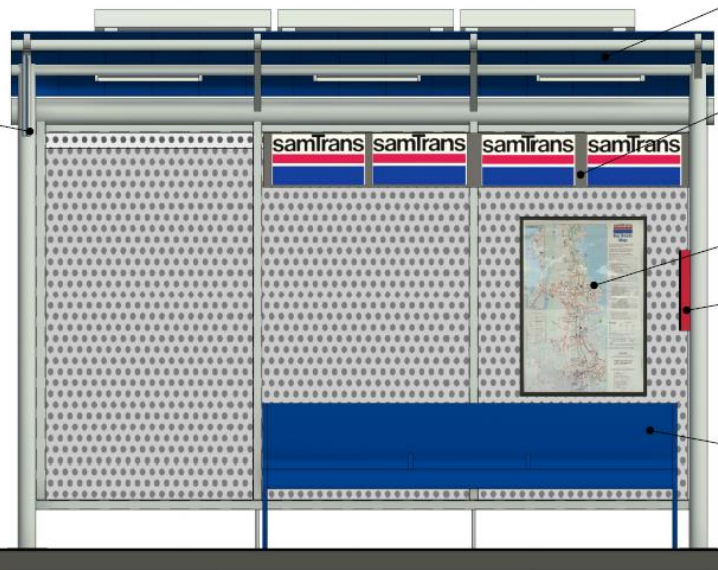
- A more compact shelter that can fit at stops with less sidewalk space
- This design does not include an advertising panel and has a shorter roof to fit in narrower locations
- This narrow design uses the same structure and roof materials as the standard four-post shelter design
- This option fulfills BSIP's recommendation to provide a shade structure at stops where a full shelter cannot fit
- ADA-accessible landing pad requirements still apply, though this can be addressed adjacent to the shelter if necessary.



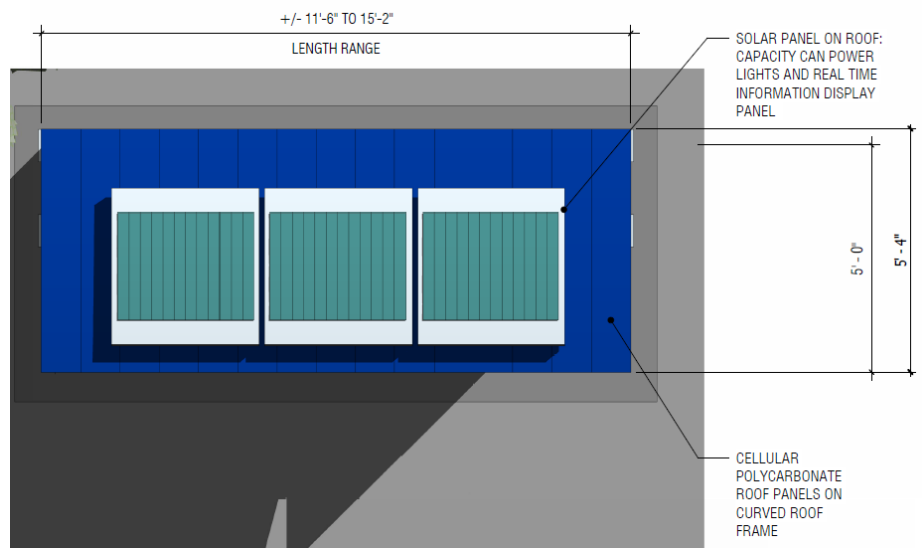
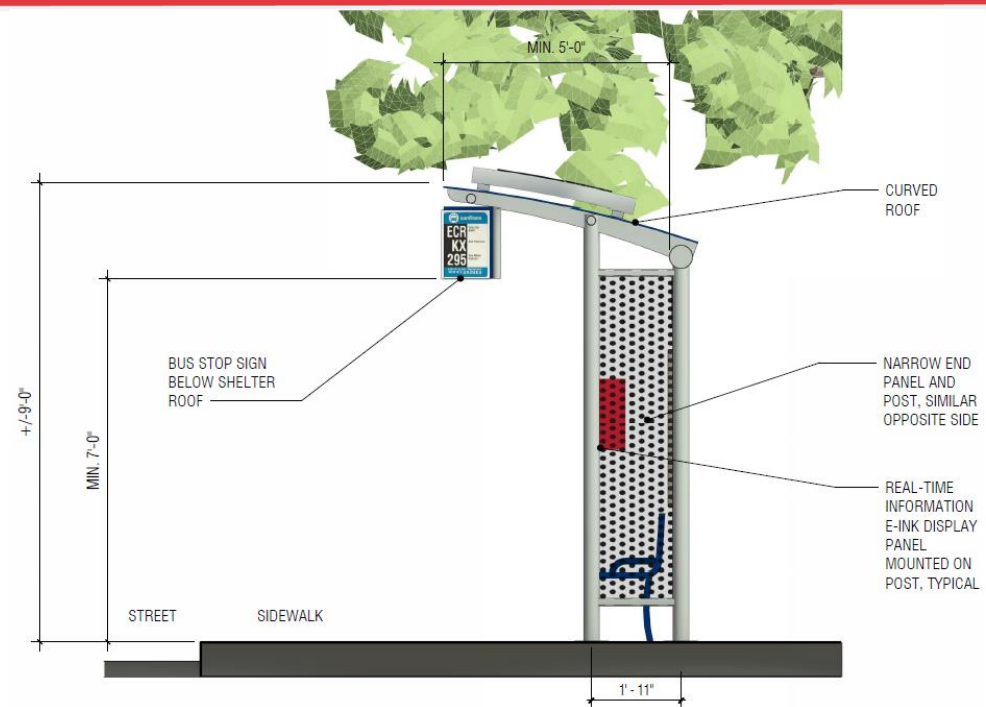
# Narrow Four-Post Shelter



BUS STOP SIGN BELOW SHELTER ROOF



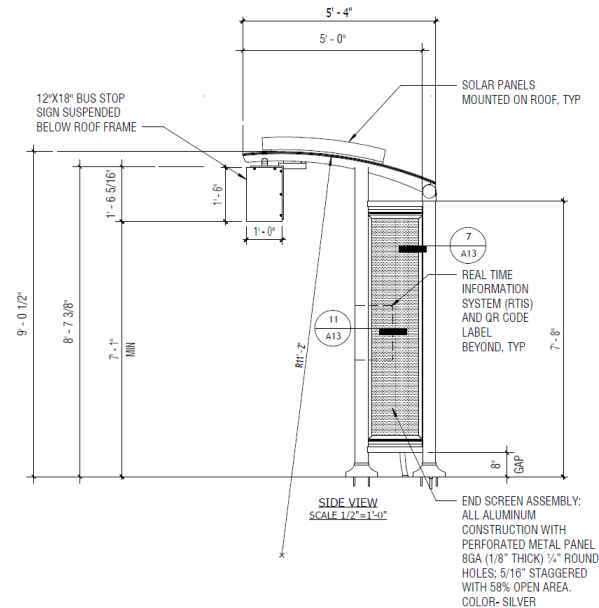
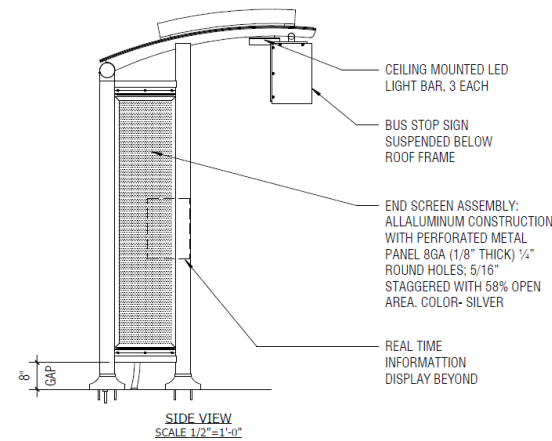
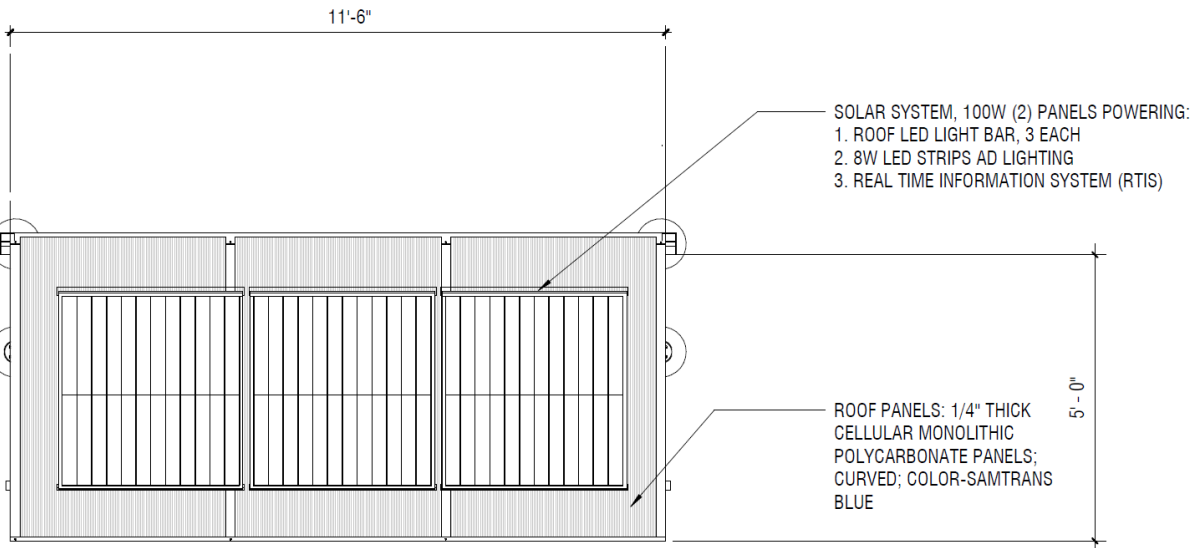
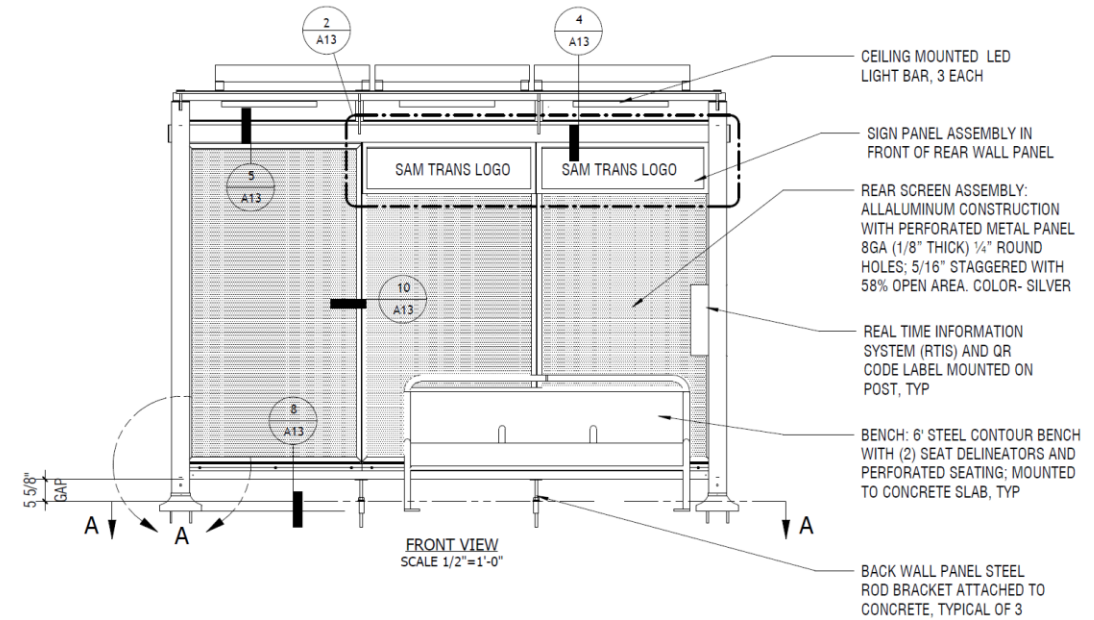
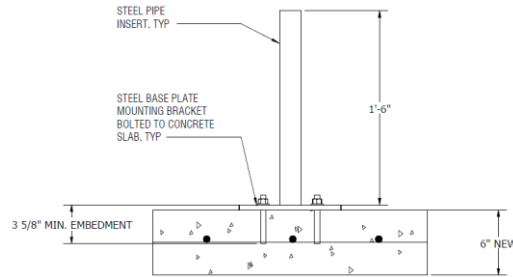
- CEILING MOUNTED LINEAR LIGHT OPTION
- GRAPHICS ON METAL PANEL IN FRONT OF PERFORATED BACK WALL PANEL, TYP
- FRAMED BUS SYSTEM MAP
- REAL-TIME INFORMATION E-INK DISPLAY PANEL MOUNTED ON POST, TYPICAL
- PERFORATED BENCH WITH DIVIDERS AND WIDE END SEATS, TYP



# Narrow Four-Post Shelter

## Shelter Dimensions

|               |            |
|---------------|------------|
| <b>Height</b> | 9 ft 1 in  |
| <b>Length</b> | 11 ft 6 in |
| <b>Depth</b>  | 5 ft 4 in  |



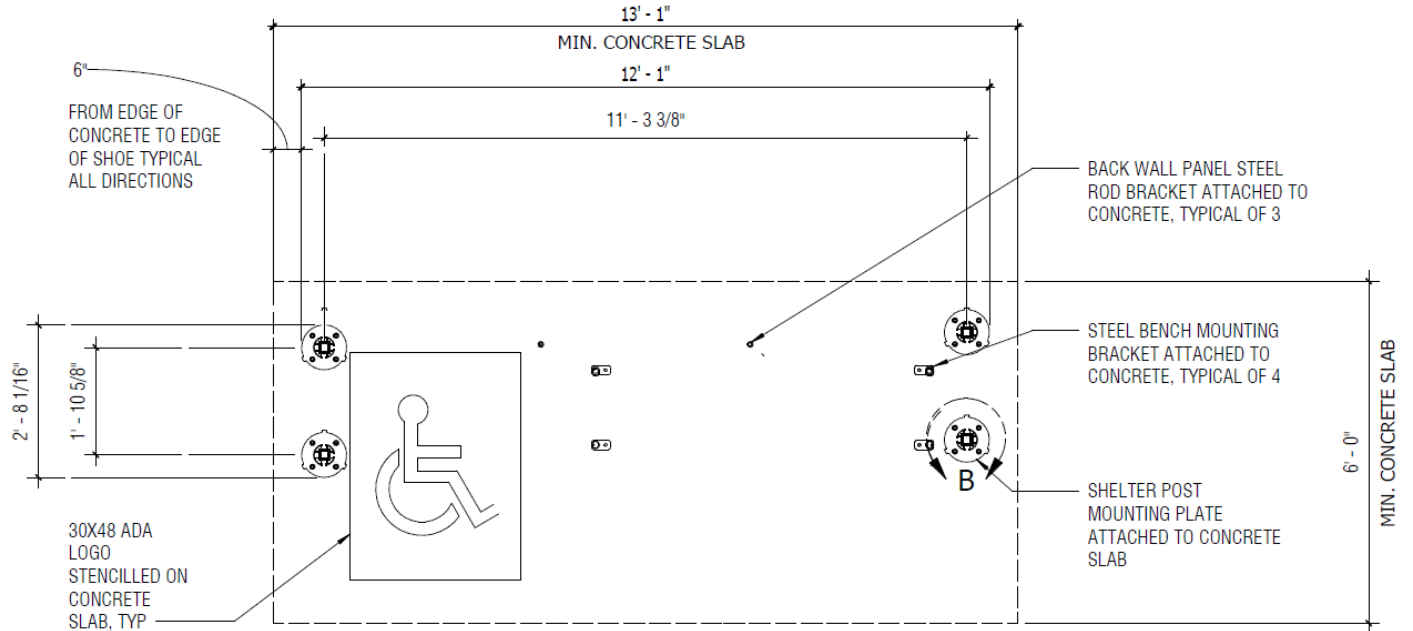
# Narrow Four-Post Shelter

## Concrete Slab for Shelter

|               |                          |
|---------------|--------------------------|
| <b>Length</b> | 13 ft 1 in concrete slab |
| <b>Width</b>  | 6 ft 0 in concrete slab  |

## Minimum Sidewalk Space

|   |  |
|---|--|
| <b>Curb to Property Line</b>                  | 6 ft minimum<br>>8 ft preferred  |
| <b>Curb to Front of Shelter Width</b>         | 4 ft minimum<br>>5 ft preferred  |
| <b>Back of Shelter to Property Line Width</b> | Building Setback: Place near the back of sidewalk.<br><br>No Building Setback: Provide 4 ft (minimum) >5 ft (preferred) between shelter and building |

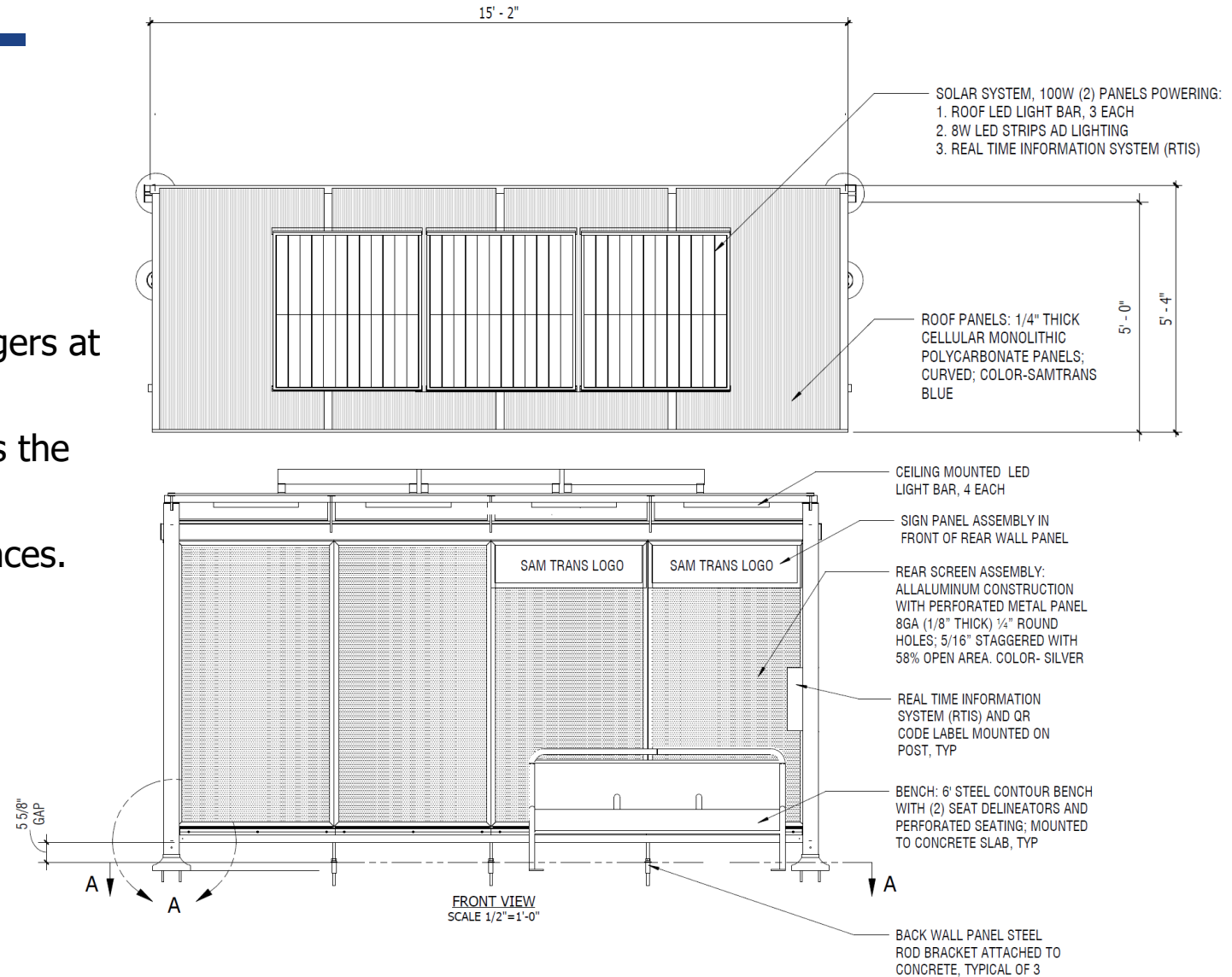


# Narrow Four-Post Shelter

## Shelter Dimensions (High Capacity)

- This longer shelter option can hold more passengers at high ridership stops.
- Other than length, it has the same dimensions as the narrow four-post design.
- This alternative will be used in limited circumstances.

|               |            |
|---------------|------------|
| <b>Height</b> | 9 ft 1 in  |
| <b>Length</b> | 15 ft 2 in |
| <b>Depth</b>  | 5 ft 4 in  |



# Narrow Four-Post Shelter

## Key Specifications\*

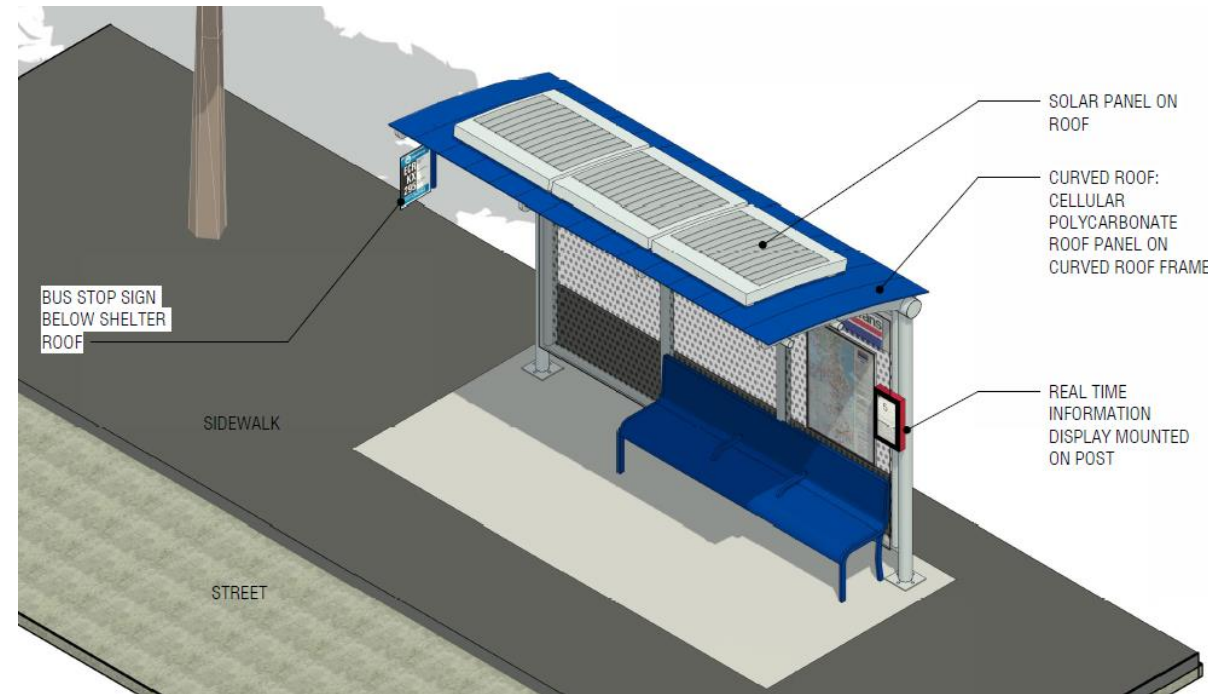
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| <b>Roof</b>              | Polycarbonate cellular roof (curved) | Roof Depth: 5 ft 4 in   | Light weight and strong material  |
| <b>Wall Panels</b>       | Perforated aluminum panels           | 8 gage (1/8 <sup>th</sup> in thick) panels with 1/4 <sup>th</sup> in round holes. Holes are staggered 5/16 <sup>th</sup> in with 58% open area for visibility | Options for 3 or 4 wall panel shelter, the 4 <sup>th</sup> wall panel makes the shelter 3 ft 8 in longer for higher ridership stops                   |
| <b>Placement</b>         | Bolted into concrete slab            | Slab Length: 13 ft 1 in (standard) to 16 ft 9 in (high capacity)<br>Slab Width: 6 ft 0 in<br>Slab Depth: 0 ft 6 in  | Longer concrete slabs are needed for the longer shelter option. Shelter will be embedded 3 3/5 <sup>th</sup> inches into the concrete (minimum depth) |

\* Full specifications, such as fastener types, coat finish, and other considerations are available upon request

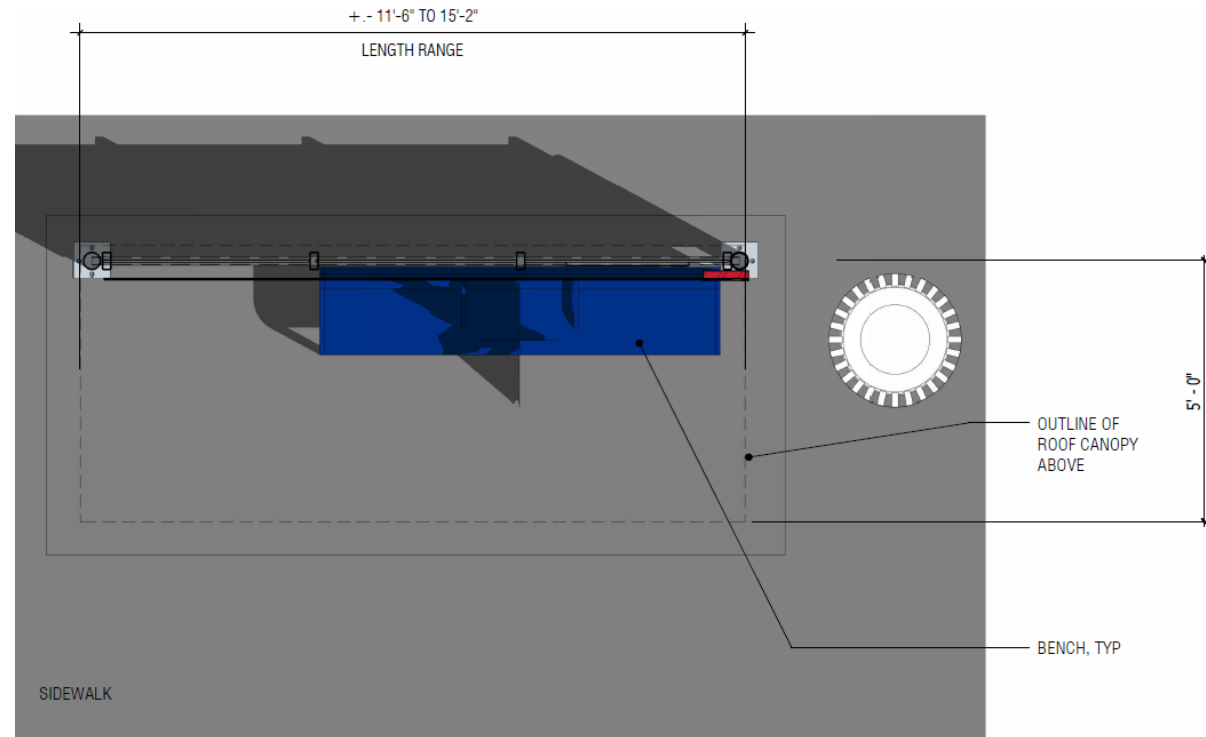
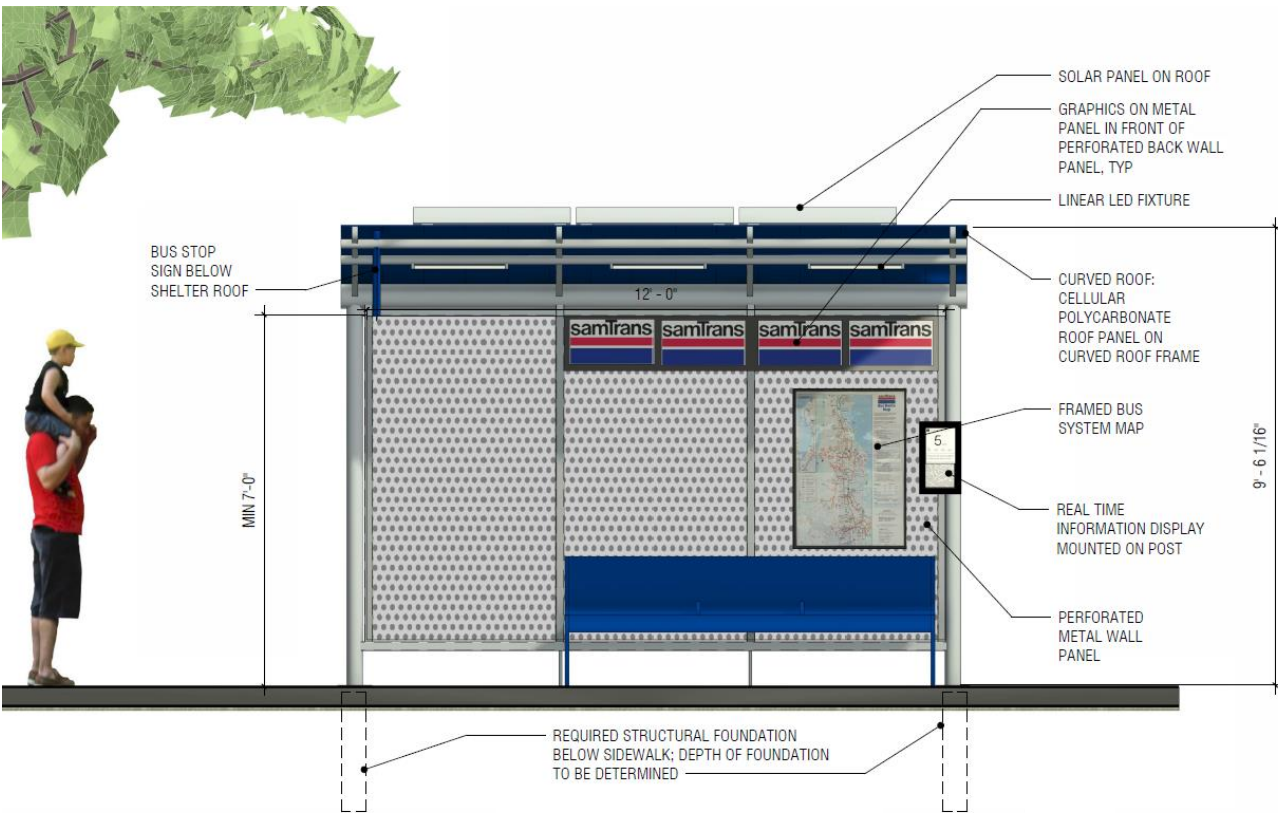
# Two-Post Shelter

## Description

- An even more compact shelter design that can be used in very constrained locations
- This option mostly has the same dimensions as the narrow four-post shelter, but it only needs two posts to support the shelter, which saves some additional sidewalk space and makes it easier to meet ADA standards for sidewalk width.
- However, this shelter needs a concrete foundation to support the structure's weight. This can substantially add to construction costs and this design will only be used in very limited circumstances
- This shelter option is best suited for city-led or developer-led projects that want an enhanced design and that are already planning sidewalk improvements which can incorporate this shelter's foundation needs into their plans.
- This design is less suitable in areas with high winds, as the shelter lacks side panels and provides less weather protection.



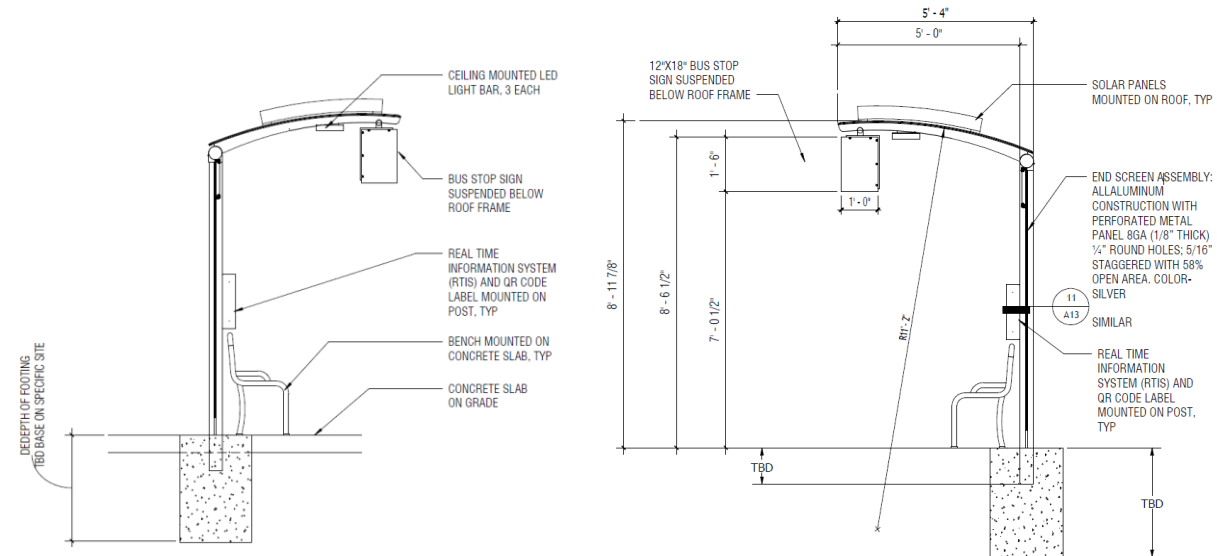
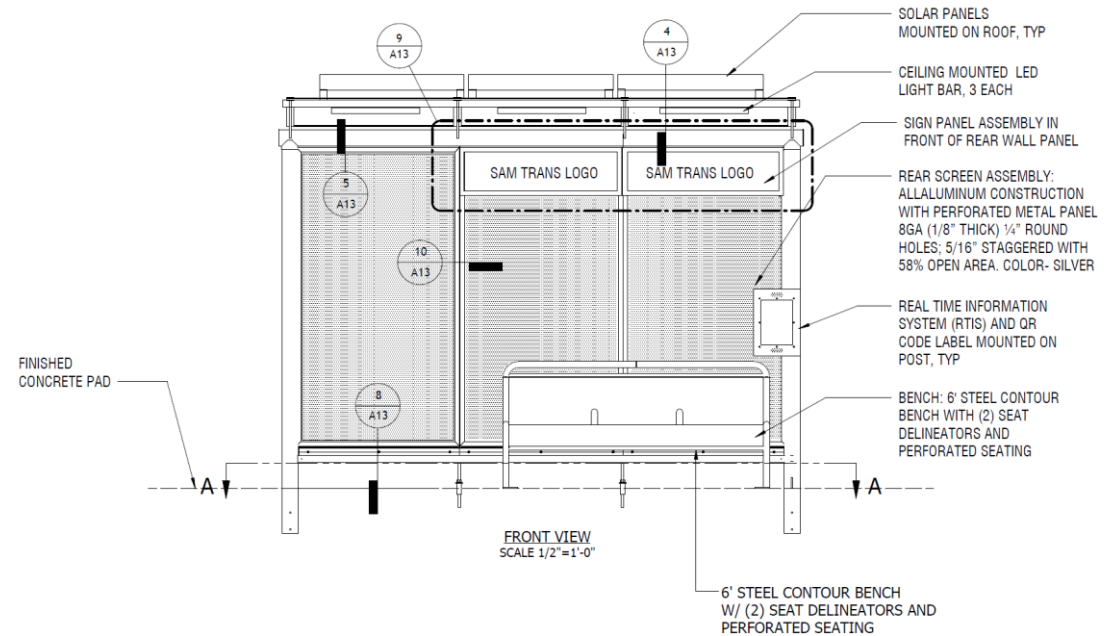
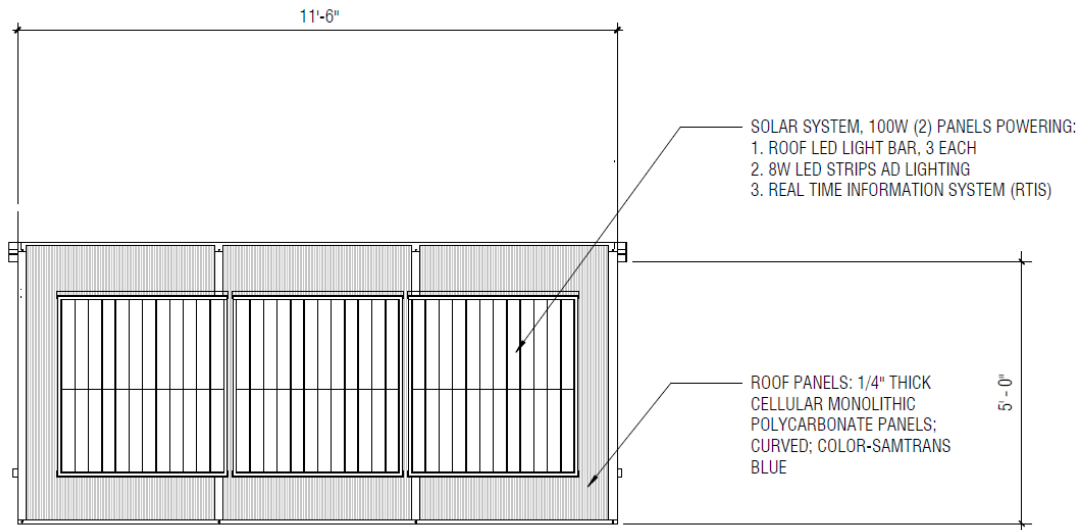
# Two-Post Shelter



# Two-Post Shelter

## Shelter Dimensions (Standard)

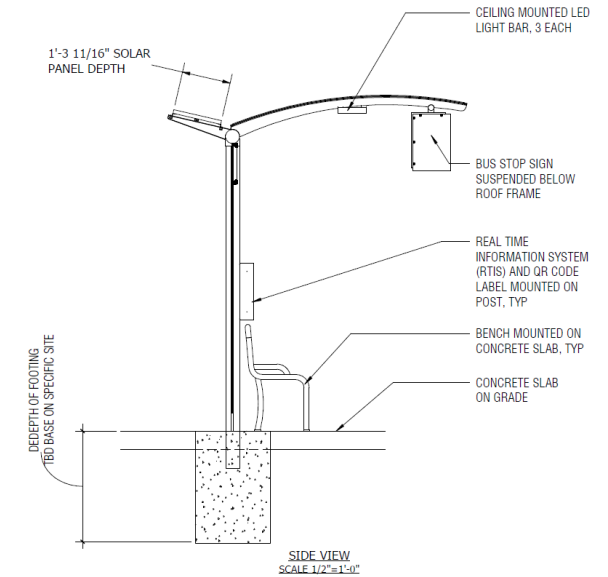
|               |            |
|---------------|------------|
| <b>Height</b> | 9 ft 0 in  |
| <b>Length</b> | 11 ft 6 in |
| <b>Depth</b>  | 5 ft 4 in  |



# Two-Post Shelter

## Foundation Needs

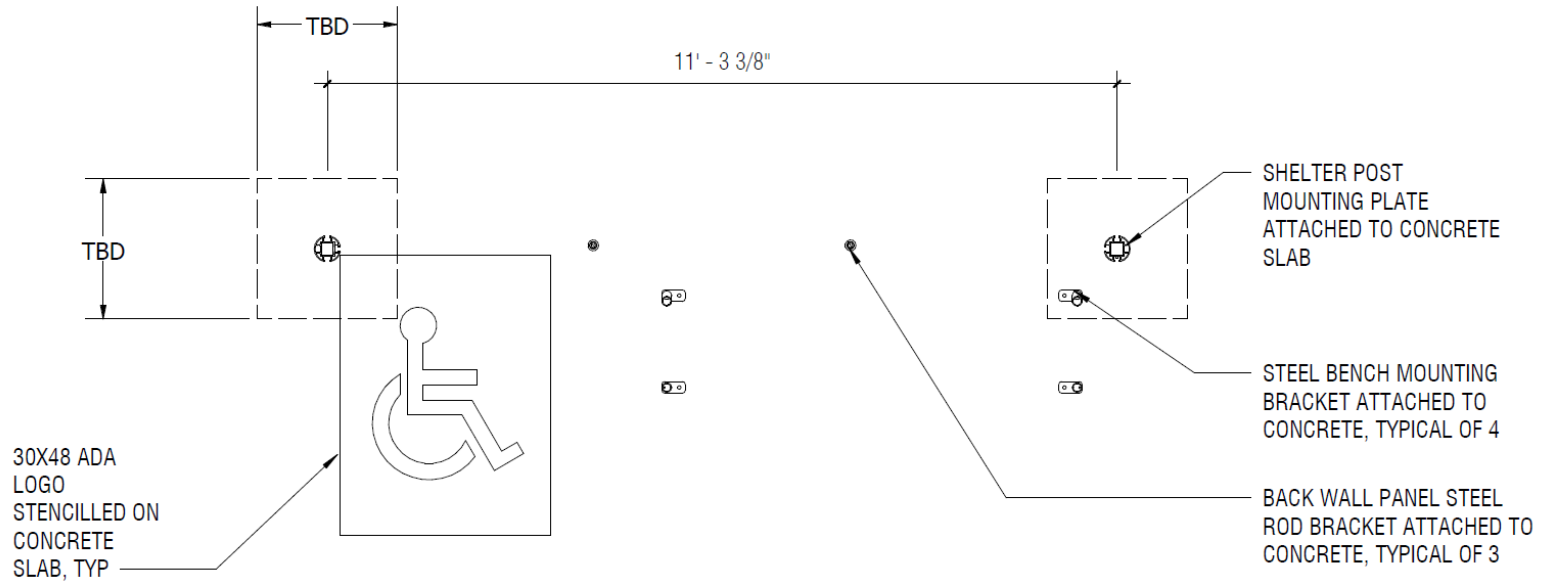
- The two-post shelter design needs a concrete foundational footing to support the weight of the structure.
- The depth of this foundation varies based on the soil, topography, and other factors at each stop location.
- These foundation requirements mean there is additional engineering work to implement each two-post shelter, raising construction and design costs.
- A review by Mark Thomas, an engineering firm hired by SamTrans, showed that these foundations may need to be 3 to 5.5 ft deep and can add about \$6,000 to \$13,000 in construction costs for each shelter.
- *Given the foundation needs, a two-post shelter is best suited to projects led by others that already include sidewalk construction (e.g. streetscape redesigns, developments, etc.)*



# Two-Post Shelter

## Minimum Sidewalk Space

|   |  |
|---|--|
| <b>Curb to Property Line</b>                  | 6 ft minimum<br>>8 ft preferred  |
| <b>Curb to Front of Shelter Width</b>         | 4 ft minimum<br>>5 ft preferred  |
| <b>Back of Shelter to Property Line Width</b> | Building Setback: Place near the back of sidewalk.<br><br>No Building Setback: Provide 4 ft (minimum) >5 ft (preferred) between shelter and building |



# Two-Post Shelter

## Key Specifications\*

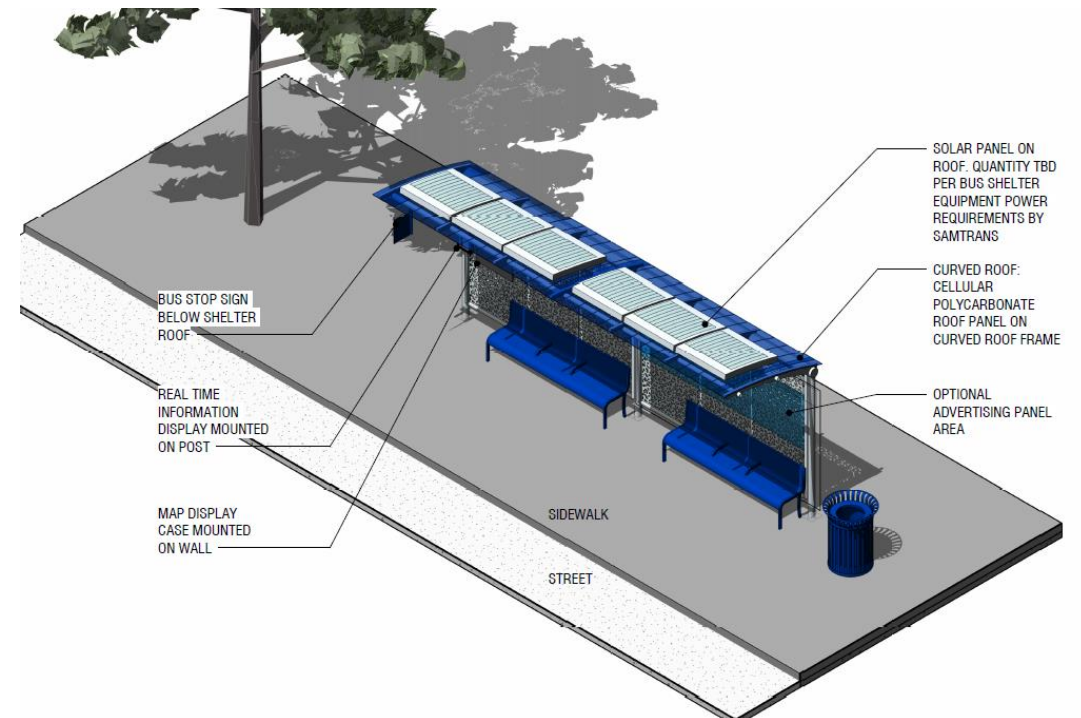
| Component                | Material                             | Dimensions  | Notes   |
|--------------------------|--------------------------------------|---|---|
| <b>Shelter Structure</b> | Powered coated aluminum              | Height: 9 ft 0 in<br>Length: 11 ft 6 in   | Lighter weight material and is more resistant to rust. Option for longer shelter at high ridership stops to add passenger capacity. |
| <b>Roof</b>              | Polycarbonate cellular roof (curved) | Roof Depth: 5' 4"   | Light weight and strong material  |
| <b>Wall Panels</b>       | Perforated aluminum panels           | 8 gage (1/8 <sup>th</sup> in thick) panels with 1/4 <sup>th</sup> in round holes. Holes are staggered 5/16 <sup>th</sup> in with 58% open area for visibility |   |
| <b>Placement</b>         | Needs Concrete Foundation            | Depth varies, based on site conditions  |   |

\* Full specifications, such as fastener types, coat finish, and other considerations are available upon request

# Extended Two-Post Shelter

## Description

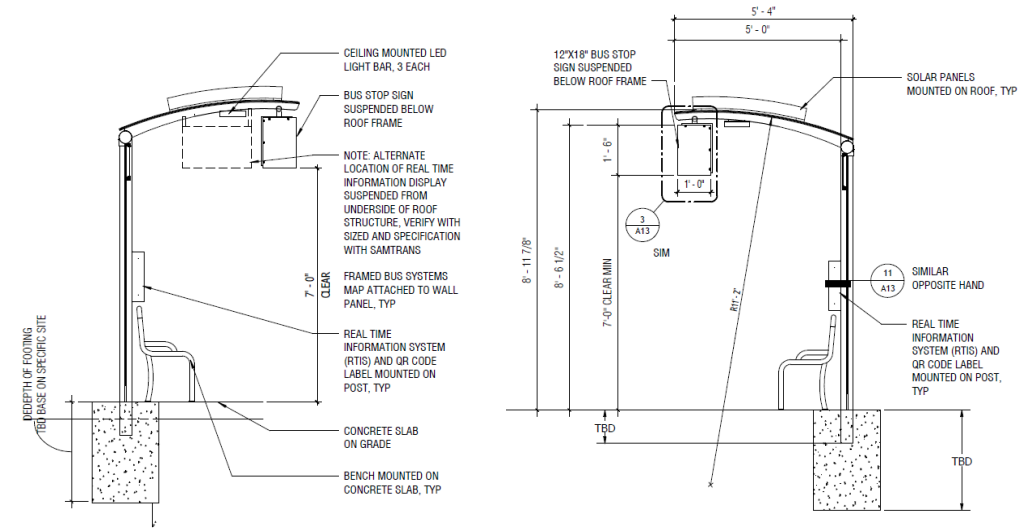
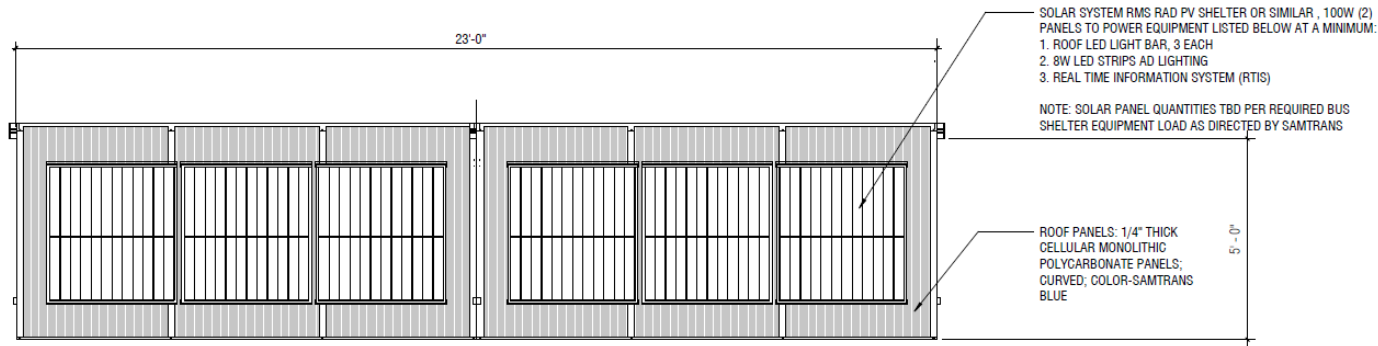
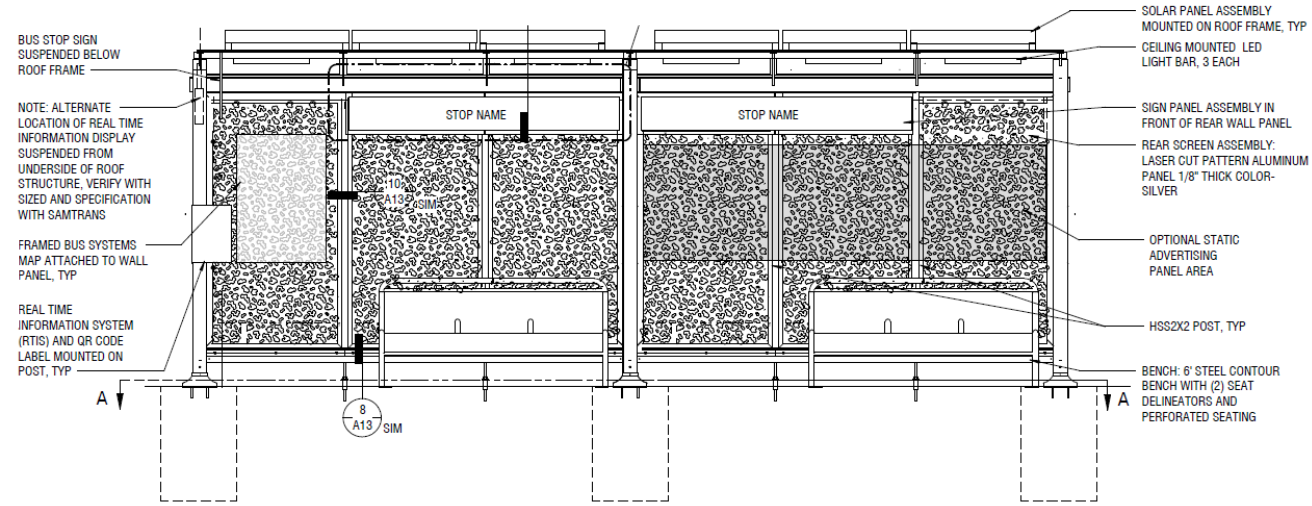
- This shelter is a variant of the two-post design that adds additional capacity for high ridership stops (such as on El Camino Real and other locations).
- The design is an extended two-post design (uses three posts) that also requires foundation supports.
- The shelter as shown includes decorative wall panels (as described on Pg 48 of this guide) and has two benches and two sets of solar panels. Standard panels are also acceptable.



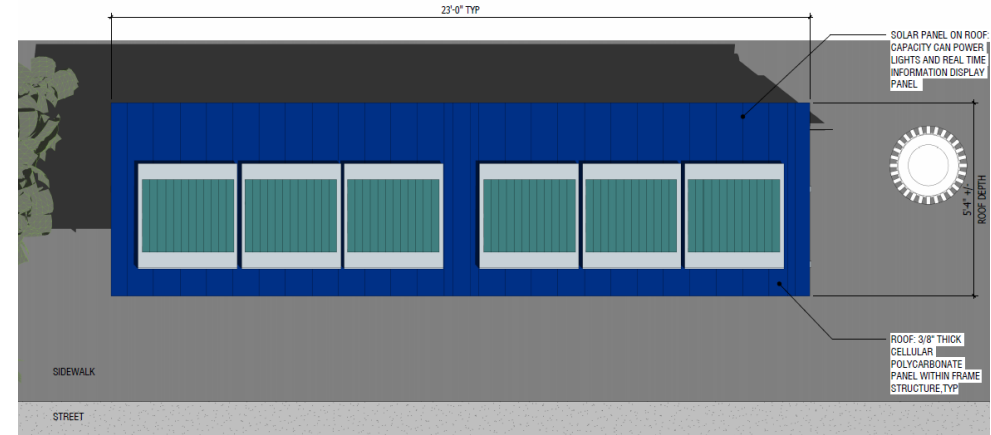
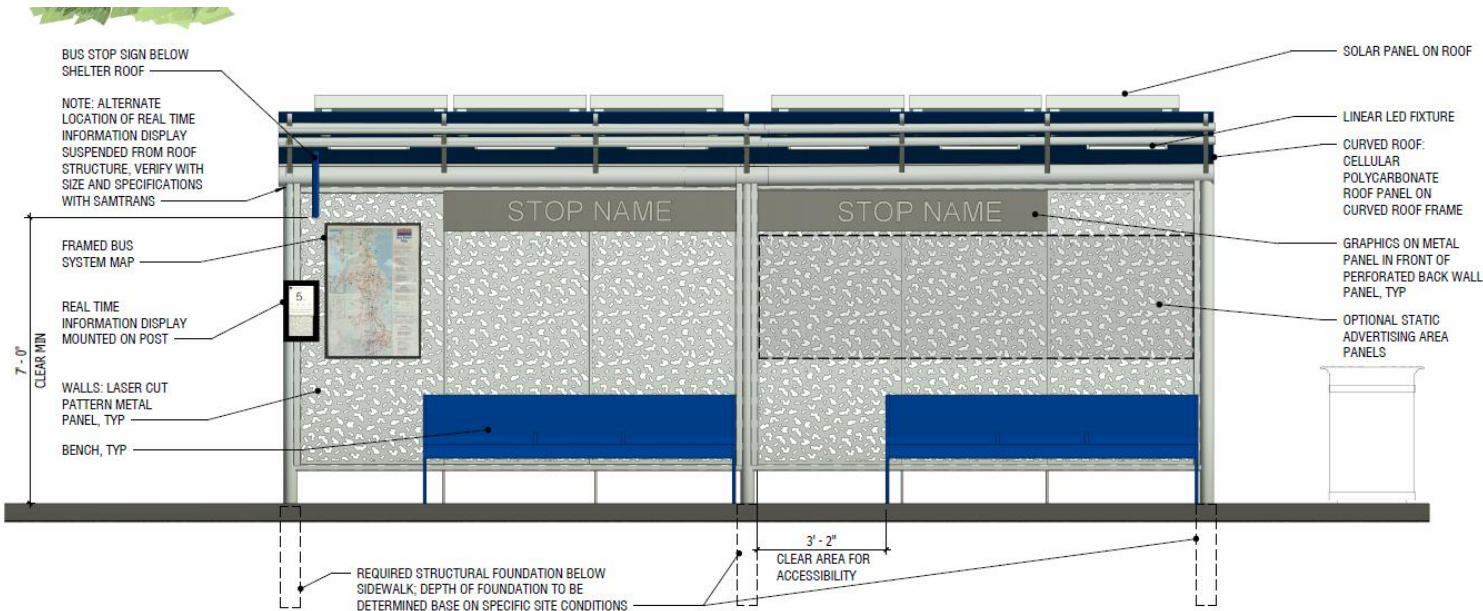
# Extended Two-Post Shelter

## Shelter Dimensions

|               |            |
|---------------|------------|
| <b>Height</b> | 9 ft 0 in  |
| <b>Length</b> | 23 ft 0 in |
| <b>Depth</b>  | 5 ft 4 in  |



# Extended Two-Post Shelter



# Shelter Wall Panel Options

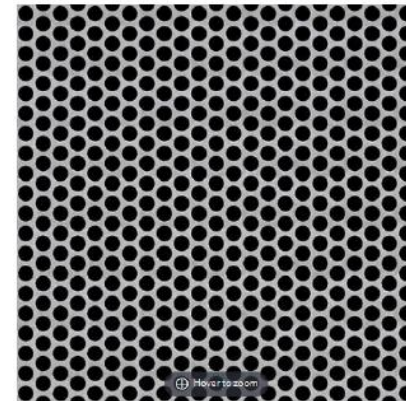
# Shelter Wall Panels

## Description

- All three shelter options use the same aluminum wall panels
- These durable wall panels are easy to replace and maintain, and they are resistant to rust
- These panels were selected because of staff feedback to avoid glass panels, due to concerns about vandalism
- Includes perforated holes to maintain visibility through the panel and to allow light to pass through
- The spacing of the perforations, and the size of the holes, was selected to balance visibility, weather protection, and safety considerations

## Specifications

|                            |                                       |
|----------------------------|---------------------------------------|
| <b>Panel Thickness</b>     | 8 gage (1/8 <sup>th</sup> in thick)   |
| <b>Perforation Size</b>    | 1/4 <sup>th</sup> in round holes      |
| <b>Perforation Spacing</b> | 5/16 <sup>th</sup> in staggered holes |
| <b>Open Area</b>           | 58% Visibility                        |



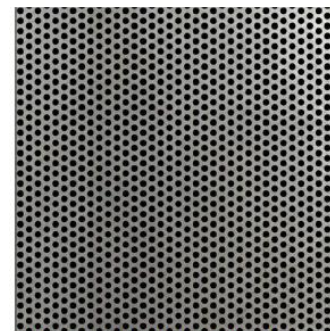
# Shelter Wall Panels

## Additional Weather Protection Option

- The standard shelter wall panel has open holes that wind can pass through.
- For windy areas, the toolbox includes an option to provide additional weather protection. This design places a layer of clear polycarbonate plastic that is sandwiched between two aluminum panels.
- The layer of plastic is clear and does not restrict visibility or prevent light from passing through the holes in the aluminum panels.
- The two aluminum panels help prevent the polycarbonate from being vandalized. The plastic layer is also relatively easy to clean and replace.

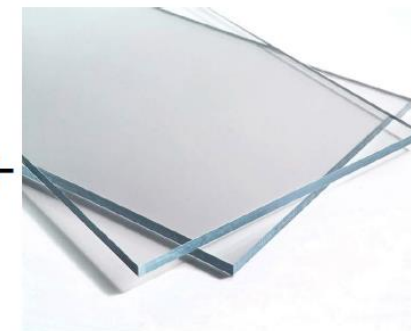
## Specifications

|                                |  |
|--------------------------------|--|
| <b>Polycarbonate Thickness</b> | ¼ inch   |
| <b>Aluminum Panel</b>          | Requires two aluminum panels to protect the polycarbonate from vandalism |



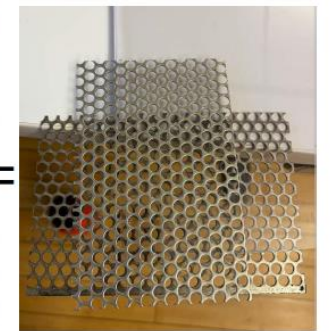
STAINLESS STEEL PERFORATED METAL WALL PANEL  
<https://www.mcnichols.com/perforated-metal/round-hole/stainless-steel-ss-15143811?tbl=2669278197&cld=103>

+



POLYCARBONATE LEXAN WALL PANEL  
 3/8" THICK MINIMUM

=



COMPOSITE ASSEMBLY: POLYCARBONATE LEXAN PANEL  
 IN-BETWEEN TWO PERFORATED STAINLESS STEEL PANEL  
 SIMILAR TO THE BART DALY STATION BUS SHELTER

# Shelter Wall Panels

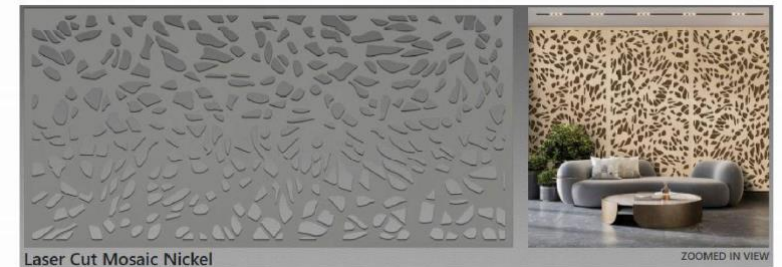
## Decorative Wall Panel Option

- The toolkit includes foliage wall panel designs that could be used instead of the standard aluminum wall panel.
- There are two foliage options, which were selected to reflect San Mateo County's natural beauty, and the importance of the county's forests and urban trees.
- These decorative wall panels would be placed on the standard full-sized four-post shelter and will cast a dappled leaf or tree shade onto the sidewalk during sunny weather.
- This decorative alternative would cost more than the standard wall panels and is best suited for projects with external funding, and city-led and developer-led bus stop improvement projects. SamTrans-led BSIP improvements will utilize the standard aluminum wall panels.

## Specifications

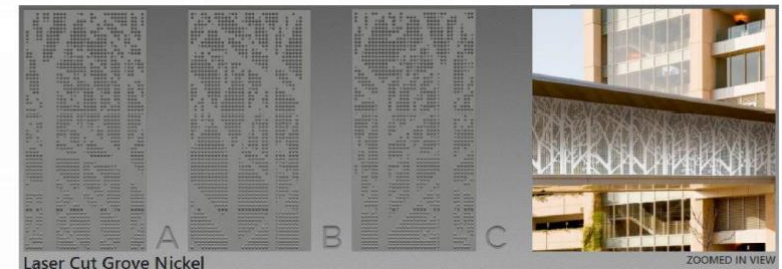
|                            |  |
|----------------------------|--|
| <b>Panel Thickness</b>     | 1/8 inch   |
| <b>Polycarbonate Panel</b> | Must include polycarbonate sandwich for weather protection |

LEAF PATTERN  
 OPTION 1: LASER CUT ALUMINUM MOSAIC  
 PATTERN BY MOZ DESIGNS  
<https://mozdesigns.com/metal-collections/mosaic/>



Laser Cut Mosaic Nickel

FOREST TREES PATTERN  
 OPTION 2: LASER CUT ALUMINUM GROVE  
 PATTERN BY MOZ DESIGNS  
<https://mozdesigns.com/metal-collections/grove/>



Laser Cut Grove Nickel

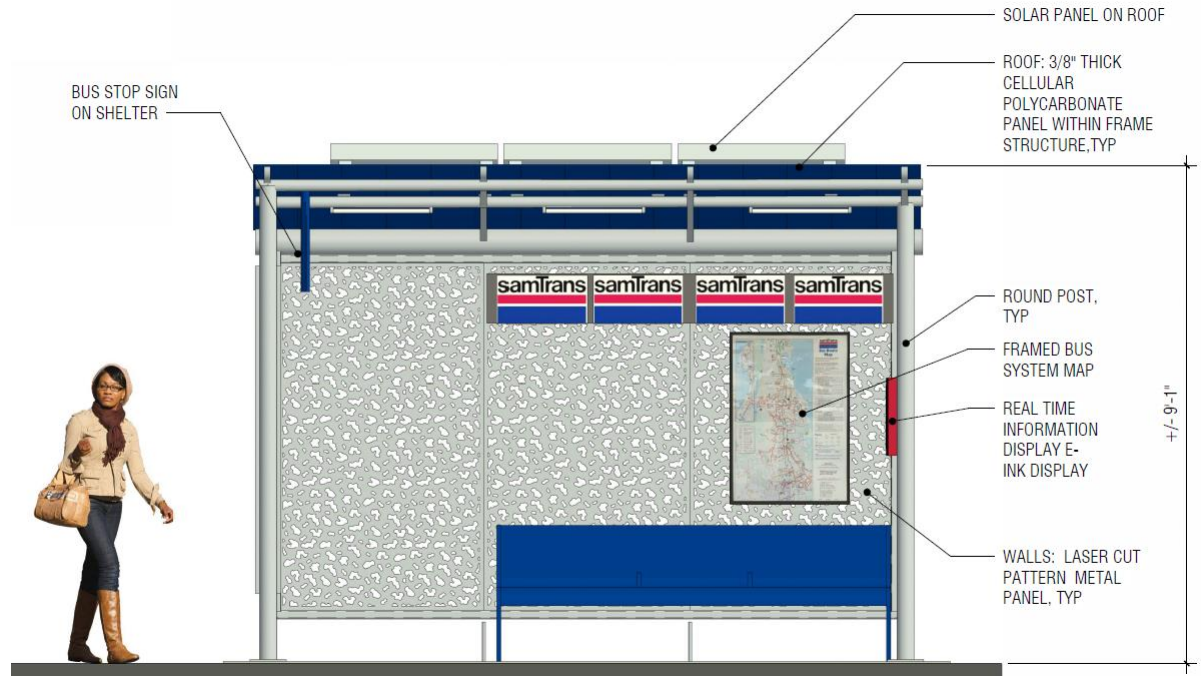
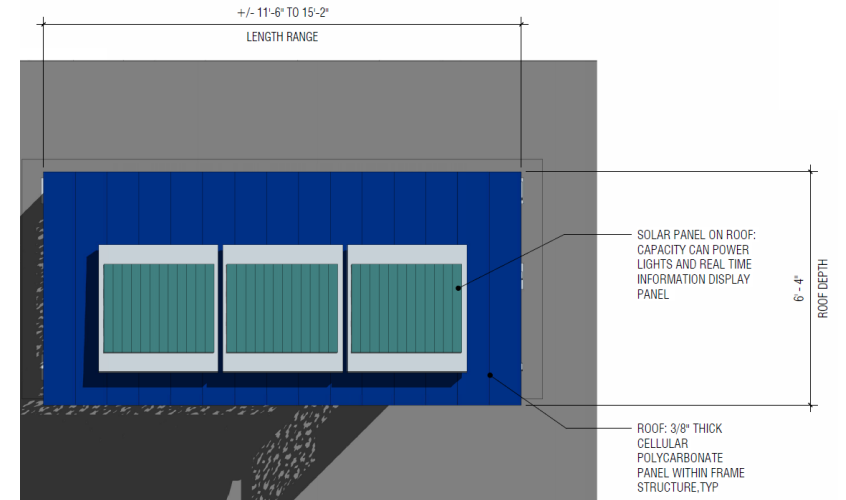
# Decorative Wall Panels



ROOF: 3/8" THICK CELLULAR POLYCARBONATE PANEL WITHIN FRAME STRUCTURE, TYP

WALLS: LASER CUT PATTERN METAL WITH SOLID POLYCARBONATE LEXAN PANEL ASSEMBLY, TYPICAL FOR WINDY SITE CONDITIONS

REAL TIME INFORMATION DISPLAY E-INK DISPLAY



# Alternative Shelter Designs

## For City-Led and Developer-Led Projects

- SamTrans will work with cities and developers who are considering other shelter designs that are not included in this amenity toolkit.
- These alternate shelter designs must be approved by SamTrans, and they must be consistent with the general form and function of the standard designs included in this amenity toolkit.
- Interested cities should contact SamTrans to discuss these alternate designs and to see what flexibility is available for shelters and other amenities.
- SamTrans would not maintain shelters or amenities constructed using designs that are not part of SamTrans' updated amenity toolkit.

# Color and Branding

# Amenity Colors

## Details

- All bus stop amenities included in this toolkit adhere to the SamTrans Style Guide (official colors shown below)
- Most amenities are silver and blue, with some red and black highlights



**PANTONE 287**  
Hex: #003087

R: 0  
G: 48  
B: 135

C: 100 %  
M: 75 %  
Y: 2 %  
K: 18 %

**PANTONE 186**  
Hex: #C8102E

R: 200  
G: 16  
B: 46

C: 2 %  
M: 100 %  
Y: 85 %  
K: 6 %

**Silver**  
Hex: #C8D2D8

R: 200  
G: 210  
B: 216

C: 7 %  
M: 3 %  
Y: 0 %  
K: 15 %

**Black**  
Hex: #000000

R: 0  
G: 0  
B: 0

C: 0 %  
M: 0 %  
Y: 0 %  
K: 100 %

## Amenity Color Specifications

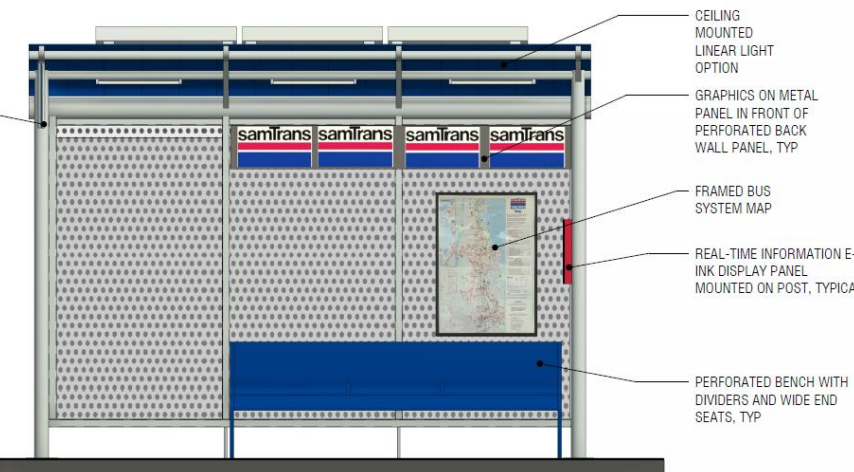
|   |   |
|---|---|
| <b>Shelter Structure</b>                              | Silver                                  |
| <b>Shelter Roof</b>                                   | Pantone 287 (Blue)                      |
| <b>Shelter Wall Panels</b>                            | Silver                                  |
| <b>Shelter Advertising Panel</b>                      | Silver                                  |
| <b>Benches and Seating</b>                            | Pantone 287 (Blue)                      |
| <b>Trash Cans</b>                                     | Pantone 287 (Blue)                      |
| <b>Real Time Arrival Displays and QR Code Casings</b> | Pantone 186 (Red) or Pantone 287 (Blue) |
| <b>Bus System and Route Map Casings</b>               | Black                                   |
| <b>Amenity Pole</b>                                   | Pantone 287 (Blue)                      |

# SamTrans Logo Placement

- Shelters include the SamTrans logo and other branding elements on the rear wall panel
- The specific design of this logo is still being developed by SamTrans, and the designs shown in this amenity portfolio's rendering are a placeholder image that will not be installed.
- The SamTrans logo will be added to the shelter via a decal, rather than being painted directly onto the shelter. This makes it easier to replace if the shelter is vandalized or if SamTrans has a brand refresh in the future.



BUS STOP SIGN  
BELOW SHELTER  
ROOF



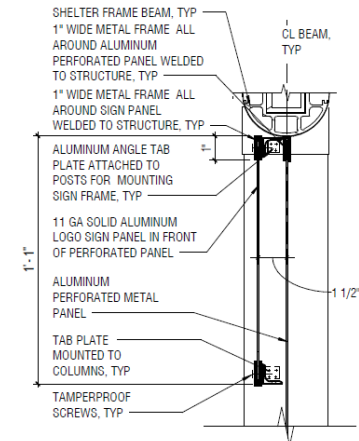
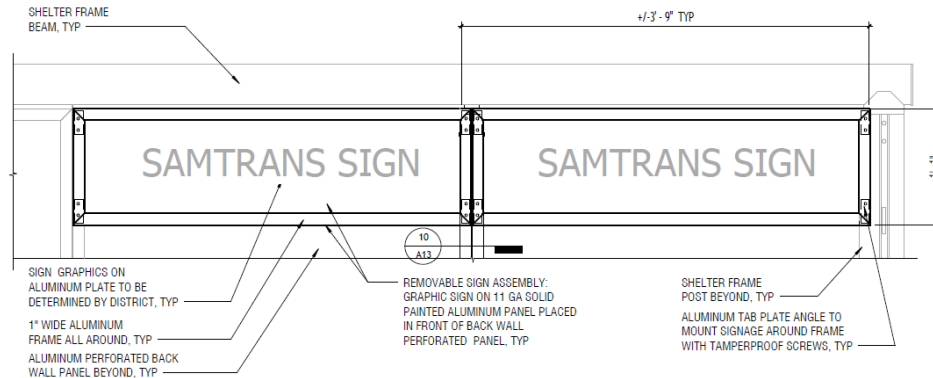
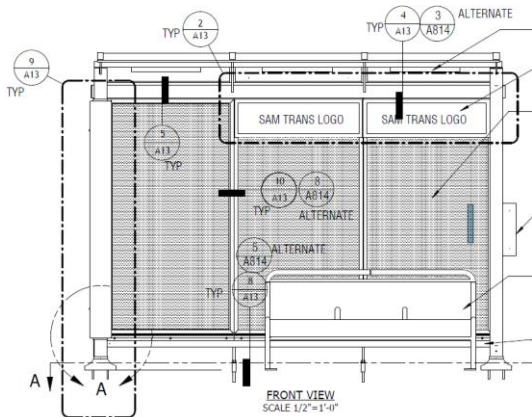
# Shelter Logo Sign Panel

## Description

- The logo decal on the SamTrans shelters will be installed on a flat aluminum panel that will be attached to the shelter's rear wall panels
- This small aluminum panel, which does not have perforations, will be screwed onto the rear shelter wall panel

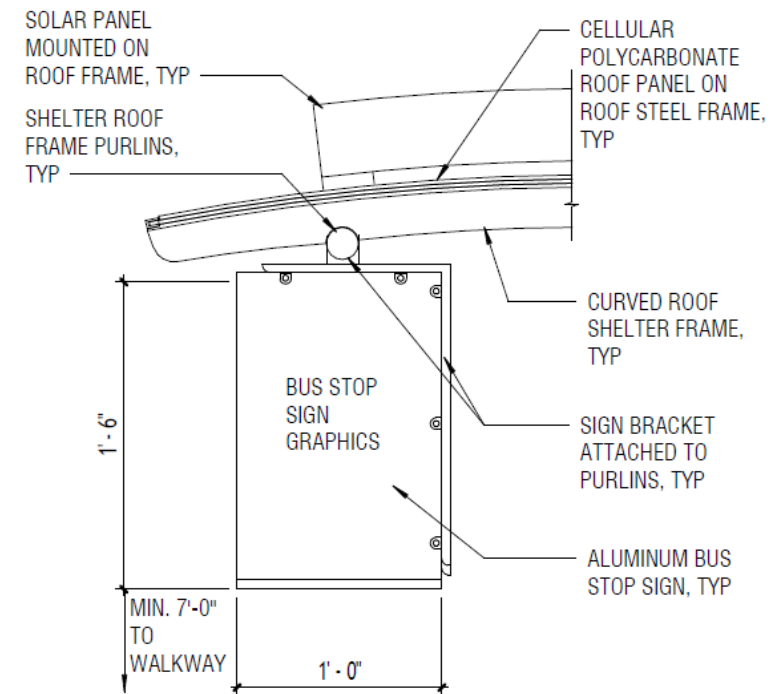
## Specifications

|               |  |
|---------------|--|
| <b>Height</b> | 1 ft 1 in  |
| <b>Length</b> | 3 ft 9 in (single panel)<br>7 ft 6 in (double panel) |
| <b>Width</b>  | 11 gage aluminum                                     |
| <b>Frame</b>  | 1 in (around decal)                                  |



# Bus Stop Sign Placement

- The bus stop sign blade, or sign, will be attached to the shelter in these new amenity designs.
- The sign is positioned under the roof so passengers under the shelter can see which routes are served by the stop.
- The bus stop blade must have a **minimum clearance of 7 ft** from the sidewalk.
- Signs that do not meet this minimum clearance requirement must be placed on a separate pole next to the shelter.
- The design of these bus stop signs may change in the future, due to MTC's ongoing Regional Mapping and Wayfinding Project



# Benches & Seating

# Benches and Seating

## Toolbox Seating Options

- The amenity toolbox includes three seating designs, which were developed based on the feedback received in the Bus Bench and Seating Pilot:



**Perforated Metal Bench**

- Standard bench design
- These will be used at most stops that are recommended to receive a bench in BSIP



**Simme Seat Style**

- Option for locations where a full bench cannot fit
- Can be paired with an amenity pole, or can be stand alone



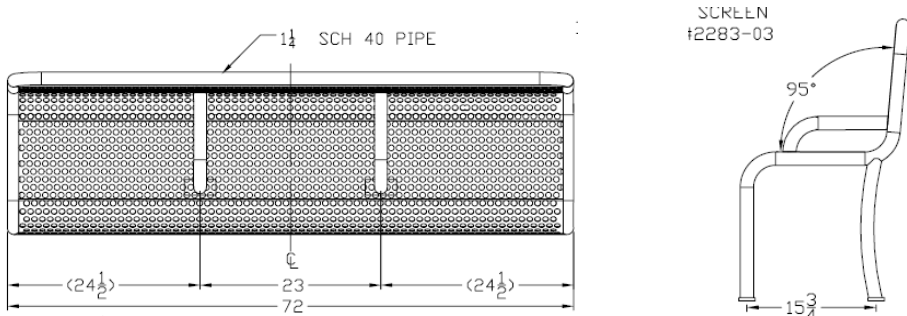
**Perch Bench**

- Potential option for high frequency stops
- SamTrans will continue to test this bench before including it in the amenity toolkit

# Perforated Metal Bench

## Details

- This new amenity toolkit carries forward the existing Tolar bench design utilized by SamTrans, however it will be painted blue instead of green
- The design includes a backrest and seating dividers



## Bench Specifications

|                   |                                      |
|-------------------|--------------------------------------|
| <b>Length</b>     | 6 ft 0 in                            |
| <b>Depth</b>      | 1 ft 3.75 in                         |
| <b>Seat Width</b> | 1 ft 11 in to 2 ft 0.5 in (per seat) |
| <b>Placement</b>  | Can be bolted into existing sidewalk |
| <b>Color</b>      | Pantone 287 (Blue)                   |

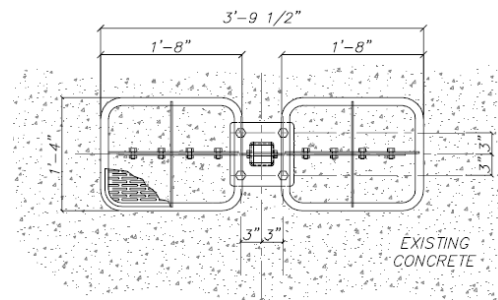
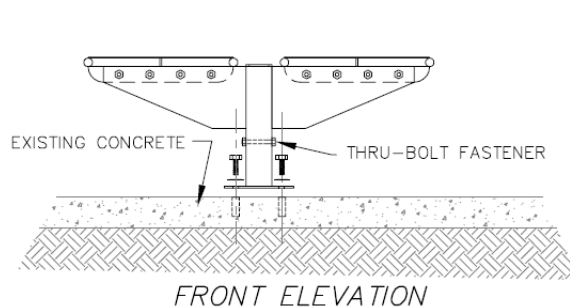
## Sidewalk Space Requirements

|                                     |                                 |
|-------------------------------------|---------------------------------|
| <b>Curb to Property Line</b>        | 5 ft 4 in minimum               |
| <b>Curb to Front of Bench Width</b> | 4 ft minimum<br>5 ft+ preferred |

# Simmie Seat

## Details

- This seating bench design is currently used at select SamTrans bus stops
- The simmie seat can be bolted into the ground and provides seating for two passengers
- Simmie seats can be standalone or can be paired with an amenity pole.



## Bench Specifications

|                   |                                      |
|-------------------|--------------------------------------|
| <b>Length</b>     | 3 ft 9.5 in                          |
| <b>Depth</b>      | 1 ft 3.75 in                         |
| <b>Seat Width</b> | 1 ft 8 in                            |
| <b>Placement</b>  | Can be bolted into existing sidewalk |
| <b>Color</b>      | Pantone 287 (Blue)                   |

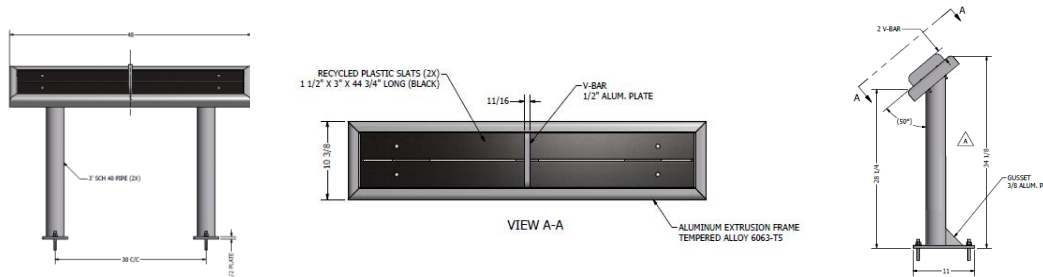
## Sidewalk Space Requirements

|                                     |                                 |
|-------------------------------------|---------------------------------|
| <b>Curb to Property Line</b>        | 5 ft 4 in minimum               |
| <b>Curb to Front of Bench Width</b> | 4 ft minimum<br>5 ft+ preferred |

# Perch Bench

## Details

- SamTrans plans to continue testing the feasibility and use cases of perch benches
- These are best used at stops with very high frequency service, where passenger wait times are short
- This design is not currently an option in the amenity toolbox, but these perch benches could be used in the future. Potential use cases include areas with very constrained sidewalks, where other seating options can't fit, or as supplemental seating at stops that already have other benches



## Bench Specifications

|                   |   |
|-------------------|---|
| <b>Length</b>     | 4 ft 0 in (for variant with single divider) |
| <b>Depth</b>      | 0 ft 11 in                                  |
| <b>Seat Width</b> | 0 ft 11 in                                  |
| <b>Placement</b>  | Can be bolted into existing sidewalk        |
| <b>Color</b>      | Pantone 287 (Blue)                          |

## Sidewalk Space Requirements

|                                     |                                 |
|-------------------------------------|---------------------------------|
| <b>Curb to Property Line</b>        | 5 ft 4 in minimum               |
| <b>Curb to Front of Bench Width</b> | 4 ft minimum<br>5 ft+ preferred |

# Other Stop Amenities

# Amenity Pole

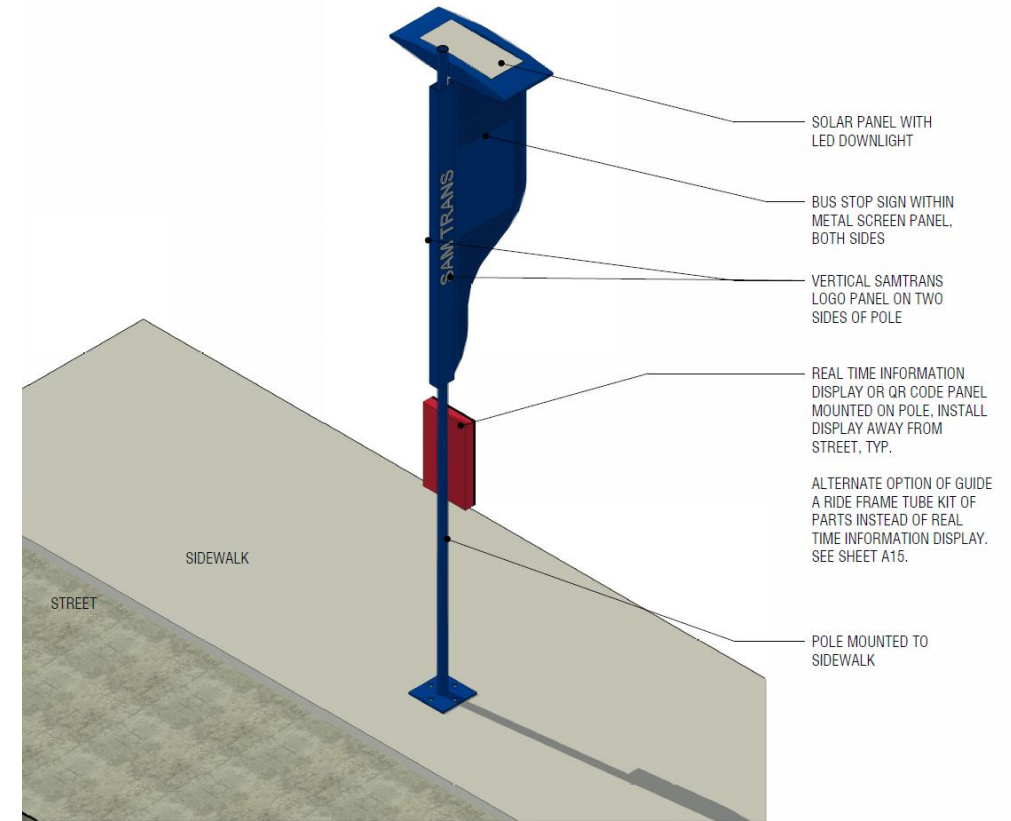
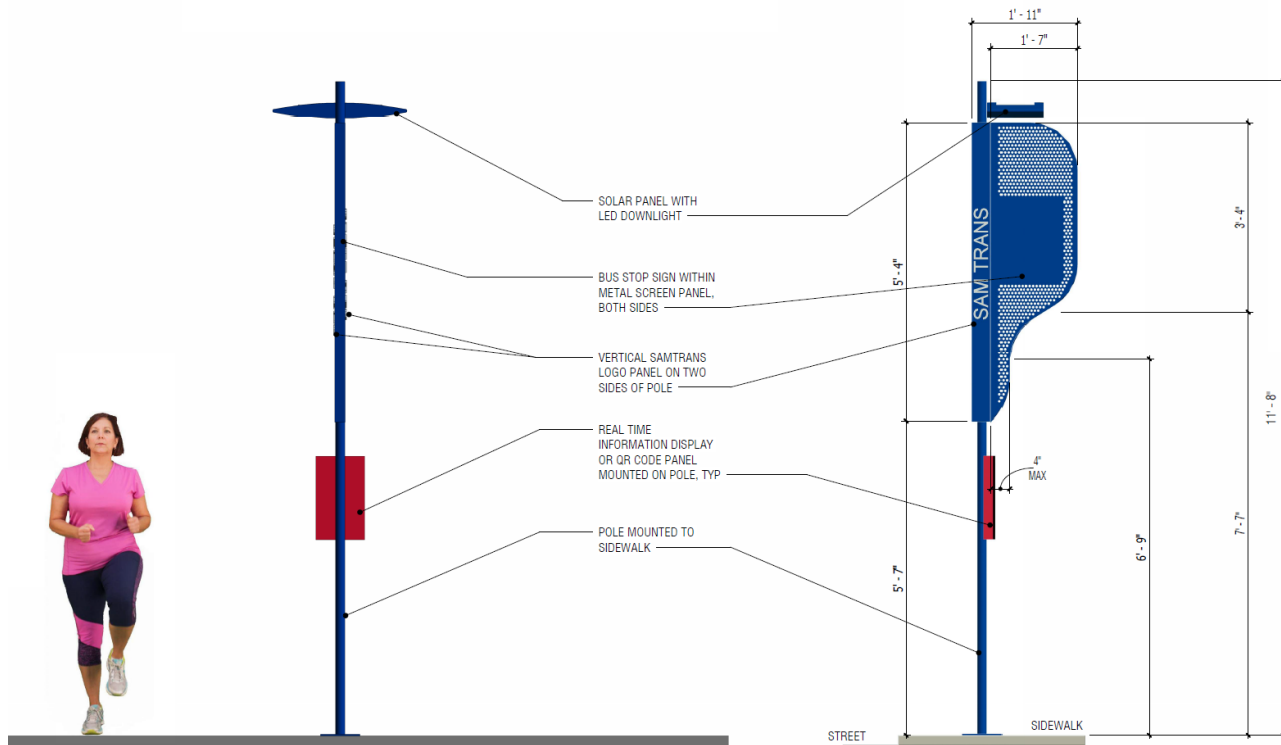
## Description

- The amenity toolbox includes an upgraded bus stop sign pole that can provide lighting and real time information at stops without a shelter.
- This pole can be paired with a simme seat if there is enough space on the sidewalk.
- Real time arrival will be provided by an e-ink display and/or a QR code based on BSIP's recommendations for each stop and site feasibility
- The amenity pole includes a small solar panel on the top of the pole. Lights can be turned on/off via a time-of-day timer or push button.



# Amenity Pole

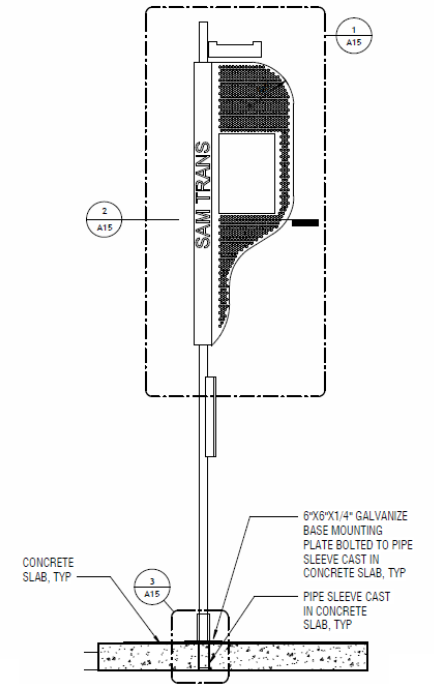
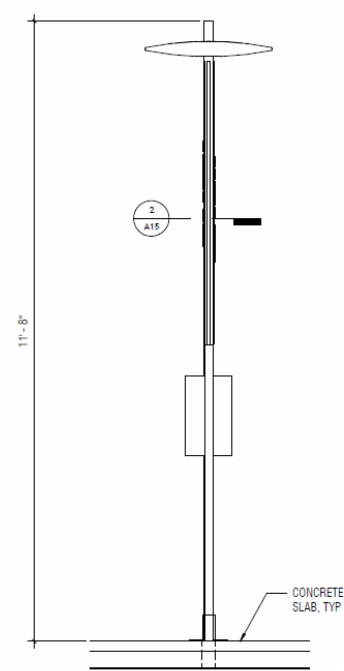
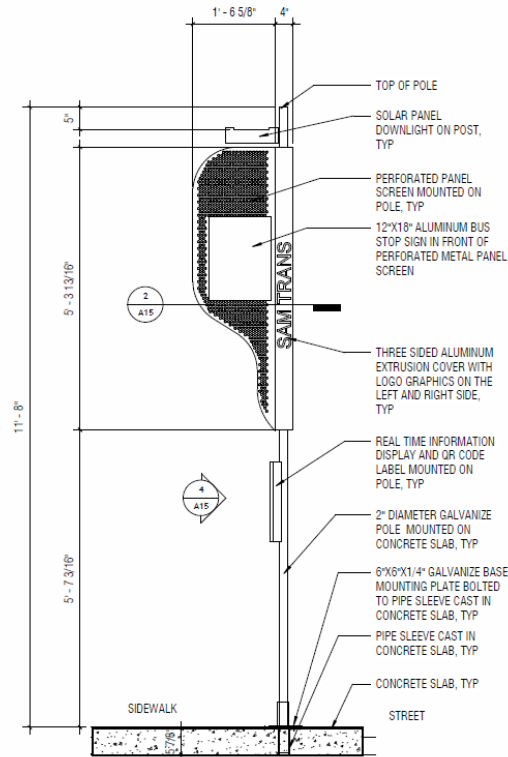
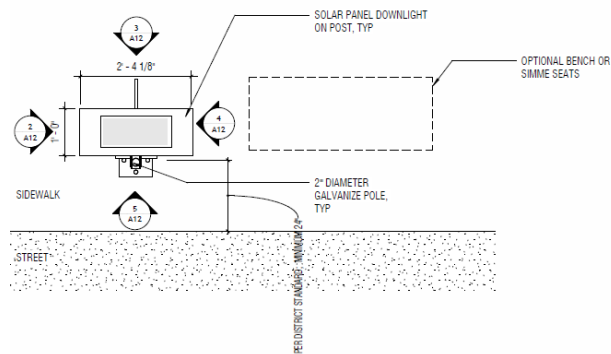
## Additional Renderings



# Amenity Pole

## Amenity Pole Dimensions

|  |                             |
|--|-----------------------------|
| <b>Height</b>                              | 11 ft 8 in                  |
| <b>Length</b><br>(at solar panel)          | 2 ft 4 1/8 <sup>th</sup> in |
| <b>Width</b><br>(at fin)                   | 1 ft 11 in                  |
| <b>Clearance from sidewalk</b><br>(at fin) | 6 ft 9 in                   |



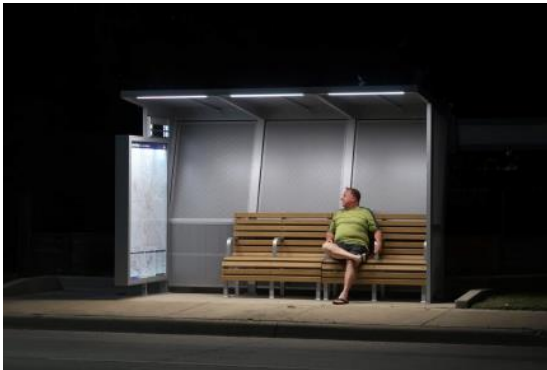
# Shelter Lighting

## Description

- The shelter designs will include ceiling mounted LED lighting.
- These lights are powered by solar power and can be turned on and off by a time-of-day timer.
- Each shelter will include three strip lights to ensure that there is backup lighting if a single LED has issues.

## Specifications

|                       |   |
|-----------------------|---|
| <b>Light Type</b>     | Ceiling mounted 24 inch strip downlight |
| <b>Light Quantity</b> | Three lights per shelter                |



*Example lighting from manufacturer*



*LED strip lighting*

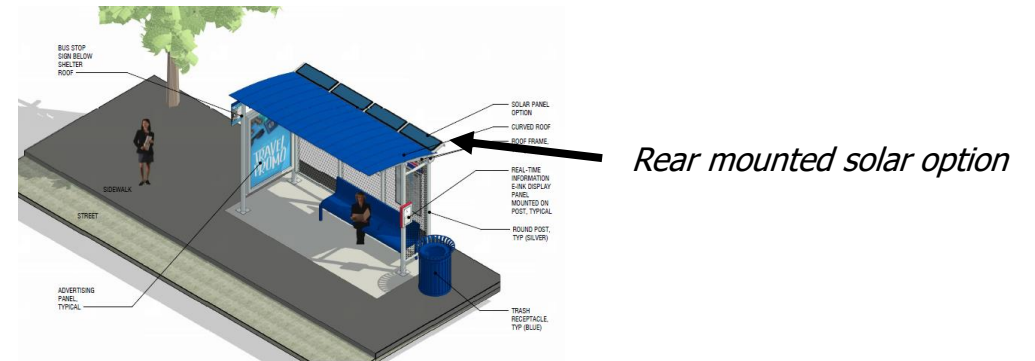
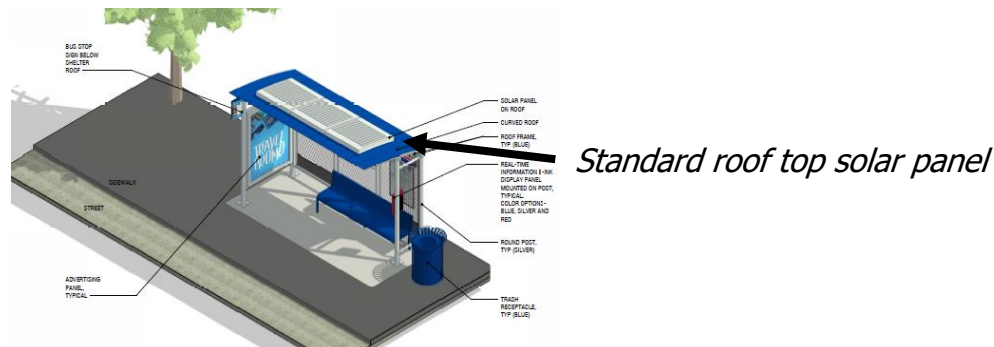
# Shelter Solar Panels

## Description

- The shelter designs include solar panels to power the shelter's lights and real time arrival displays (if provided). The power system includes a battery to power amenities at night.
- There are two placement options: roof mounted solar and rear mounted solar. Roof mounted solar is the toolbox's standard option, with the rear mounted solar panel as an alternative

## Specifications

|                       |                        |
|-----------------------|------------------------|
| <b>Panel Type</b>     | 100W Solar Panels      |
| <b>Panel Quantity</b> | Two panels per shelter |



# Real Time Arrival Information

- Amenity toolkit has three real time arrival options:



## E-Paper Display

- Standard real time arrival display
- Solar or battery powered with black and white screen



## QR Code

- All stops are eligible for a QR Code
- QR codes are ideal for lower ridership stops, and stops with site constraints



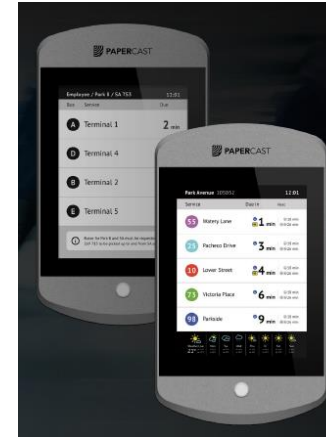
## Full Color Display

- Used in limited circumstances
- Requires an external power hookup

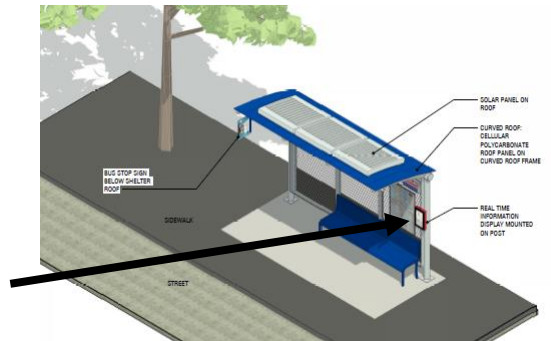
# E-Paper Display

## Description

- Low power black and white “e-ink” display screens that show real time arrival information and rider service alerts
- Displays are powered by solar panels and/or battery, and do not require an external power source, and include vandal-resistant housing.
- Displays are updated using the cellular network (LTE or 5G) and GTFS-RT feed.
- Displays will also include a push-to-audio button that will read out the next arrivals for low vision passengers. **This push button must be placed 4 ft from the ground to meet ADA standards.**
- SamTrans is continuing to pilot various e-ink technologies and screen sizes before wider deployment.



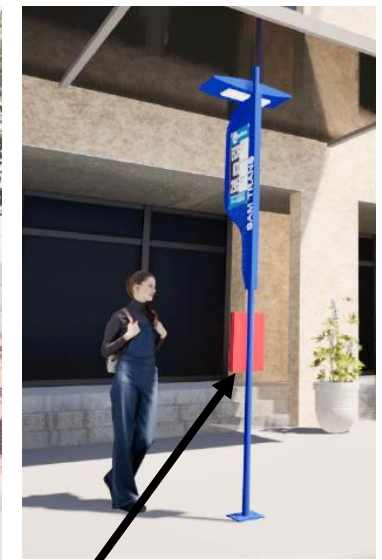
Example e-paper display



Outward facing in two-post shelter design



Placement within bus shelter: within the structure so passengers under the shelter can read the sign



Placement on the Amenity Pole: facing away from the street

# QR Code

## Description

- QR code that opens a link to a unique SamTrans website for the specific bus stop.
- All stops are eligible for a QR Code. However, QR codes are especially well suited for lower ridership stops and at stops with limited potential for solar power or other site constraints.
- The QR code will be made of UV-resistant materials to ensure longevity. SamTrans is still developing the QR code design.
- **This QR code must be placed 4 ft from the ground to meet ADA standards.**



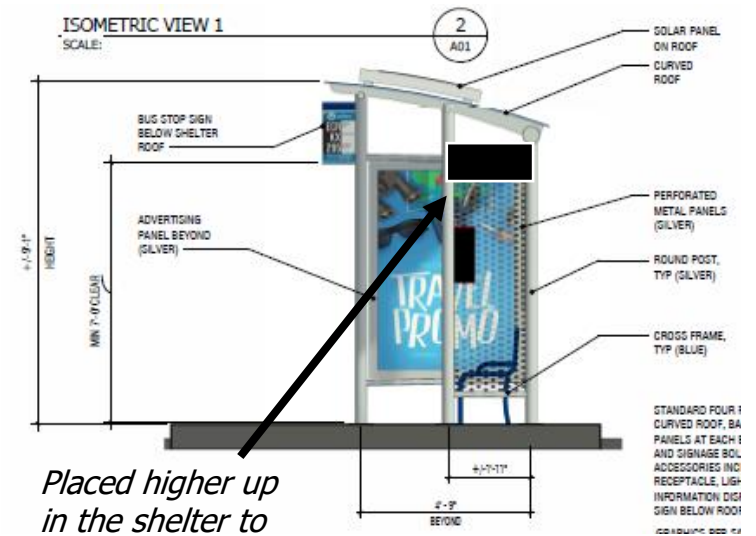
*QR codes would be installed instead of e-paper displays and would be placed in the same location*

# Full Color or Larger E-Paper Displays

## Description

- Full Color Displays:
  - High visibility LCD or LED displays are included as a toolbox option for major stops.
  - These can be fixed onto the posts of four-post shelter designs (standard four-post and narrow four-post, see SFMTA example) or possibly hang from the shelter roof if 7-foot clearance is maintained\*.
  - Full color displays will be used in limited circumstances as these require an external power source.
- Larger e-paper displays:
  - There is the potential to use larger e-paper displays that may be solar powered. SamTrans should evaluate these options when procuring these larger displays.
- Similar to standard e-paper displays, full color or larger e-paper displays should be paired with a push-to-audio button. **This push button must be placed 4 ft from the ground to meet ADA standards.**

\* The shelter manufacturer will need the specifications of the selected screen, such as the size and weight of the display. The screen will also likely need a structural frame/housing to secure it properly from wind and vandalism.



*Placed higher up in the shelter to protect from vandalism*



# Guide a Ride

## Description

- Guide a Rides could be placed at certain bus stops, such as those that are served by multiple bus routes, or stops that are not suitable for real-time arrival displays (for example, poor cellular connectivity).
- These signs include panels with information for each route that serves the stop, and they can be placed onto the shelter structure or onto the bus stop sign's pole.
- Shelters can accommodate a single-sided sign, while bus stop poles can accommodate multisided signs.



# Advertising

# Advertising Panels

## Static and Digital Ads

- The standard four-post shelter includes a two-sided advertising panel that can house (static) paper advertisements.
- SamTrans expects that these paper ads will be the standard type of advertising at bus stops.
- The standard four-post shelter also has the flexibility to accommodate digital ad screens that are the same size as the static ad panel
  - Digital screens need an external power source to power the screen
  - SamTrans will continue to investigate potential feasibility and demand for digital ads

*Two-sided static advertising panel*

*Can be digital panel if desired*



# External Power Considerations

- Digital ad panels and LED real time arrival displays cannot be reliably powered by solar or battery power and need an external power connection.
- This requires running a cable from an external power source under the sidewalk, through the shelter's structure, into the ad panel or real-time display. This is best done during the shelter's initial installation, although shelters can be retrofitted later.
- These power hookups require additional engineering, permitting and O&M considerations, and coordination with PG&E.



*Digital panel in New York City*



*Digital panel in San Diego*

# Implementation Guidance for Cities & Other Partners

# Implementation Overview

## What happens to existing amenities?

- Existing bus stop amenities will remain in place until they reach the end of their useful life. Replacement amenities will reflect the new designs.
- SamTrans is prioritizing adding new amenities, like shelters and benches, to stops that currently lack them in accordance with the new Bus Stop Design Guidelines.
- SamTrans is also in the process of replacing the brown Columbia shelters

## What is our implementation plan?

- 220 high-priority bus stops designated for improvements through BSIP were identified and prioritized based on rider volume, location, and direct community input.
- SamTrans staff is currently working with cities and Caltrans directly on design, logistics, and permitting on these stops in a phased approach, starting with the highest priority near-term stops.
- SamTrans is working to determine a replacement schedule for shelters and amenities and look forward to collaborating and partnerships with local cities to fully implement BSIP's recommendations

# Near-Term Implementation

## Over the Next Five Years

- BSIP prioritized improvements at 225 bus stops across San Mateo County.
- SamTrans intends to lead the implementation of these stop improvements, including coordination, funding, design, permitting, and construction.
- The agency has set a goal of delivering these improvements within the next five years, depending on funding availability and constructability review.
- SamTrans is seeking partnerships and is pursuing external funding opportunities to help deliver these near-term improvements.

Stops Identified for Near-Term Investments by Jurisdiction

| Jurisdiction                    | High Priority Stops | Coverage Stops | Stops in Caltrans ROW |
|---------------------------------|---------------------|----------------|-----------------------|
| Atherton                        | -                   | 2              | 0                     |
| Belmont                         | 8                   | -              | 2                     |
| Brisbane                        | 1                   | -              | 0                     |
| Burlingame                      | 4                   | -              | 1                     |
| Colma                           | 2                   | -              | 1                     |
| Daly City                       | 38                  | -              | 7                     |
| East Palo Alto                  | 8                   | -              | 1                     |
| Foster City                     | -                   | 5              | 0                     |
| Half Moon Bay                   | 1                   | 4              | 0                     |
| Menlo Park                      | 2                   | -              | 1                     |
| Millbrae                        | 8                   | -              | 8                     |
| Pacifica                        | -                   | 25             | 1                     |
| Palo Alto                       | 1                   | -              | 0                     |
| Redwood City                    | 14                  | -              | 8                     |
| San Bruno                       | 14                  | -              | 7                     |
| San Carlos                      | 5                   | -              | 4                     |
| San Francisco                   | 8                   | -              | 0                     |
| San Mateo                       | 40                  | -              | 16                    |
| South San Francisco             | 27                  | -              | 8                     |
| Unincorporated San Mateo County | 8                   | -              | 2                     |
| <b>Total</b>                    | <b>189</b>          | <b>36</b>      | <b>67</b>             |

# Long-Term Implementation

## Future Plan

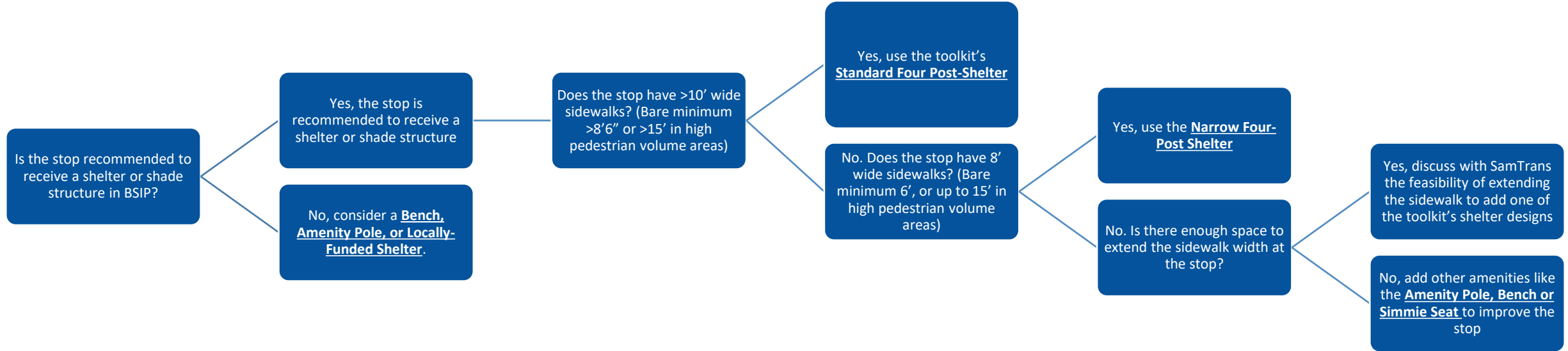
- SamTrans will develop a longer-term investment plan to implement future stop improvements
- These stops will receive new amenities once BSIP's near-term investments have been completed.
- SamTrans cannot commit to a timeframe for these longer-term improvements, due to funding constraints.
- SamTrans will continue to pursue external funding opportunities and partnership to improve these stops as soon as possible
- Local cities and development projects can also implement their own improvements, using these new amenity designs for their projects

## Potential Funding Sources

| Funding Type | Funding Source  | Frequency and Cycle              |
|--------------|---|----------------------------------|
| Local        | Partnership with local jurisdictions to combine stop improvements with streetscape and development projects.  | Ongoing                          |
| Local        | SMCTA Measure W Call for Projects, including: <ul style="list-style-type: none"> <li>• Highway Call for Projects Grants</li> <li>• Pedestrian and Bicycle Call for Projects Grants</li> <li>• Alternative Congestion Relief and Transportation Demand Management Call for Projects Grants</li> <li>• Regional Transit Connections Call for Projects Grants</li> </ul> | Annual                           |
| Local        | C/CAG Transportation Development Act (TDA) Call for Projects Lifeline Transportation Program<br>Transportation Development Act 3 (TDA 3)  | Bi-Annual, February and November |
| Local        | City funding programs, including: <ul style="list-style-type: none"> <li>• Transportation Impact Fees</li> <li>• Development Conditions of Approval</li> <li>• General Funds</li> </ul>   | Ongoing                          |
| Regional     | MTC Grant Programs and Funding Measures   | Varies                           |
| State        | Transit & Intercity Rail Capital Program (TIRCP)  | Semi-Annual, Varies              |
| State        | Clean California Local Grant Program  | Annual, May                      |
| State        | Clean California Direct Transit Program   | Annual, August                   |
| Federal      | Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant Program   | Annual, February                 |
| Federal      | FTA Discretionary Grant Program   | Varies                           |
| Federal      | Community Block Grants  | Annual, through MTC              |

Source: SamTrans 2024.

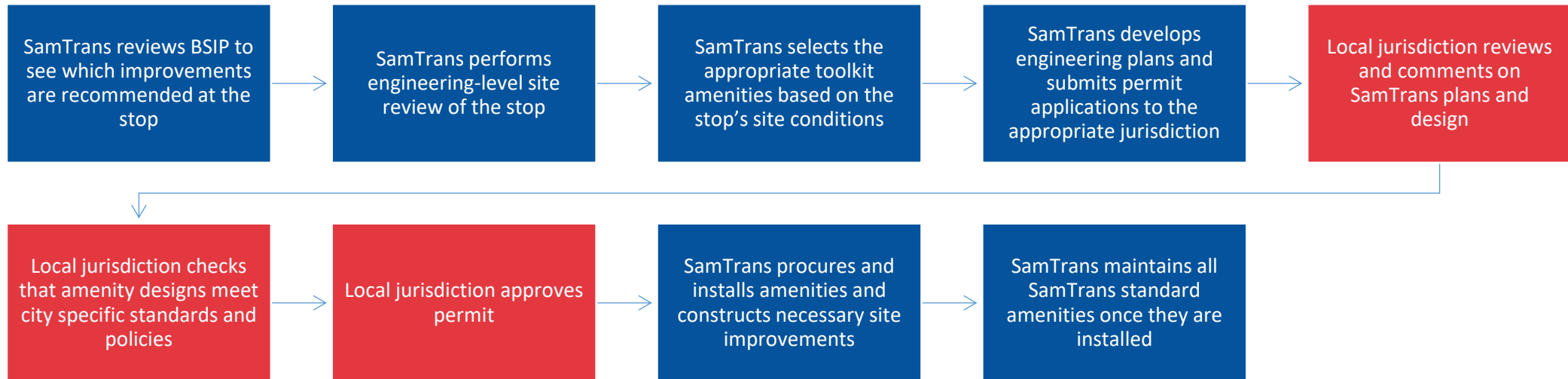
# Shelter Selection Guide



This decision tree lists key considerations to make when selecting a shelter design for a stop location

# SamTrans-Led Amenity Improvements

This process flow chart lists the necessary steps to implement a SamTrans-led project



# City- / Developer-Led Amenity Improvements

This process flow chart lists the necessary steps to implement a City- or Developer-led project

