NEAR SOUTHSIDE

AIA Fort Worth

Leadership Fort Worth

small STOPS

Bus Shelter Design Competition

WINNER
FUNCTIONAL CATEGORY
PROFESSIONAL

THE “R” STOP
by
HUITT-ZOLLARS, INC.

Category: Professional
Location: Functional Stop

This design is intended to combine the simple elegance of traditional steel members with a minimalistic style provided by its few structural components. It has four individual seats and an adequate location for bus information placed between the columns, including a sensor activated notification device at the top of the deck. The steel deck, with a slight accent curve supplements the dual tone members that give the bus stop noticeability, yet blends organically with its surrounding built environment. More importantly, the design addresses all the provided bus passenger requests for shade, seating, bus information, lighting, etc., keeping in mind the need for cost efficiency and durability. So sit, relax, ride and repeat.

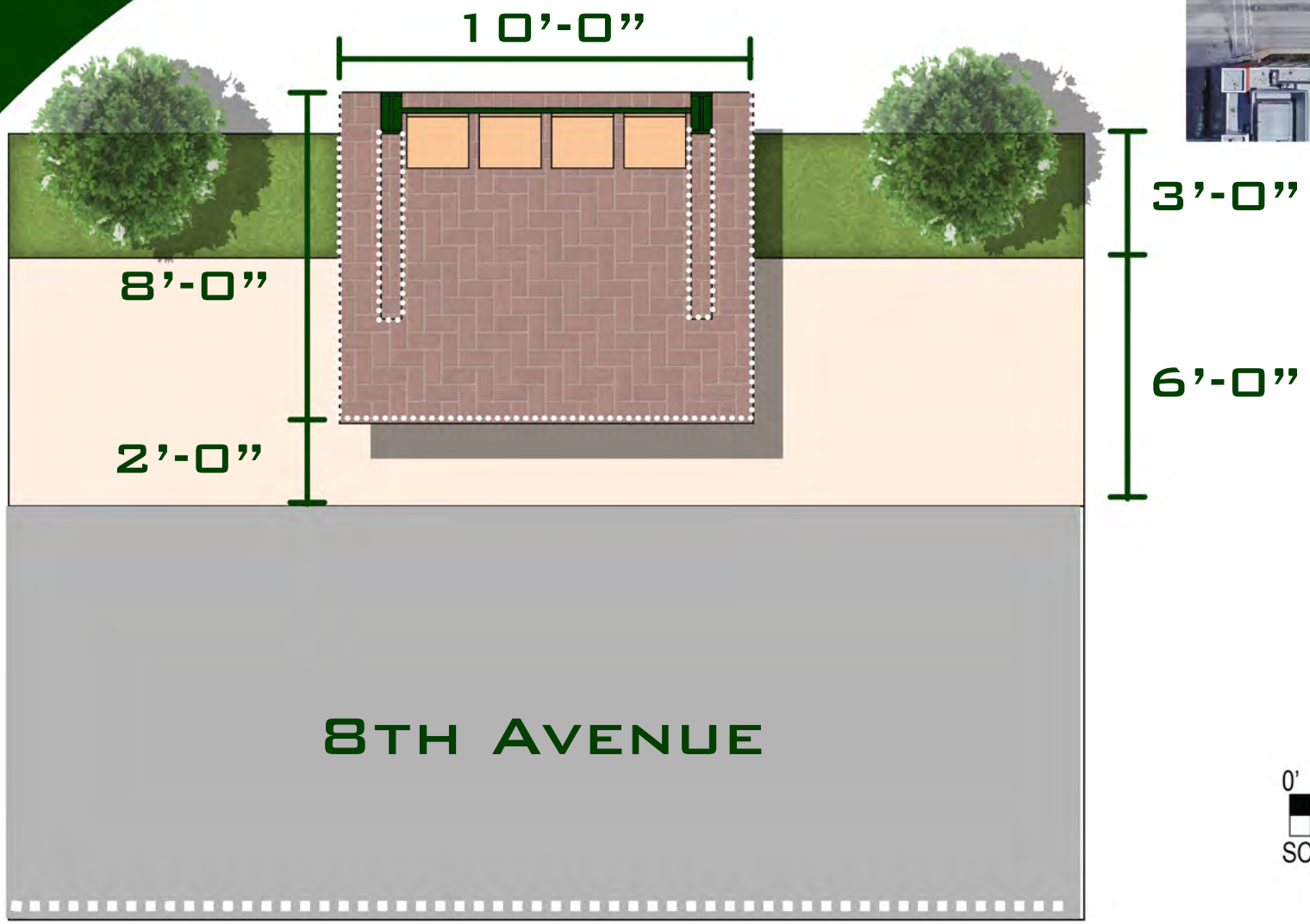
HUITT-ZOLLARS

Firm Name:	Huitt-Zollars, Inc.
Firm Location:	500 W. 7th Street
	Suite 300
	Fort Worth, Texas 76102
Licensed Architect/AIA:	Dustin Chappell
Team Member(s):	Amber Estrada
	Jim Fullmer
	Adolfo Gonzalez
	William Hoelscher
	Shalece Thompson

THE "R" STOP

● RELAX ● RIDE ● REPEAT

Floor Plan



N

0' 2' 4' 8'

SCALE 1/4" = 1'- 0"

THE "R" STOP

● RELAX ● RIDE ● REPEAT

Section

THE "R" STOP

● RELAX ● RIDE ● REPEAT

Elevation

10'-0"

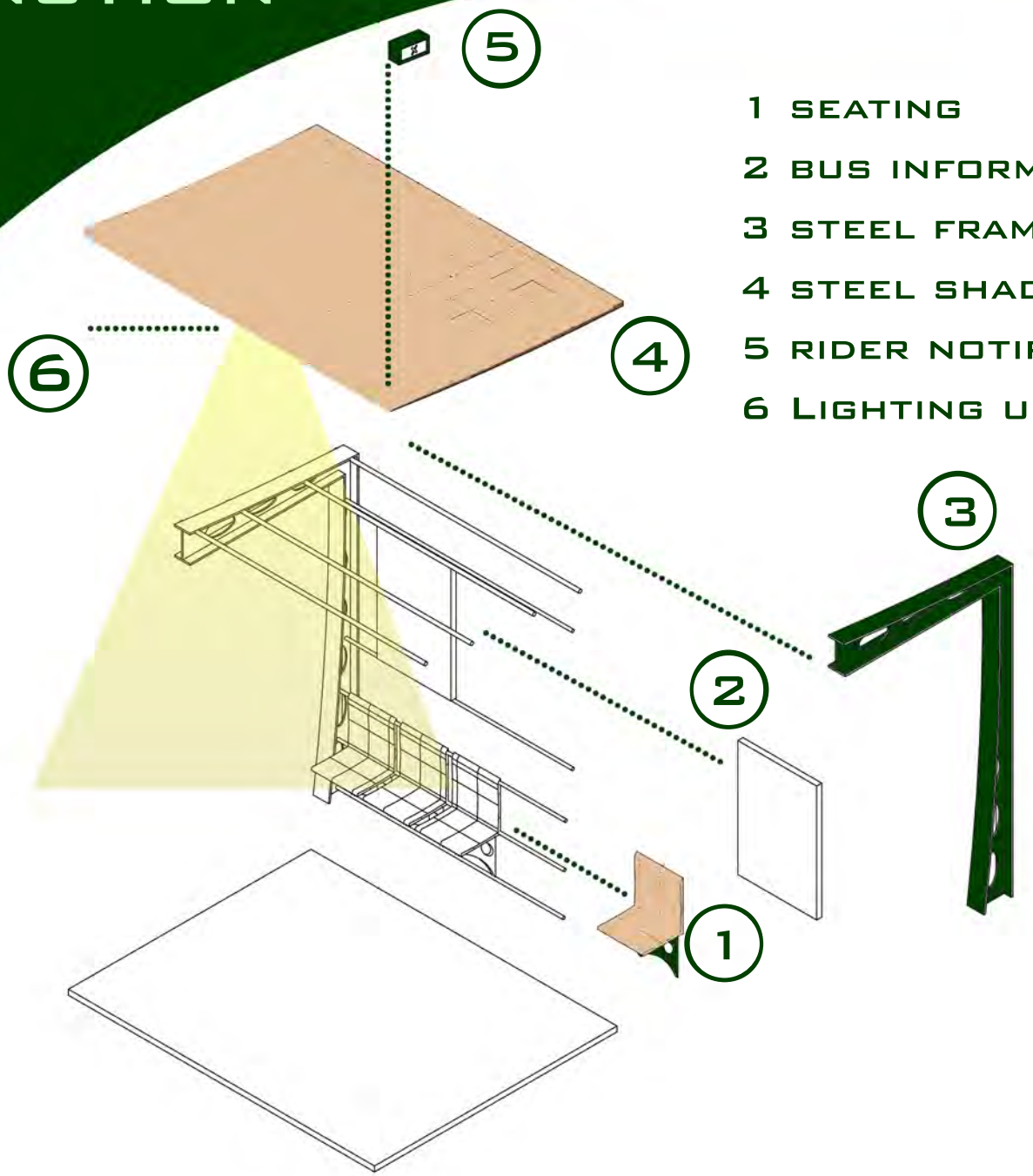
0' 1' 2' 4'

SCALE 1/2" = 1'- 0"

THE "R" STOP

FUNCTION

● RELAX ● RIDE ● REPEAT



1 SEATING

2 BUS INFORMATION

3 STEEL FRAME CONSTRUCTION

4 STEEL SHADING DECK

5 RIDER NOTIFICATION-SENSOR ACTIVATED

6 LIGHTING UNDER SHADING DECK

WINNER
ARTISTIC CATEGORY
PROFESSIONAL

CUMULUS
by
FIRM817

Cumulus Bus Stop

Pennsylvania Avenue – Fort Worth, Texas

The artist states, “I'd like to emphasis the idea of domesticity, as it conveys security, and community, shared familiarity, especially at bus stops, where human interaction breeds the above qualities in a shared space. Once people interact, the walls of fear, suspicion, loneliness, anxiety, and alienation go away. That puts the "public" into transportation, which in turn supports all of us.”

The architect/artist team used the work of the artist as a starting point. The luminous structures created by the artist are striking during the day but more-so at night. During the day the forms are a memorable marker. At night the luminous quality of the forms create space with light.

The other inspiration is the photography of the artist team-member. The domestic photography has been focused on images of chairs.

Cumulus Bus Stop

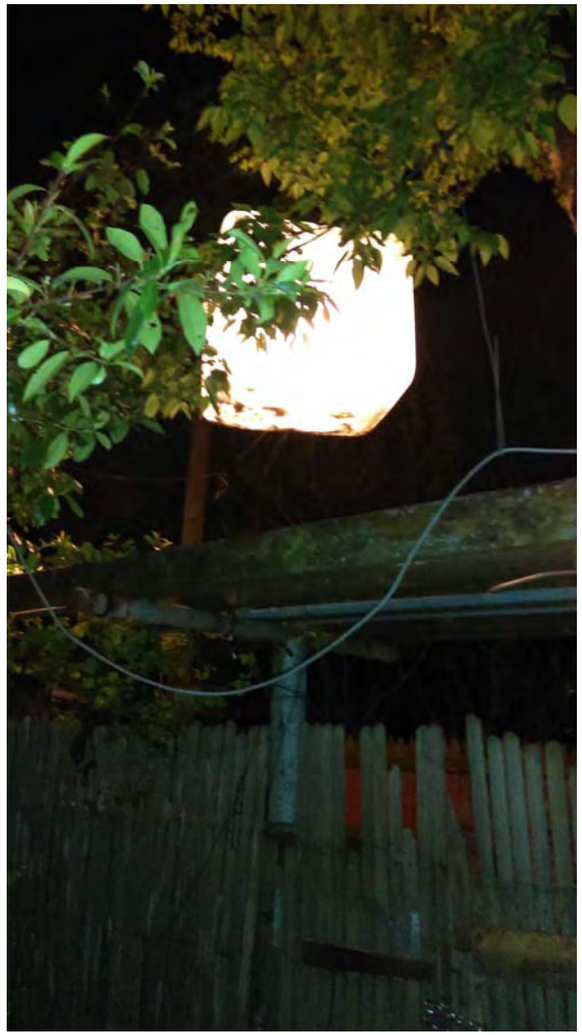
Pennsylvania Avenue – Fort Worth, Texas

Professional Category

FIRM817
2945 Lubbock Avenue
Fort Worth, Texas 76109
TX – 16063

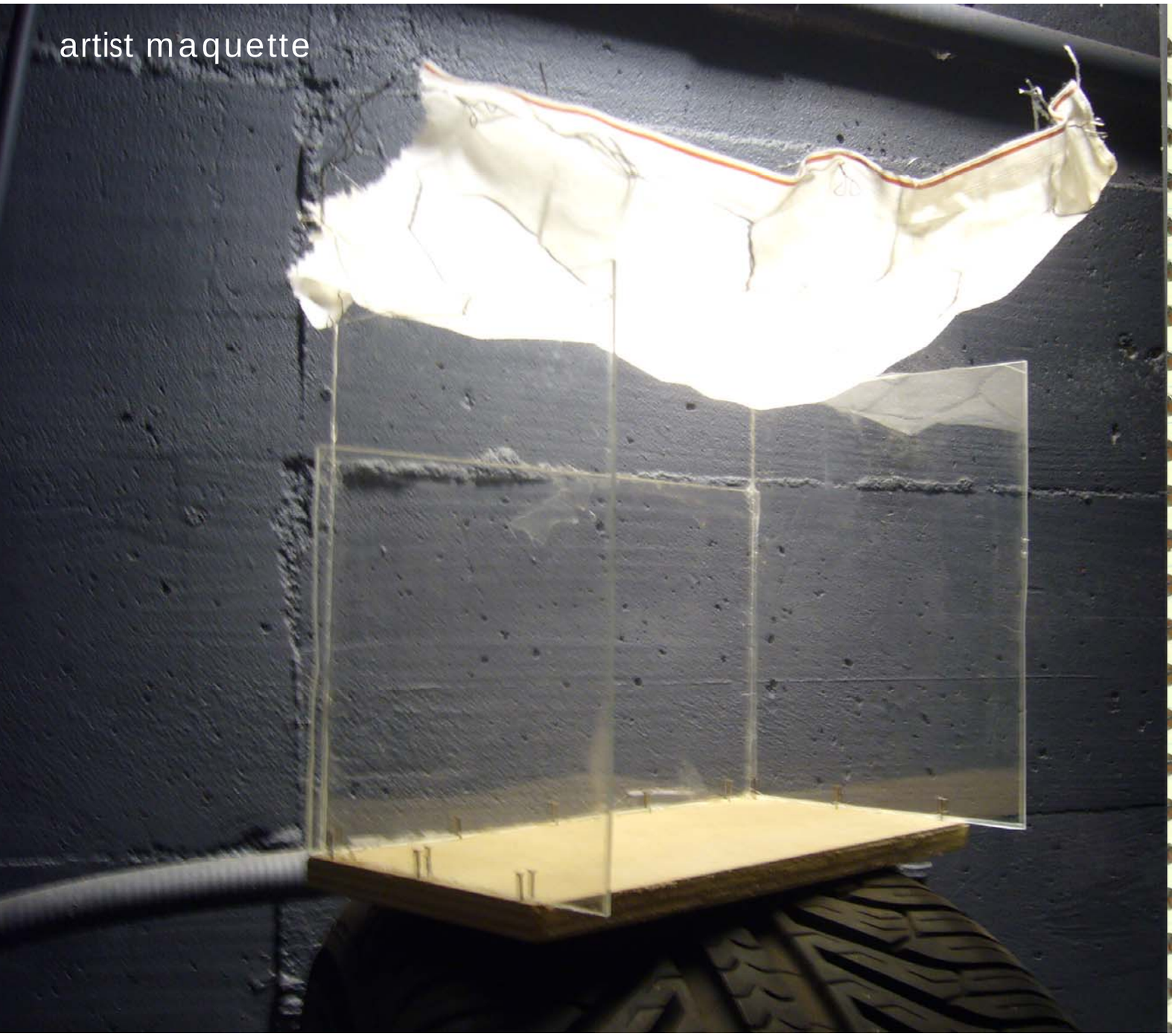
Architect – Joe Self
Artist – Matt Sacks

cumulus

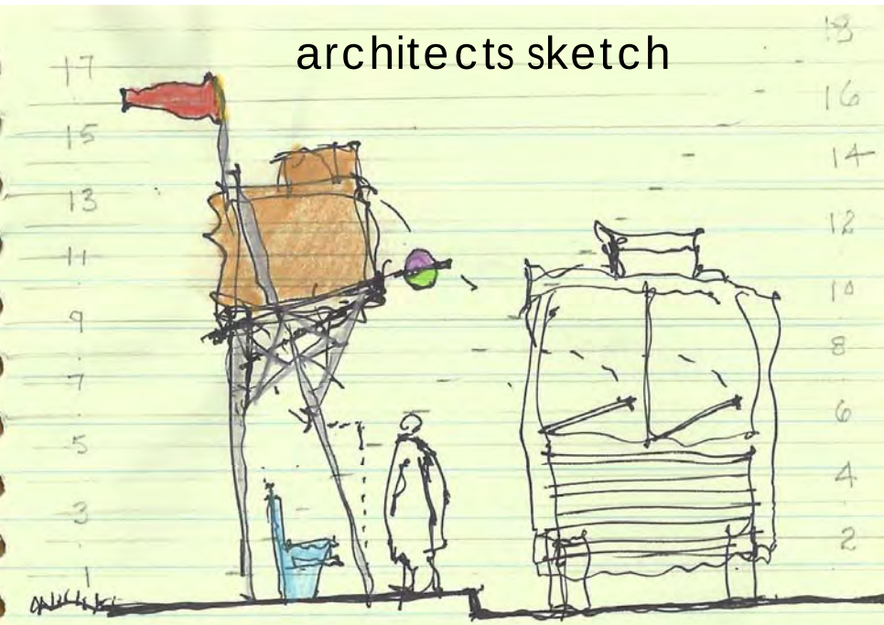


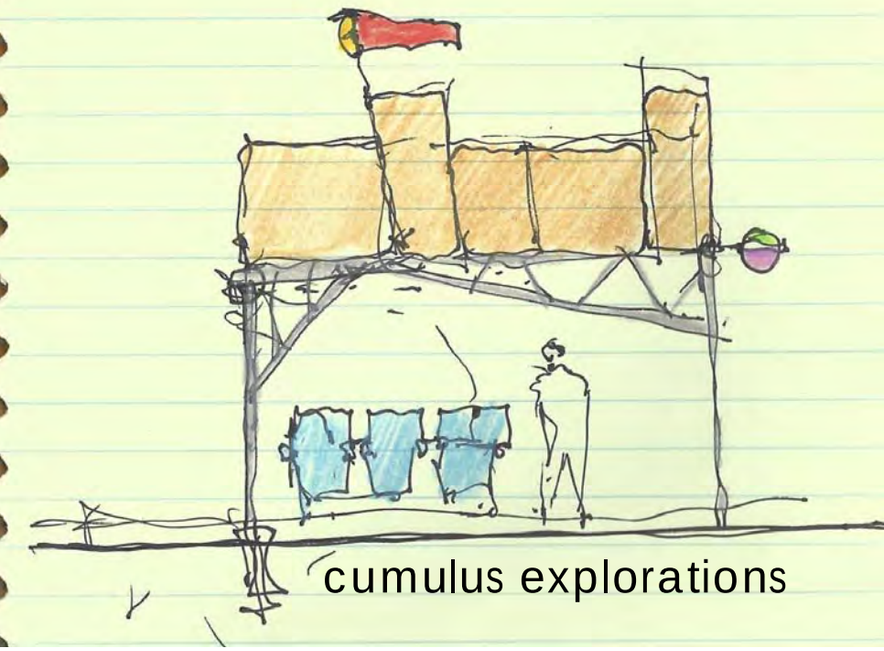
The architect/ artist team used the work of the artist as a starting point. The luminous structures created by the artist are striking during the day but more-so at night. During the day the forms are a memorable marker. At night the luminous quality of the forms create space with light.

artist maquette



architects sketch





cumulus explorations

The other inspiration is the photography of the artist team-member. The domestic photography has been focused on images of repose. These images were used in the design as translucent panels.

Brightly painted steel makes for a durable and easily noticeable marker in the urban landscape.

cumulus front

The concept is interpreted by placing a series of off-the-shelf translucent liquid tanks on supporting columns.

cumulus left side

The tanks are fitted with long-lasting LED lighting within.

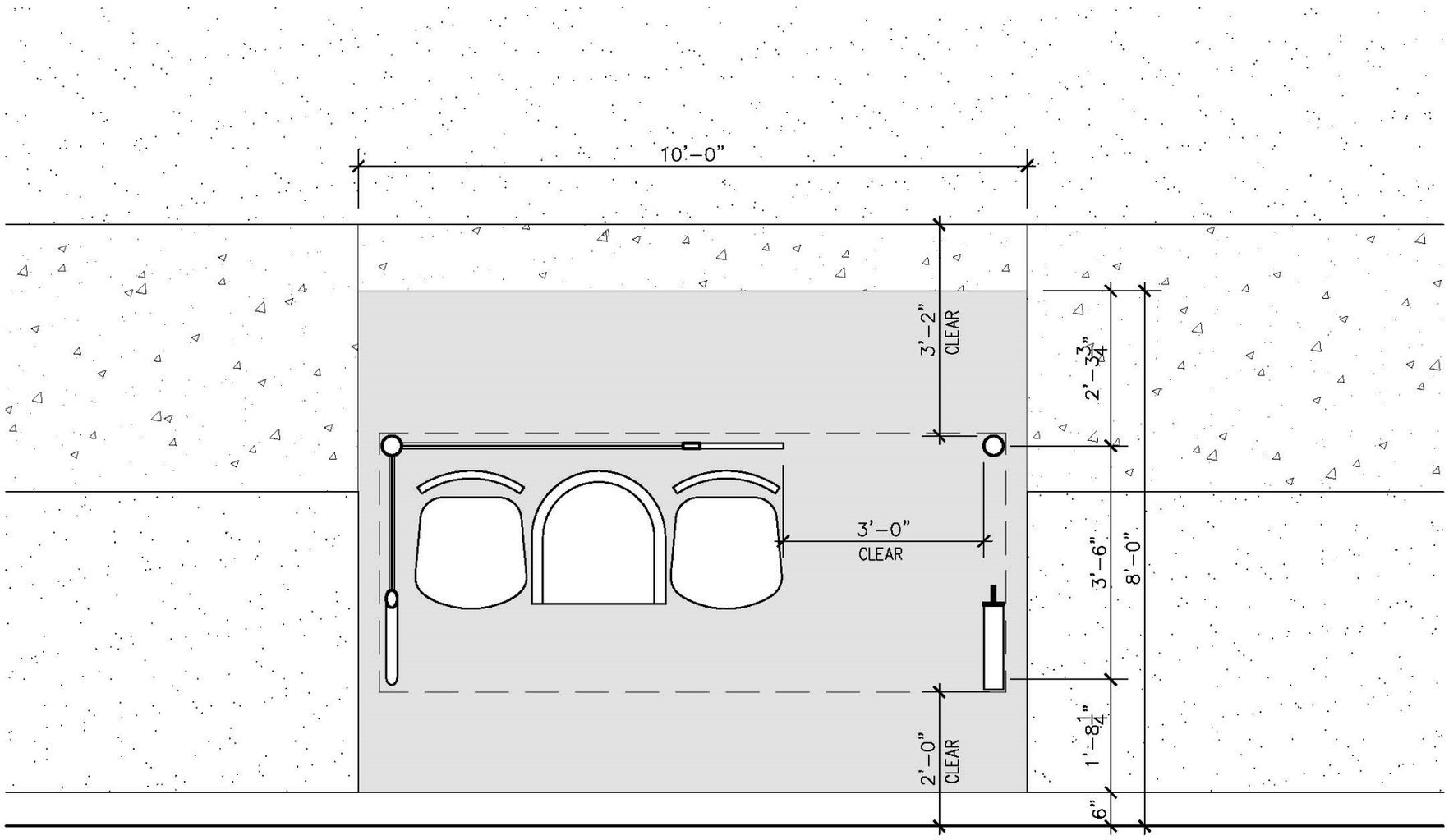
cumulus right side

Ballpark seating is used for durability and flexibility.

cumulus rear

Between the tanks and the support columns is a translucent panel providing shelter from rain but also allowing the light placed within the tanks to glow in all directions.

cumulus view

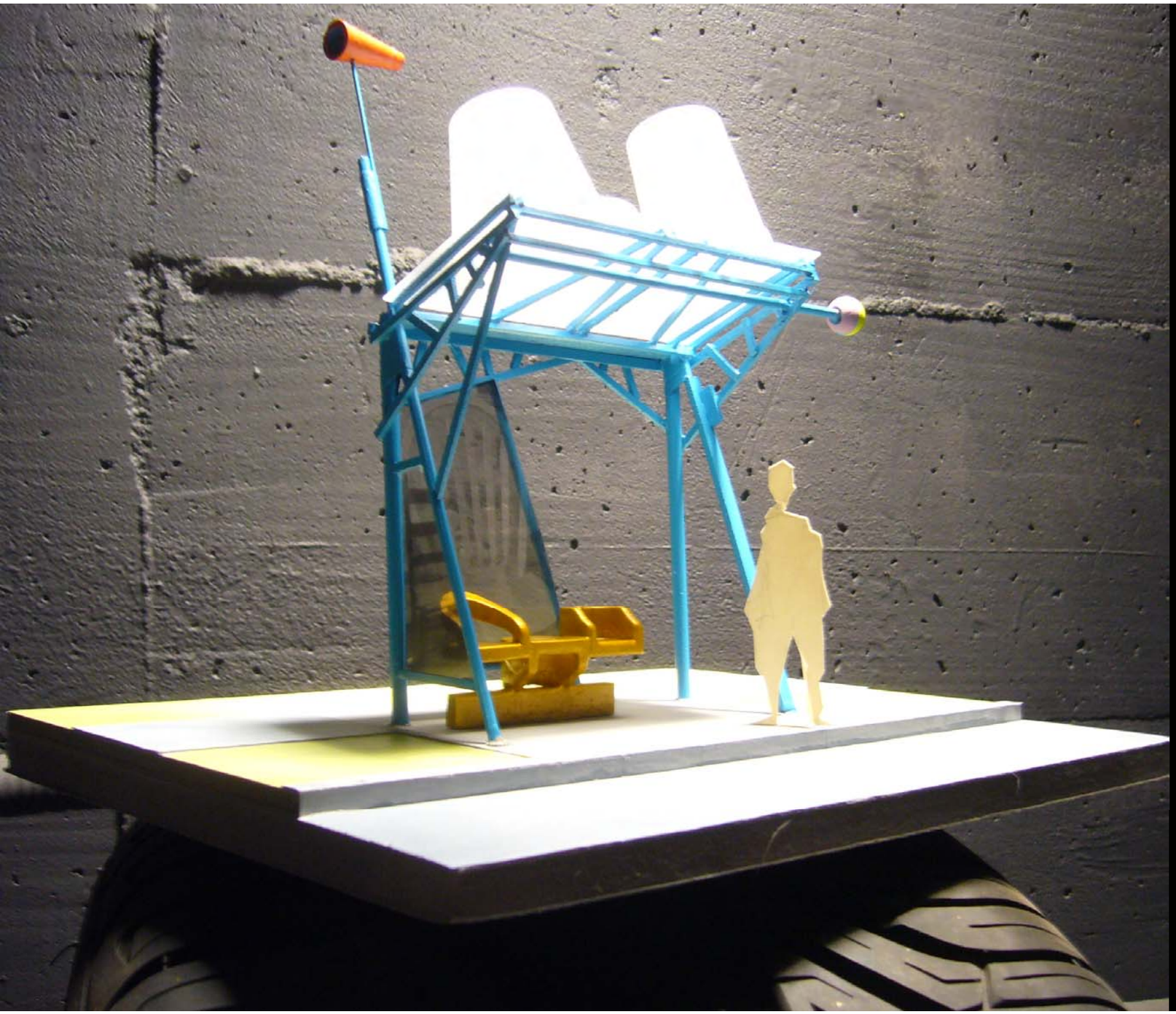


NORTH

PENNSYLVANIA
AVENUE

CUMULUS

plan



The artist states, “I'd like to emphasis the ideas of domesticity, as it conveys security, and community, shared familiarity, especially at bus stops, where human interaction breeds the above qualities in a shared space. Once people interact, the walls of fear, suspicion, loneliness, anxiety, and alienation go away. That puts the "public" into transportation, which in turn supports all of us.”

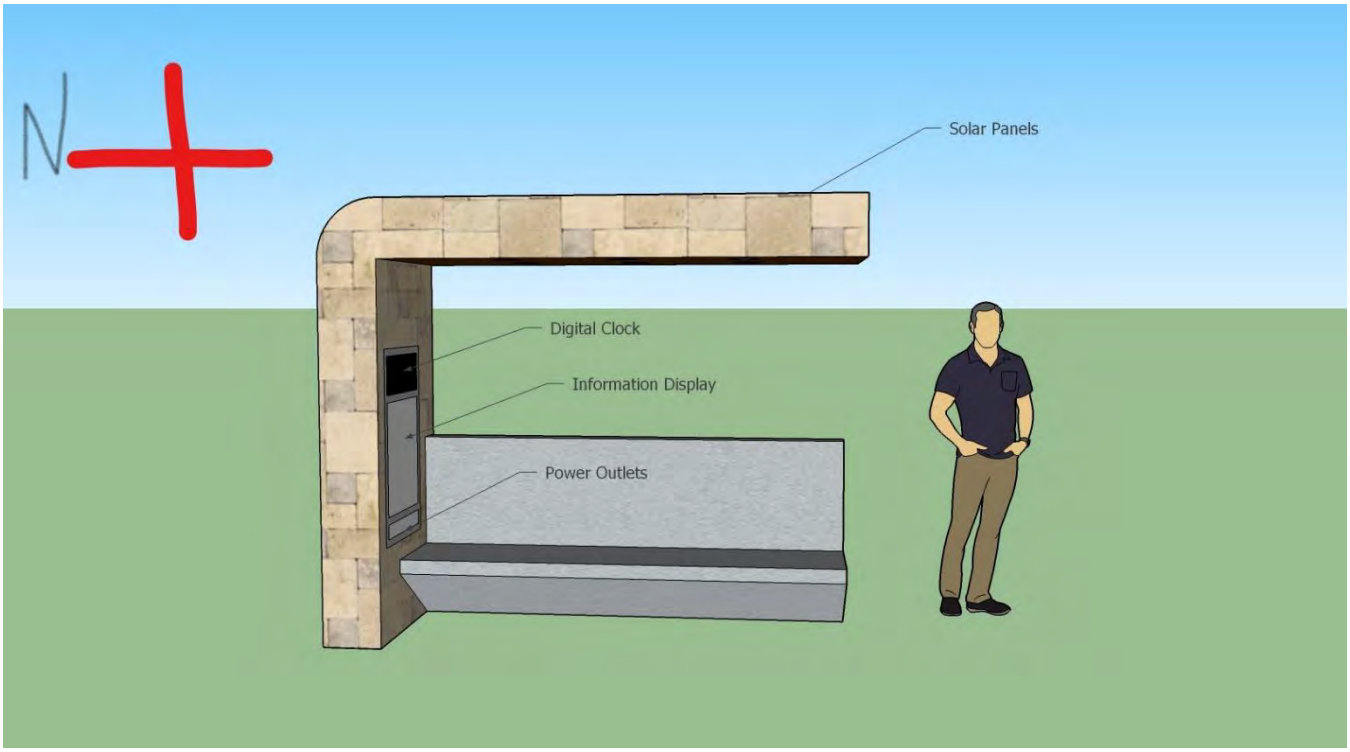
cumulus at night

WINNER
FUNCTIONAL CATEGORY
STUDENT

XAVIER KHAN
PASCHAL HIGH SCHOOL

CATEGORY: STUDENT

LOCATION: FUNTIONAL



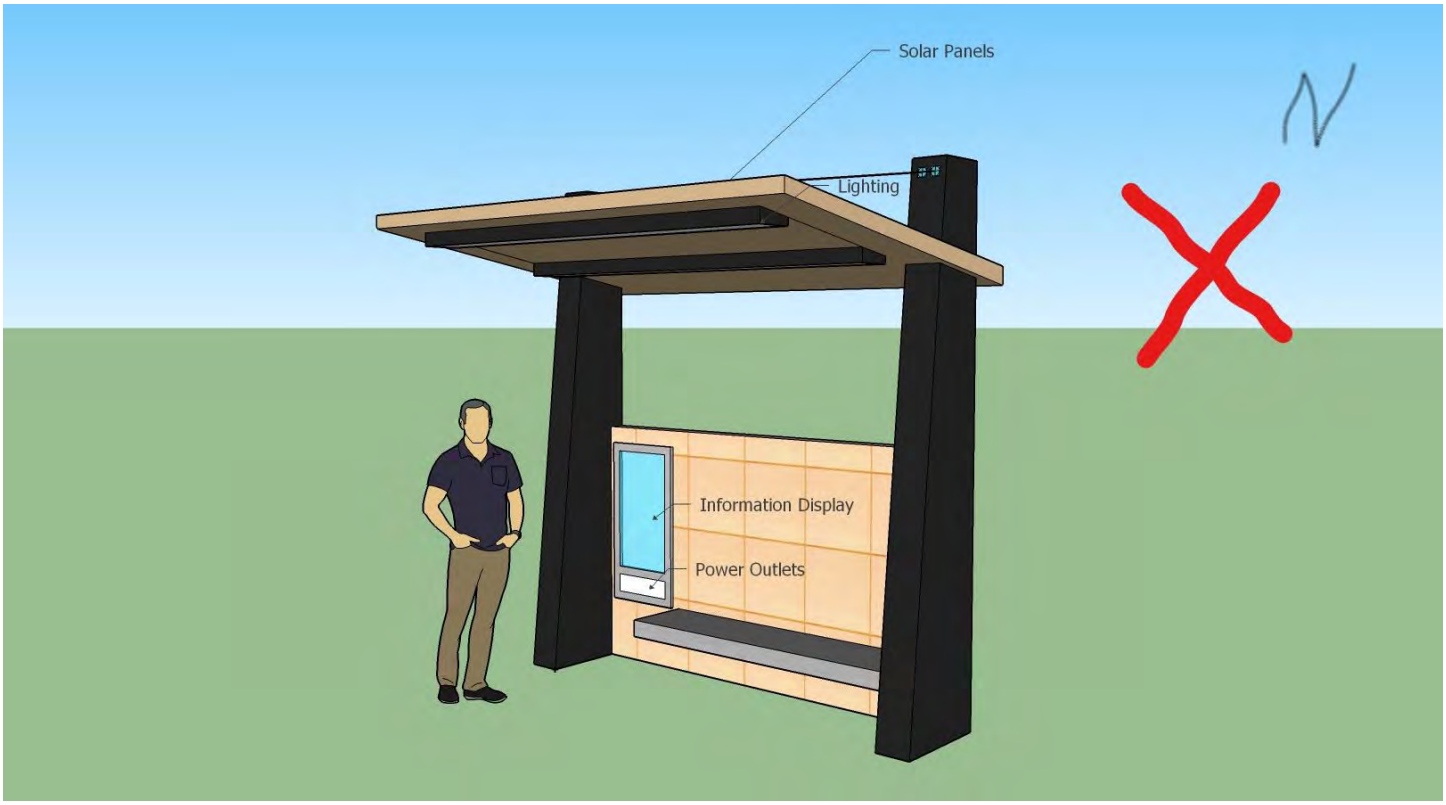
This stop includes amenities such as solar panels, digital display (clock), information display (for timetables and route maps), as well as power outlets for rider convenience (especially for riders using GoPass).

WINNER
ARTISTIC CATEGORY
STUDENT

XAVIER KHAN
PASCHAL HIGH SCHOOL

CATEGORY: STUDENT

LOCATION: ARTISTIC



This stop includes amenities such as power outlets for rider convenience (especially for GoPass users), an information display for route maps and timetables, and solar panels to power the outlets and lighting.

Professional | Location 1| Functional

A Bus Porch

A bus stop is more than just a place to sit and wait for the bus. A bus stop should enhance a rider's experience by creating a sense of place. The 8th Avenue bus stop is adjacent to the Fairmount Historic District. By connecting back to the historic neighborhood, the bus stop has an identity that places itself within the neighborhood fabric. The bus stop design creates a 'porch-like' experience like the homes within the neighborhood. The rider is elevated and sheltered from inclement weather. Light is filtered within the space through the trellis and perennial vines. The cedar planks create a warm and welcoming experience for the riders as they wait for the bus. An interactive display provides information and education to the riders about the Fairmount Historic District. The 8th Ave bus stop enhances the riders experience by placing itself within the community fabric.

CREDIT SHEET

PROFESSIONAL CATEGORY

Entry Name: A Bus Porch

Firm: HKS

Firm Location: Fort Worth, Texas

Team:

Ruel Mendoza

A BUS PORCH

10’-0 x 5’6

connecting to place

SITE

HISTORIC
NEIGHBORHOOD

A BUS STOP

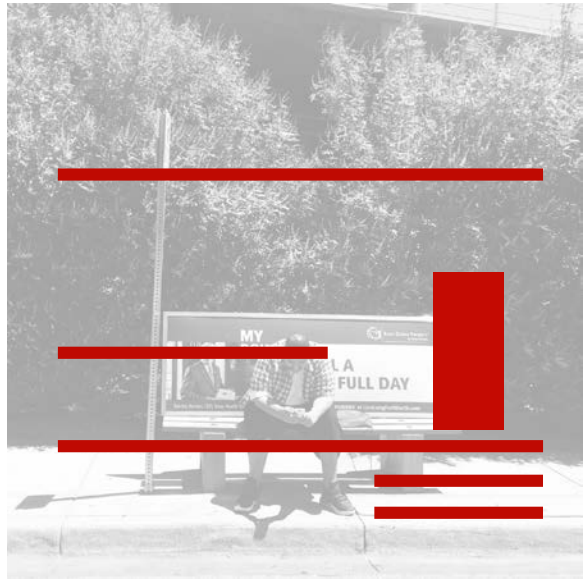
+

A PORCH

integrate

CURRENT EXPERIENCE

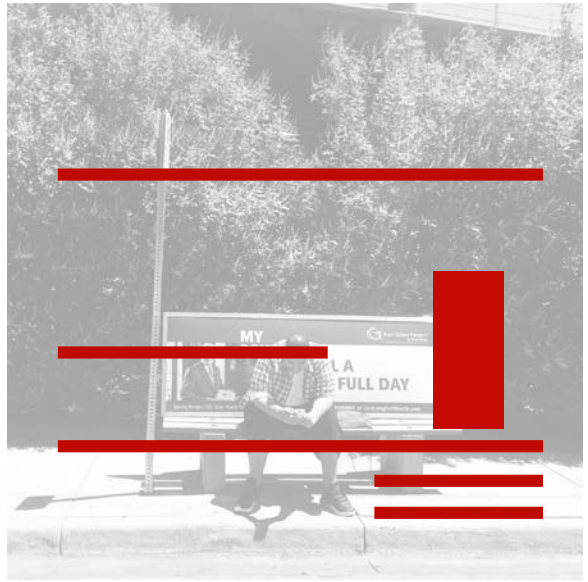
DESIGN ELEMENTS

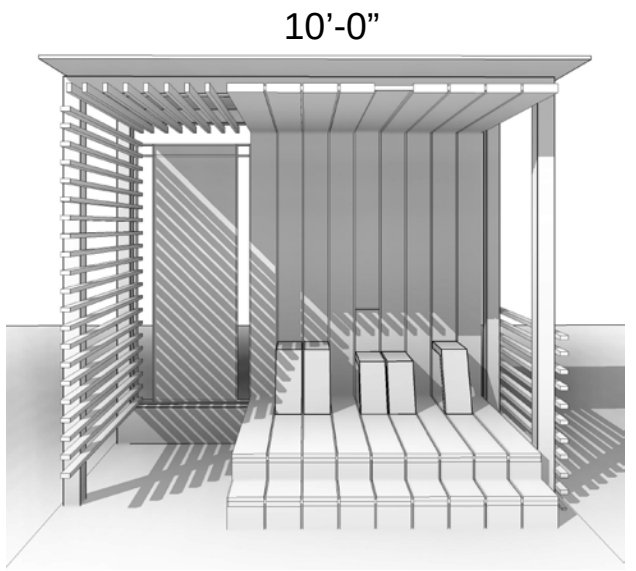


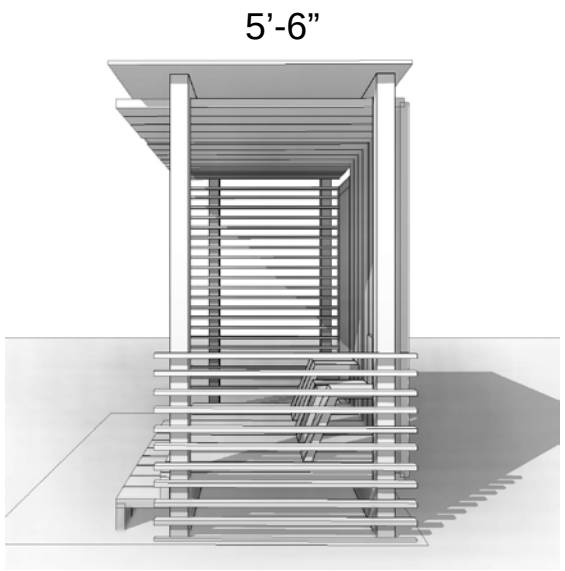
integrate

ENHANCING THE EXPERIENCE

DESIGN ELEMENTS

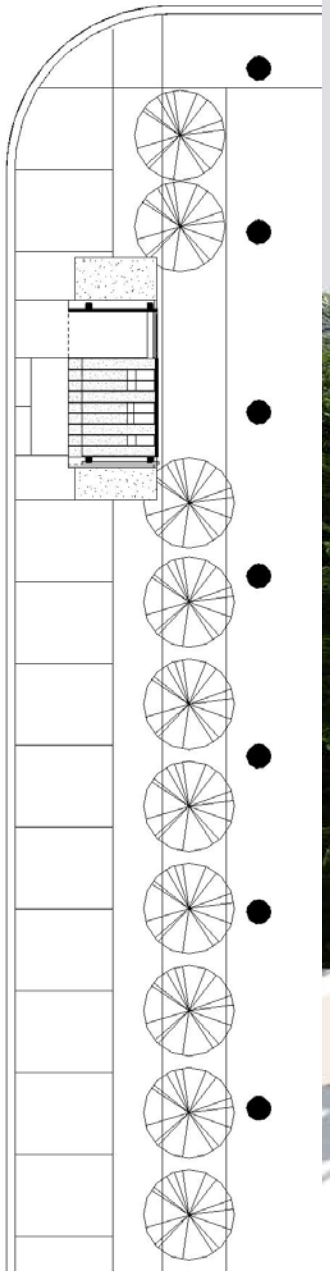






ENHANCING THE EXPERIENCE

A BUS PORCH



MATERIAL LEGEND

1 CEDAR PLANKS AND DECK

2 GALVANIZED STEEL FRAME

3 GALVANIZED STEEL SECTIONS

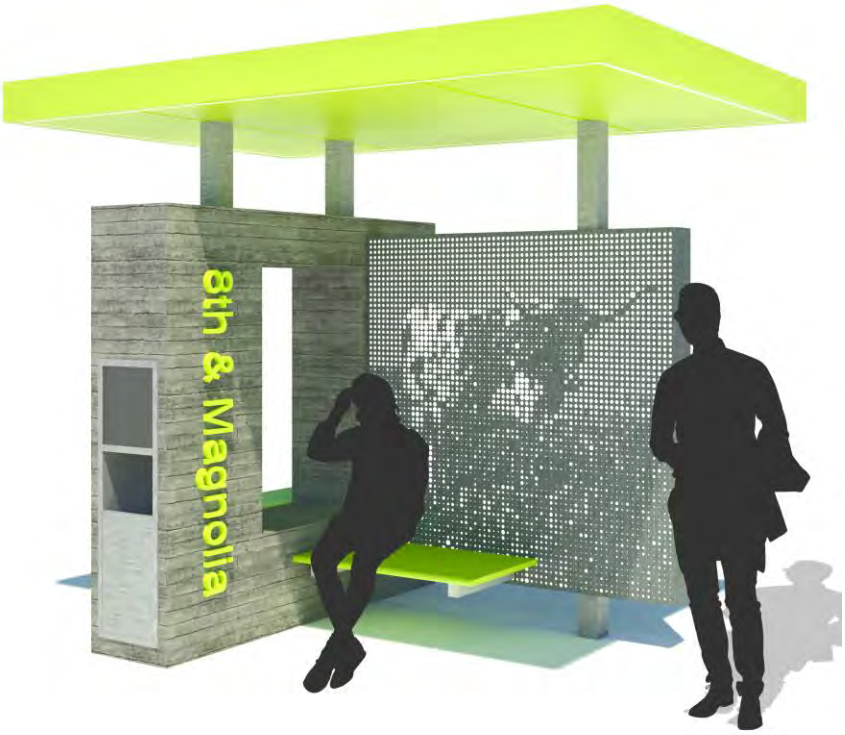
4 COMMUNITY CONNECTION

5 HEAT TEMPERED GLASS WITH TRANSPARENT PV

6 PERRENIAL VINE

connecting to place

CONNECT



Category: Functional

Site: 8TH and Magnolia

CONNECT employs the design principle of the Golden Section. Elements are pushed and pulled within this framework to address the needs of a modern bus shelter.

All functions are incorporated into a cohesive design for a clean, modern shelter that is comfortable, convenient, and safe. Three main components of a lit roof, utilitarian mass, and transparent panel form the bus stop.

Three steel columns support the roof, clad with prefinished metal sheets concealing the structure and solar panels which are used to power LED lights, digital route map, charging station, waiting rider notification, and back-lit perforated panel. The longhorn motif connects to Fort Worth's western heritage, and provides transparent enclosure. An internal roof drain inside a column releases onto the sidewalk behind. The mass, clad in graffiti resistant tile, houses the electrical components and a built-in trash bin. Two separate seating options with space reserved for a wheelchair are provided.

CONNECT

Hahnfeld Hoffer Stanford

200 Bailey Avenue, Suite 200

Fort Worth, Texas 76107

817-921-5928

Team Members:

Robert A. (Tony) Hartin- Licensed Architect, TX# 15359; AIA 30209114

Maria Heaslip- Associate IIDA

Alma Luna- Project Coordinator

Josh Mauldin- Licensed Architect, TX# 23957; AIA 38048597

Joseph Mueller-Project Coordinator

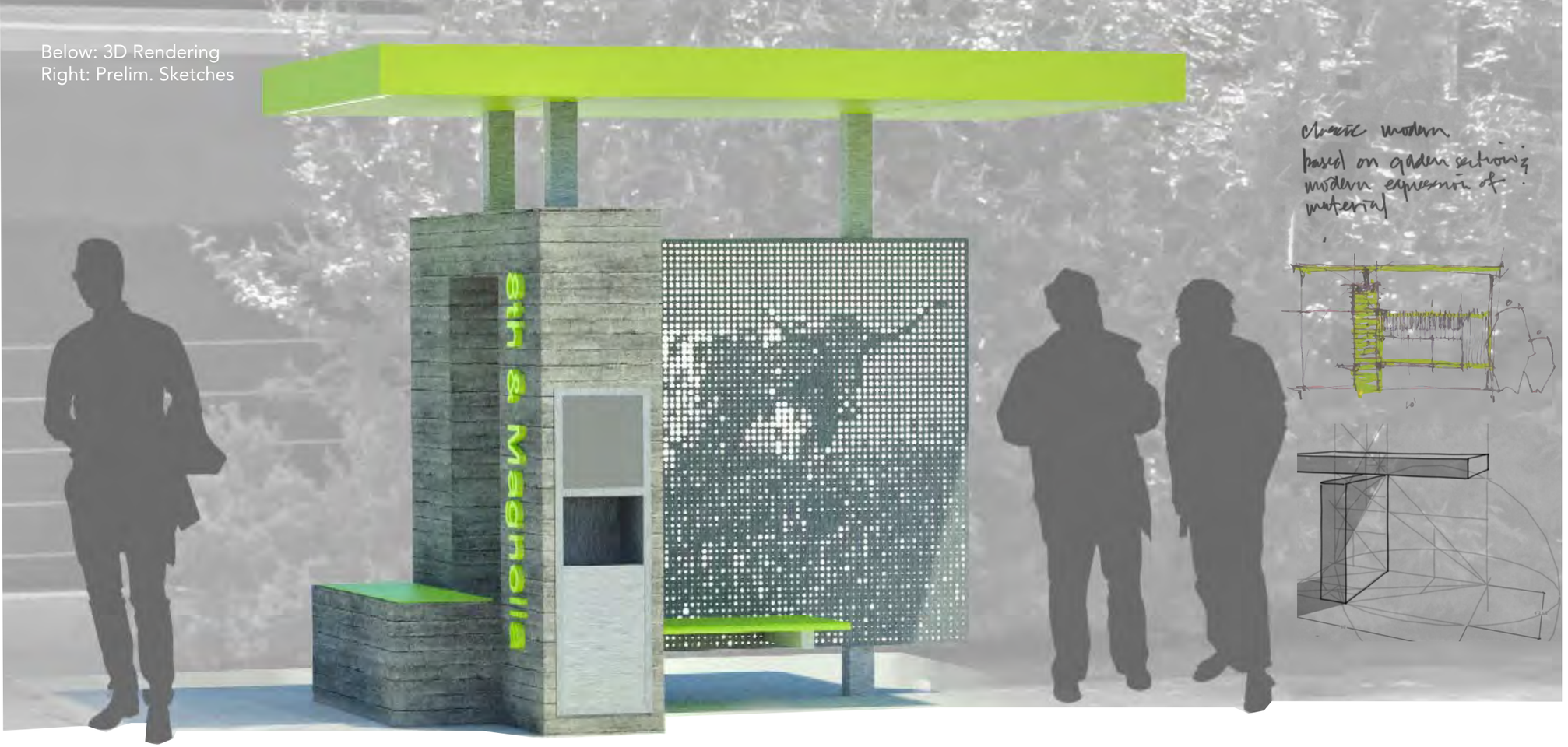
Sarah Mitchell- Licensed Architect, TX# 23413; AIA 30385114;

Anita Rodgers-Project Coordinator

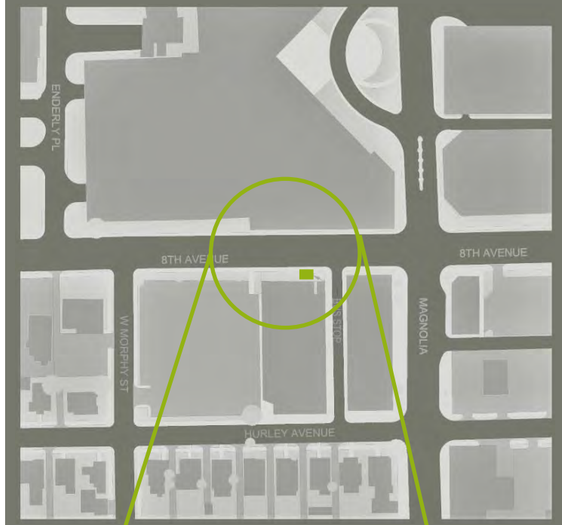
Adam Stanford- Project Coordinator

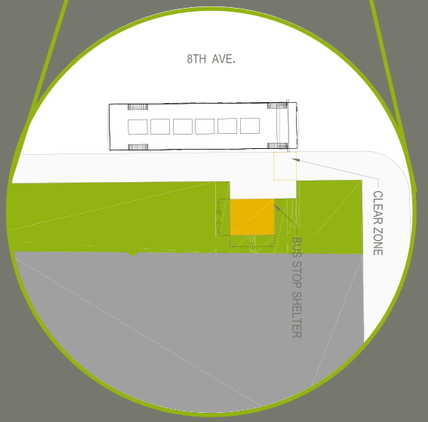
CONNECT
functional design

Below: 3D Rendering
Right: Prelim. Sketches



SITE PLAN



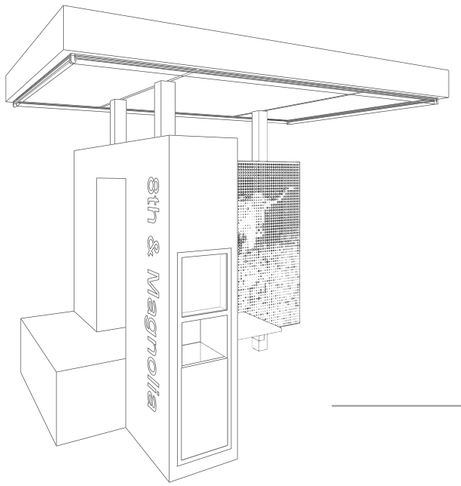


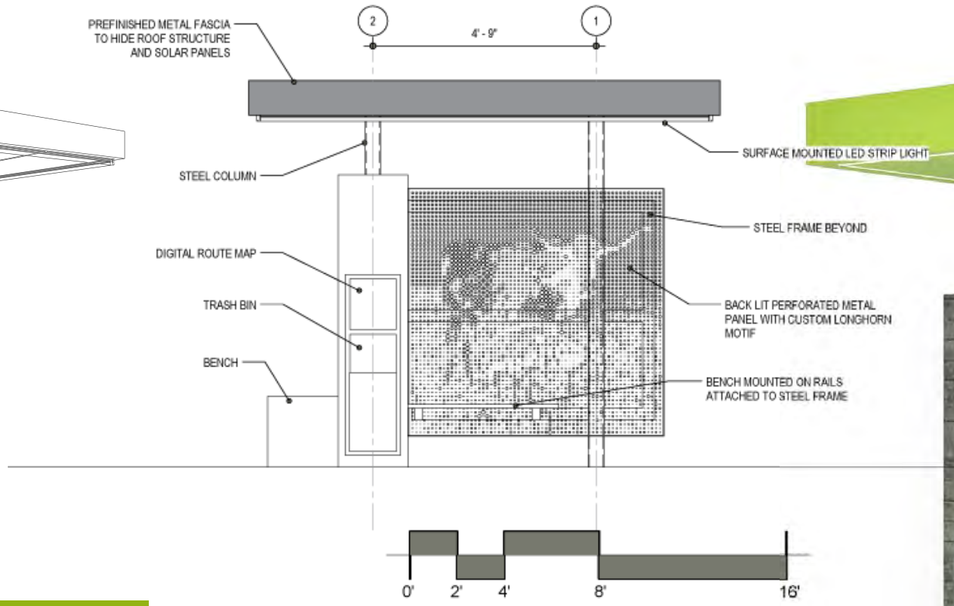
ENLARGED VIEW

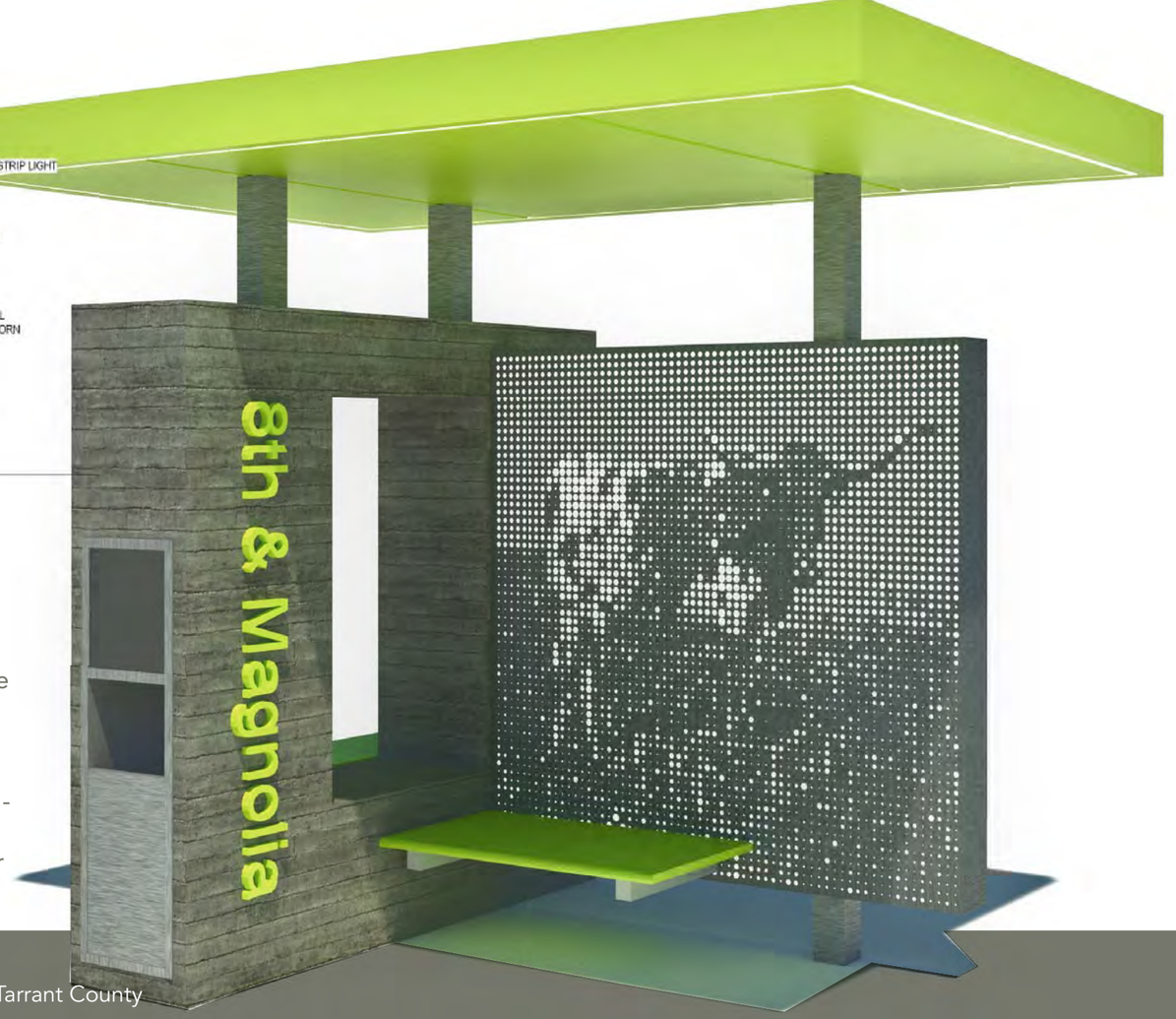
EXISTING CONDITIONS

CONCEPT

CONNECT employs the ancient design principle of the Golden Section, which has provided pleasing proportions for ages. Using this as a starting point for the massing, the elements are pushed and pulled within this framework to address all of the needs of a modern bus shelter.







INNOVATIVE DESIGN

Three steel columns support the roof, clad with prefinished metal sheets that conceal the structure and solar panels, used to power LED strip lights, a digital route map, charging station, waiting rider notification, and a back-lit perforated panel. This prototype shows a longhorn motif that connects to Fort Worth's western heritage, and provides transparent enclosure. The design could easily be changed based on different areas of the city. The roof slopes to one internal roof drain inside a column that releases onto the sidewalk behind. The mass, built with simple metal studs and clad in graffiti resistant tile, houses the electrical components and includes a built-in trash bin. Two separate seating options with space reserved for a wheelchair complete the design.

STATISTICS / QUOTES

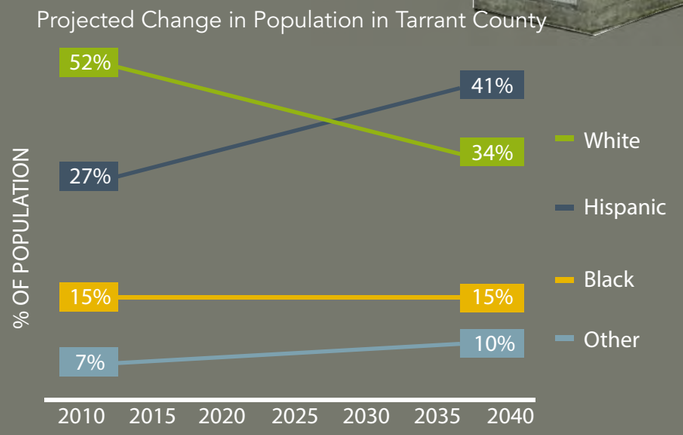
BABY BOOMERS

In Tarrant County, the population of residents age 65 and older is projected to increase by 174% by 2040, far more than any other age group in the county.

MILLENIALS

31% of new residents between 2010 and 2040—is projected to come from Millennials. Looking forward, better transit options will be crucial to attracting and retaining Millennials in Fort Worth and Tarrant County.

55.4% increase
in bus ridership since 2006



*"**The T needs a rebrand.** The thought of The T is you have fallen upon bad times or no other form of transportation; in other cities it is a viable form of transportation, like NYC, Boston, and Austin. Cities like Austin have added Wi-Fi and fun names to make it an option..."*

(Build Your Own Transit System survey respondent)

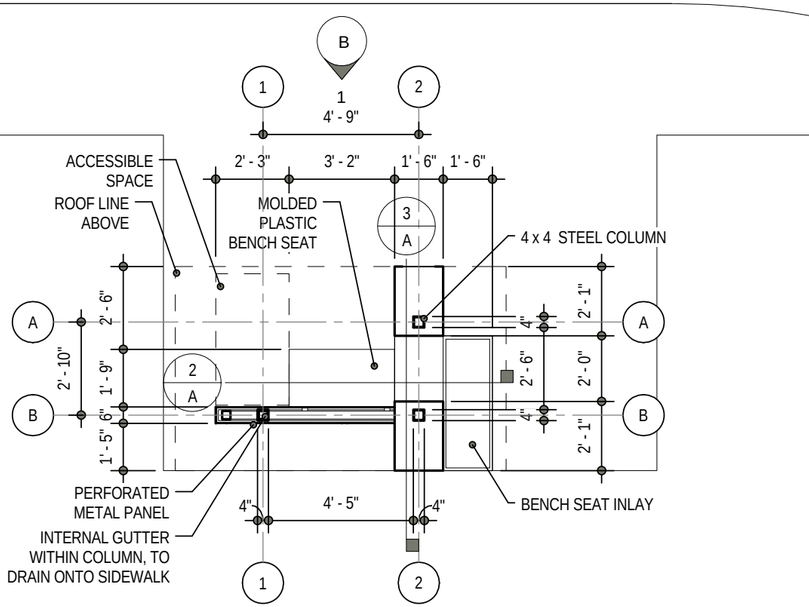
TECHNOLOGY

SOLAR PANEL
Frameless and low profile
Through-Bolt mounting Method
Waterproof

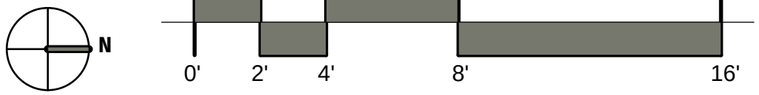
USB PORT/CHARGING STATION
Choose between battery or solar power source
Concealed wires reducing vandalism and seamless aesthetic.
Factory pre-installed and ready for a plug-play installation.
Optional WiFi Connection

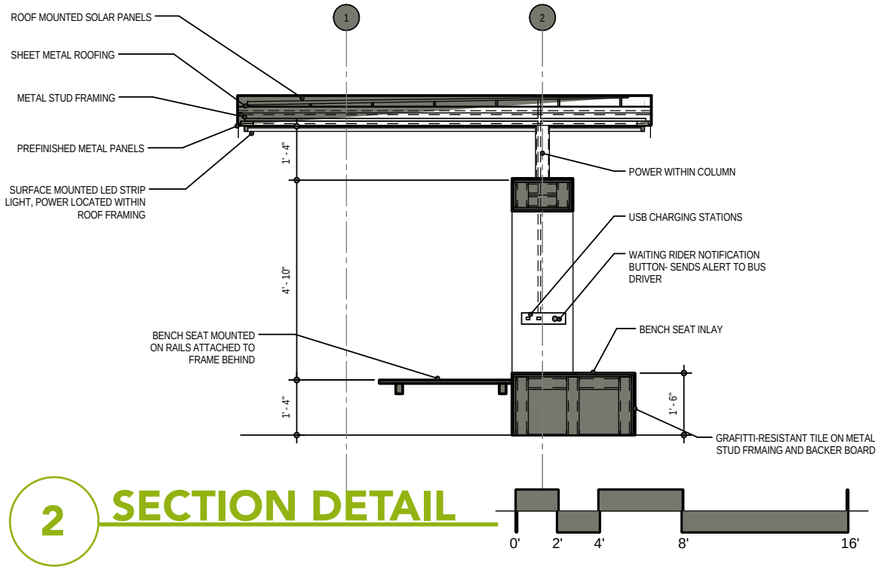
DIGITAL SCREEN
Choose between battery or solar power source
Display real-time departures, route maps, static schedules & messages.
Receive notifications about system health, low battery levels and scheduled maintenance.
Send alerts for service disruptions and upcoming schedule change.
Ruggedized for extreme outdoor environments.
Field swappable.

CONNECT incorporates all of the necessary functions in a cohesive design,wherein many elements perform double duty, resulting in a clean, modern, shelter that is comfortable, convenient, and safe for the user. Three main components of a lit roof, utilitarian mass, and transparent panel work together to form the bus stop.

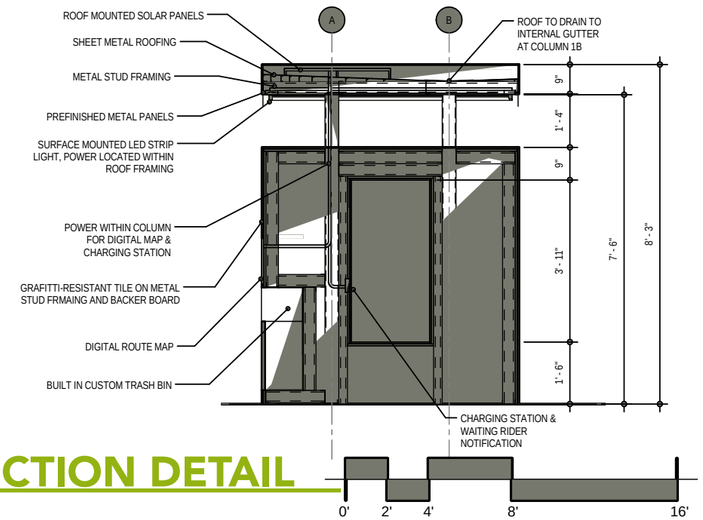


1 FLOOR PLAN



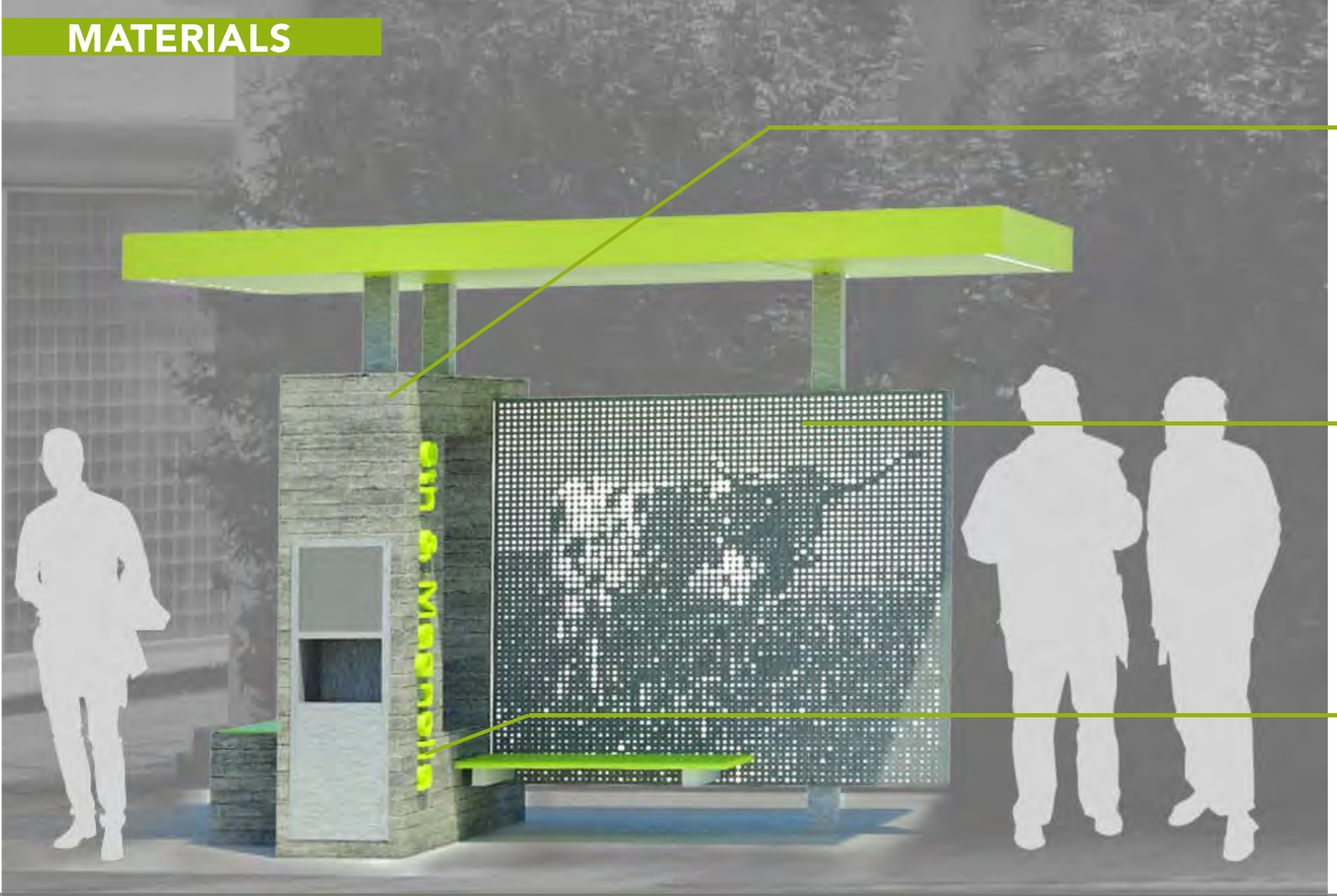


2 SECTION DETAIL



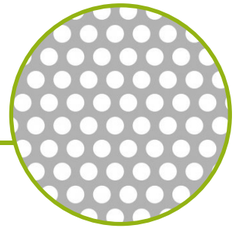
3 SECTION DETAIL

MATERIALS



PORCELAIN TILE WITH GRAFFITI RESISTANT COATING

Porcelain tile facade is a durable, moisture resistant, and easy to maintain product. With printing technology advancing, there are numerous styles and looks that can be achieved. For this design we have chosen a tile that is remniscent of cement board and alludes back to the industrial times of early Fort Worth's history. With this product, there is an integrated finish that protects the tile from vandalism and graffiti and saves costs for upkeep for the city in the long term.



CUSTOM PERFORATED METAL PANELS

These panels are custom made by laser-cutting a computer-generated series of circles into metal. Using a computer code, we can take any image and turn it into a series of circles that vary in size and density. When laser cut into a metal panel, the series of circles build an image made of holes within the panel surface. The perforations allow bus stop occupants to see through to the surrounding area, providing a feeling of safety, while still providing increased protection from the sun and wind here in Fort Worth. At night, lights behind the perforations turn the center part of the stop into a lantern, making the stop a safe place to wait and a beautiful piece of art to look at.

POWDER COAT ALUMINUM LETTERING SIGNAGE

Powder coat metal letters features a rich selection of colors that can be customized per each shelter's surrounding neighborhood. The powder finish is durable against the elements and draws attention for easy wayfinding.

ALTERNATIVE COLOR SCHEMES

The prototype shelter design can be customized to suit the area of the surrounding neighborhoods it will be located in. Colors can be switched out according to bus route line or location. This will help riders easily recognize which area their stop is in.

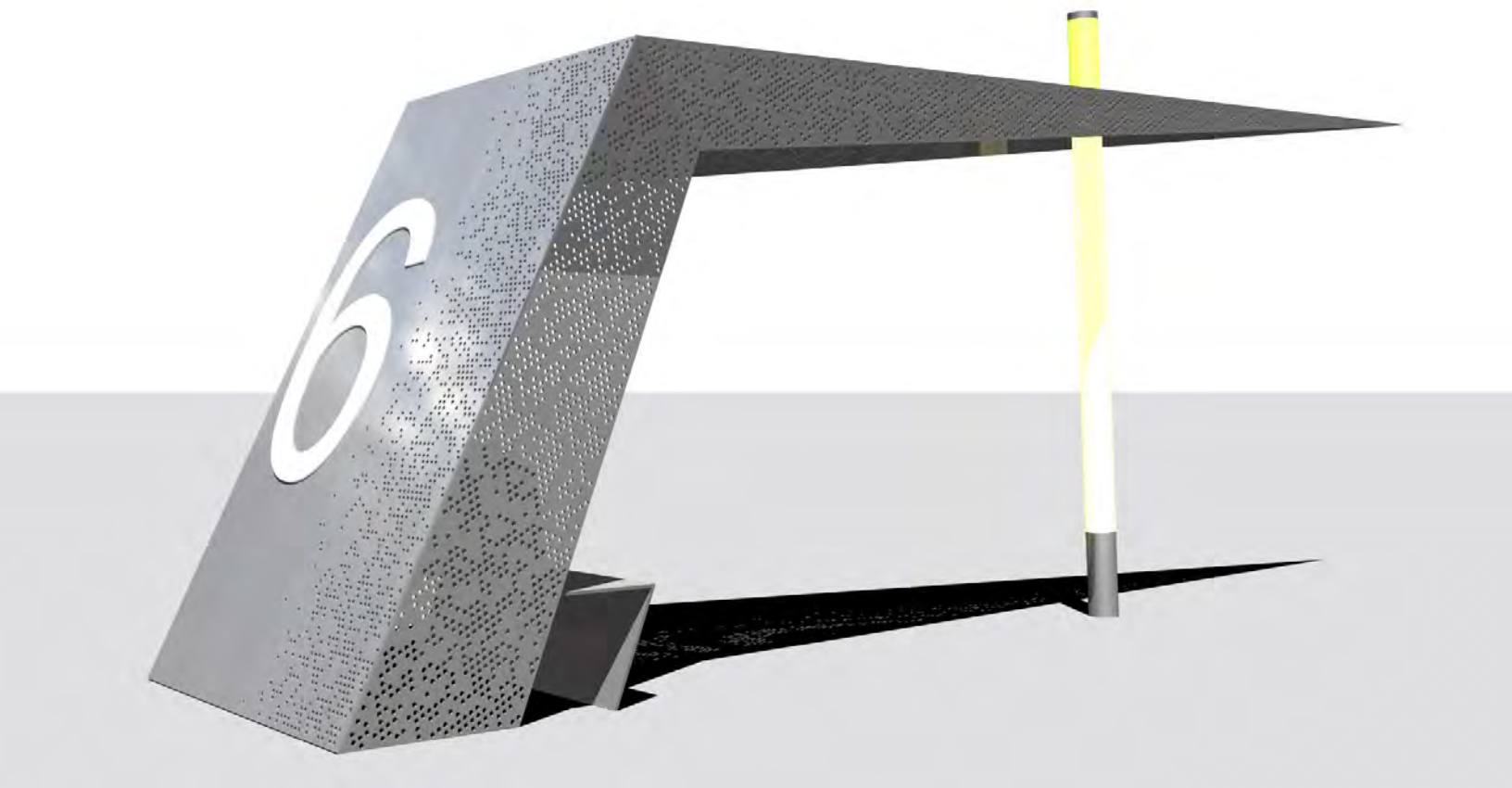
The greatest opportunity of the custom-perforated panel is that they don't have to be the same at every stop. The longhorn motif shown in this design speaks to Fort Worth's long cattle-industry history. However, the goal of these panels is that the motif could vary at each station, or vary from one neighborhood in the city to the next. For example, a station near the zoo might picture elephants, or a giraffe instead of cattle. The varied images can serve as subtle wayfinding devices when navigating the city by bus or on foot.

IMAGE OPTIONS FOR CUSTOM PERFORATED METAL PANELS

lean-to bus stop
category: professional
location: magnolia and 8th ave.

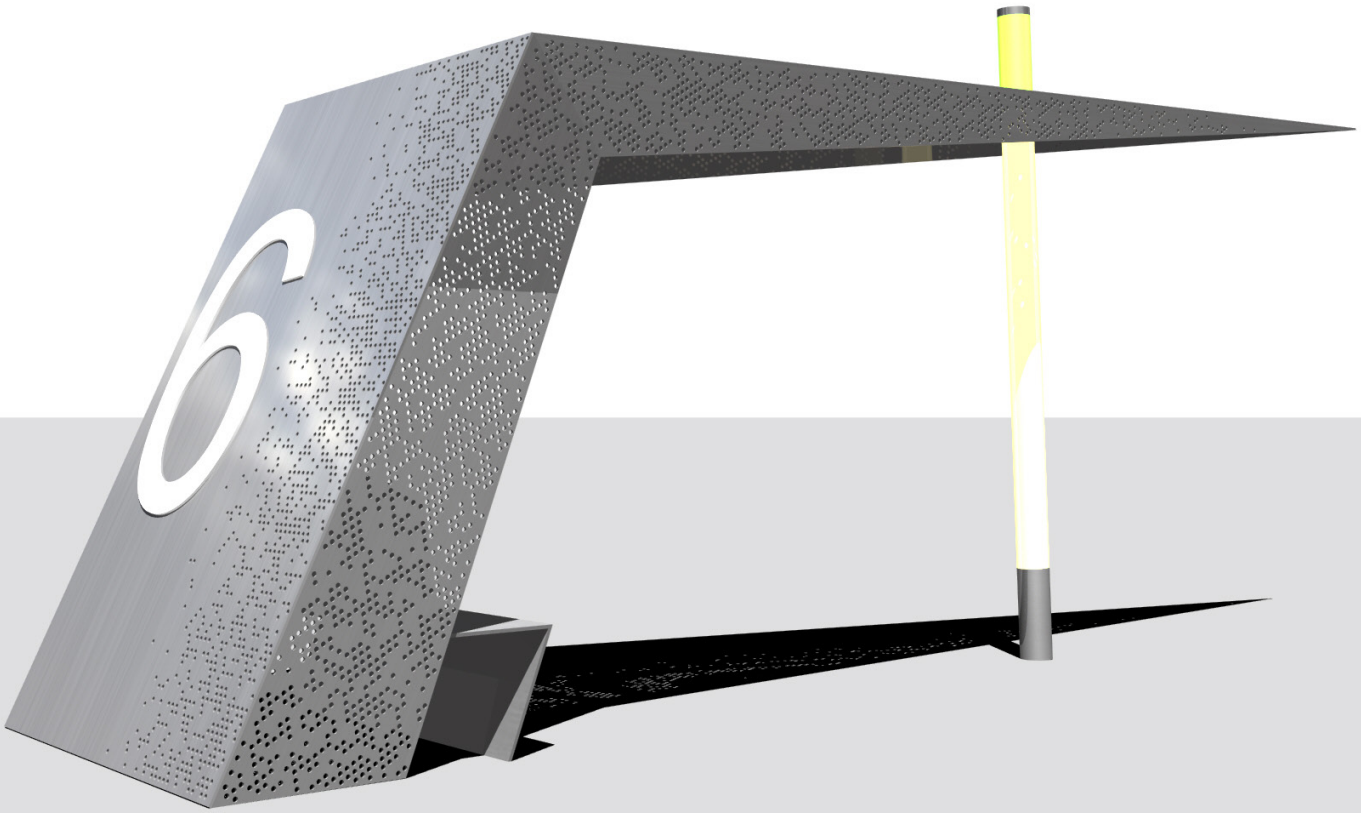
The intersection of 8th and Magnolia is the intersection where the precision technology of the medical district and the funky uniqueness of the Near Southside come together. A bus stop at this location should reflect these two districts, act as a sculptural landmark for the bus riders and be the envy of the approximately 26,000 people who drive this road daily.

The structure's shape, derived from the T's logo, is comprised of ½" custom perforated steel plate which is "folded" (cut and welded) to create a self-supporting structure. A supporting steel tube structure is concealed within a solar powered LED light tube that illuminates the stop and the area around it at night. The top of the light tube appears to be sliced by the structure and acts as a "waiting rider notification" by turning bright green when a passenger is recognized by a small occupancy sensor. An enveloped 6' steel plate bench is oriented towards the direction of the coming bus to allow easy visual access for all waiting riders.



lean-to bus stop
credit sheet

Firm: Bennett Benner Partners Architects + Planners
Location: Fort Worth, Texas
Licensed Architect: Brandon Burns
Contributers: Michael Bennett, Stuart Everett, Katy Dunaway



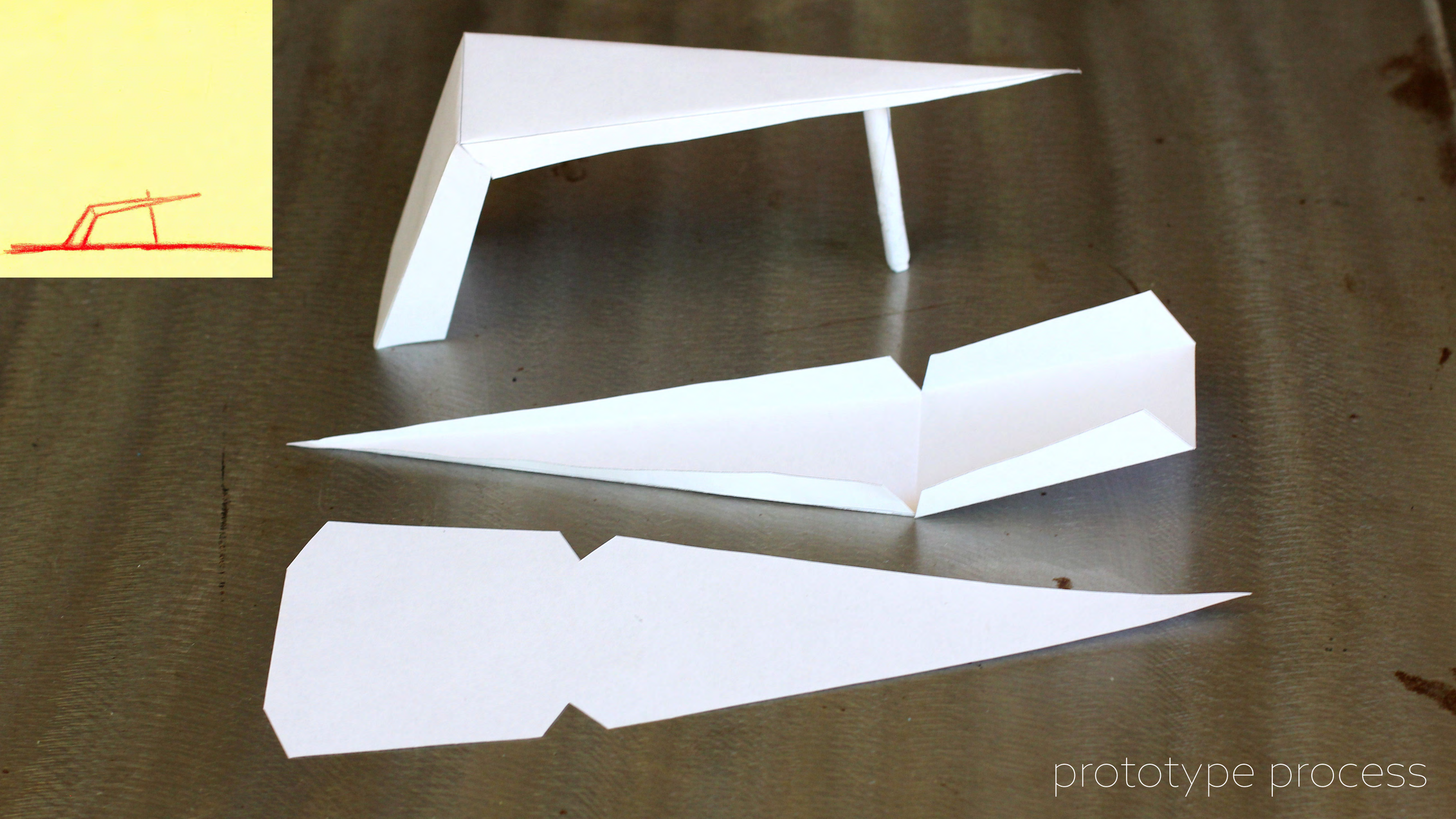
lean-to bus stop

Functional Stop - Magnolia & 8th

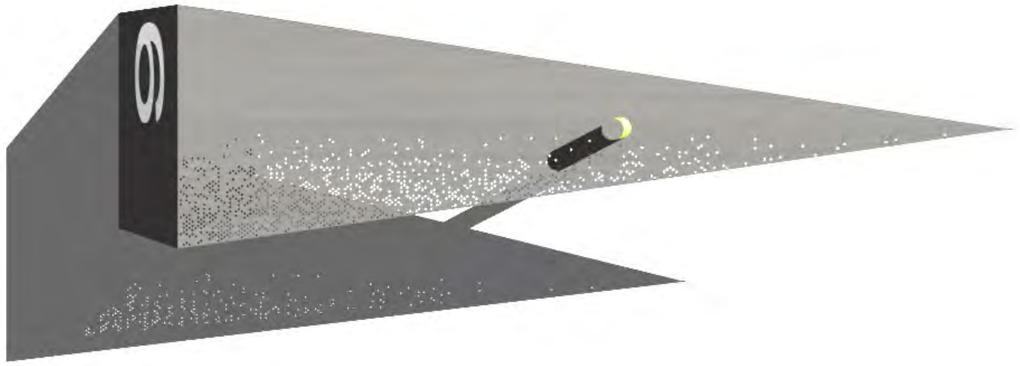
6'x15' footprint

8th ave.

site



prototype process

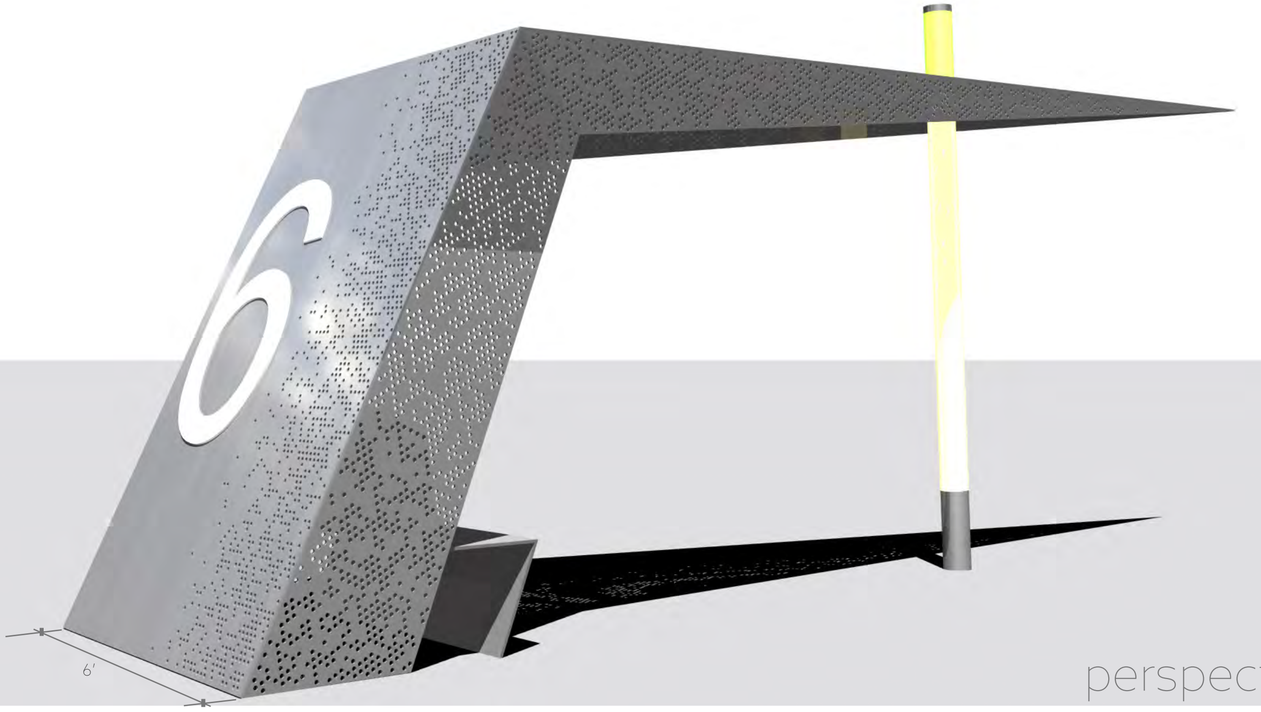


top

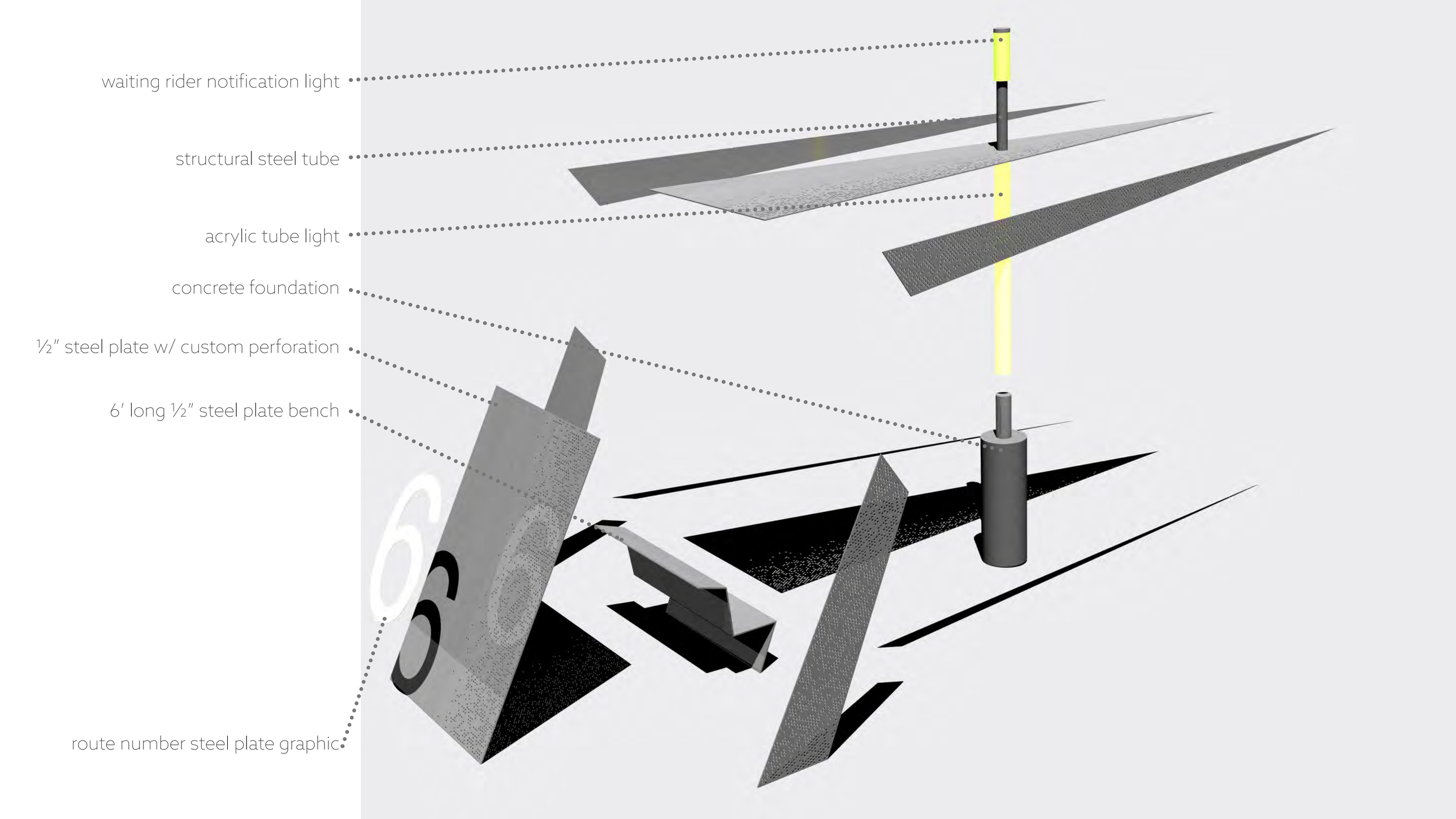
south

north

street elevation



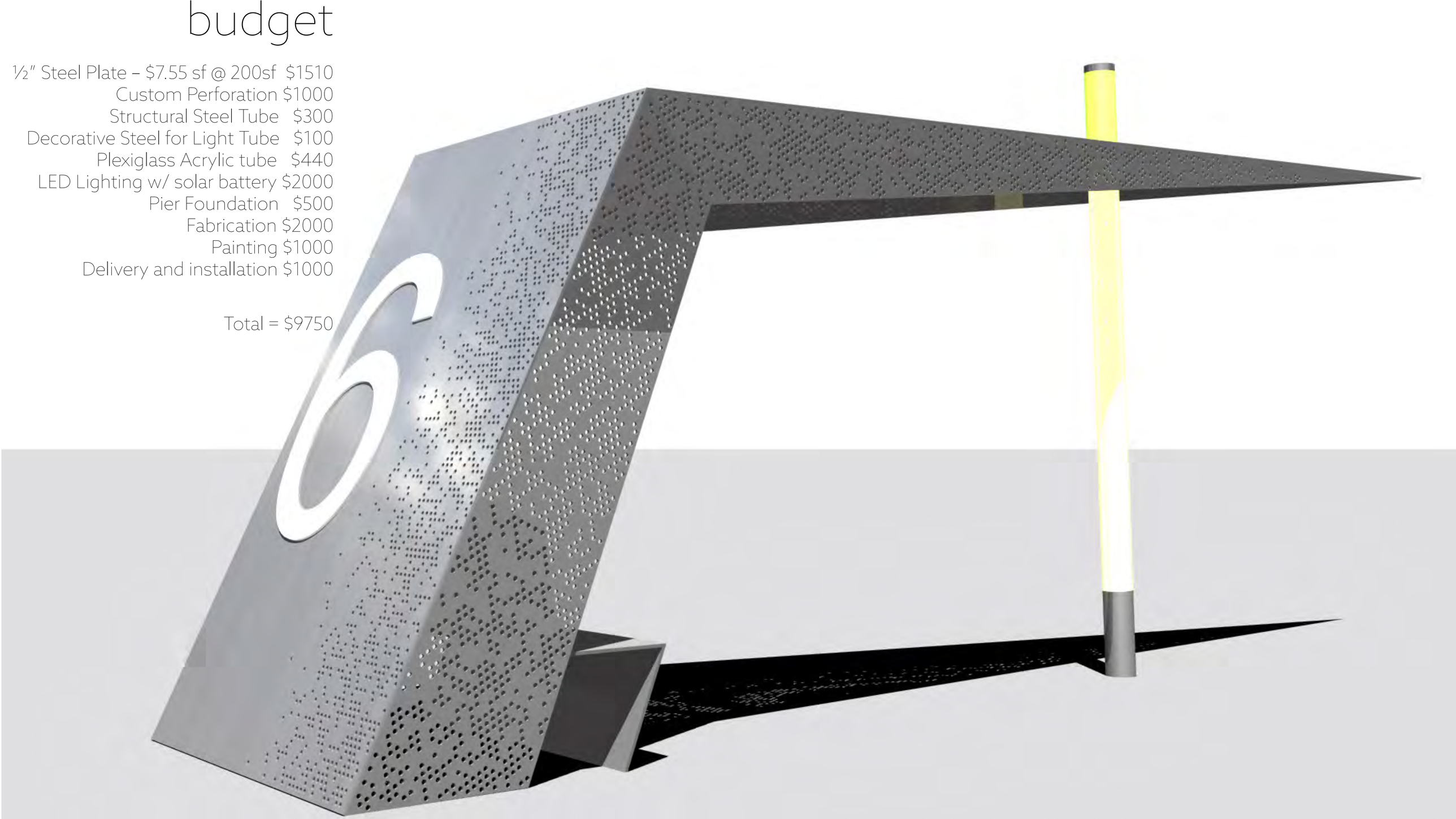
perspective


waiting rider notification light
structural steel tube
acrylic tube light
concrete foundation
½″ steel plate w/ custom perforation
6′ long ½″ steel plate bench
route number steel plate graphic

budget

½" Steel Plate – $7.55 sf @ 200sf $1510
Custom Perforation $1000
Structural Steel Tube $300
Decorative Steel for Light Tube $100
Plexiglass Acrylic tube $440
LED Lighting w/ solar battery $2000
Pier Foundation $500
Fabrication $2000
Painting $1000
Delivery and installation $1000

Total = $9750




1139
www.fwta.org
CHOCCART/8TH AVE


6


MAGNOLIA

Solar Stop

Solar Stops utilizes photovoltaic panels to provide both shelter from the elements and off-grid power to the amenities attached to the structural member of the solar array mount. One piece design provides an open feel and features real-time bus location information for waiting passengers.

FWTA route information would be broadcast along with LED lighting, free WiFi access and space for capturing revenue from third party advertisers.

Providing Fort Worth's citizens with a sustainable and connected place to await bus rides would encourage greater ridership and provide many benefits to the local ridership.

Solar Stop

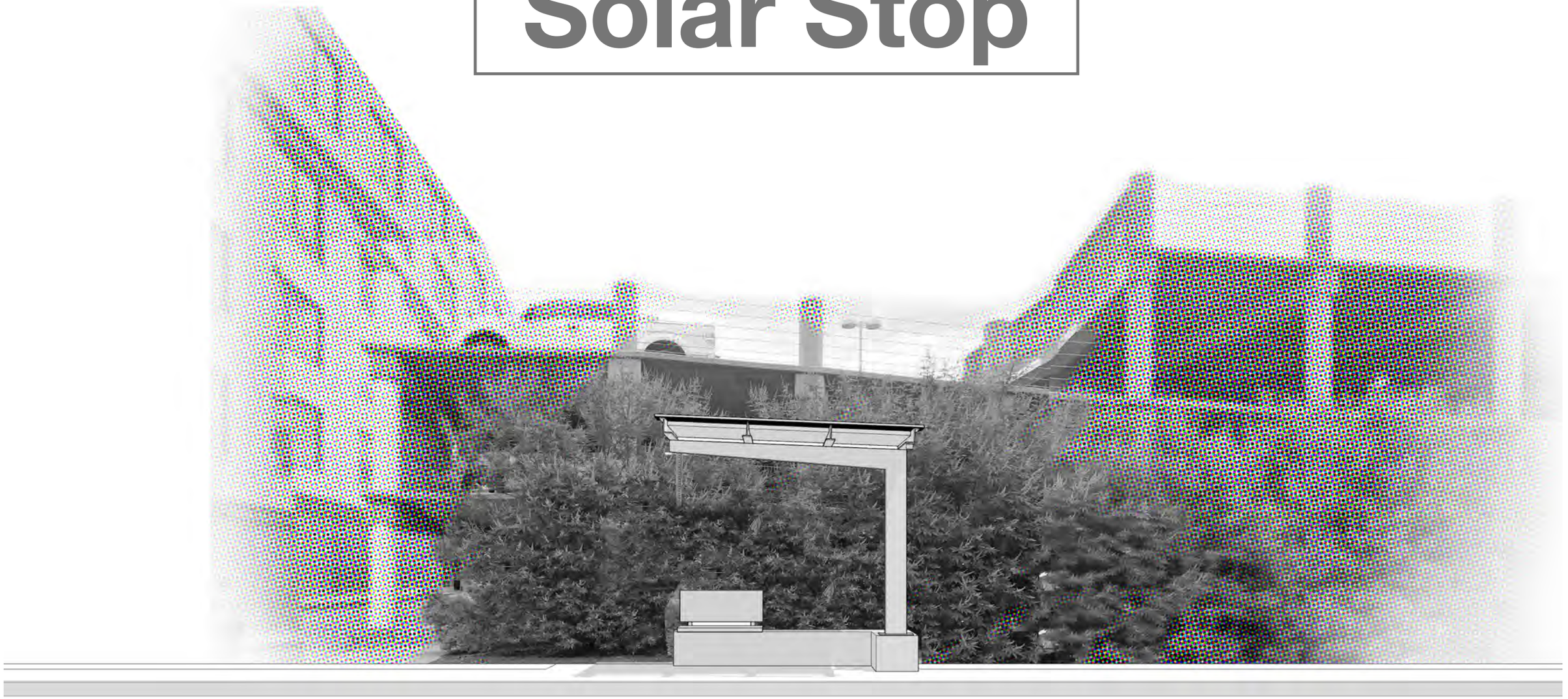
Credit Sheet Details

PHILIP NEWBURN ARCHITECTURE, PLLC
2345 W. Magnolia Ave.
Fort Worth, Texas 76110

Team Members:

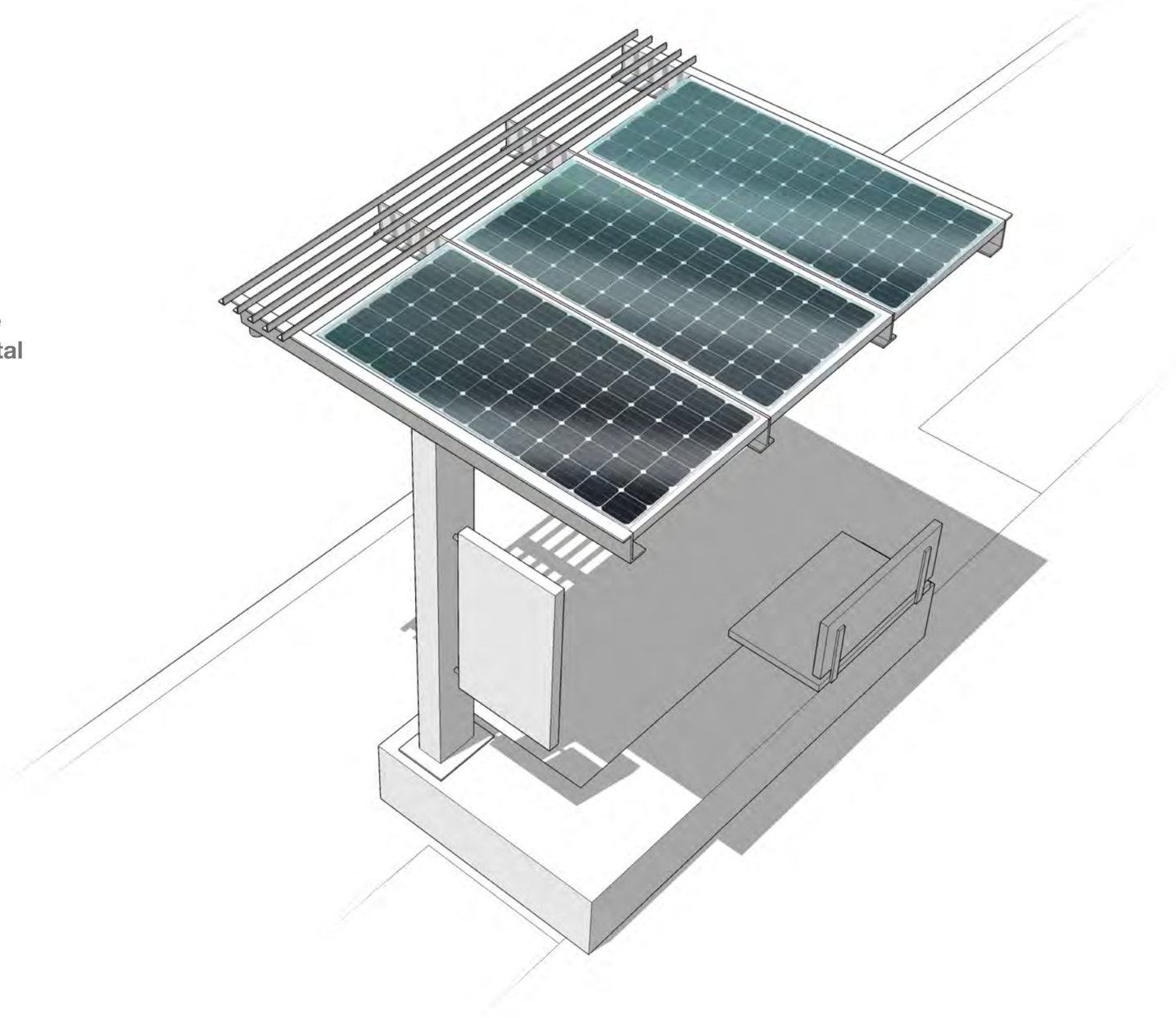
Philip Newburn, AIA
Steve Millican
Quincy Holloway

Solar Stop



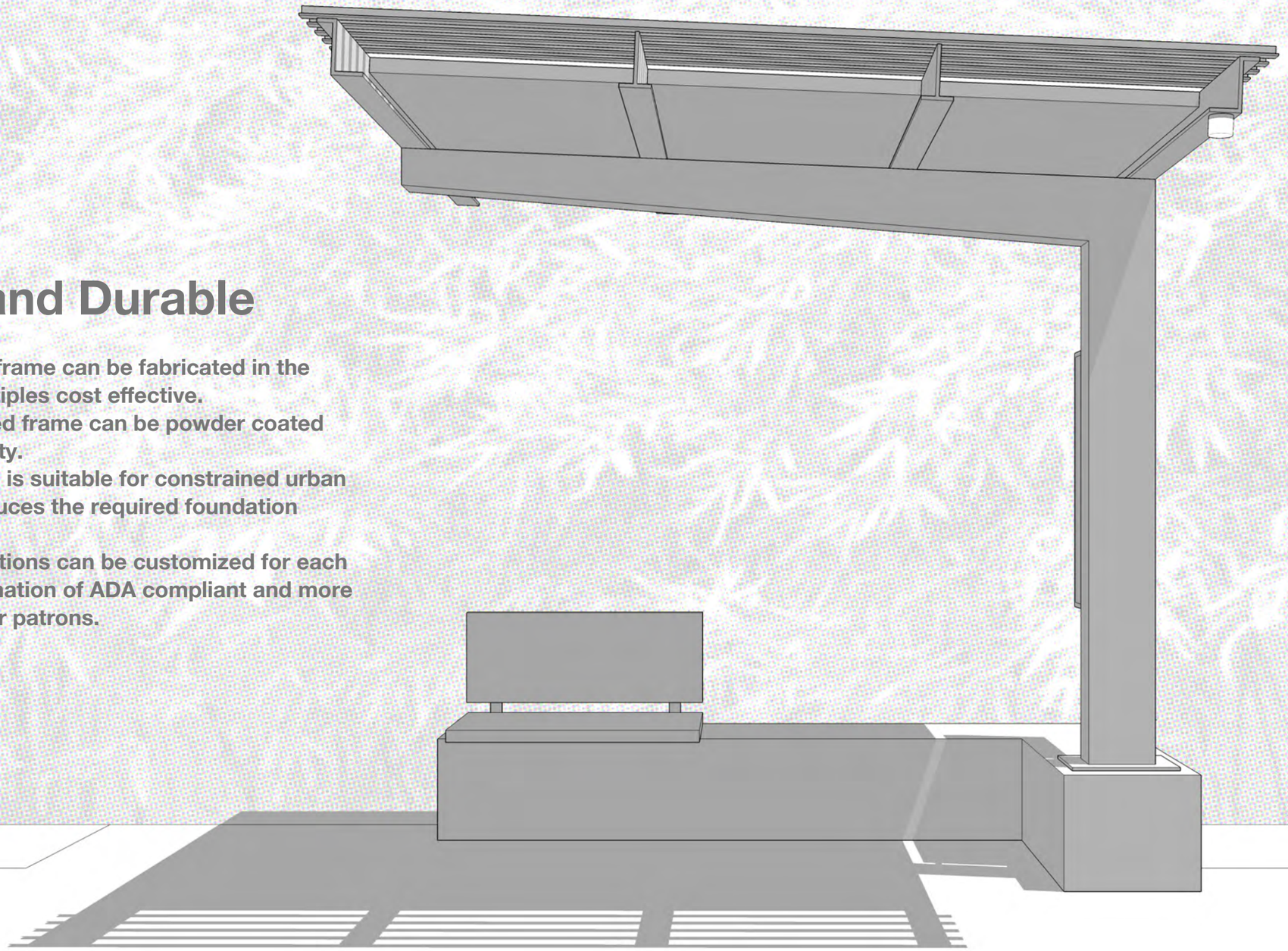
Dual Purpose Shelter

The simple steel structural system is sized to accommodate three standard solar panels. The harvested electricity offsets the cost of the new structure and powers the lighting and digital signage.



Simple and Durable

The tubular steel frame can be fabricated in the shop making multiples cost effective.
The pre-assembled frame can be powder coated for added durability.
The single footing is suitable for constrained urban locations and reduces the required foundation work.
Seating configurations can be customized for each site with a combination of ADA compliant and more flexible seating for patrons.

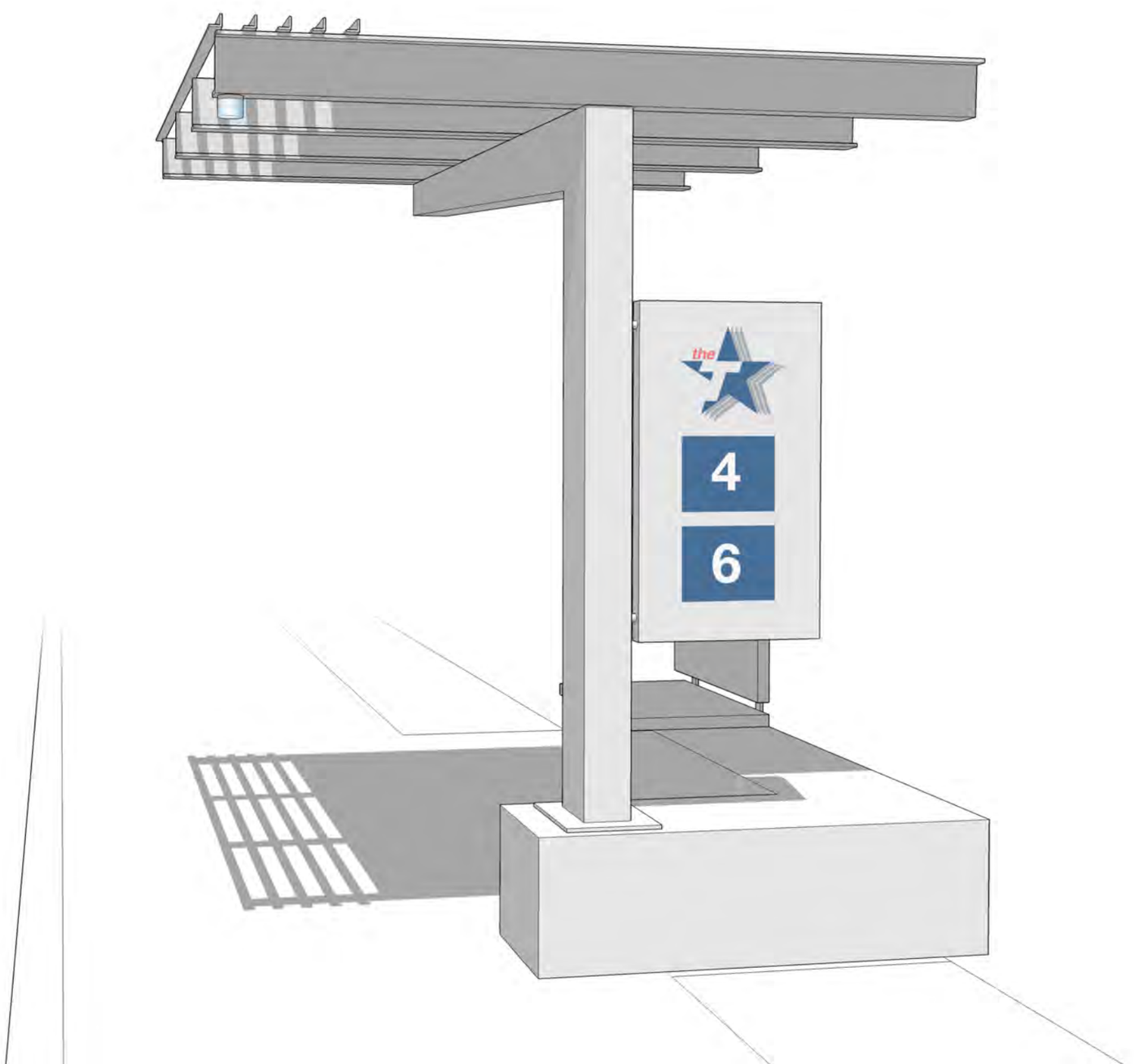


Connected

See where the next bus is and when it will arrive on your phone or on the interactive display.
Enter a destination and have a route prepared for you.

Clear Signage

Large format signage in tandem with the interactive display simplifies route finding. Lighting indicates to the bus driver that riders are waiting.



Small Stops Bus Stop Competition
Data Sheet

Functional Stop
Location:
#6 route northbound stop; located south of the southeast corner of W. Magnolia Avenue and 8th Avenue.

This functional bus stop possesses the same key tools of a Swiss Army Knife. At first glance, the stop is compact and minimalistic, providing only seating, shelter, and information. Yet, once you begin to expand it you discover over 80 distinct functions its capable of performing.

Small Stops Bus Stop Competition
Credit Sheet

97w, LLC
1201 W. Magnolia Avenue Suite 251
Fort Worth, TX, 76104

Team Members:

Jason Eggenburger, AIA, NCARB
Steven Halliday, Assoc. AIA, LEED AP
Matthew Huddleston
Rachael Owens

HELLO

WELCOME TO YOUR SWISS ARMY BUS STOP. THIS 8' x 8' EXPANDABLE BOX HAS OVER 80 FUNCTIONS ACCESSIBLE FROM YOUR FINGER TIPS

SOME ASSEMBLY REQUIRED.

CONNECTIVITY

Bus Stop 1,105,920 in³
Solar Energy Collector 9,216 in²
Rain Shelter 9,216 in²
Shade Structure 9,216 in²
Wind Breaker 23,040 in²
Trash 7,776 in³
Wi-Fi 640 in³
Charging station 20,760 in³
Seating 53,280 in³
Art Piece 11,520 in²
Advertising 34,560 in²
Hyper Connected to: 76,576 in³
Bus Schedule
Train Schedule
Public Library
City of Fort Worth
Uber
Driverless Connected
Open Table
Consumer Wearables
Consumer Phones
Maps
Way finding
Local Landmarks
Weather
Bad Weather Alerts
Movies
News
Emergency Notification/Contact
Walk-Home Station
Message Center
Environmental Sensing Node
Weather Station

UTILITY

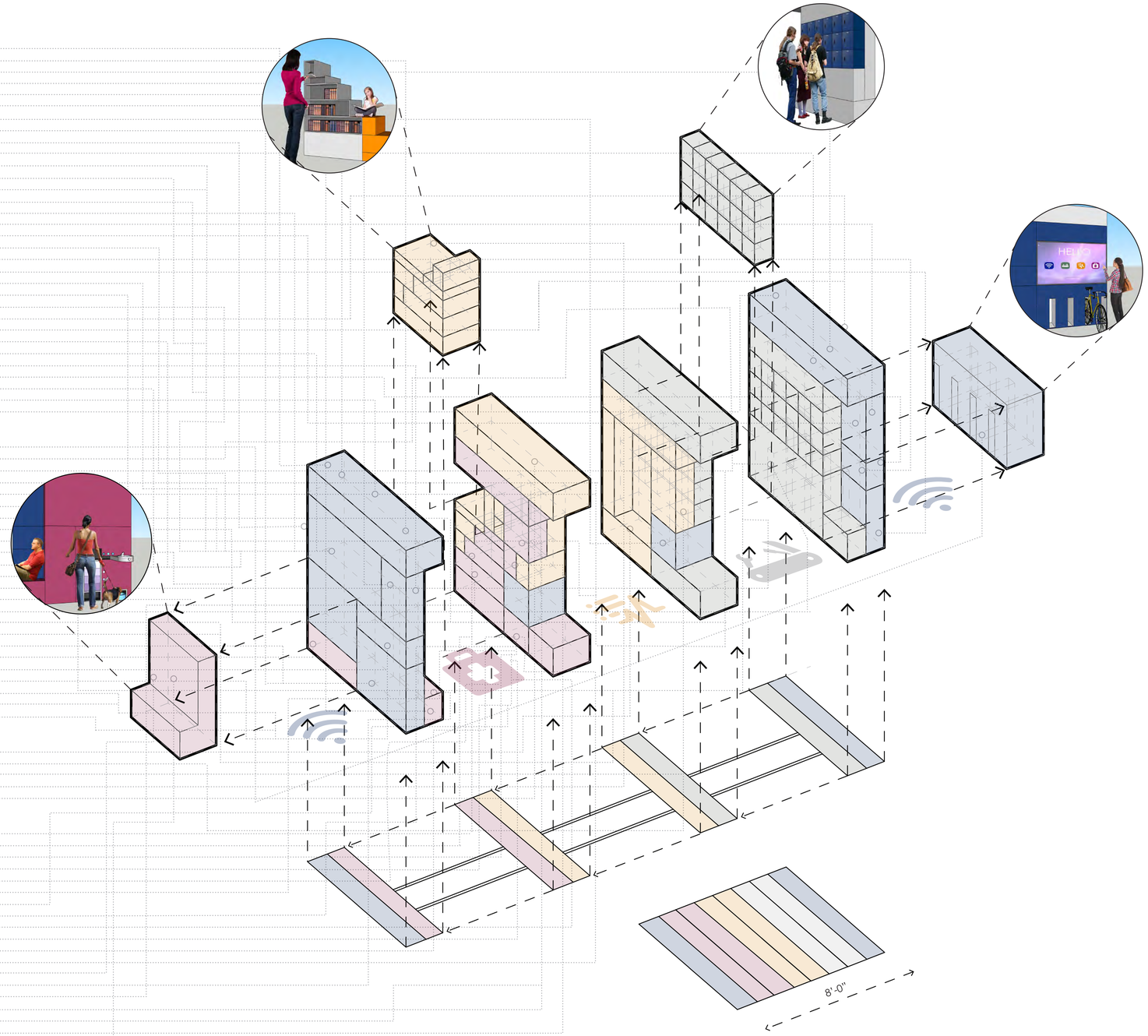
Bike Rack 72,576 in³
Tool Set: 35,560 in³
Flat head screwdrivers
Philips head screwdrivers
Allen Keys: 2, 2.5, 3, 4, 5, 6
Needle nose pliers
Duck billed pliers
Adjustable wrench
Socket drivers
Spoke wrench
Pedal wrench
Tire levers
Duct Tape
Tire Pump for Presta & Schrader 6,912 in³
Ruler 117 117 in³
Metal File 5.7 in³
Wire Stripper 5.1 in³
Doggie Bag Dispenser 617.6 in³
Pet Water Bowl 318.27 in³
Bottle Opener .216 in³
Wine Opener 600 in³
Spoon 1,920 in³
Fork 1,920 in³
Butter Knife 1,920 in³

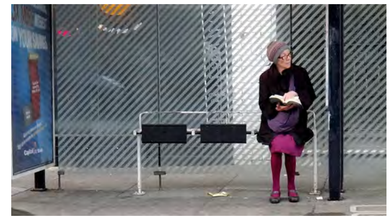
ACTIVITY

Stage/Performing 31,104 in³
Desk 768 in³
Dinner Table 768 in³
Community Library 19,008 in³
Bag Swing 15,552 in³

TONICITY

First Aid Kit: 210 in³
Tweezers
LED flashlight
Gauze
Band-aids
Gloves
Scissors
Neosporen
Safety Pins
Sewing kit
Magnifying Lens
Lighter
Drinking Fountain 44,928 in³
Shoe Shine Station 1,555.7 in³
Diaper Changing Station 17,280 in³
Condom Dispenser 1,000 in³
Tampon Dispenser 1,000 in³
Paper Towel Dispenser 1,920 in³
Hand Wash Station 44,928 in³

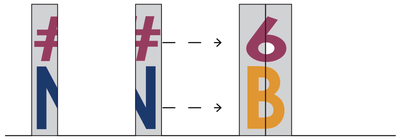




YOUR AVERAGE BUS STOP

REAR ELEVATION CLOSED - 8'x8'

REAR ELEVATION EXPANDING - 8'x14'



REAR ELEVATION EXPANDING - 8'x20'

REAR ELEVATION FULLY EXPANDED - 8'x26'

NOT YOUR AVERAGE BUS STOP

shadeSHIFTER

The defining concept of shadeSHIFTER is to provide user and site adaptability to improve the rider experience. The design concept originated from the idea that the bus stop itself can serve as a "sign" or "beacon" to approaching riders. While addressing all the key design considerations listed in the program brief, shadeSHIFTER provides a higher level of rider comfort through customization. While most bus shelters seem to ignore their environment, shadeSHIFTER not only adapts to its surrounding environment, but allows each rider to control their personal environment. Additionally, as a modular design, it can be scaled to accommodate a wide variety of sites with varying dimensions and capacities.

SHADESHIFTER

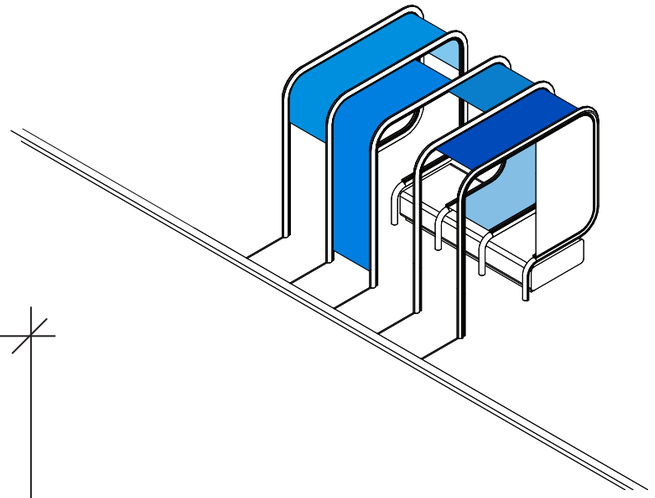
FIRM: BECK ARCHITECTURE
810 HEMPHILL STREET
FORT WORTH, 76104

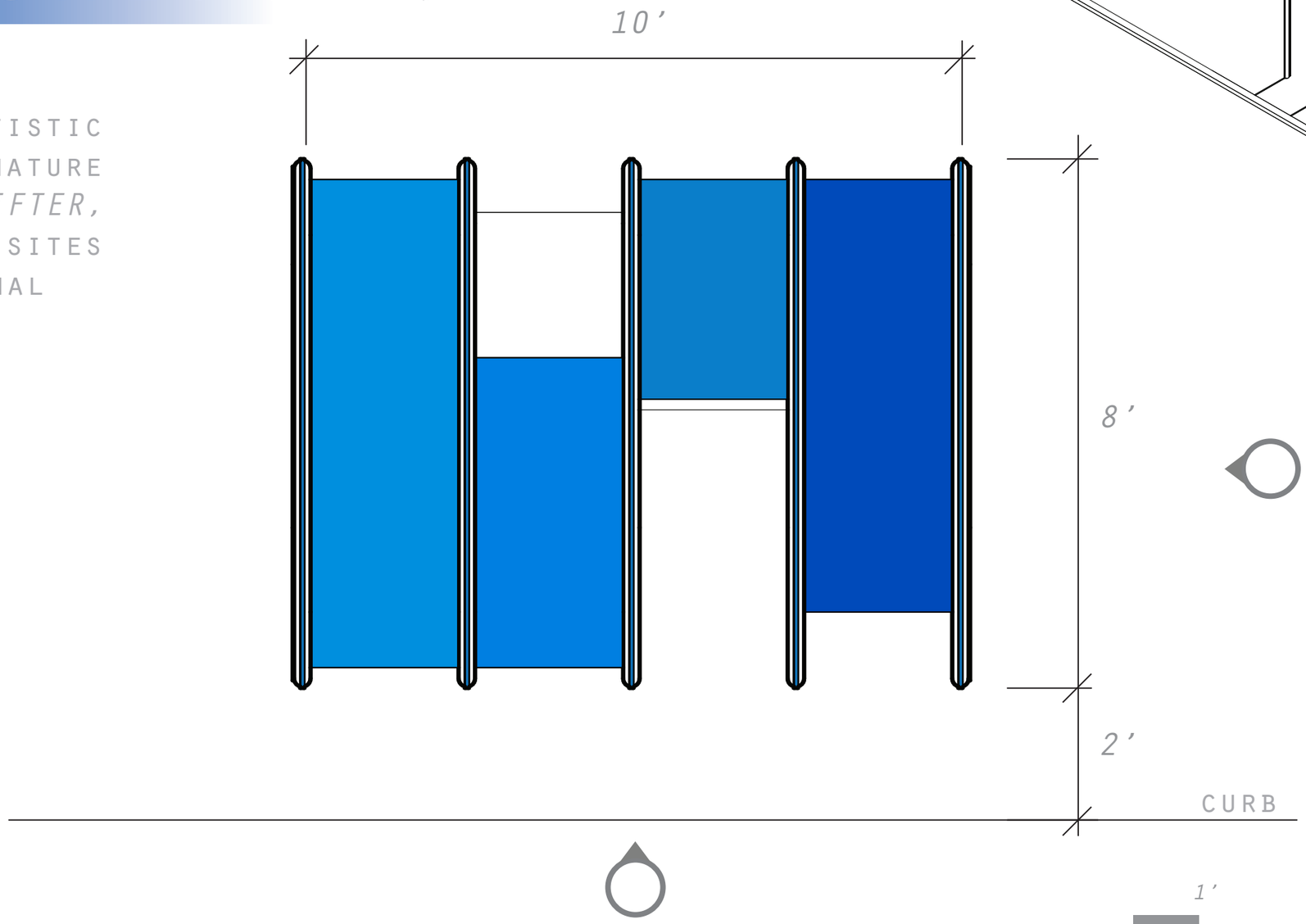
ARCHITECT: HOYT HAMMER

TEAM MEMBERS: CHASE PARKER
ANDREW DORAN

shadeSHIFTER

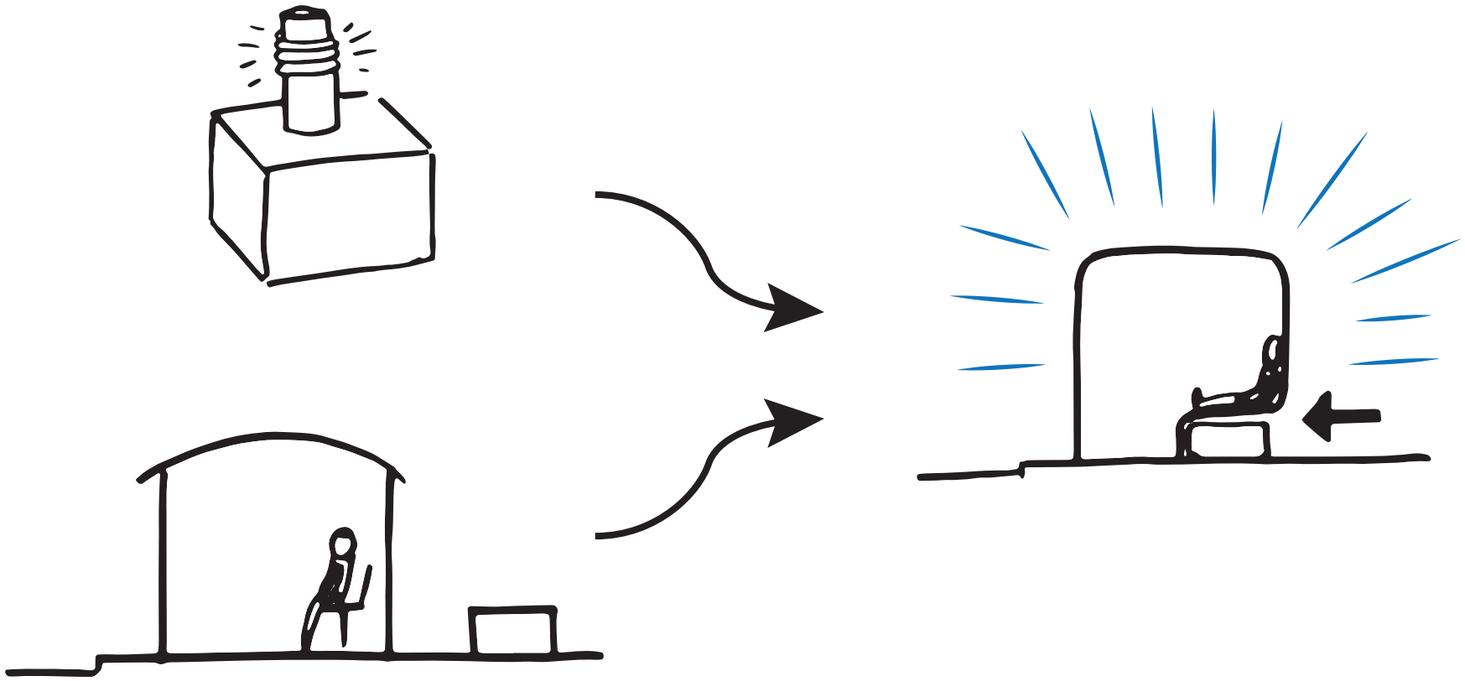
Due to the artistic and functional nature of the *shadeSHIFTER*, both small stop sites are potential final locations.





PLAN

The defining concept of *shadeSHIFTER* is to provide user and site adaptability to improve the rider experience. The design concept originated from the idea that the bus stop itself can serve as a "sign" or "beacon" to approaching riders. While addressing all the key design considerations listed in the program brief, *shadeSHIFTER* provides a higher level of rider comfort through customization. While most bus shelters seem to ignore their environment, *shadeSHIFTER* not only adapts to its surrounding environment, but allows each rider to control their personal environment. Additionally, as a modular design, it can be scaled to accommodate a wide variety of sites with varying dimensions and capacities.

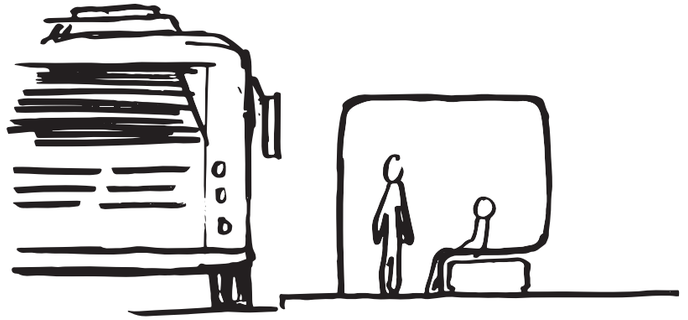


SAFETY

Transparency

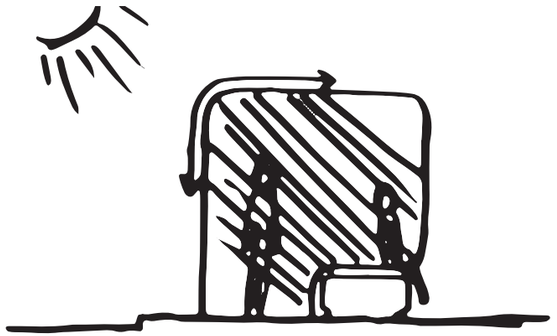
Protection from wind and rain

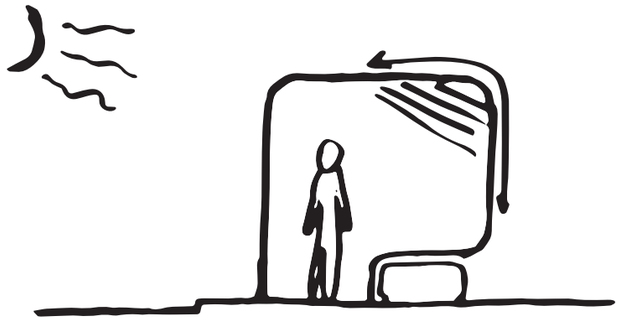
Provides a physical barrier between waiting riders and vehicles



SHADE

Rolling shades can be adjusted for each rider to provide a full shade at virtually any solar orientation. In cold, sunny weather, shades can be retracted for warmth.

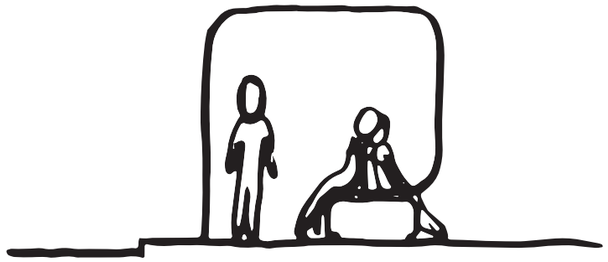




SEATING

A variety of seating is provided in the form of a fixed bench, a moveable “hammock”, or a wheelchair space.

The shelter also becomes an object that interacts with pedestrians providing room to allow circulation through it.

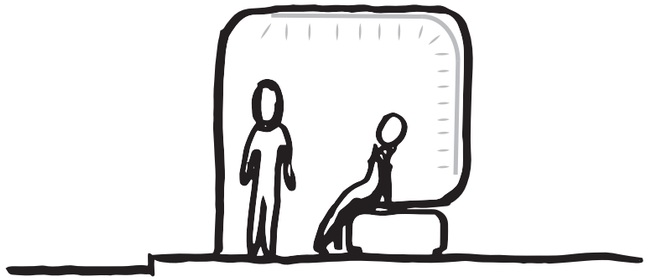


BUS/ROUTE INFORMATION

Transparent end panels can be utilized for either electronic or printed route information.

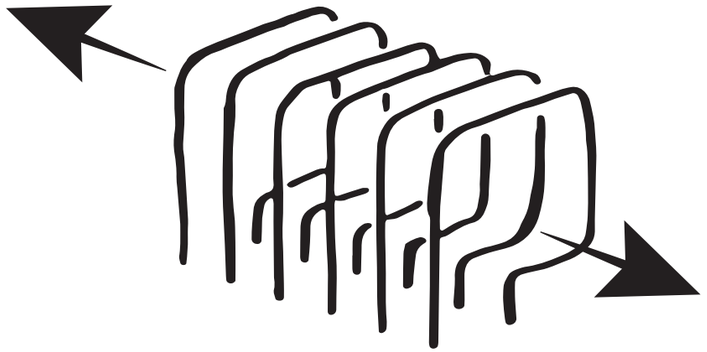
LIGHTING

Lighting is used to serve multiple functions. In addition to interior lighting, exterior lighting provides both rider and driver notification functions, while doubling as a decorative feature.



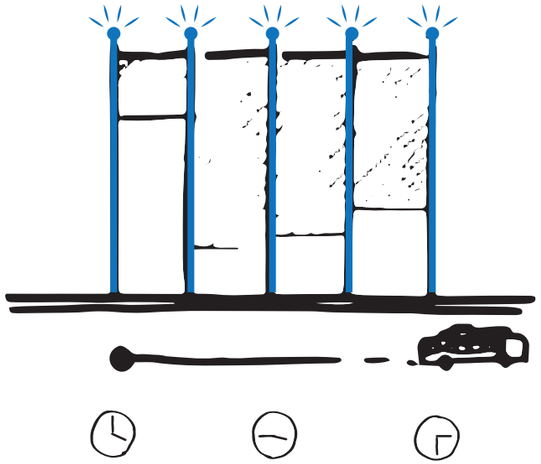
SITE ADAPTABLE

The modular design allows it to be scaled to accommodate a wide variety of sites with varying dimensions and capacities.



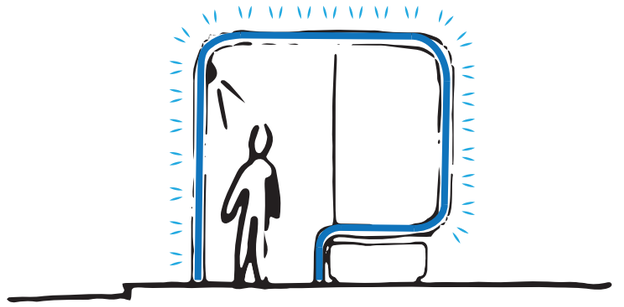
RIDER NOTIFICATION

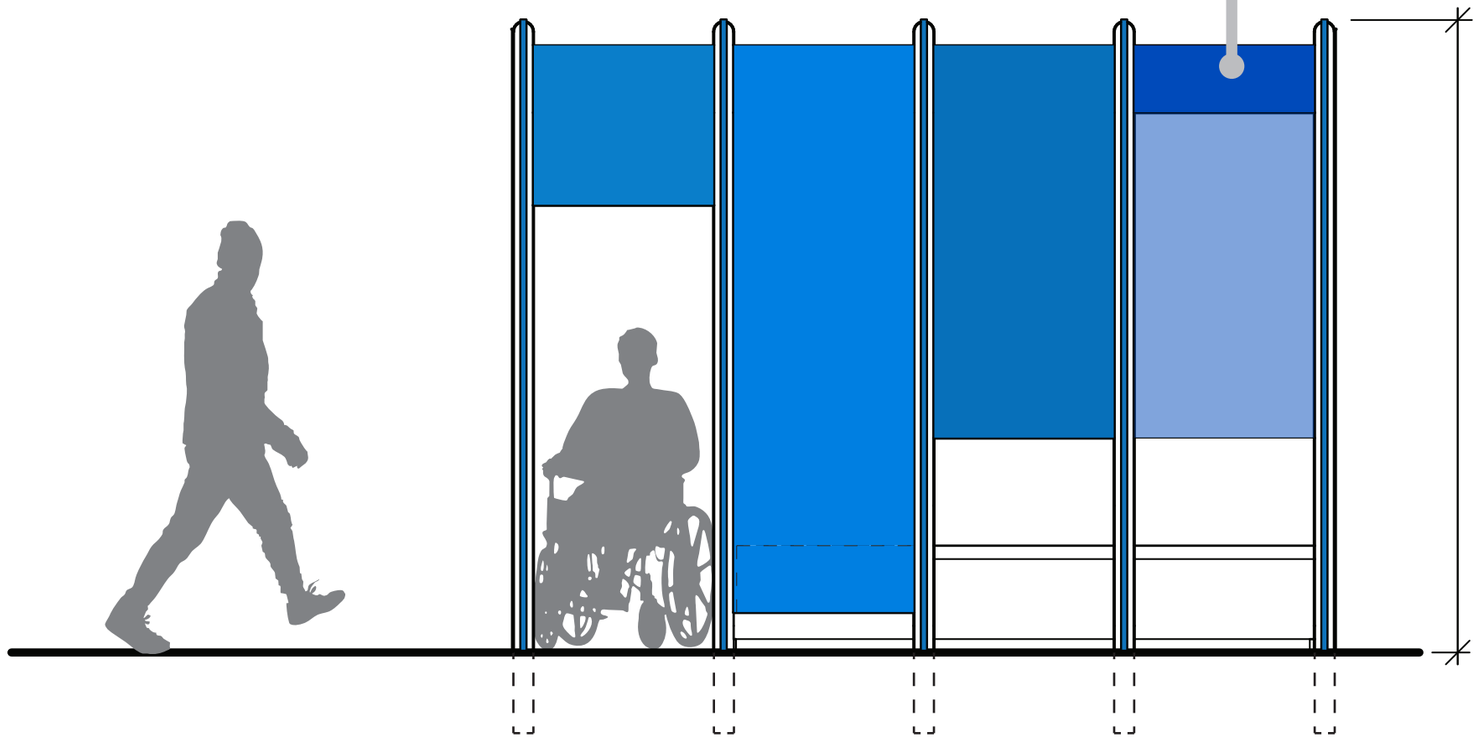
As an added feature, the concept of a "beacon" is provided in the form of lighting on the exterior of the shelter. A series of lights illuminate sequentially as an intuitive indicator of the proximity and wait time for the arriving bus. This could be coupled with the vehicle tracking system available on nextbus.com



OPERATOR NOTIFICATION

The incorporation of lighting on the bus approach side will alert the driver of a waiting rider. This is controlled by an occupancy sensor inside the shelter.





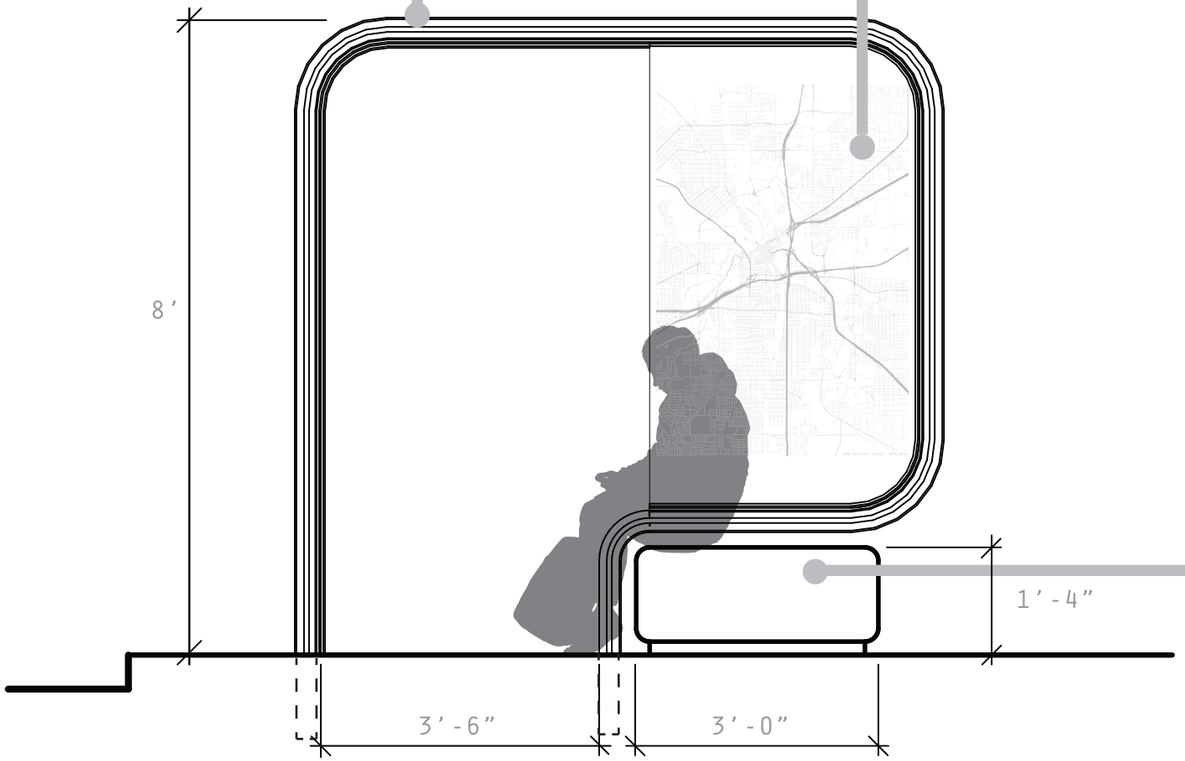
Marine shade fabric: a durable material that provides wind and rain protection, while transmitting light. Colors can be selected based on route or site speficic influences.

FRONT ELEVATION

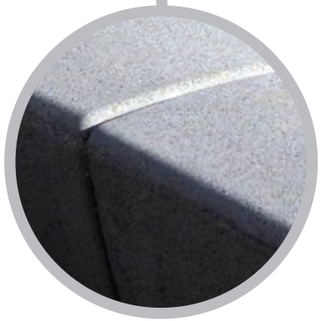
1’ 2’ 4’

Integrated LED
Lighting for waiting
rider notification.

Glass information
Panel



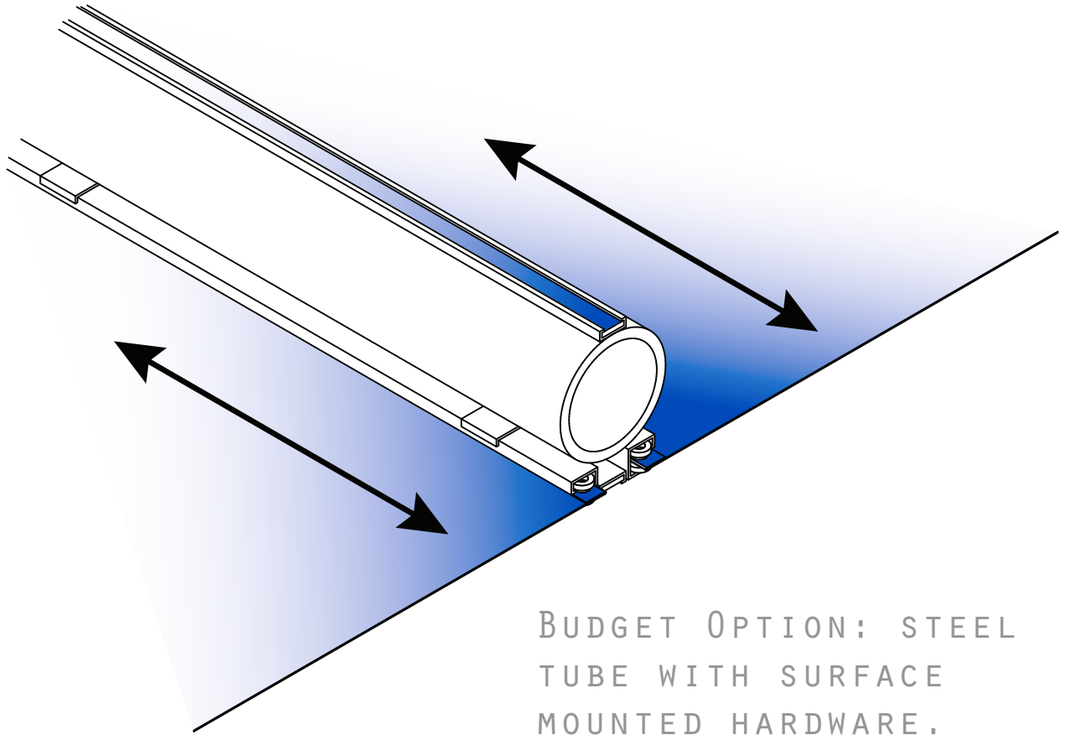
A modular precast concrete bench allows for easy installation while being a comforatble and durable seating element.



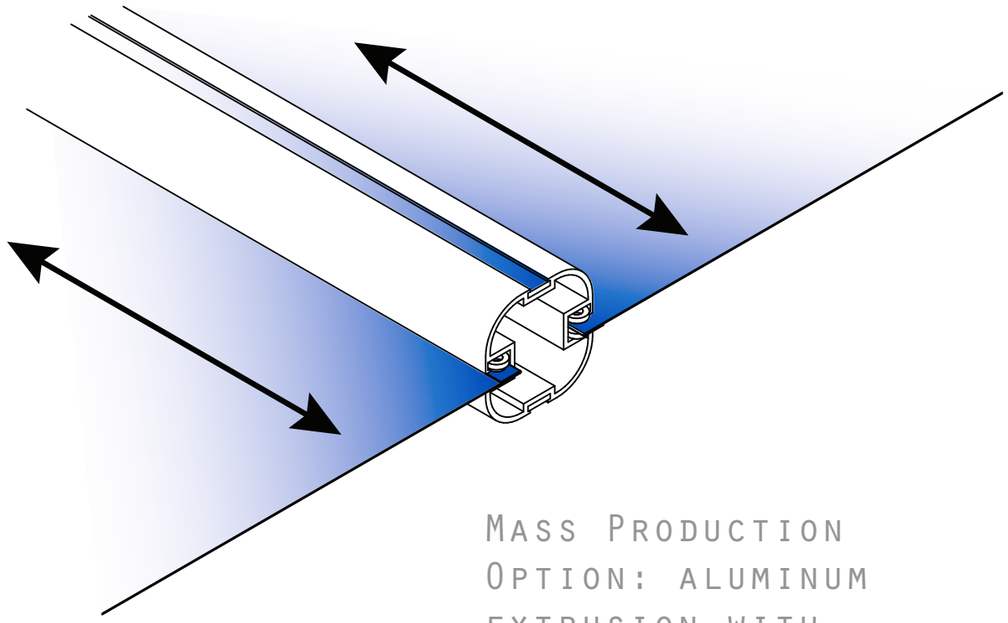
SIDE ELEVATION

1’ 2’ 4’

Considering the budget for the functional stop, we are proposing two structural configurations. The basis of design can be constructed from readily available materials at a modest cost. The second configuration considers that the artistic stop does not have an established budget, and also that with the possibility of multiple shelters being manufactured for the functional stop, set-up costs can be offset to produce a custom aluminum extrusion which can make for more efficient fabrication and a more streamlined appearance. These two configurations are detailed below.



Budget Option: steel tube with surface mounted hardware.



Mass Production Option: aluminum extrusion with integrated hardware.

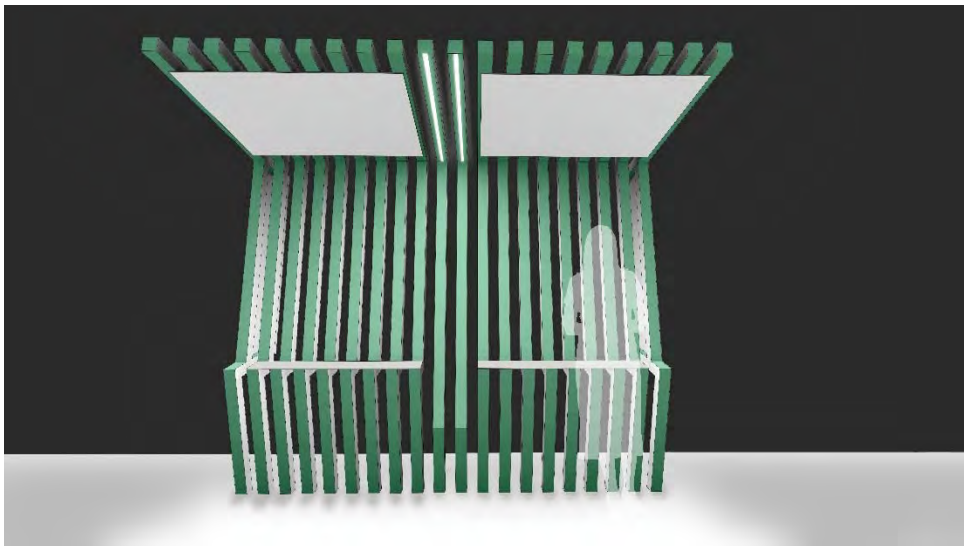
ASSEMBLY DETAILS

PERSPECTIVE

Flex Stop

A Modular Bus Stop

Functional Site



Flex Stop is a modular system composed of any combination of five segments. The five segments, made of 3” square hollow metal tubes, include: sit, lean, light, signage that corresponds to sit, and signage that corresponds to lean. To provide seating/leaning space and protection from the sun and weather, metal plates can be attached to the segments. Segments are spaced 3” apart and aligned at the base. This modular system allows for each bus stop to be custom to its location and any specific needs that location may have, all while staying within budget. To further customize each stop, color can be added to the inside face to add a distinguished look. The initiative of the Flex Stop is to have an easy, simple, and functional bus stop adjustable to fit any site.

Katy Dunaway

Michael Bennett

Bennett Benner Partners

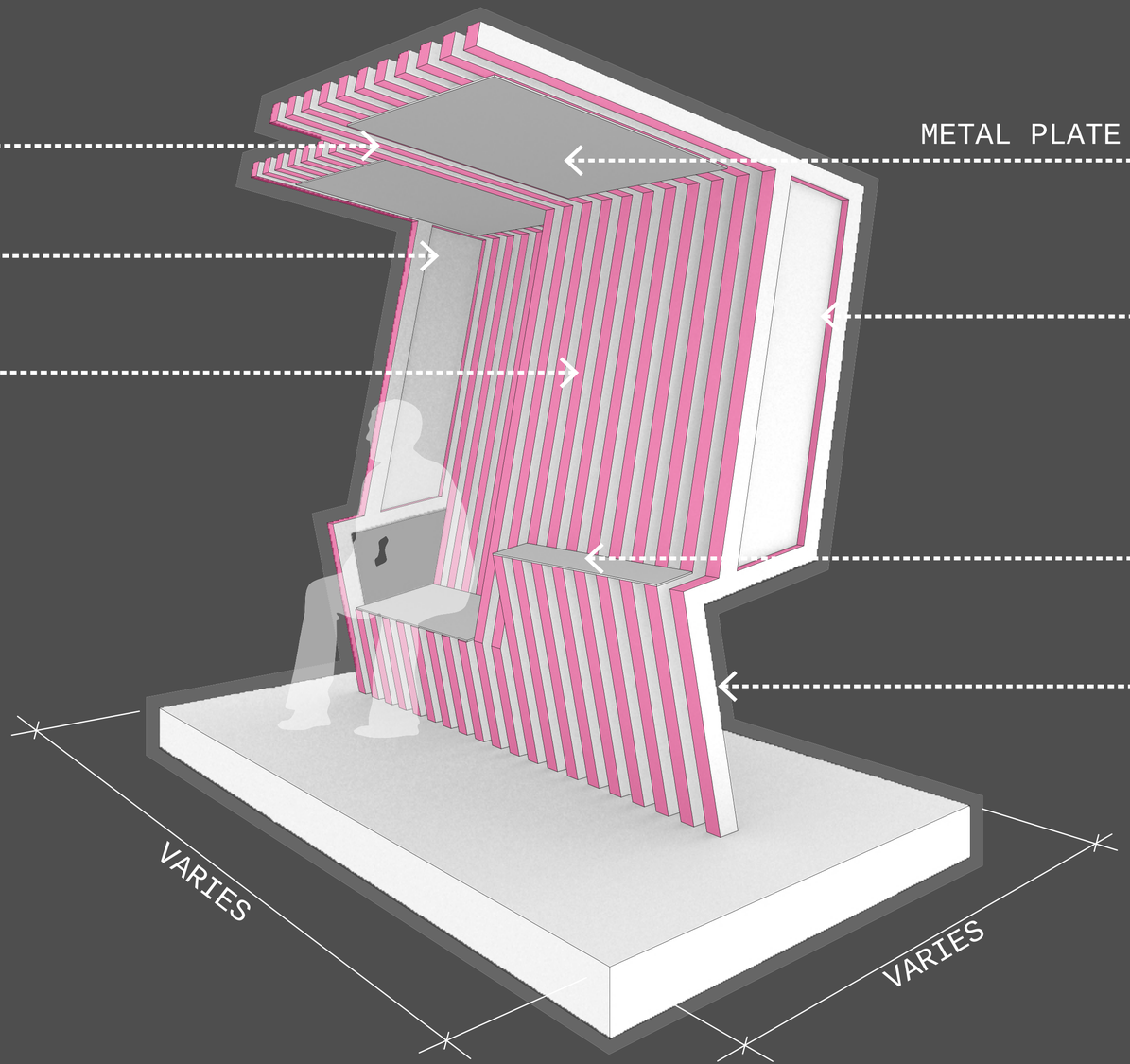
500 W 7th St STE 1400

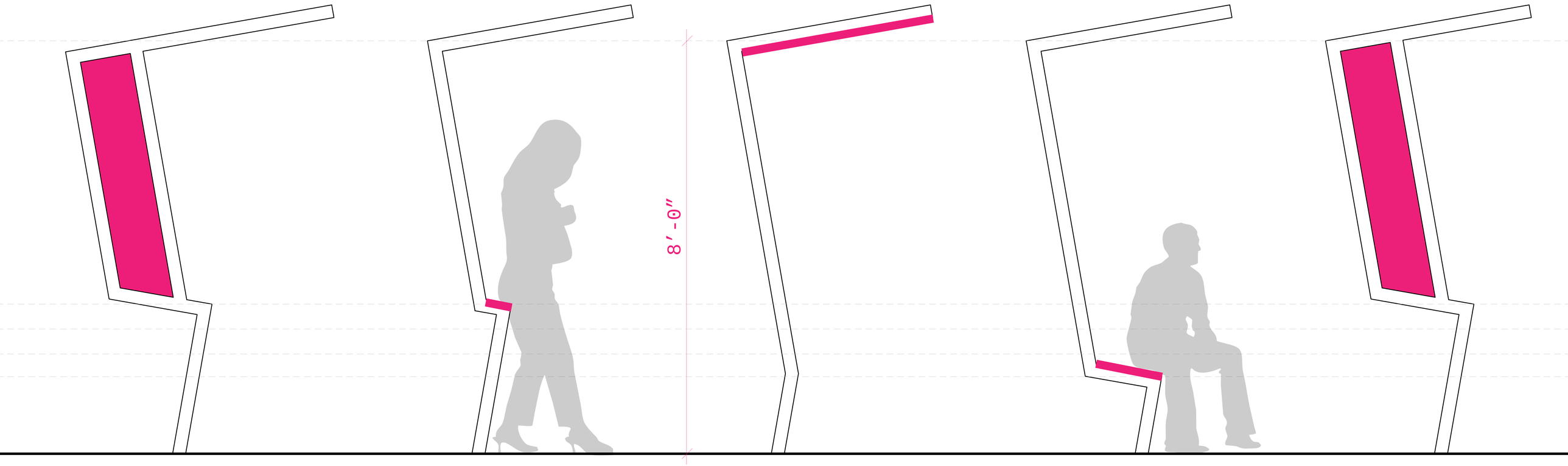
Fort Worth, TX 76102

F L E X S T O P

A MODULAR BUS STOP

FUNCTIONAL SITE

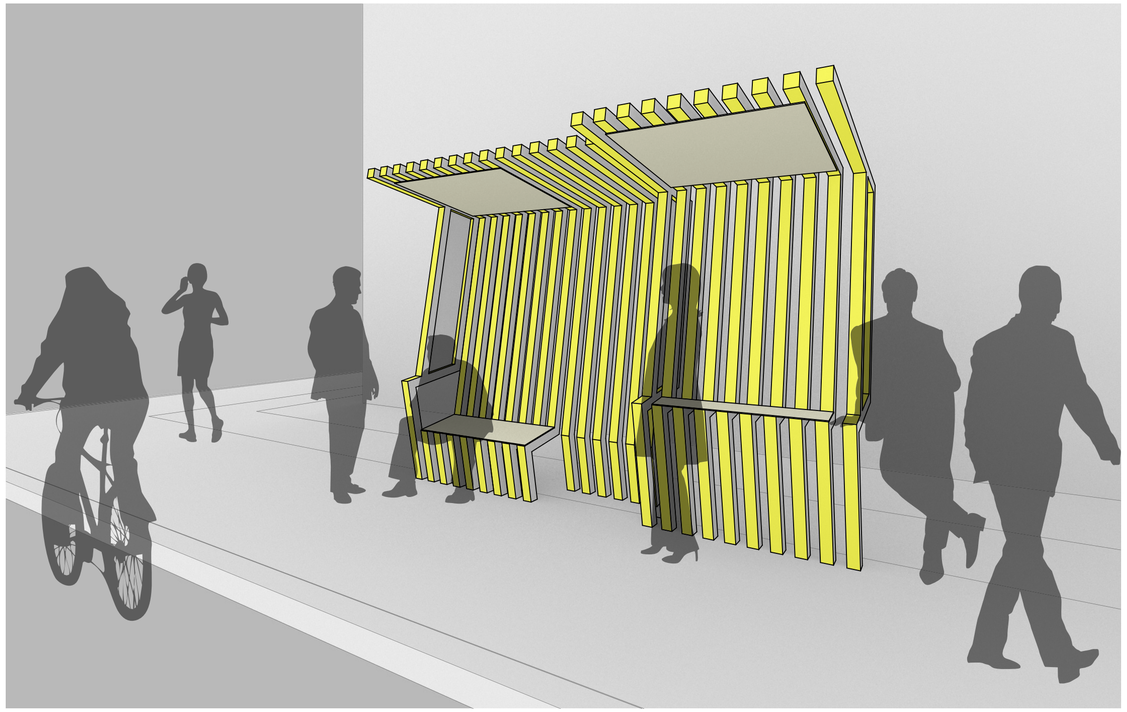


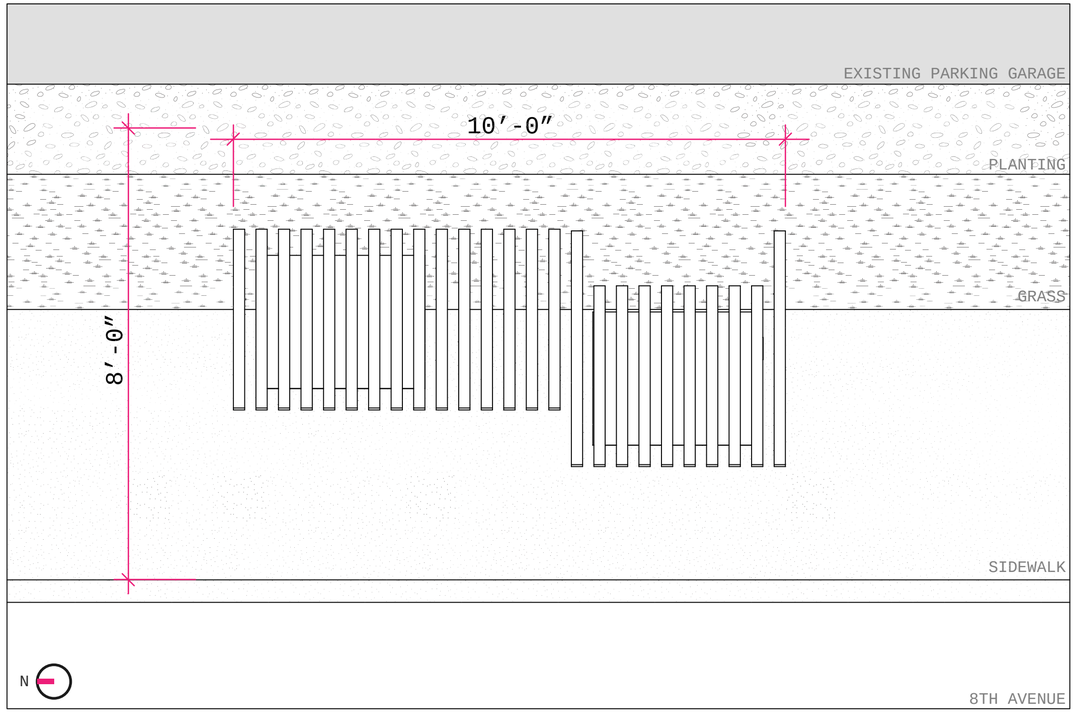


SIGNAGE LEAN LIGHT SIT SIGNAGE

5 PIECES, INFINITE COMBINATIONS

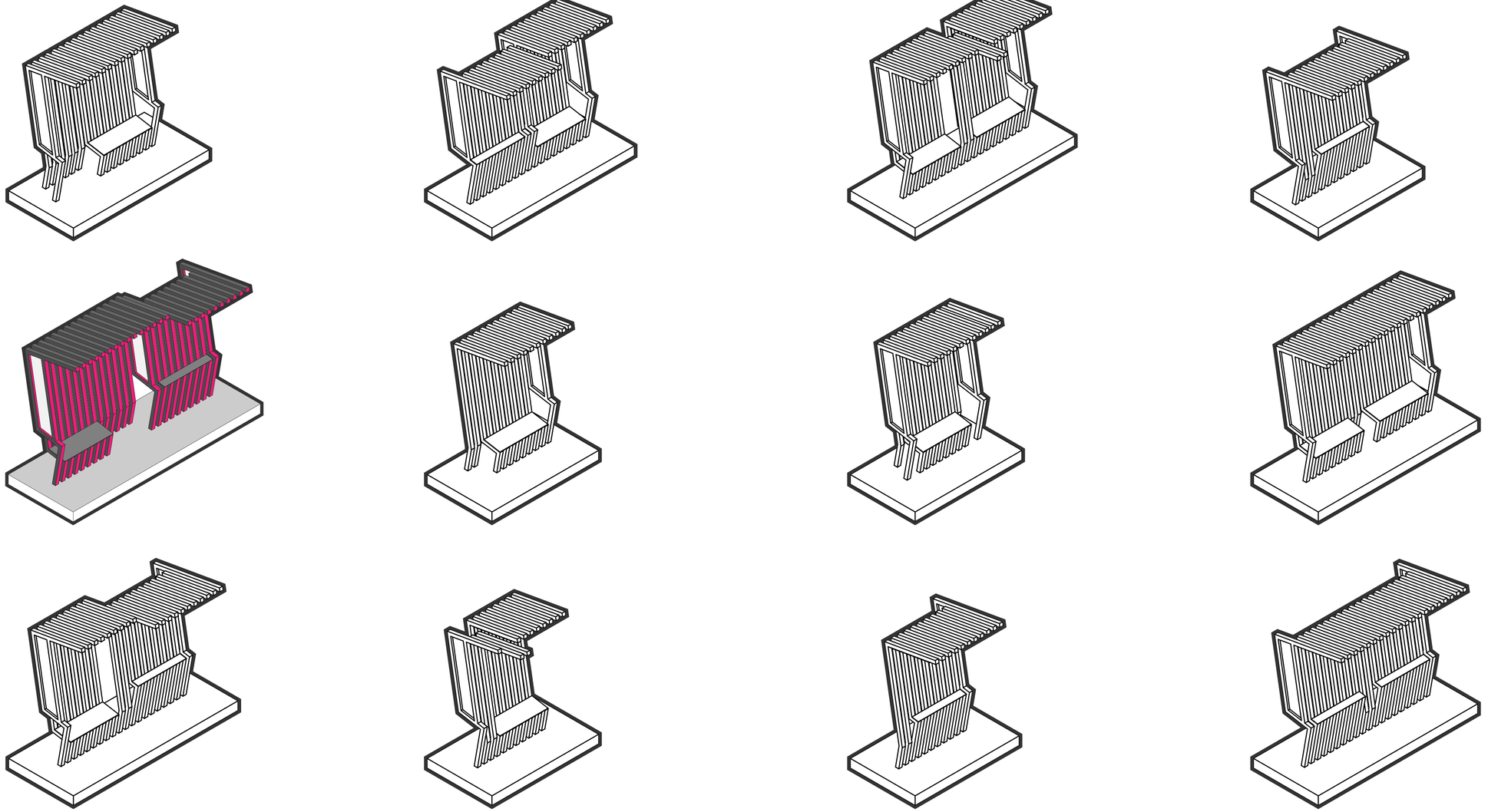
CUSTOMIZABLE TO EACH BUS STOP LOCATION





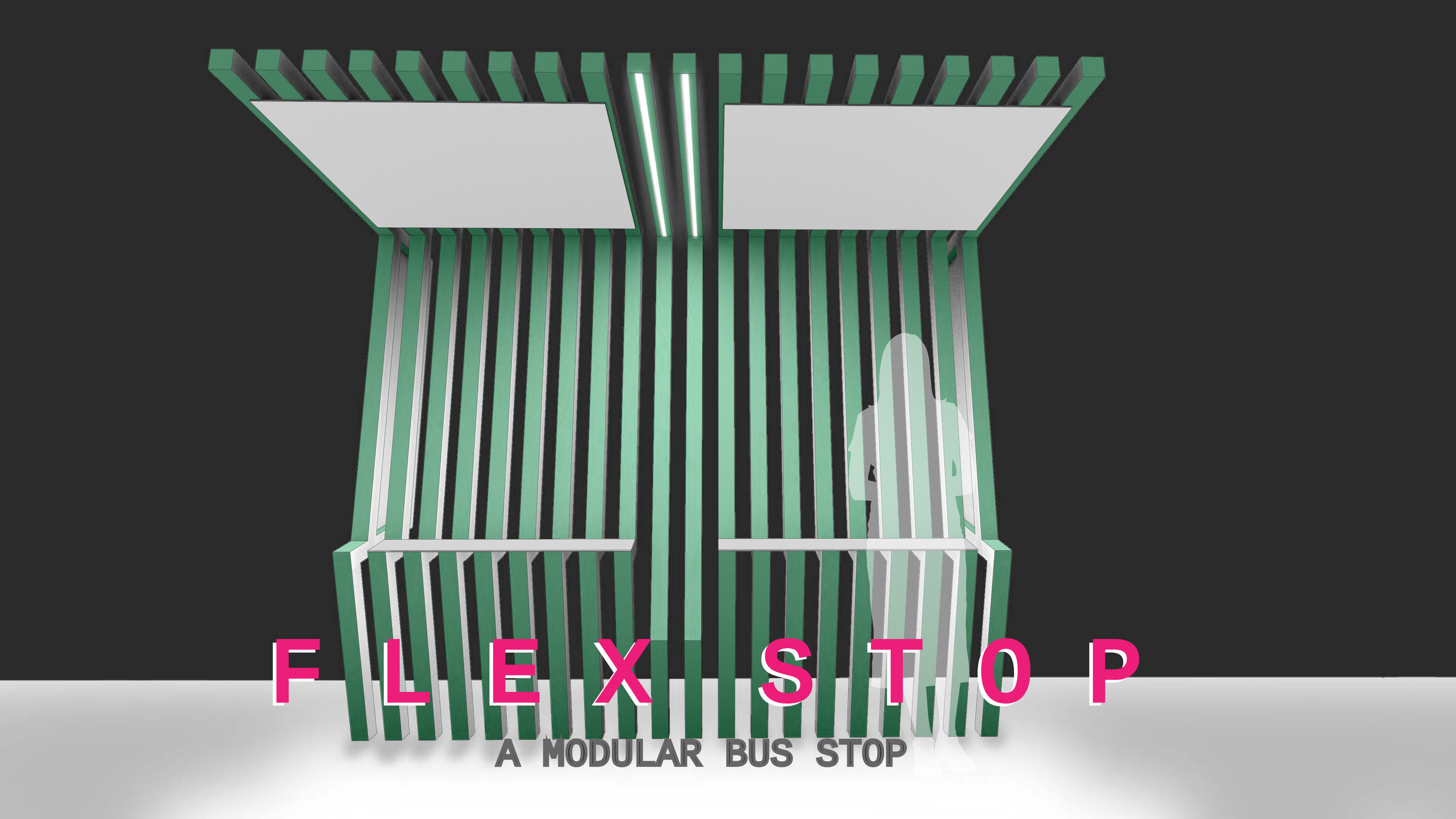
MAGNOLIA & 8TH AVE

SIGNAGE x3 + SIT + LIGHT [HANDICAP SPACE] + LEAN



VARIATIONS

CUSTOMIZABLE TO EACH BUS STOP LOCATION’S NEEDS


F L E X S T O P
A MODULAR BUS STOP

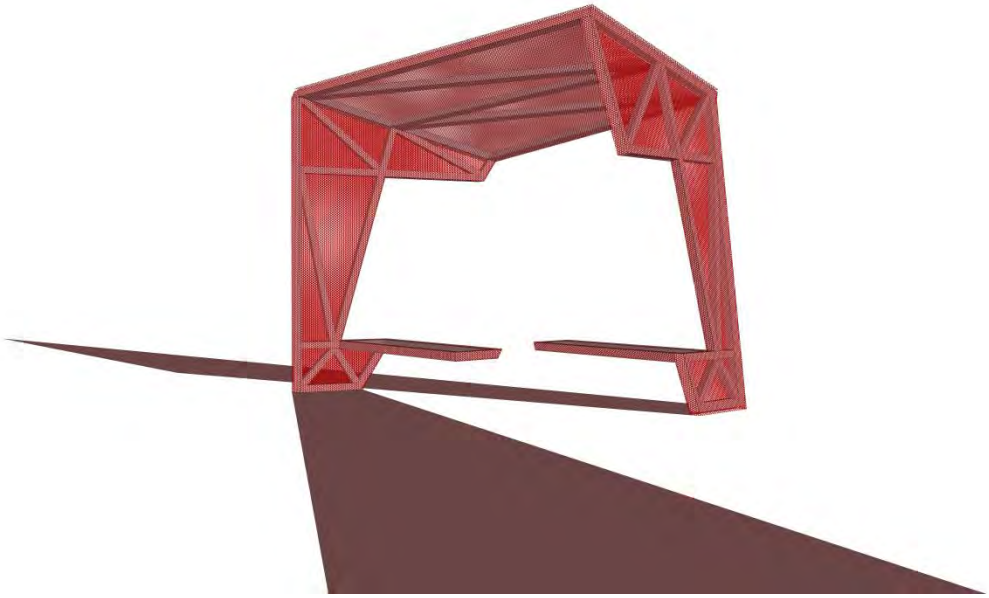
STOP

Unlike the typical bus–stops that we can acknowledge them only when we are parallel or perpendicular to them, this bus stop that would expose itself to multiple directions. The form was inspired by "origami" art is represented through one plane that starts from ground level, folds in and out, goes up, and comes back to the ground and merges with street again. Material selection brings light and openness to the seating area and yet provides an enclosed shelter.

It is an identity as oppose to only a typical stop. It breaks the typical bus–stop design norms such as: parallel alignment with grass line, or perpendicular alignment with curb, or maintaining one single line of direction from approach. It introduces itself to the users approaching it through multiple directions either by foot or by car and creates "I stop" moments (even for a minute) to experience this structure…

Category: Professional

Location: Both



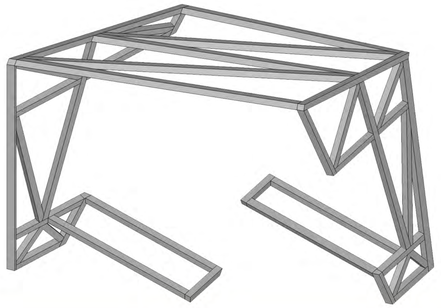
Firm Name: Jacobs

Firm Location: Fort Worth, TX

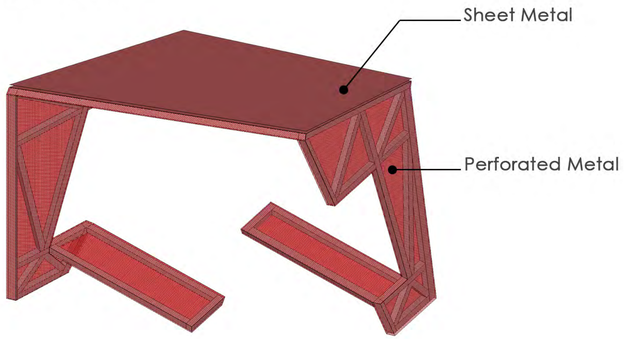
Project Team Members: Nima Malek

Construction Sequence Diagram

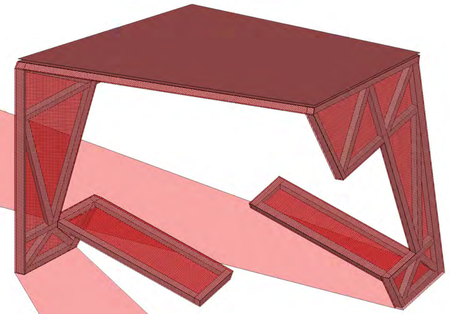
1. Steel Tube Structure

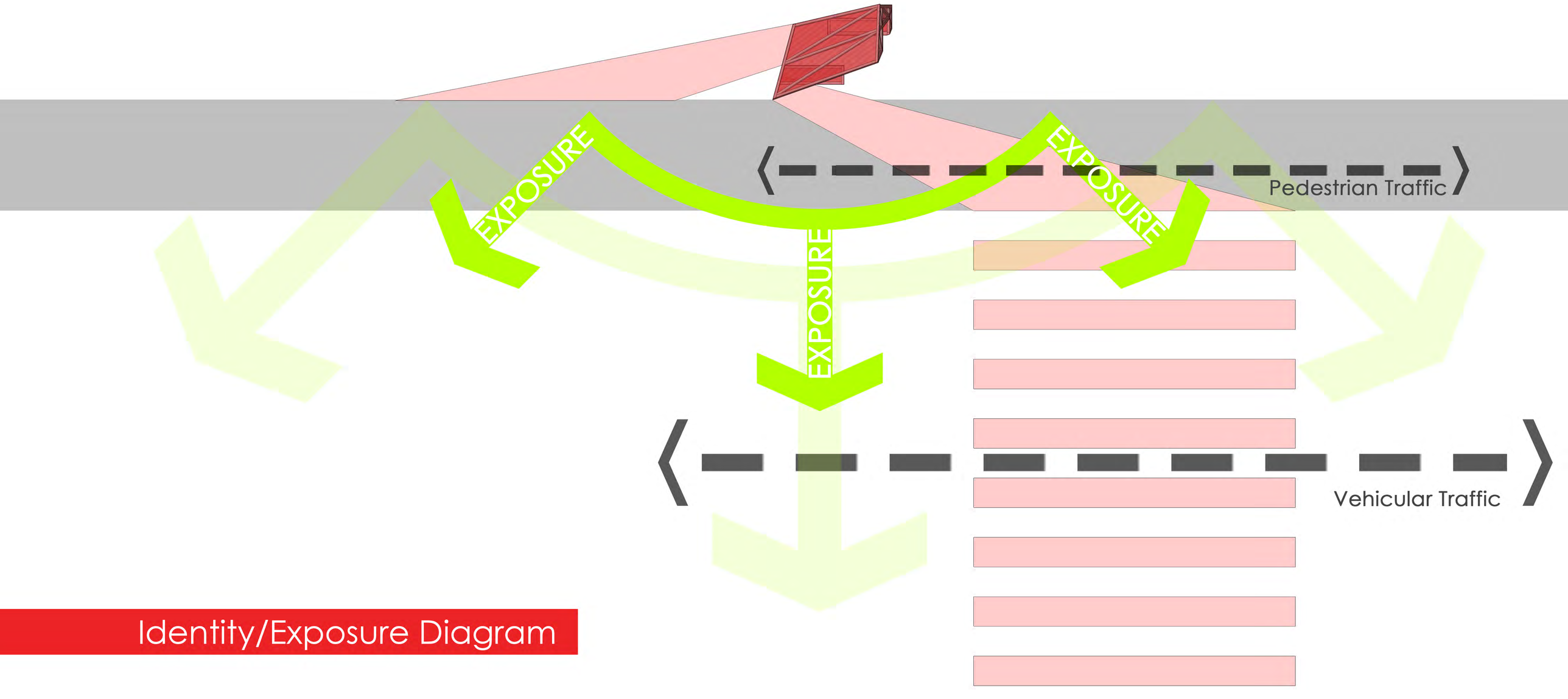


2. Skin



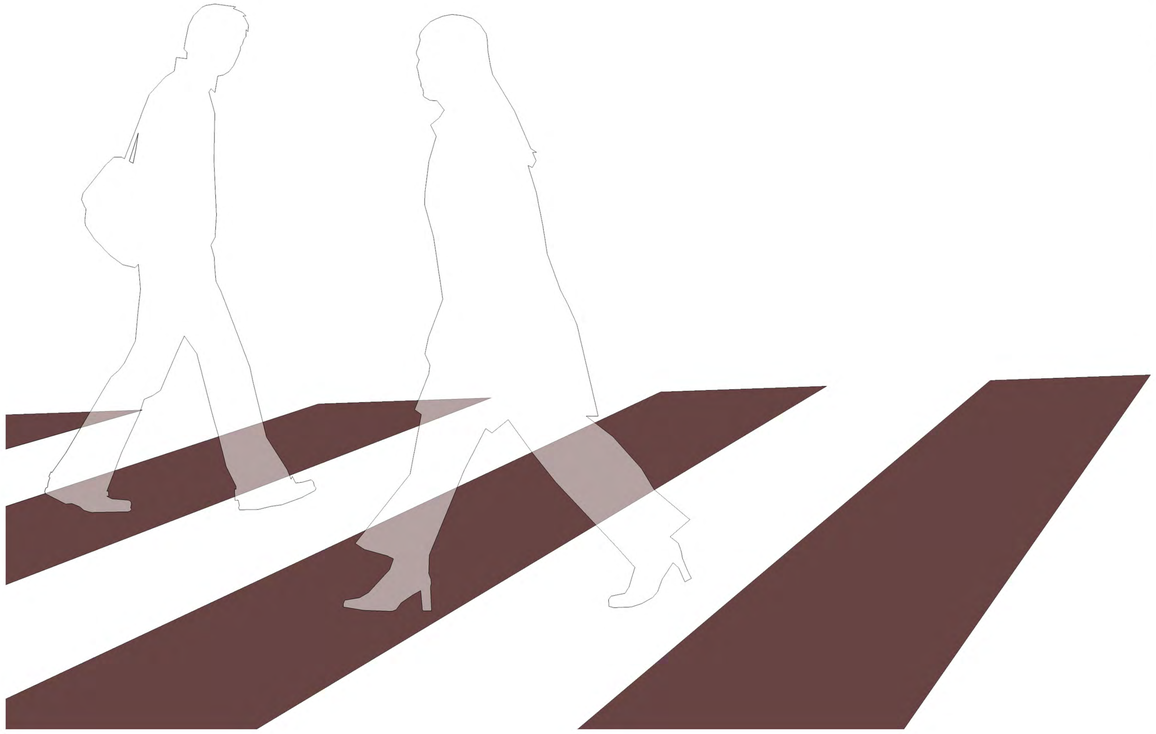
3. Ground Pattern

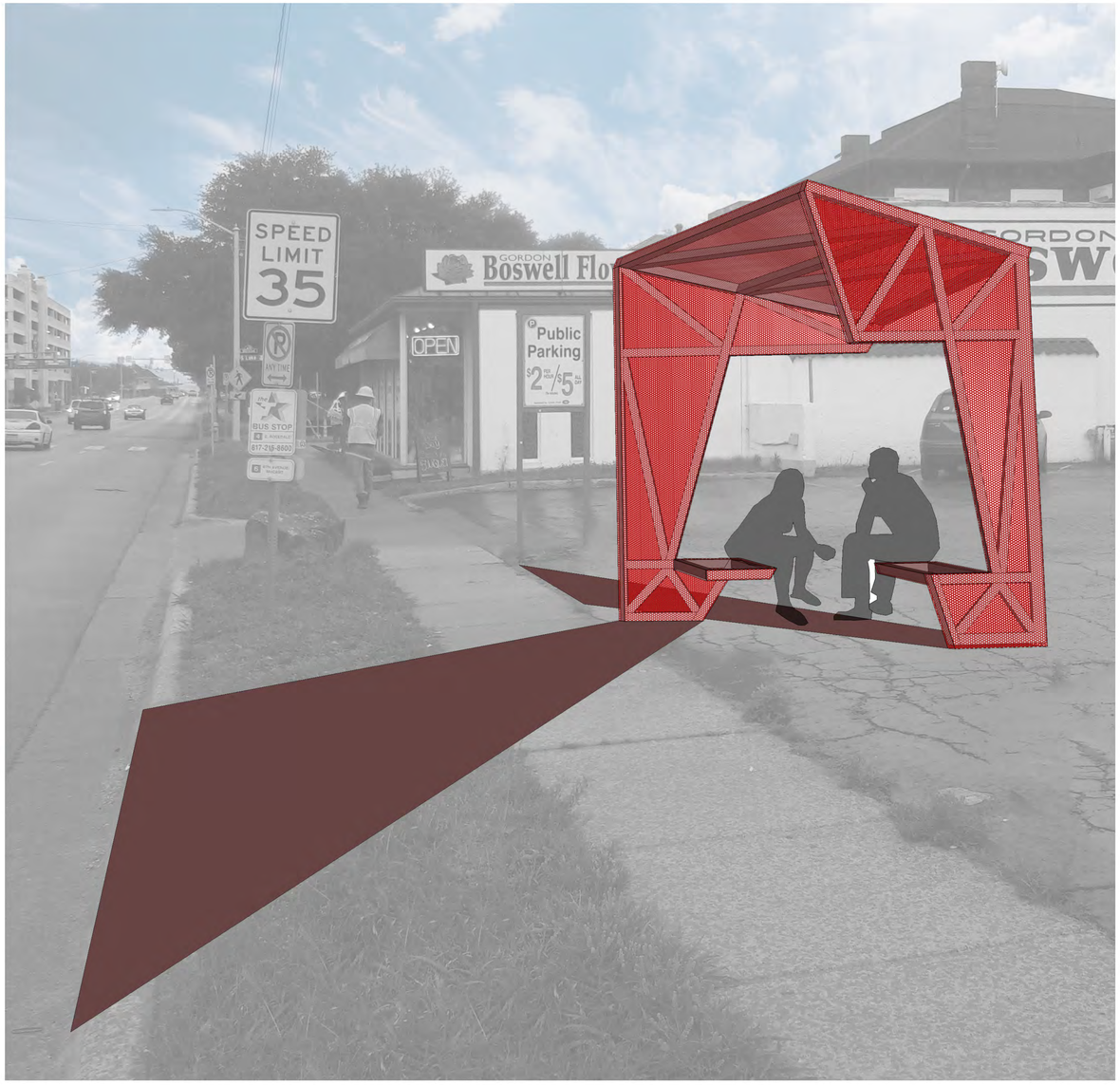




Identity/Exposure Diagram

Location 2

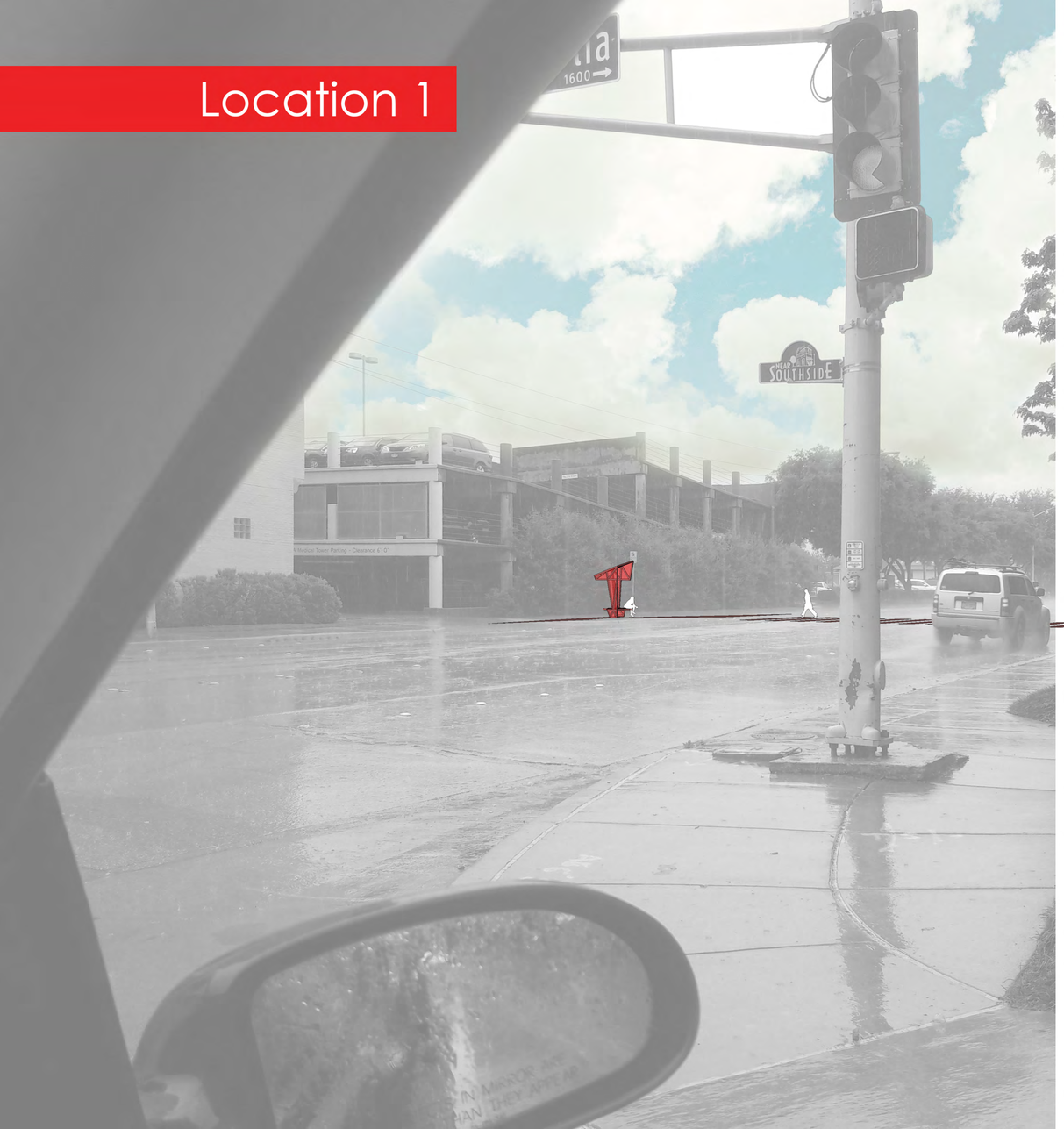



SPEED
LIMIT
35
ANY TIME
BUS STOP
817-215-8600
OPEN
Public
Parking
$2/$5

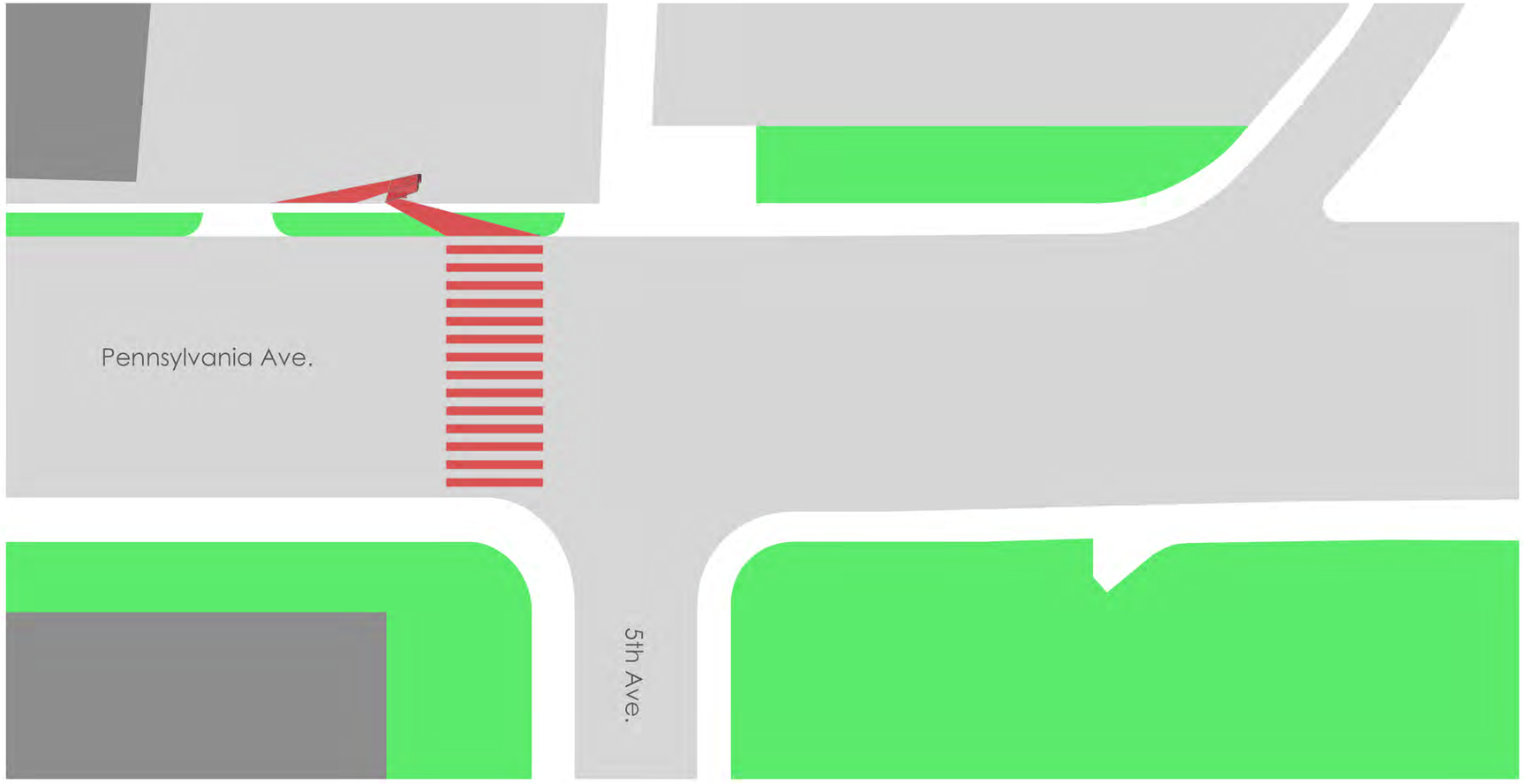
Location 2


FOR LEASE
or SALE
817-803-3287
VisionCommercial.com
VISION
COMMERCIAL REAL ESTATE
Scott Lowe
Public
Parking
$5

Location 1

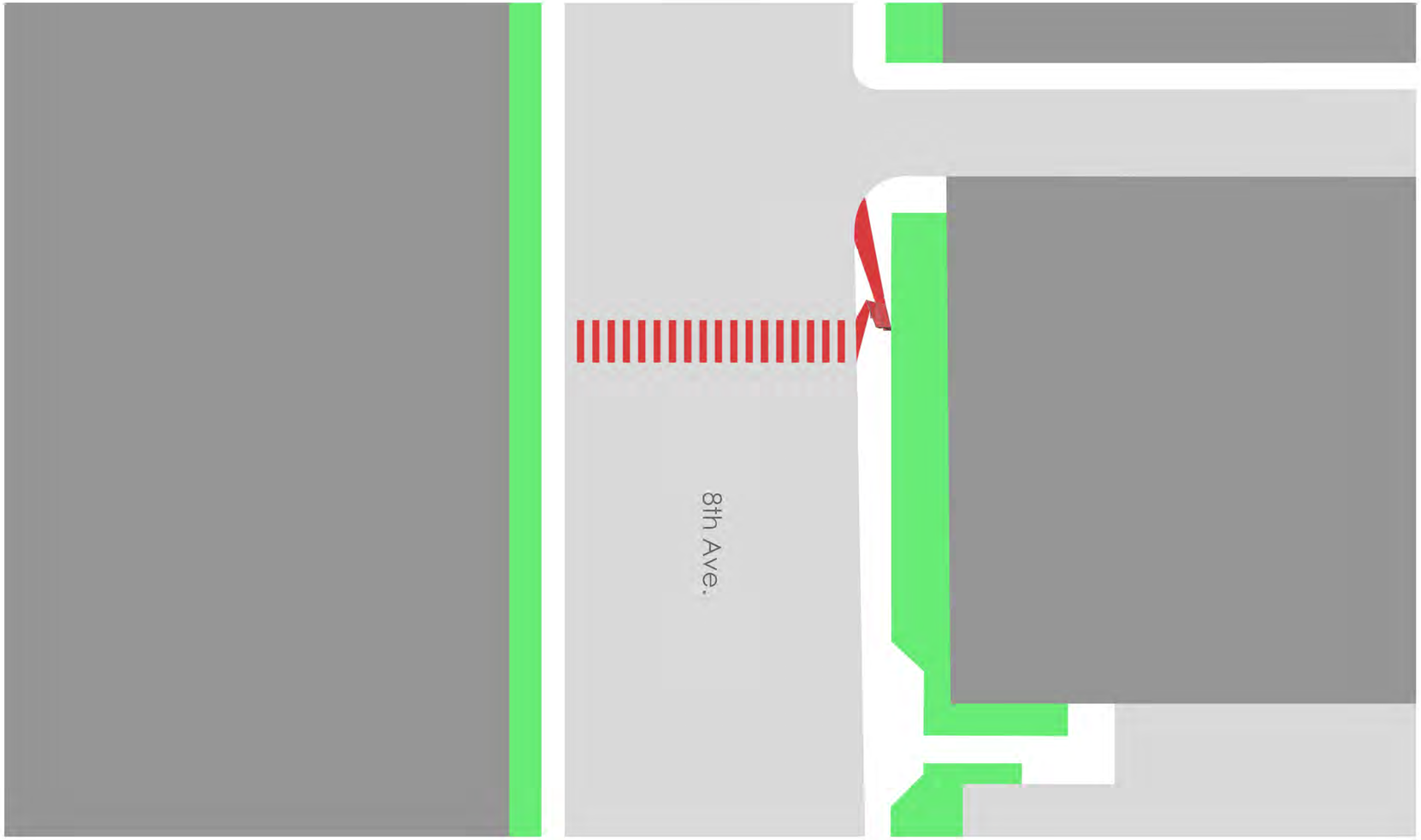


Location 1



Location 2

Location 1



FUNCTIONAL STOP
MAGNOLIA AND 8TH AVENUE

The design for this bus shelter is a melding of Art and Western Heritage, much like the city of Fort Worth. The symmetrical structure incorporates back to back seating areas for flexible waiting. The two shed roofs share the centerline of the structure and form a steer head, when viewed from the side. This structural combination also forms several Art Deco shapes. The trapezoidal, translucent side panels provide a wind-break and they can be illuminated by LED, back-lighting to notify the bus driver of waiting passengers. The underside of these shed roofs also contain LED back-lighting of translucent panels for uniform light. The "Corten" (rusted) tubular steel members at each end are anchored to the cast-in-place concrete bases with base plates covered by the concrete. Individual, polished concrete seat pedestals provide defined seating options. The back panel of both sides of the seating areas spans between the polished concrete bases and can be used for advertising, general information, and bus routes.

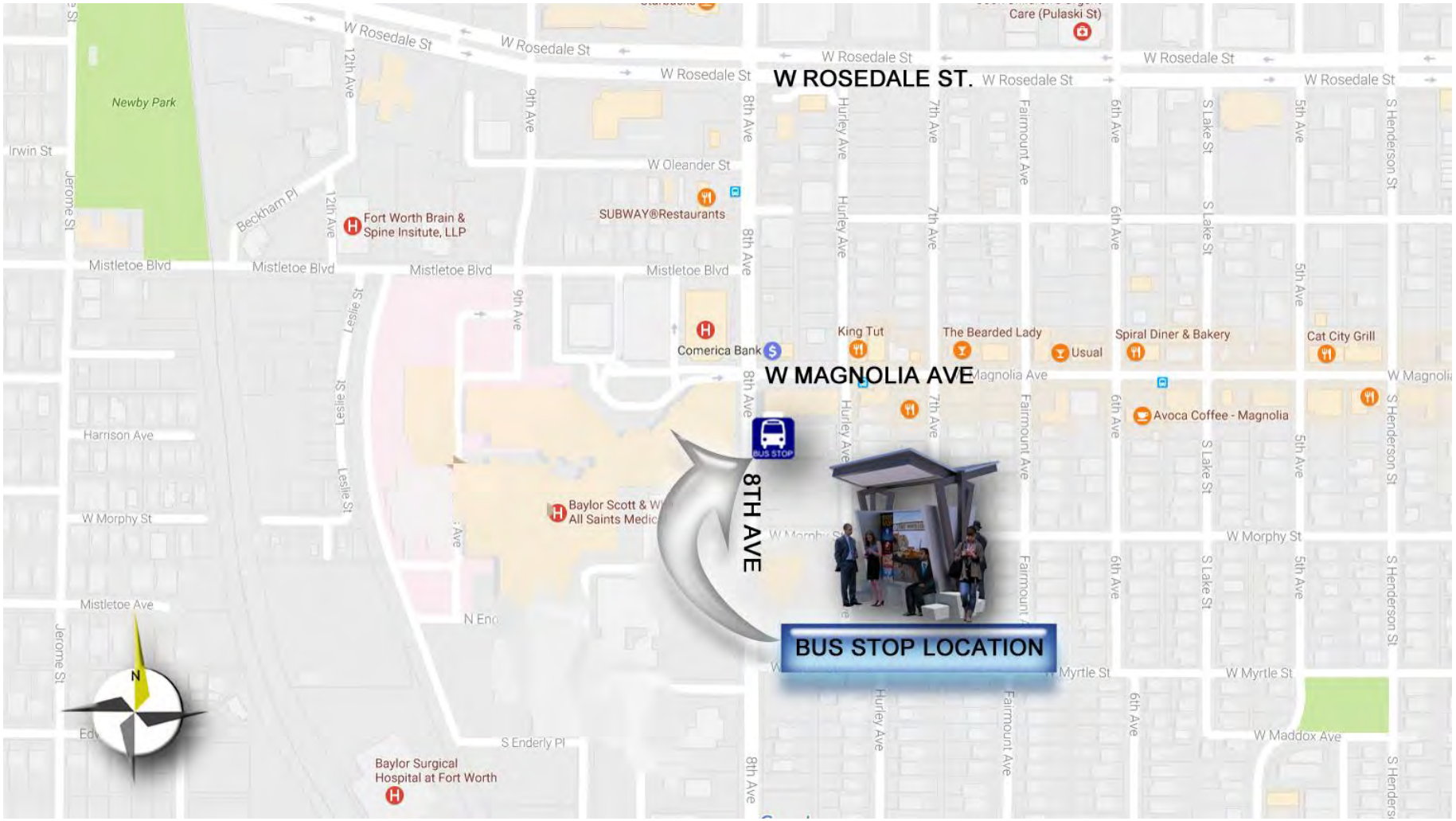
PROFESSIONAL CATEGORY

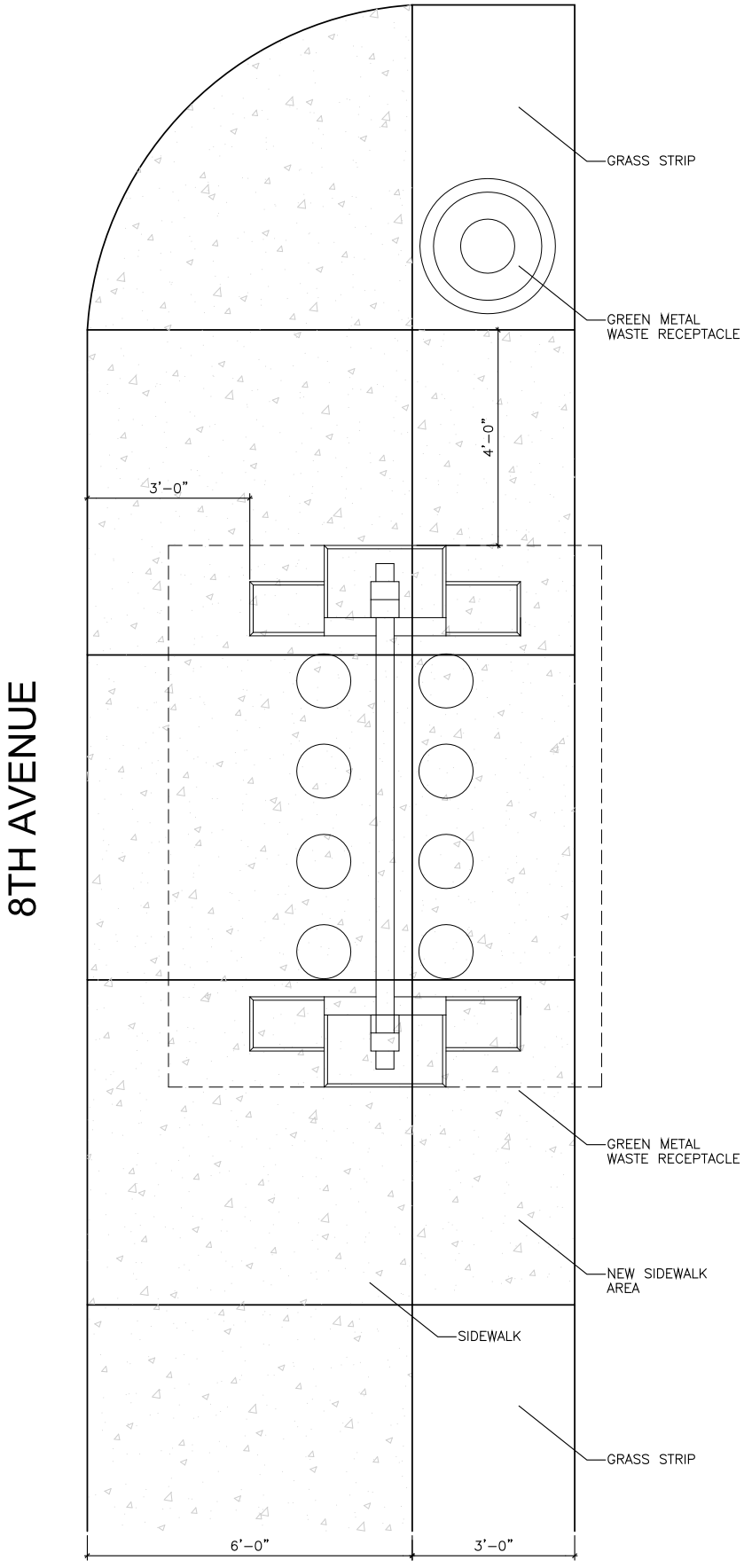
Schwarz Hanson Architects
2570 River Park Plaza
Suite 100
Fort Worth, Texas 76116

Licensed Architect: Gerald H. Schwarz AIA
Team Member: Carlos Martinez

FUNCTIONAL STOP

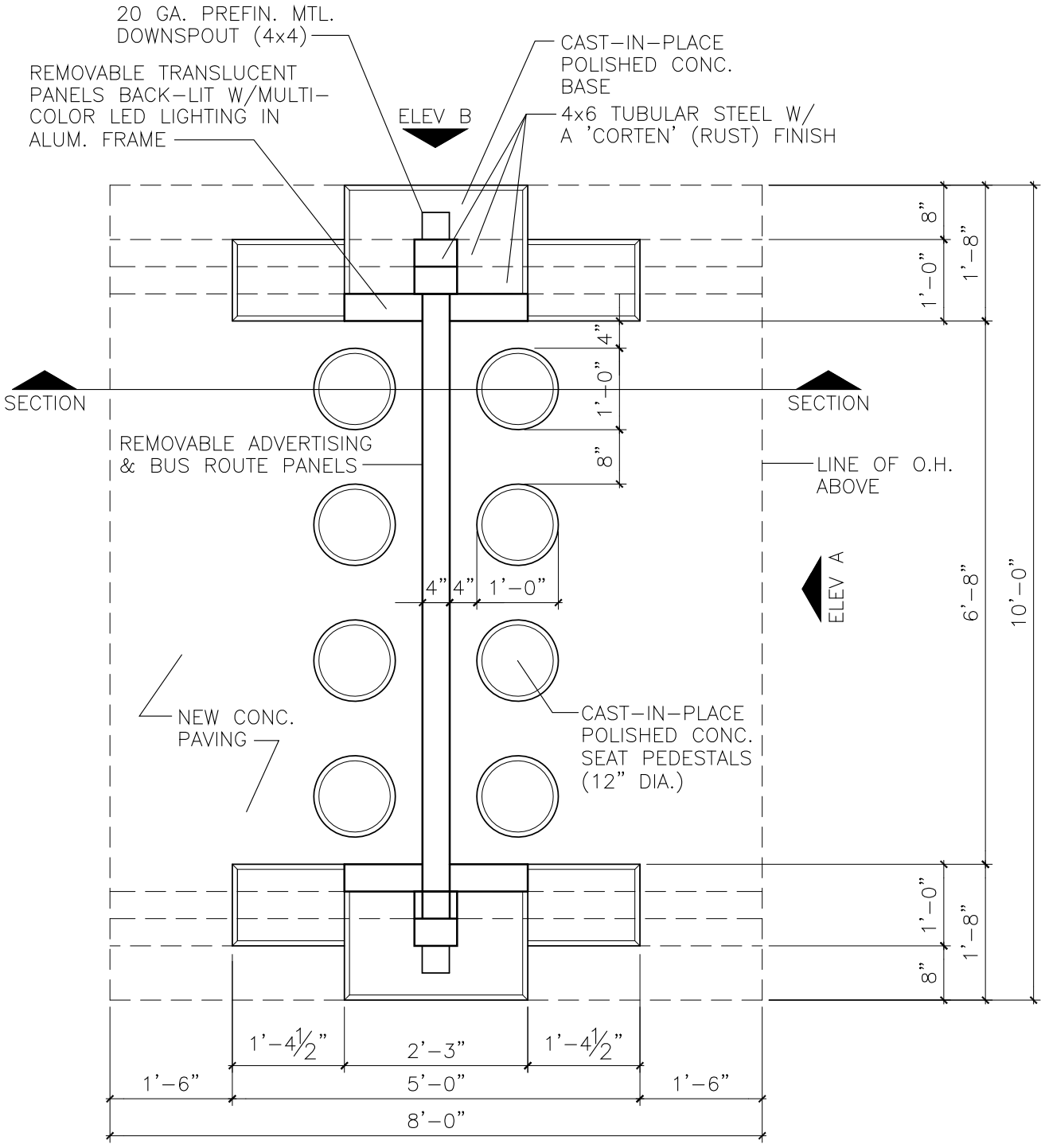
8’ x 10’ FOOTPRINT


W ROSEDALE ST.
W MAGNOLIA AVE
8TH AVE
BUS STOP LOCATION
W Rosedale St
Newby Park
Irwin St
Jerome St
12th Ave
9th Ave
8th Ave
Hurley Ave
7th Ave
Fairmount Ave
6th Ave
S Lake St
5th Ave
S Henderson St
Beckham Pl
Fort Worth Brain & Spine Insitute, LLP
W Oleander St
SUBWAY®Restaurants
Mistletoe Blvd
Leslie St
Comerica Bank
King Tut
The Bearded Lady
Usual
Spiral Diner & Bakery
Cat City Grill
Avoca Coffee - Magnolia
Harrison Ave
W Morphy St
Baylor Scott & W
All Saints Medic
Mistletoe Ave
N
S Enderly Pl
Baylor Surgical Hospital at Fort Worth
W Myrtle St
W Maddox Ave
Care (Pulaski St)
BUS STOP



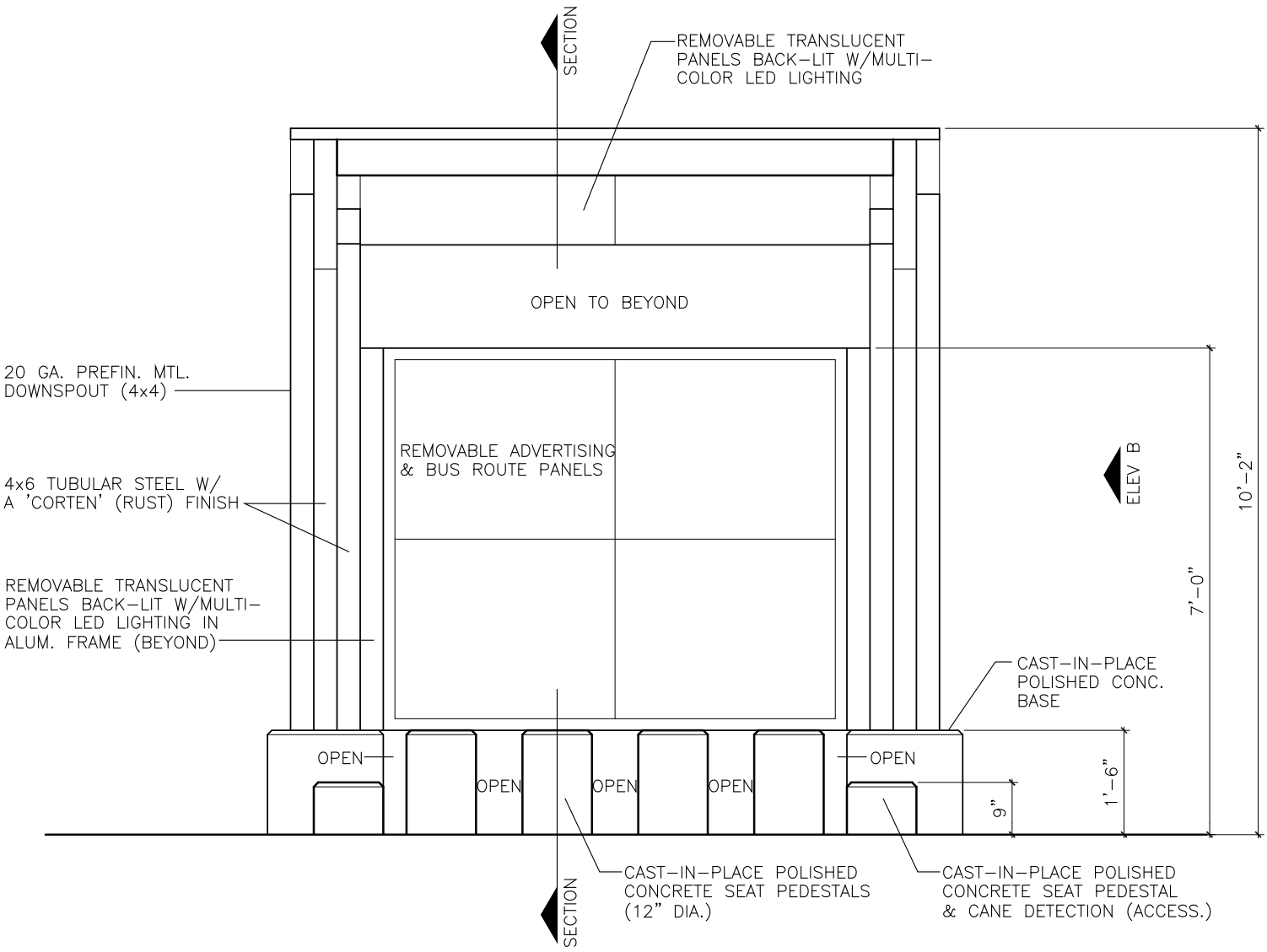
SITE PLAN

0 2 4'

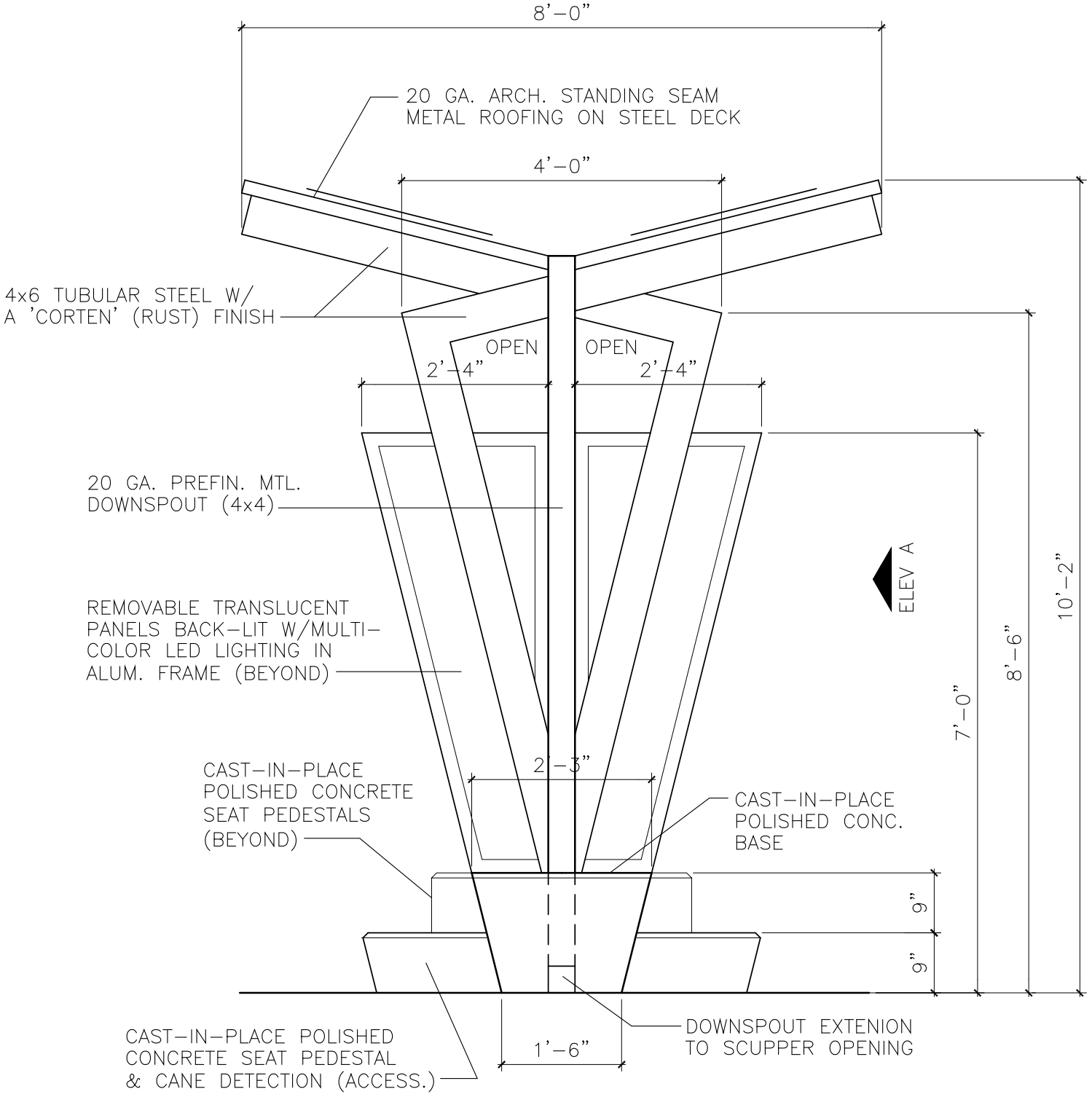

20 GA. PREFIN. MTL. DOWNSPOUT (4x4)
REMOVABLE TRANSLUCENT PANELS BACK-LIT W/MULTI-COLOR LED LIGHTING IN ALUM. FRAME
ELEV B
CAST-IN-PLACE POLISHED CONC. BASE
4x6 TUBULAR STEEL W/ A 'CORTEN' (RUST) FINISH
8"
1'-0"
1'-8"
4"
1'-0"
8"
SECTION
SECTION
REMOVABLE ADVERTISING & BUS ROUTE PANELS
LINE OF O.H. ABOVE
ELEV A
4" 4" 1'-0"
6'-8"
10'-0"
NEW CONC. PAVING
CAST-IN-PLACE POLISHED CONC. SEAT PEDESTALS (12" DIA.)
1'-0"
1'-8"
8"
1'-4½"
2'-3"
1'-4½"
1'-6"
5'-0"
1'-6"
8'-0"

PLAN

0 2 4'

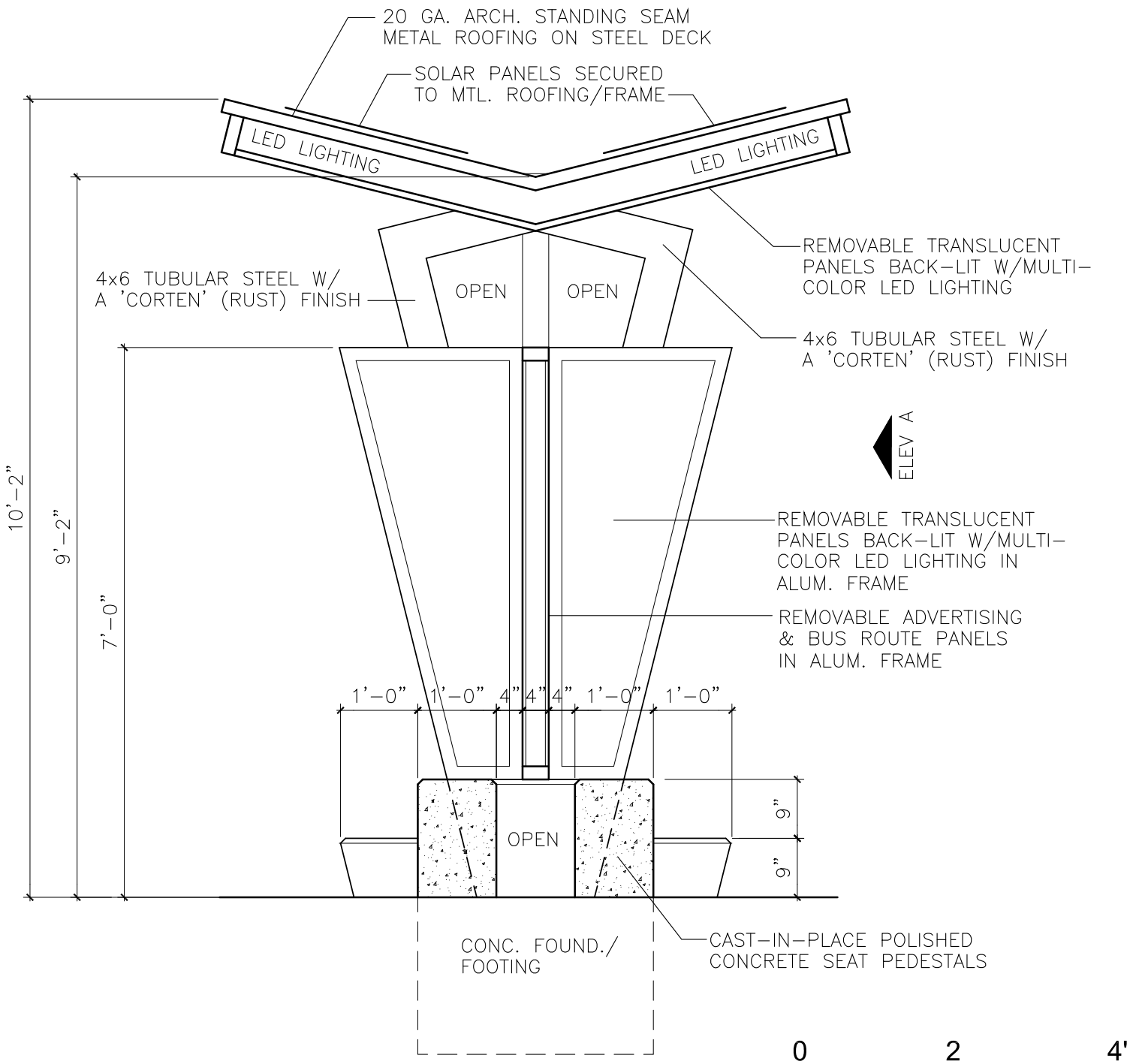


ELEV A
EAST & WEST



0 2 4'

ELEV B
NORTH & SOUTH

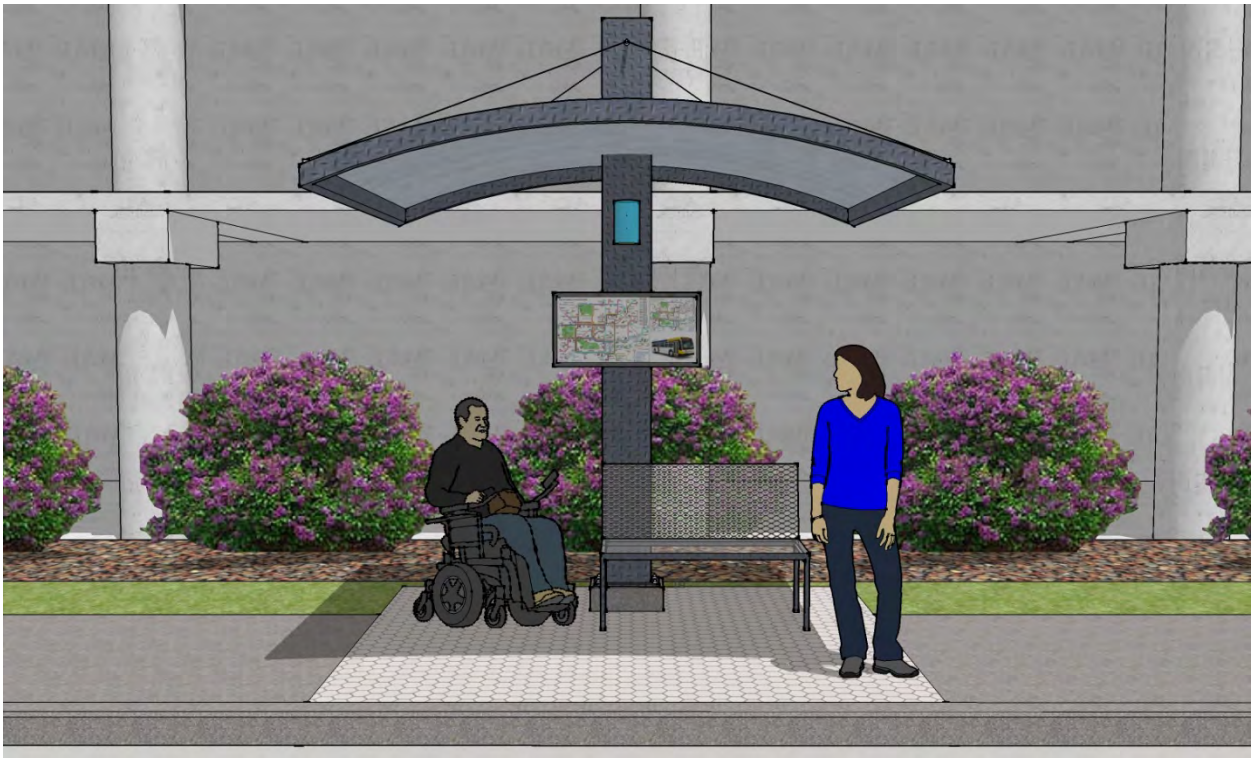


SECTION
NORTH & SOUTH


W Magnolia
BASS
FORT WORTH


FORT WORTH STOCK YA


BUS STOP



Category: Professional

Location: Northbound stop for #6 route. South of Southeast corner of Magnolia and 8th Avenue.

The bus stop structure is comprised of a 4”x12” steel tube that is anchored to a 10”x18” concrete column with a steel plate. A curved roof canopy made of 2”x4” steel tube frame and translucent plastic sheet is connected to the back of the vertical steel tube with a bracket. 4 steel cables hung from the vertical steel tube provide additional canopy support. A digital information panel displays the bus routes and time table. A bracket light provides the required illumination. A steel bench bolted to the ground is provided for seating with enough maneuvering space under the canopy for handicapped patrons.

CREDIT SHEET

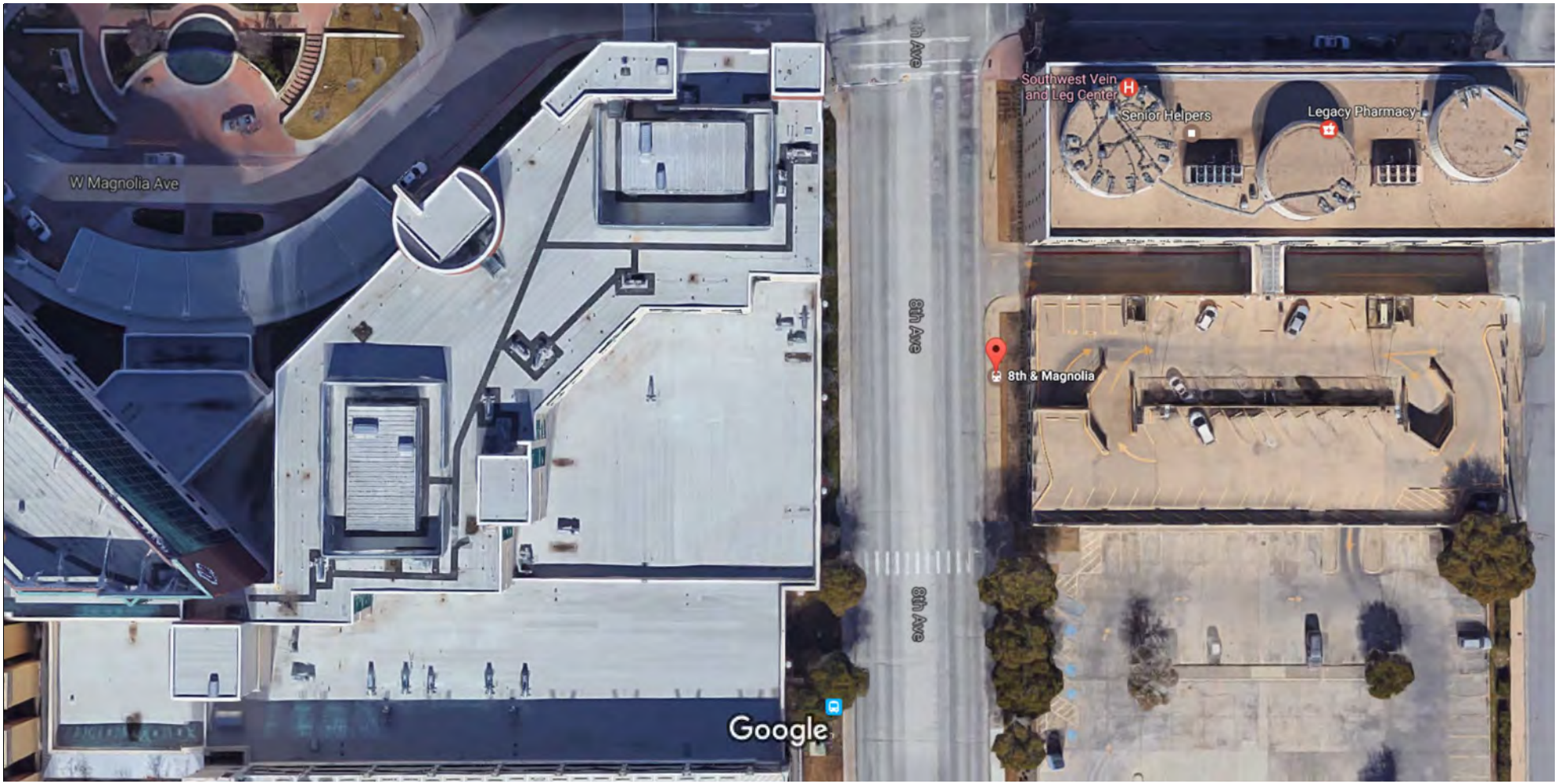
Architect Sohail Ahmed

S2N2 Design Build Inc.

9044 Silsby Drive

Fort Worth, TX 76244

Google Maps 8th & Magnolia



Imagery ©2017 Google, Map data ©2017 Google 20 ft

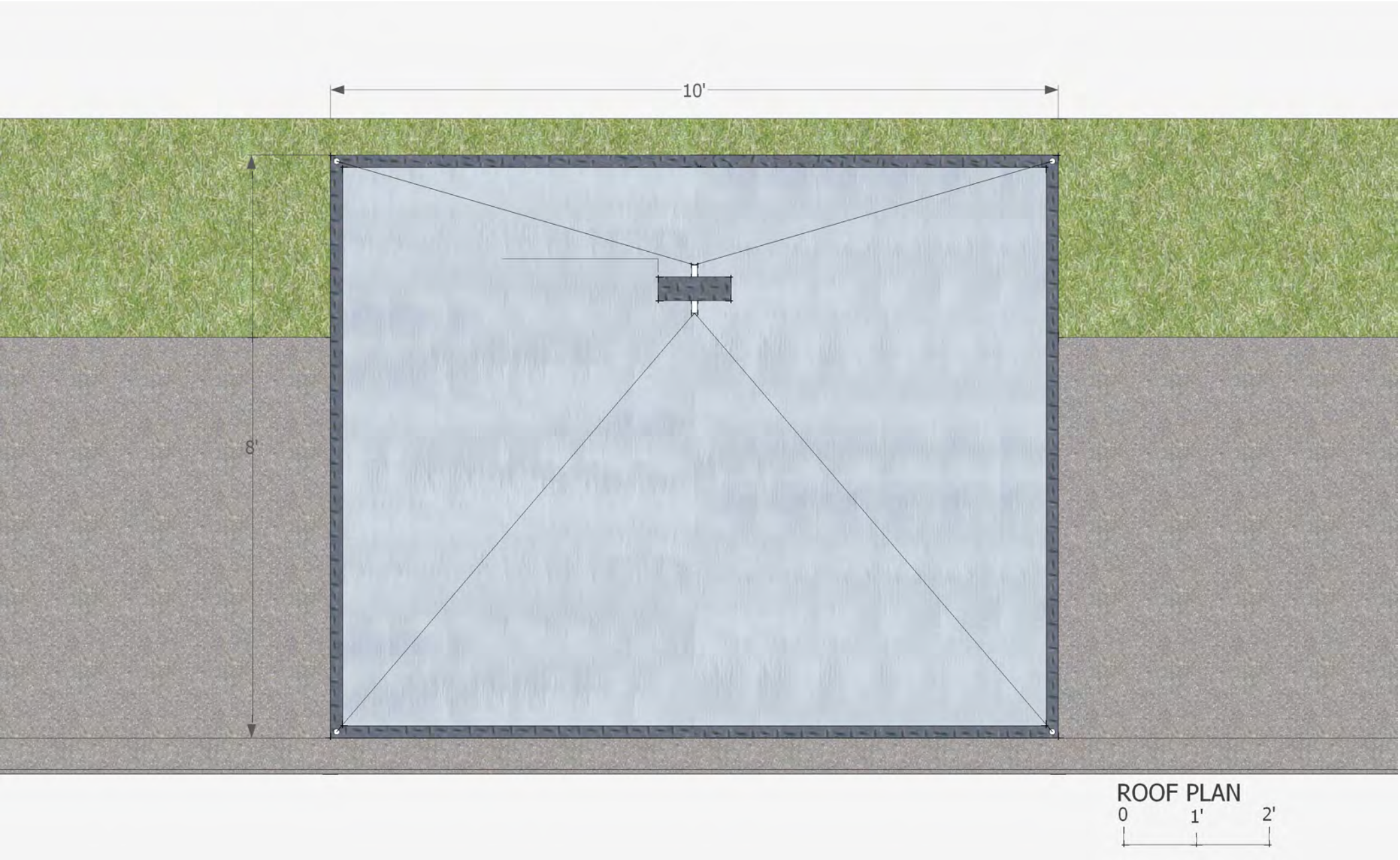
8th & Magnolia Bus Stop
North Bound Stop for #6

north

Foot Print Dimensions: 10' x 8'


1362 1362 8th Ave
© 2016 Google
© 2017 Google
32°43'48.31" N 97°20'37.03" W elev 641 f

<<<north



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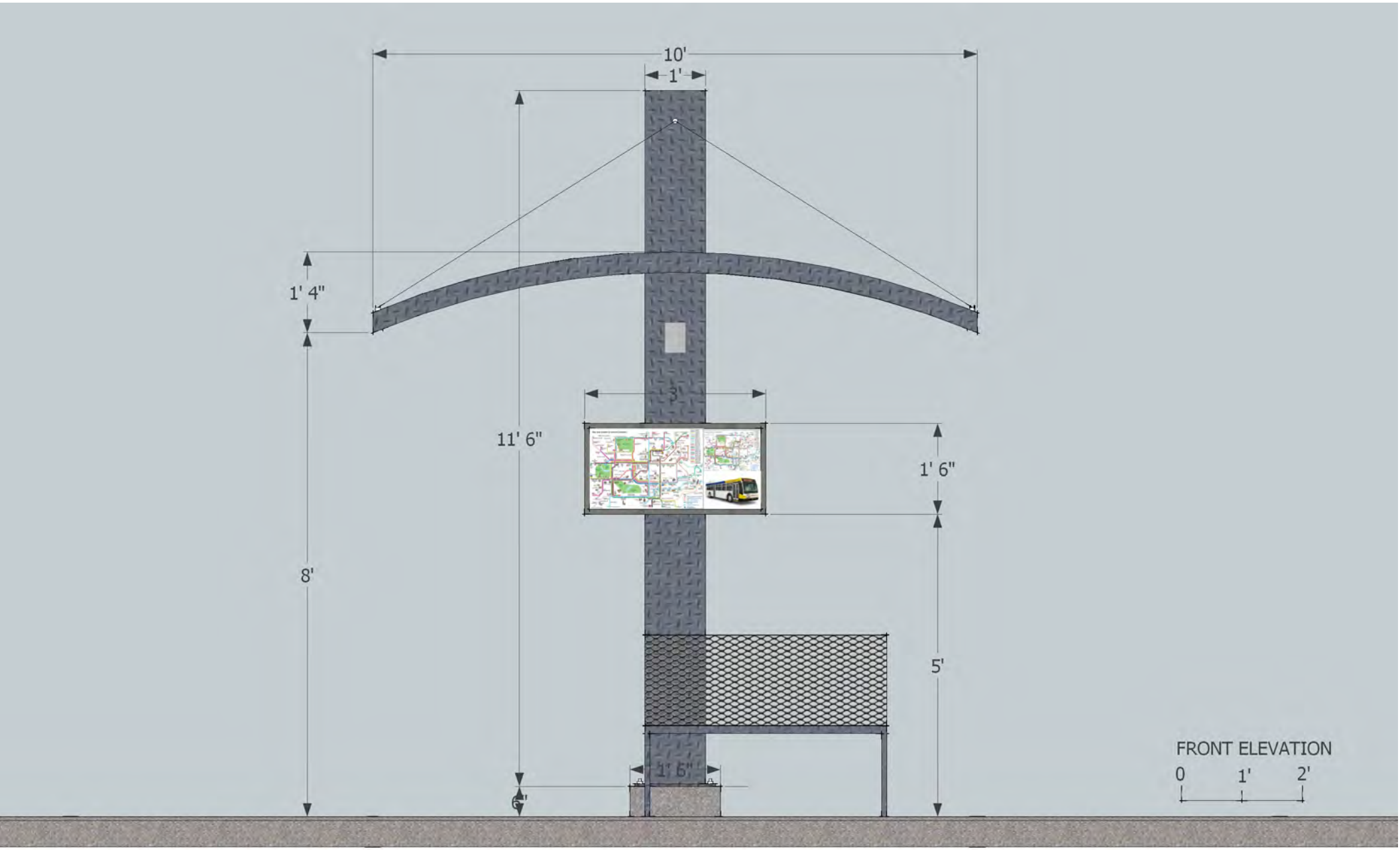
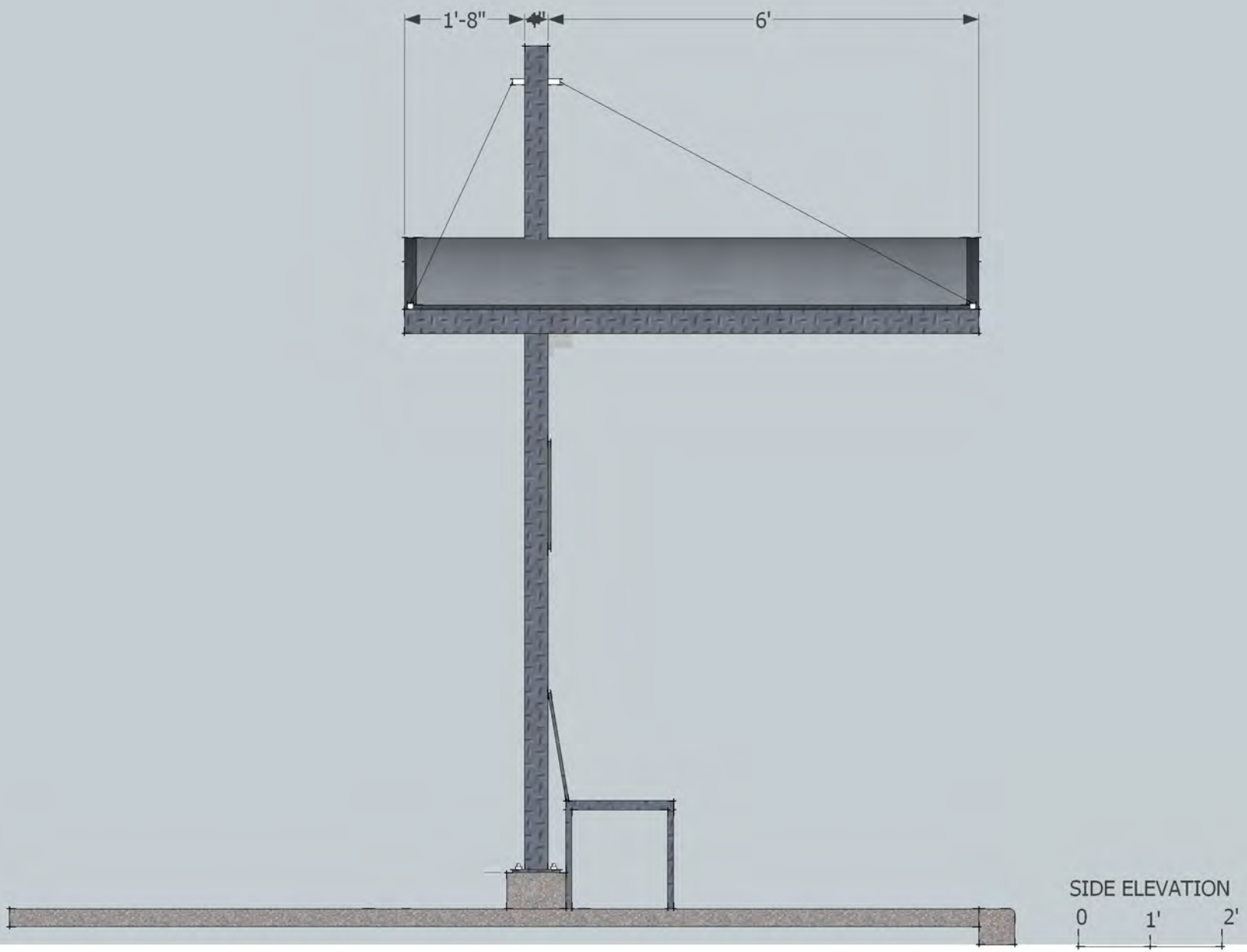
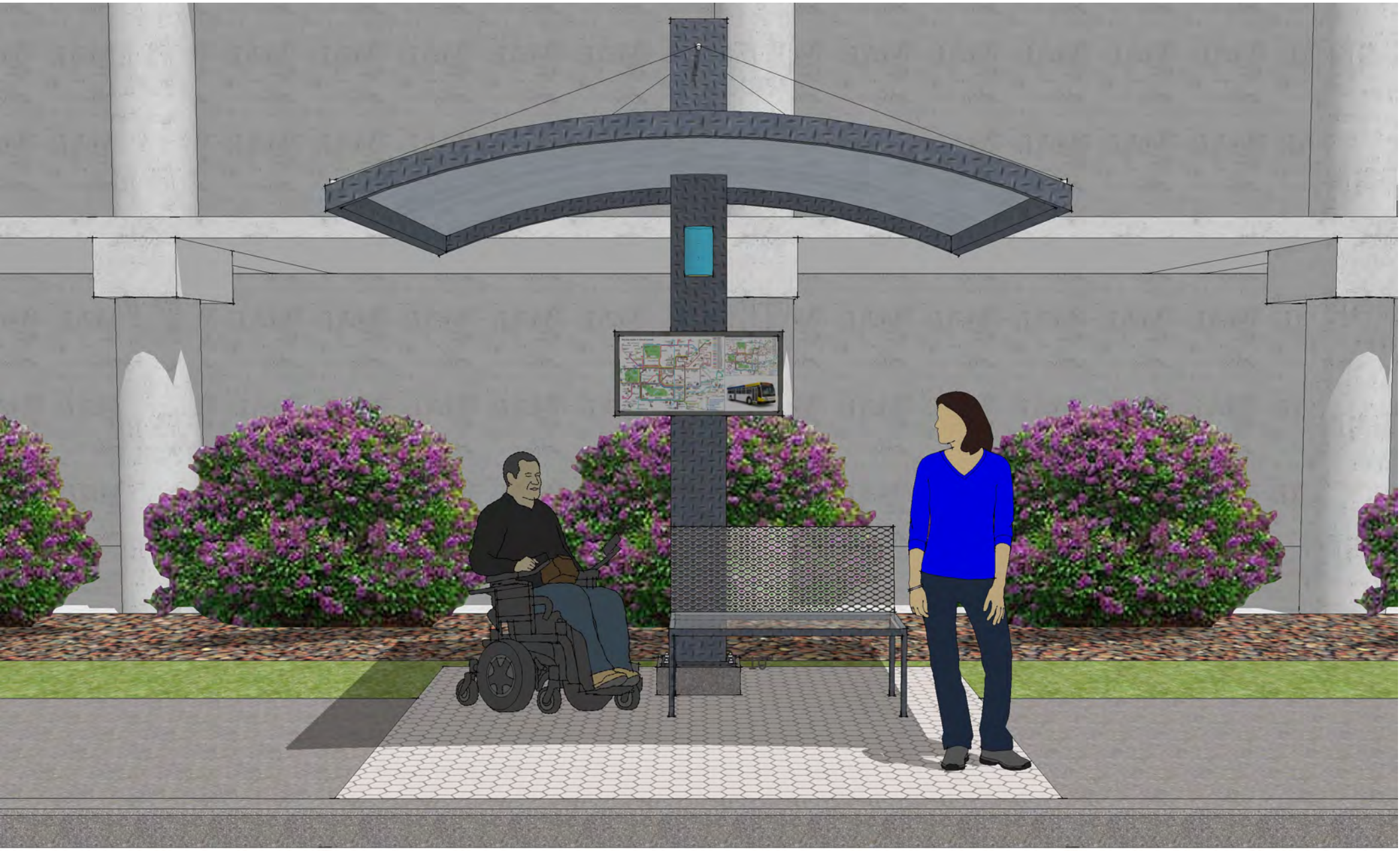

10'
1'
1' 4"
11' 6"
3'
1' 6"
8'
5'
1' 6"
6"
FRONT ELEVATION
0
1'
2'


1'-8"
4"
6'
SIDE ELEVATION
0
1'
2'



Lantern Bus Stop

8th Avenue – Fort Worth, Texas

The artist states, “I'd like to emphasis the idea of domesticity, as it conveys security, and community, shared familiarity, especially at bus stops, where human interaction breeds the above qualities in a shared space. Once people interact, the walls of fear, suspicion, loneliness, anxiety, and alienation go away. That puts the "public" into transportation, which in turn supports all of us.”

The architect/artist team used the work of the artist as a starting point. The luminous structures created by the artist are striking during the day but more-so at night. During the day the forms are a memorable marker. At night the luminous quality of the forms create space with light.

The other inspiration is the photography of the artist team-member. The domestic photography has been focused on images of chairs and gardens.

Lantern Bus Stop

8th Avenue – Fort Worth, Texas

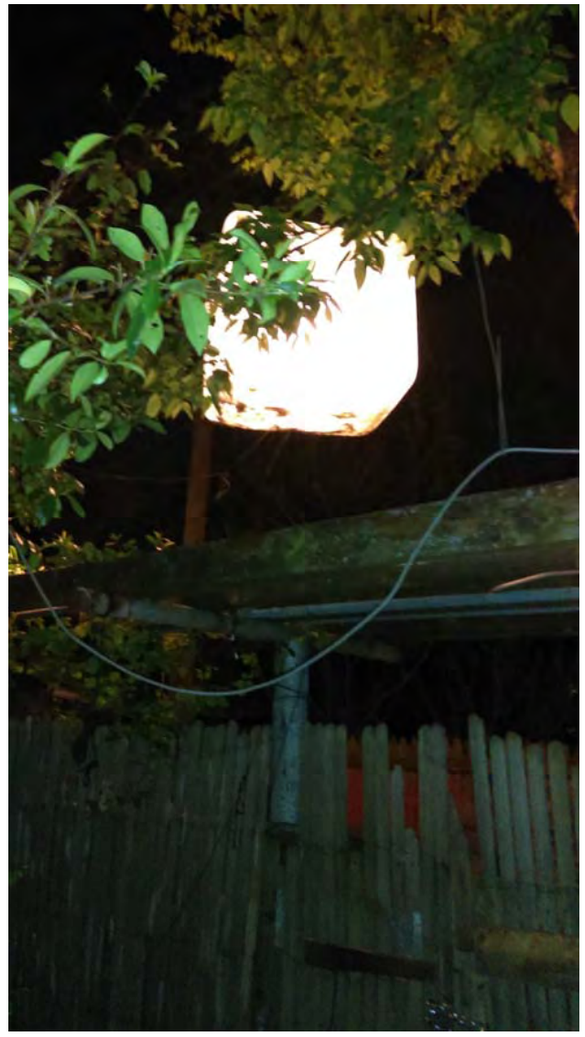
Professional Category

FIRM817
2945 Lubbock Avenue
Fort Worth, Texas 76109
TX – 16063

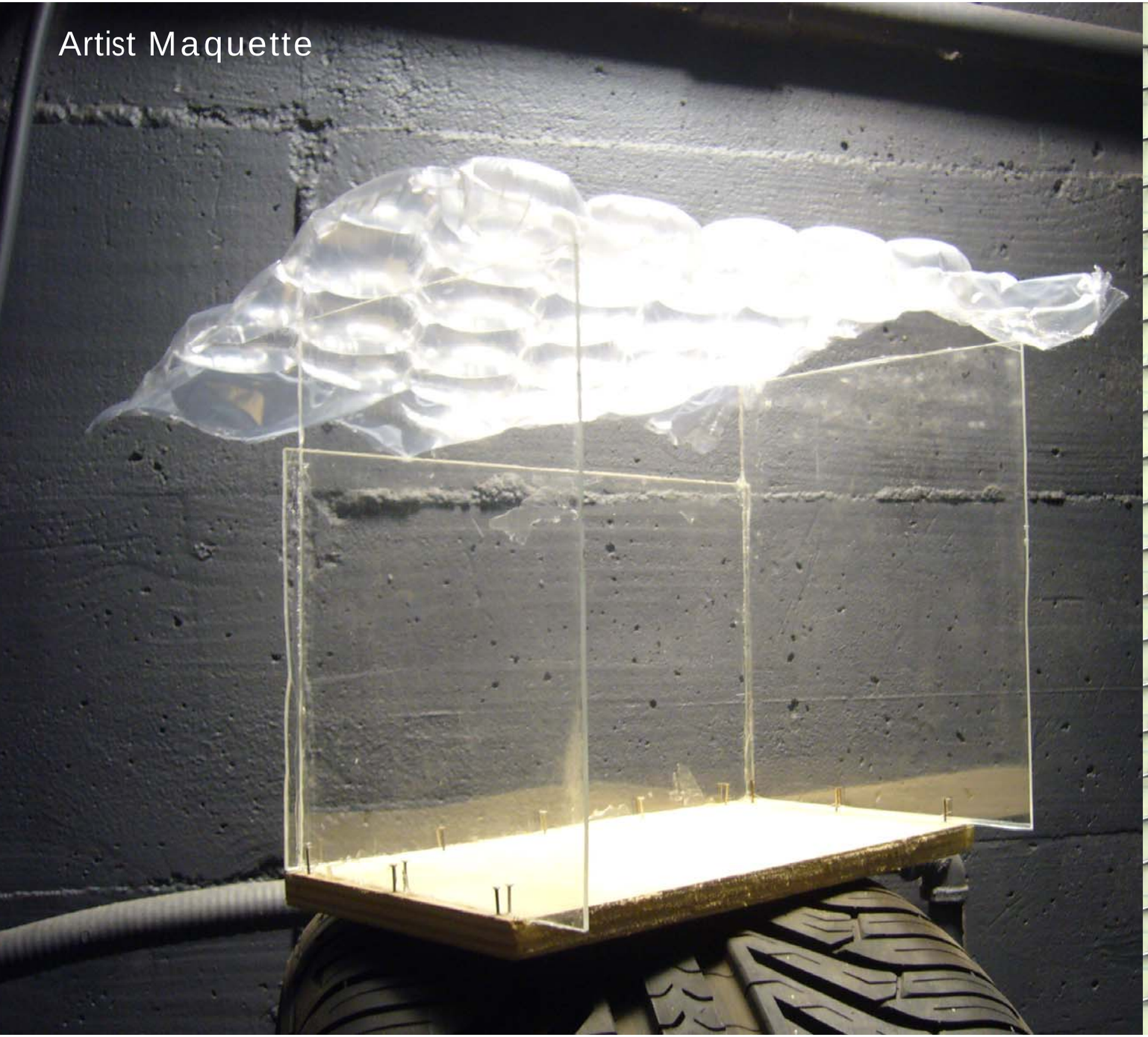
Architect – Joe Self
Artist – Matt Sacks

LANTERN

The architect/artist team used the work of the artist as a starting point. The luminous structures created by the artist are striking during the day but more-so at night. During the day the forms are a memorable marker. At night the luminous quality of the forms create space with light.



Artist Maquette



Architect Sketch

LANTERN EXPLORATIONS

The other inspiration is the photography of the artist team-member. The domestic photography has been focused on images of chairs and gardens. These images were used in the design as translucent panels.




LANTERN CONCEPTS AND MODEL

Brightly painted steel makes for a durable and easily noticeable marker in the urban landscape.

LANTERN FRONT

The concept is interpreted by placing an off-the-shelf translucent liquid tank on supporting columns.

LANTERN LEFT SIDE

The tank is fitted with long-lasting LED lighting within.

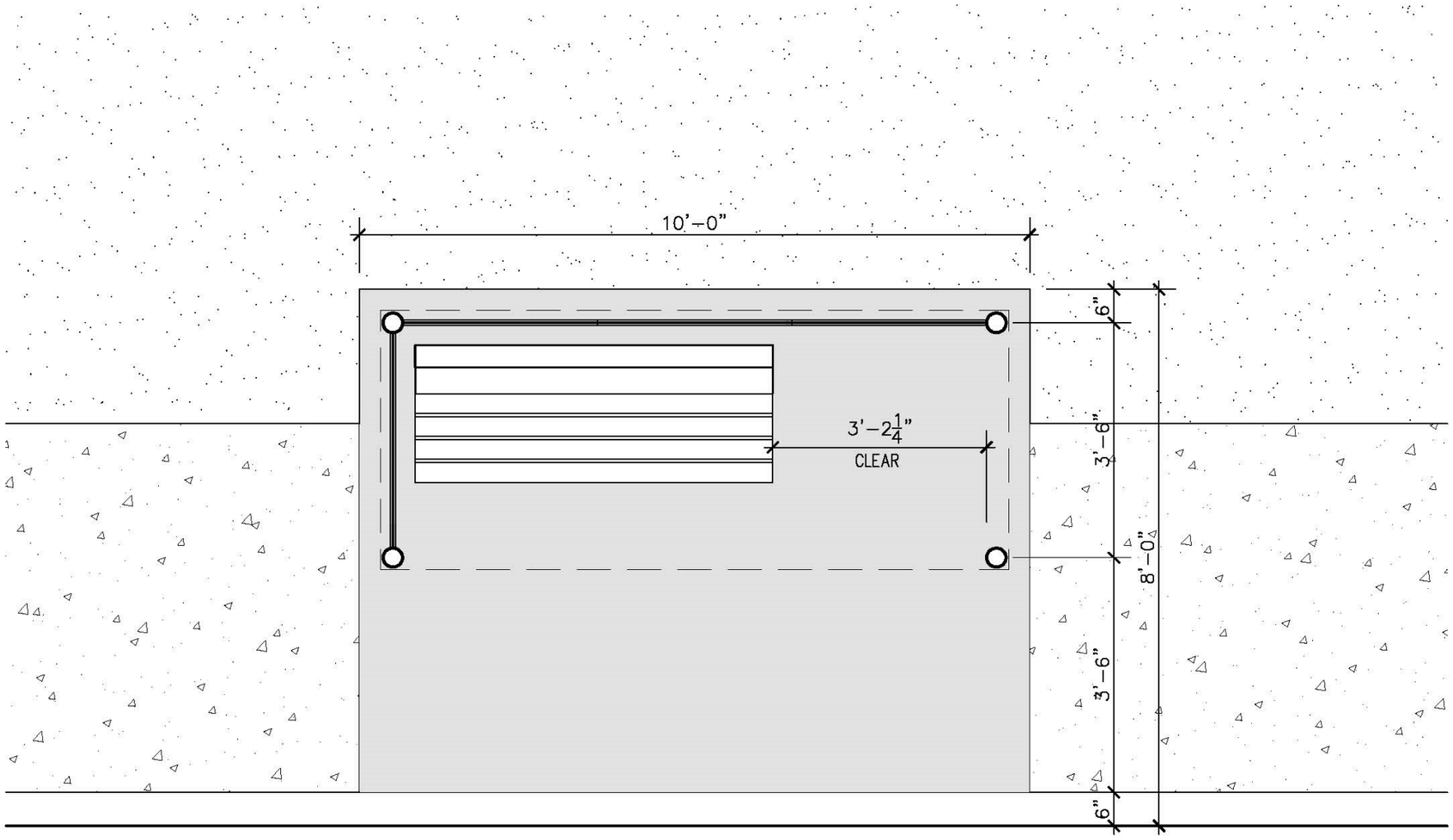
LANTERN RIGHT SIDE

Concrete and steel are used for a durable bench.

LANTERN BACK

Between the tank and the support columns are a set of translucent panels providing shelter from rain but also allowing the light placed within the tank to glow in all directions.

LANTERN VIEW

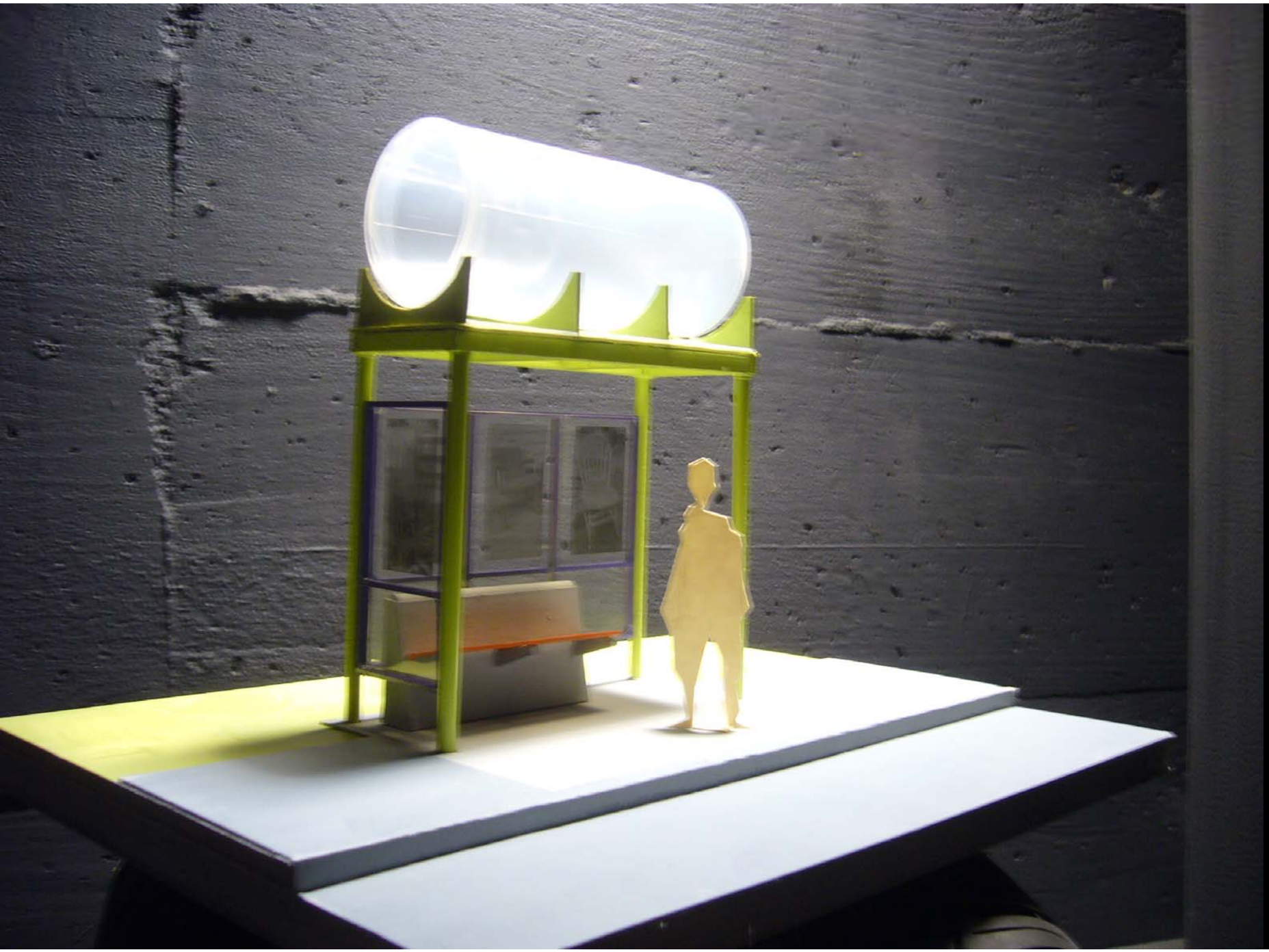


NORTH

8TH
AVENUE

LANTERN

PLAN



The artist states, “I'd like to emphasis the ideas of domesticity, as it conveys security, and community, shared familiarity, especially at bus stops, where human interaction breeds the above qualities in a shared space. Once people interact, the walls of fear, suspicion, loneliness, anxiety, and alienation go away. That puts the "public" into transportation, which in turn supports all of us.”

LANTERN AT NIGHT

smallSTOPS – Data Sheet

The Star Stop – Stars are widely recognized as an iconic symbol of Texas, passenger shelters are an icon of a transportation system. The Star abstractions the form of the star to create a passenger shelter that will provide the Fort Worth Transportation Authority a recognizable icon throughout Fort Worth.

The artistic design of The Star creates a ***functional*** passenger shelter at the gateway to eclectic Magnolia Street at its location, ***8th Avenue and Magnolia Street.*** The form of the passenger shelter provides waiting rider comfort and security through creating a covered shelter that provides shade in the summers, protection from the rain, a well-lit location to wait for buses and an open shelter that allows one to not feel 'trapped'.

THINK.
DESIGN.
BUILD.

THE STAR STOP Project Team

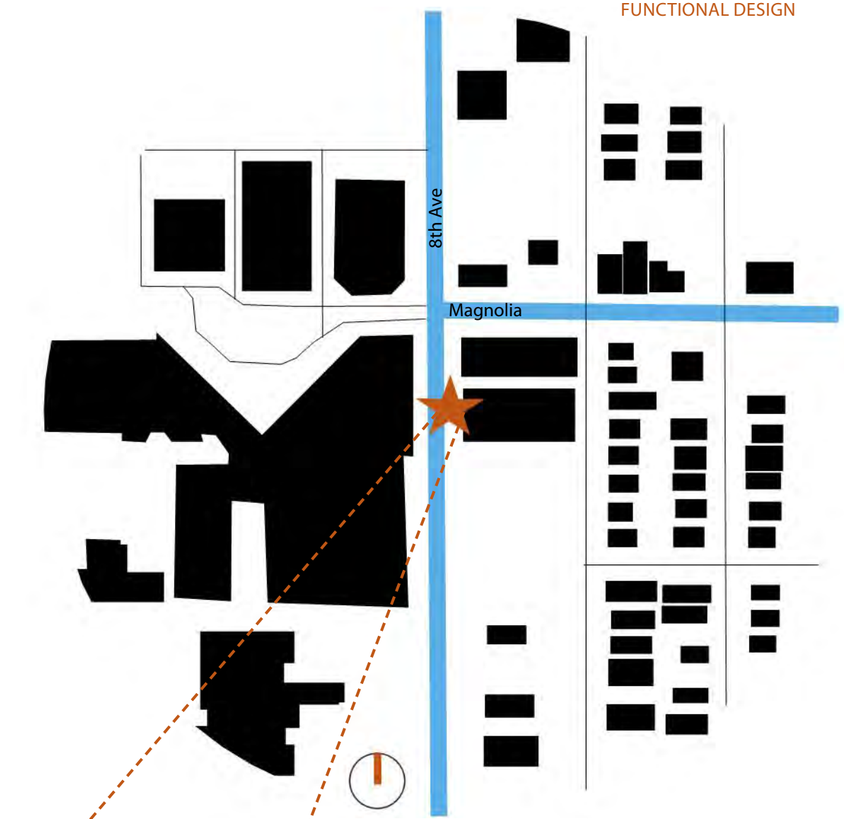
The Beck Group
810 Hemphill Street
Fort Worth, TX 76104

- Matthew Montgomery, AIA
- Justin Park

small STOPS
Bus Shelter Design Competition

The Star Stop

FUNCTIONAL DESIGN

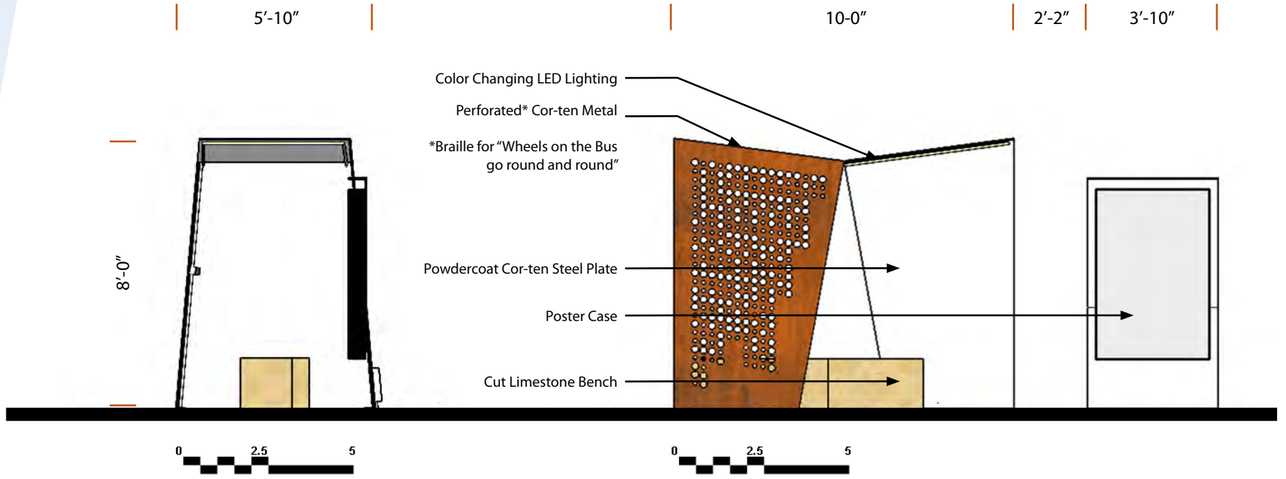


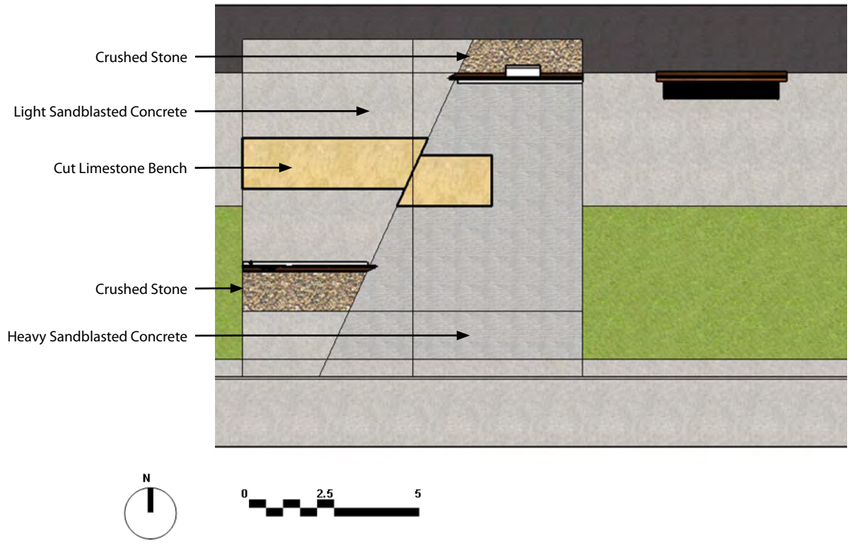
small STOPS

Bus Shelter Design Competition


4 E ROSEDALE
1127

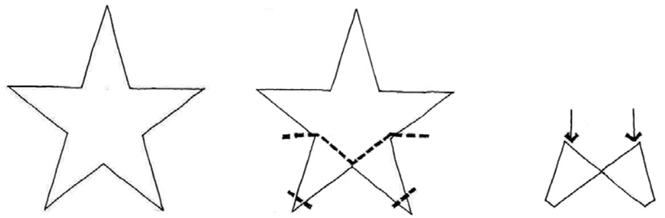
Materials


5′-10″
10-0″
2′-2″
3′-10″
8′-0″
Color Changing LED Lighting
Perforated* Cor-ten Metal
*Braille for "Wheels on the Bus go round and round"
Powdercoat Cor-ten Steel Plate
Poster Case
Cut Limestone Bench
0
2.5
5
0
2.5
5


Crushed Stone
Light Sandblasted Concrete
Cut Limestone Bench
Crushed Stone
Heavy Sandblasted Concrete
N
0
2.5
5

Design Considerations

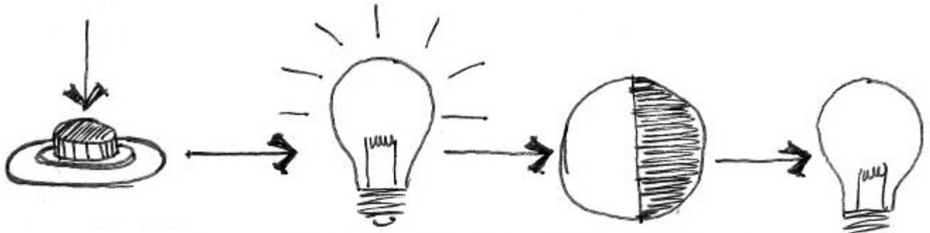
STAR DESIGN EVOLUTION



Cut

Push

WAITING RIDER NOTIFICATION



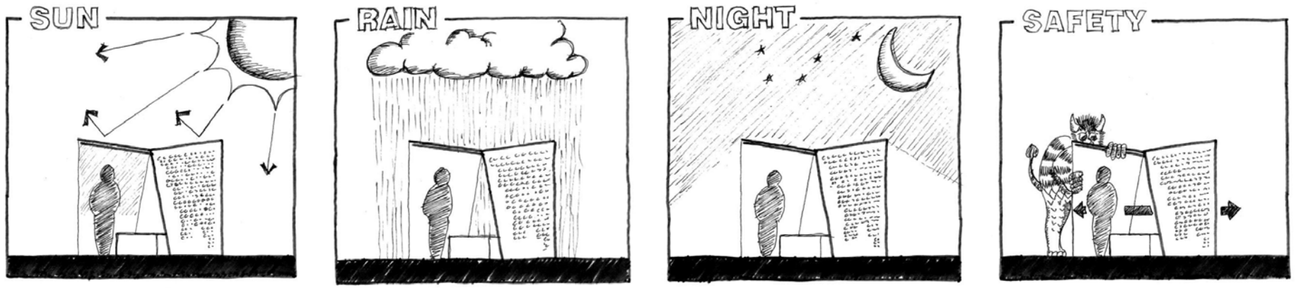
1. Rider pushes button

2. Shelter LED lighting changes from white to blue.

3. Shelter LED light stays blue for 30minutes (based on bus schedule).

4. Shelter LED light changes back to white until next rider pushes button.

PROTECTION



Bent plates provide shade during the summer

Bent plates provide protection during inclement weather.

Strip LED lighting provides security at night.

Limited walls and perforation for people to see and be seen.

All Access-Ability Bus Stop

A bus stop seeks to address issues of equity and access. Many of Fort Worth's bus stops create more problems than they solve. An example of this can be seen at the 8th and Magnolia bus stop where benches and pole signage is positioned in the middle of the public sidewalk blocking clear passage for ambulatory and wheelchair users.

Our proposal seeks to provide clarity, convenience and community awareness. It is of particular interest to address these issue given that the site is in the busy hospital district where many public transportation riders depend on sidewalks that are accessible, legible and that work.

Additionally, we believe that a public transit user should have access to similar amenities available in any personal vehicle. This stop provides USB charging hubs and a wi/fi hot spot that are powered via a solar roof. This allows anyone access power and information as they wait for the bus. The solar panels also power the stop's lighting systems, arrival lights and the integrated digital monitors showing neighborhood maps, bus route information, and general cultural advertisements.

Our proposal organizes many amenities that are typically scattered about the sidewalk and consolidates them into a modern interactive shelter that provides shade, seating, safety, access to information, and avoids obstructing the public walkways.

SMALL STOPS - All Access-Ability Bus Stop

Credit Sheet.

Dennehy Architects
3464-A Bluebonnet Circle
Fort Worth, TX 76109
817.922.9997

Project Team:

Paul Dennehy, AIA
Don Gatzke, AIA
Dennis Chiessa

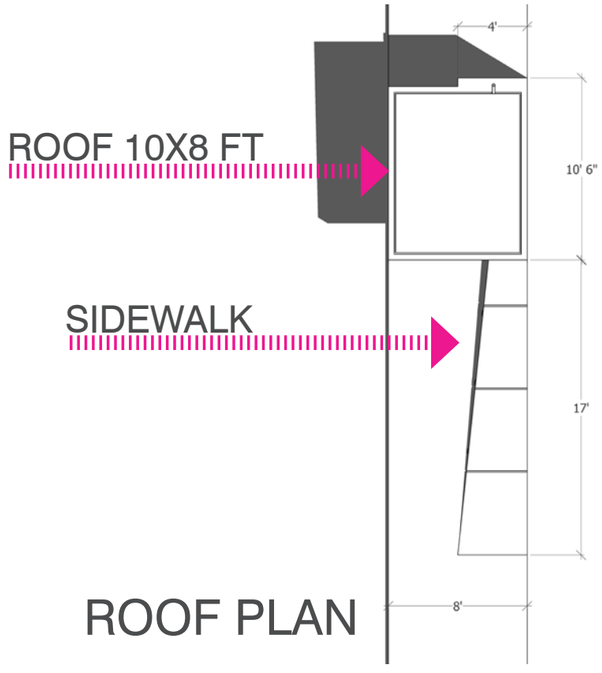
ALL ACCESS-ABILITY BUS STOP

AREA UNDER ROOF = 8X10 FT = 80 S.F.
BENCH AREA =70 S.F.

EXISTING SITE ELEVATION

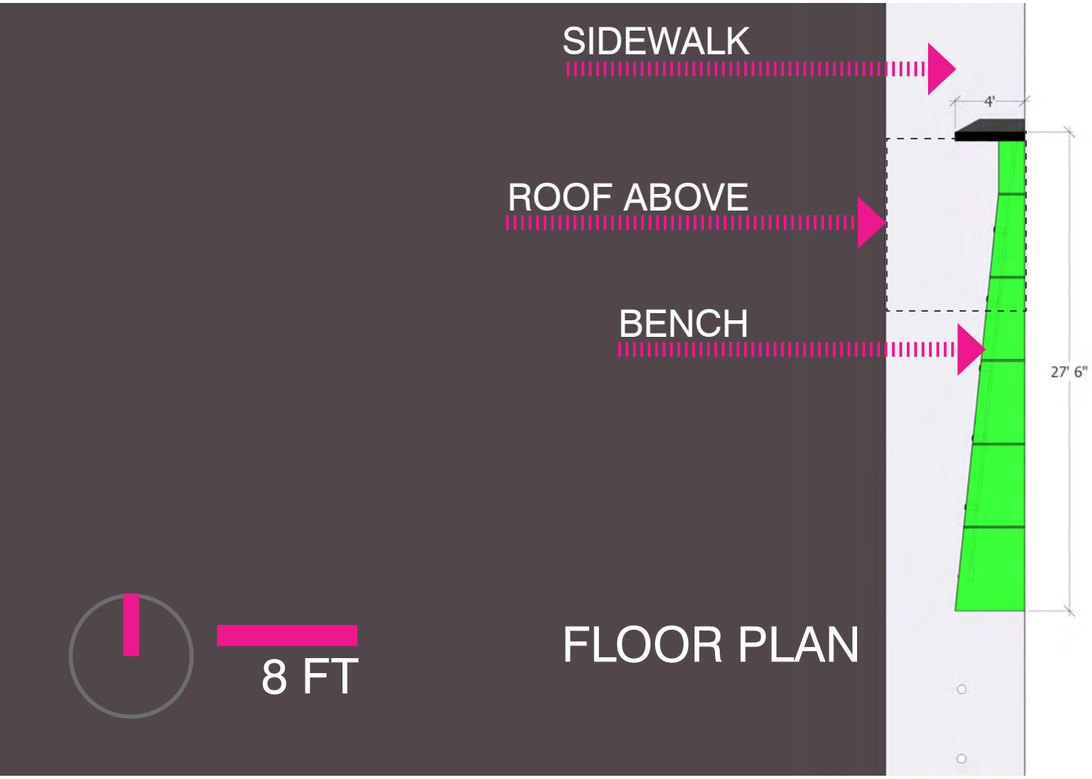
BENCH AND SIG-
NAGE OBSTRUCTING
WALKWAY

MULTIPLE PUBLIC
AMENITIES

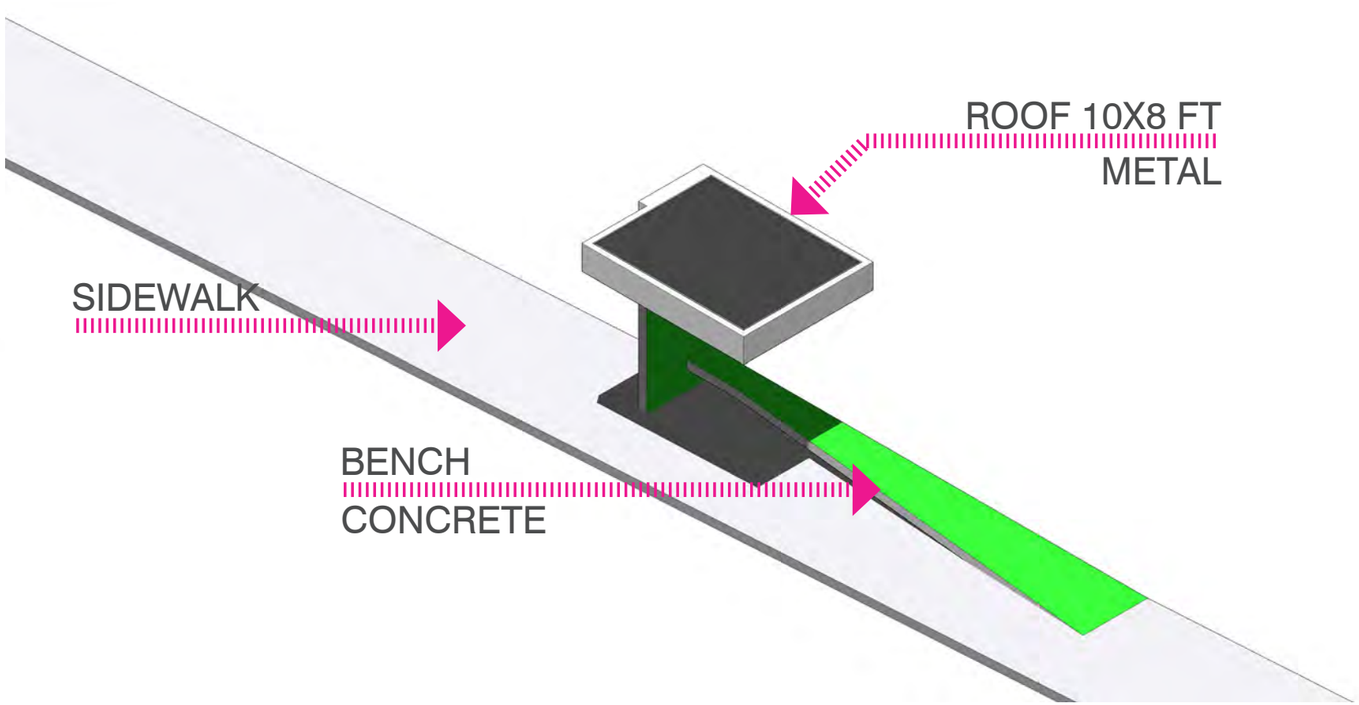


ROOF PLAN

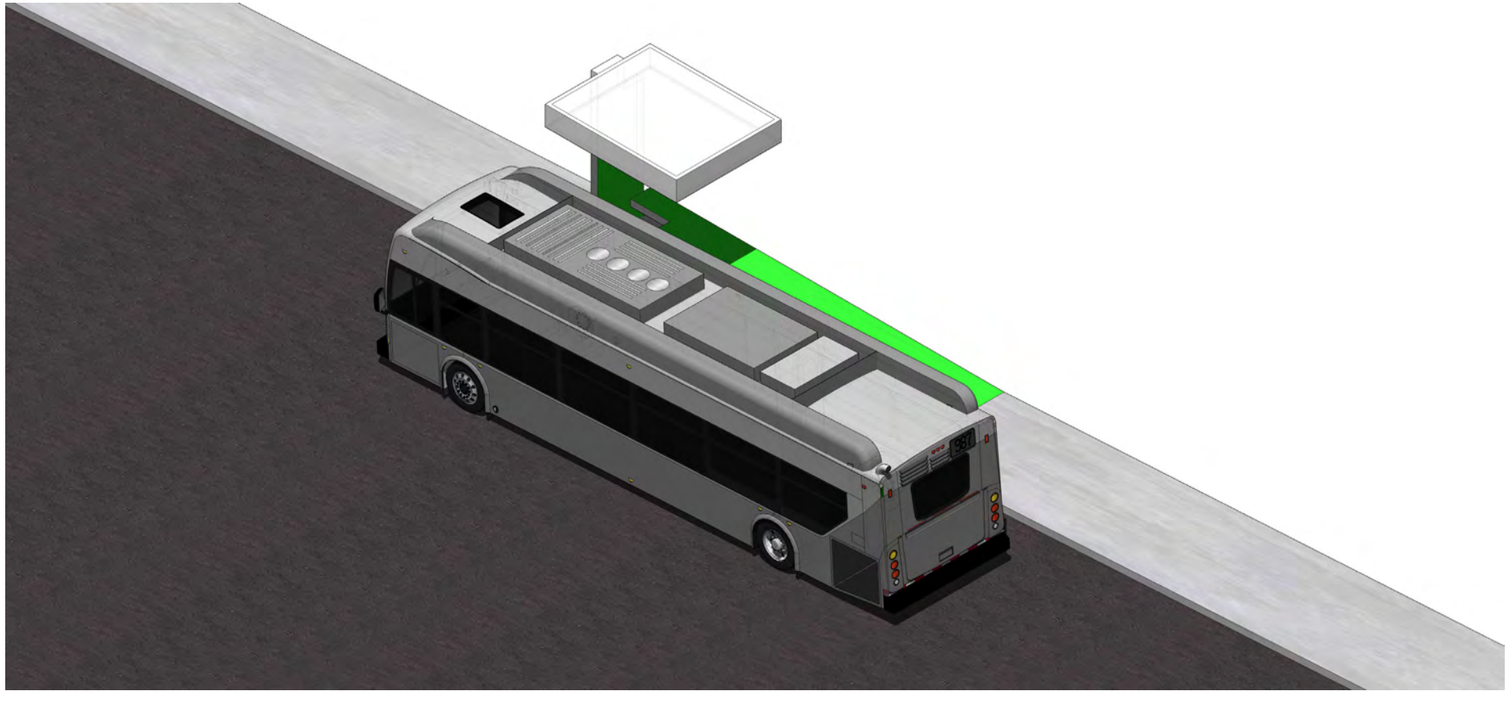
STREET ELEVATION

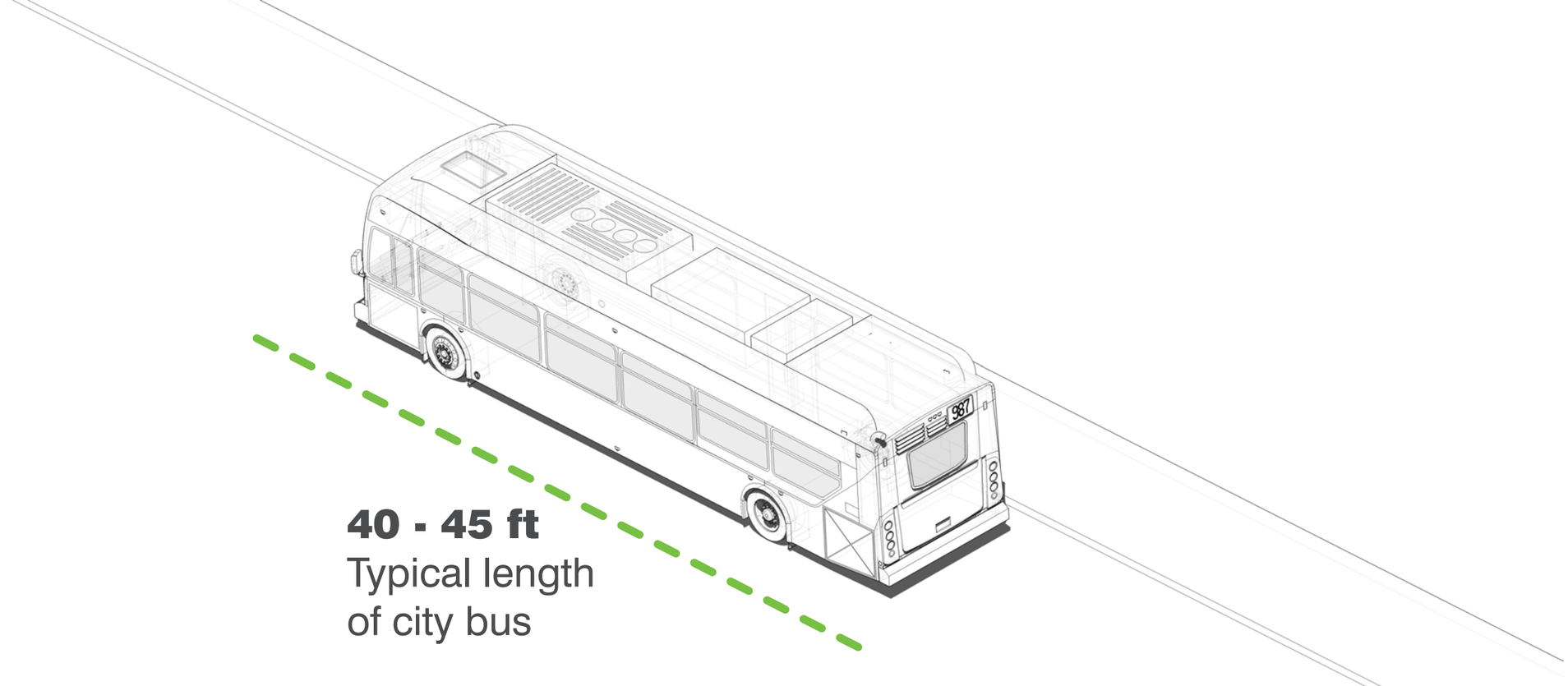


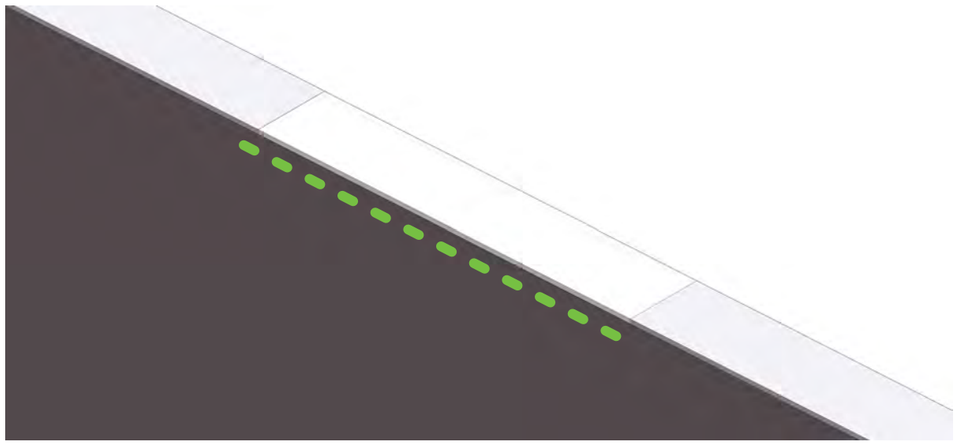
FLOOR PLAN



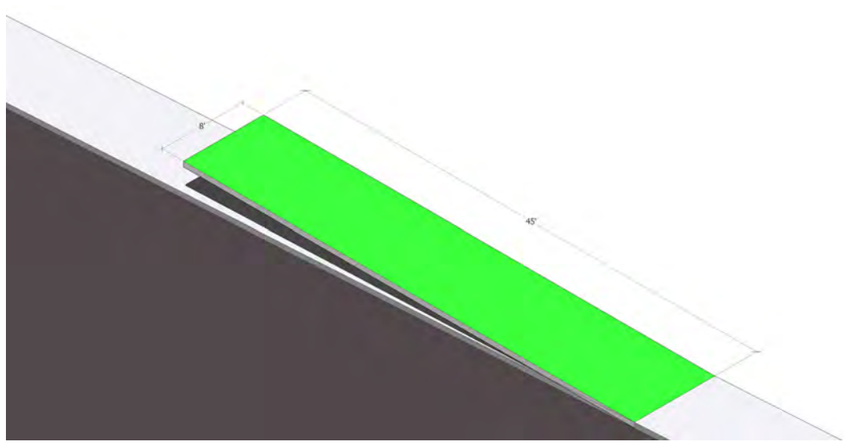

8 FT
SATI SATELLITE IMAGE



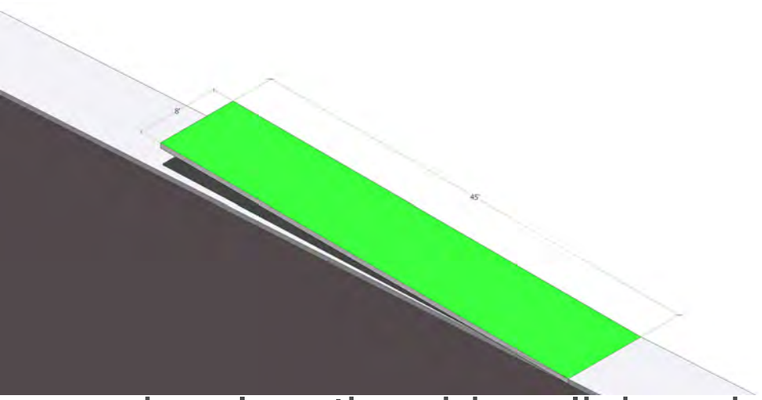




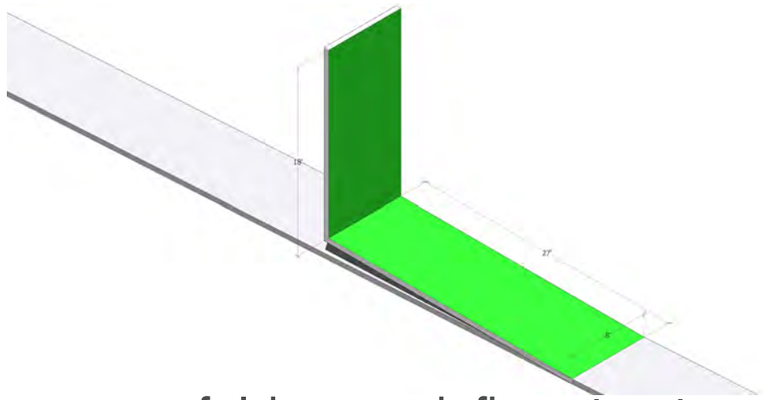
The memory of the bus is projected on the sidewalk



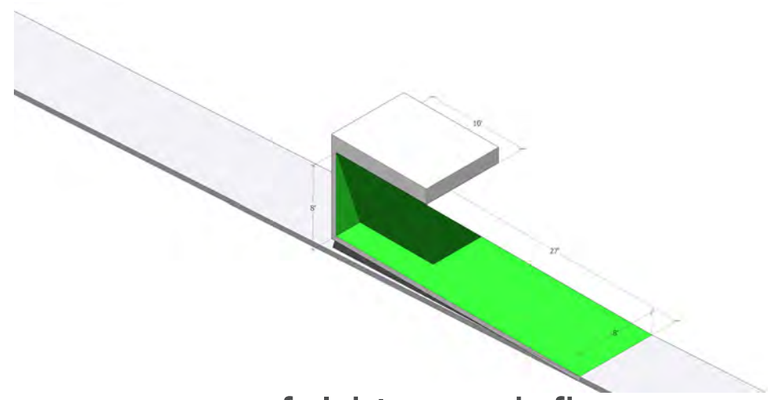
Sidewalk extended horizontally



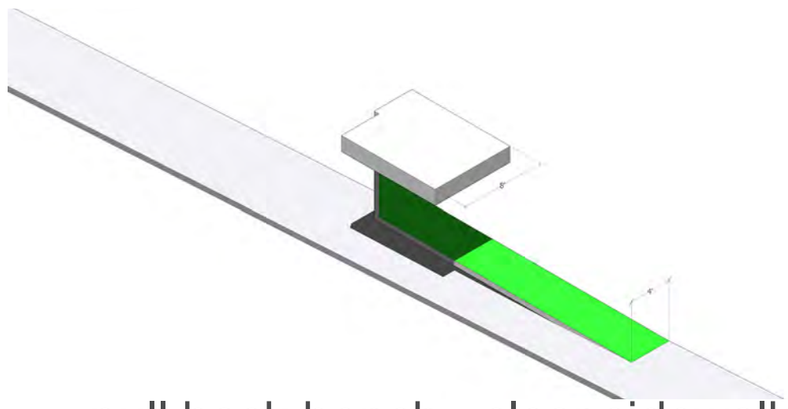
bus length - sidewalk bench



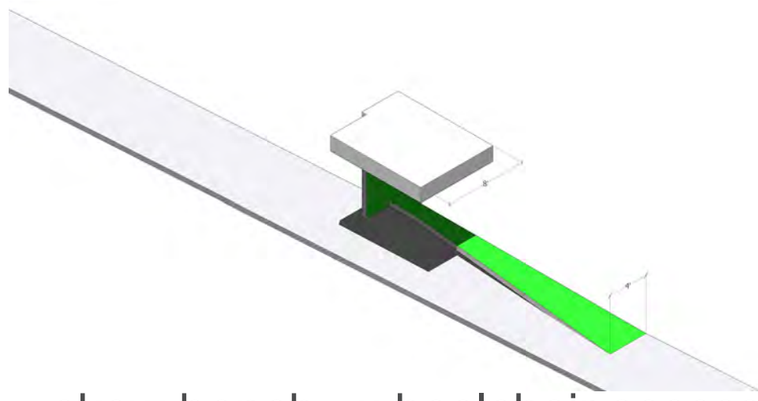
fold one - define structure



fold two - define space

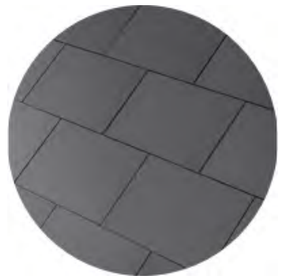


pull back bench - clear sidewalk



skew bench - wheelchair access

Integrated LED lights

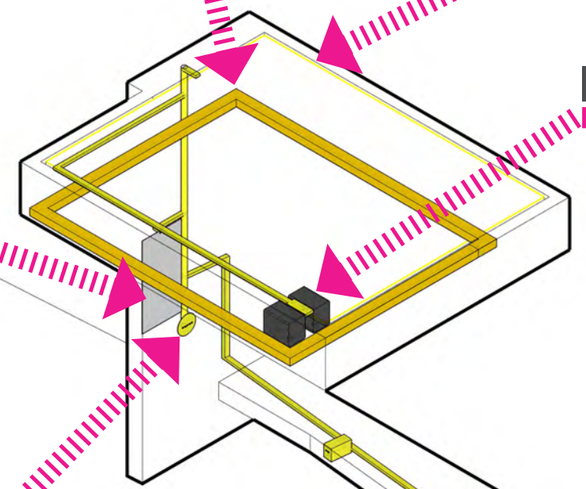


new Solar Roof by TESLA

Integrated digital display monitor

to display public health information, district map,
public transit information.

Integrated Sound System



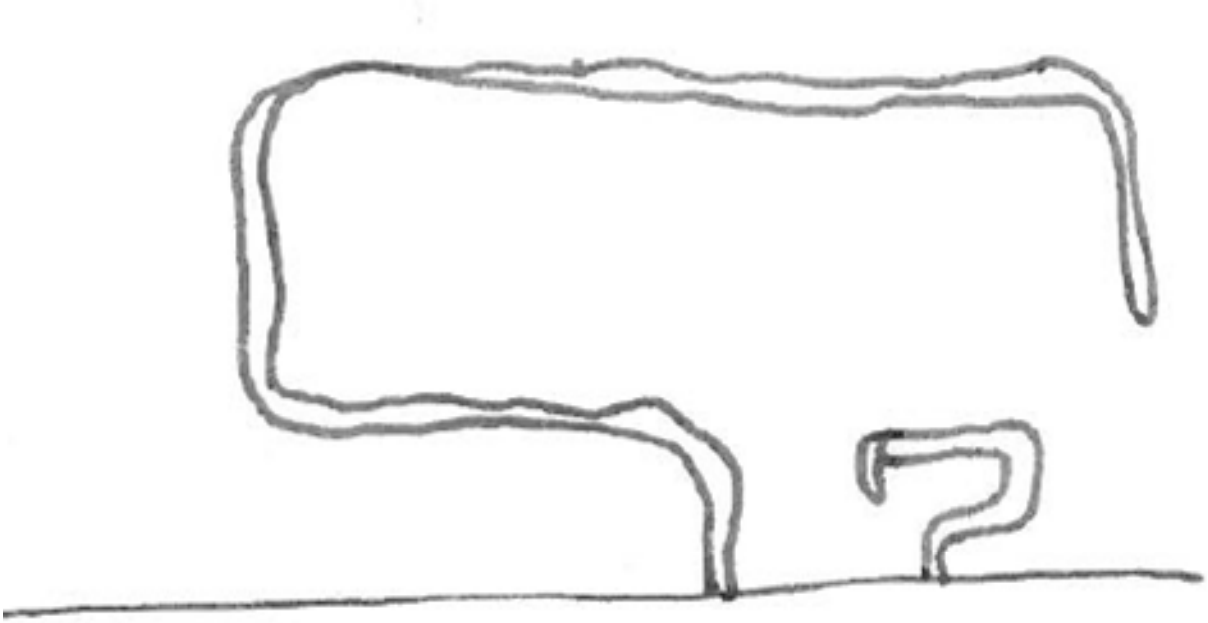
Integrated lighting + USB
charging connectors

Integrated USB charging hub


Wi Fi
CAPPADONNA

ALL ACCESS-ABILITY BUS STOP

The T-Stop



Professional Entry for the Functional Location

The bus routes throughout our city are like ribbons between different communities. It connects our neighborhoods to attractions and opportunities. It provides a network for the city to thrive in. In this sense, the symbolic ribbon becomes more than just a bus stop, it becomes a T-Stop. Whereas the bus stop is unsightly and unnerving, the T-stop becomes a momentary oasis from the rigors of the day. Not only providing a protective shelter but also providing a break from the everyday grind. The T-Stop works beautifully as a stand-alone shelter but its real strength comes from interconnecting between a closed network of other T-Stops so that passengers can send messages to other T-Stops, or leave messages for other passengers to discover.

The hope is to change the passenger's way of thinking from: I hate waiting at the bus stop, to: I love seeing what is new at my local T-Stop!

The T-Stop

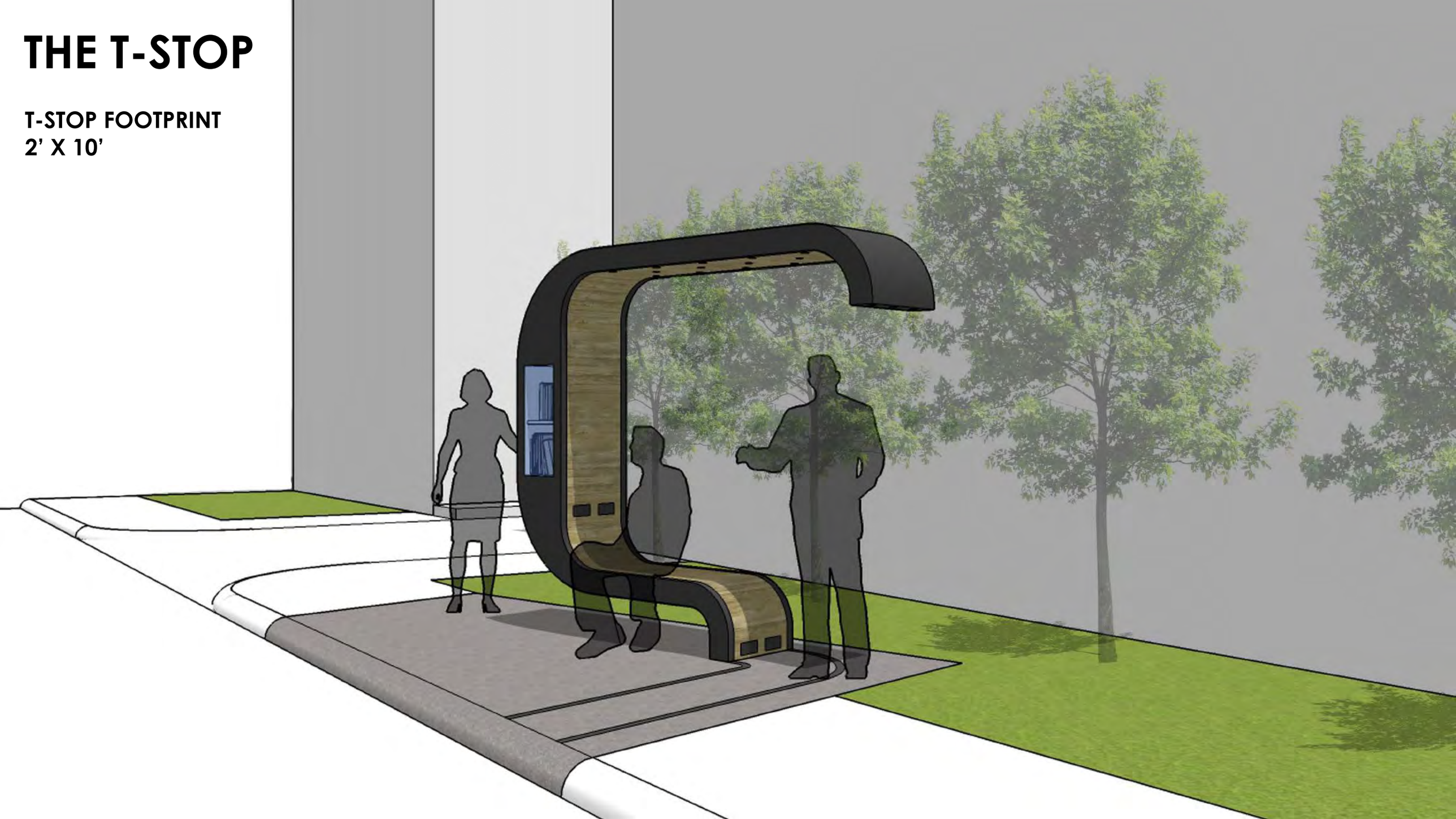
Firm: Bennett Benner Partners Architects
500 West 7th Street
Suite 1400
Fort Worth, TX 76102

Designer: Stuart Everett AIA
severett@bbptx.com

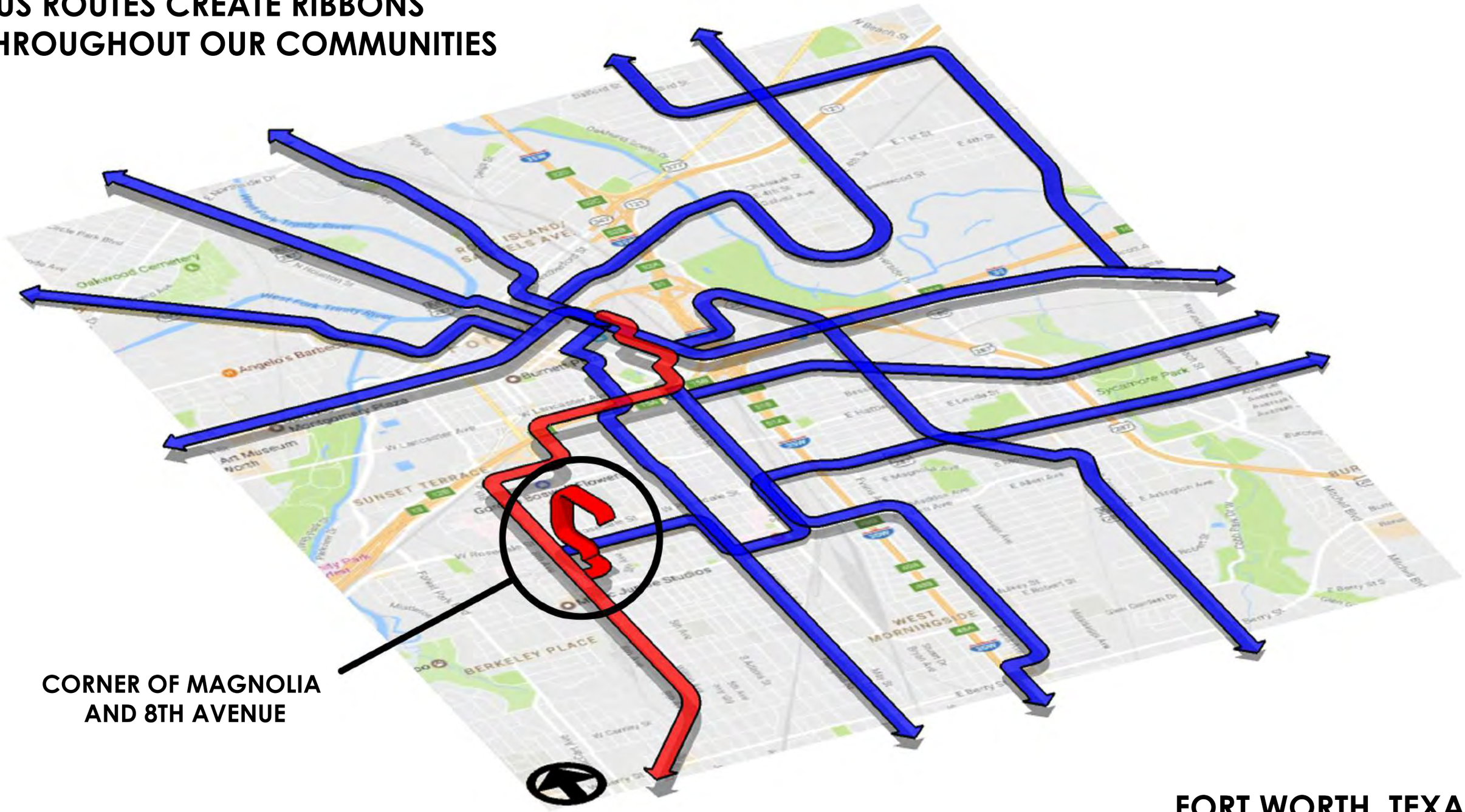
Team: Michael Bennett AIA
Katy Dunaway
Brandon Burns AIA

THE T-STOP

T-STOP FOOTPRINT
2’ X 10’

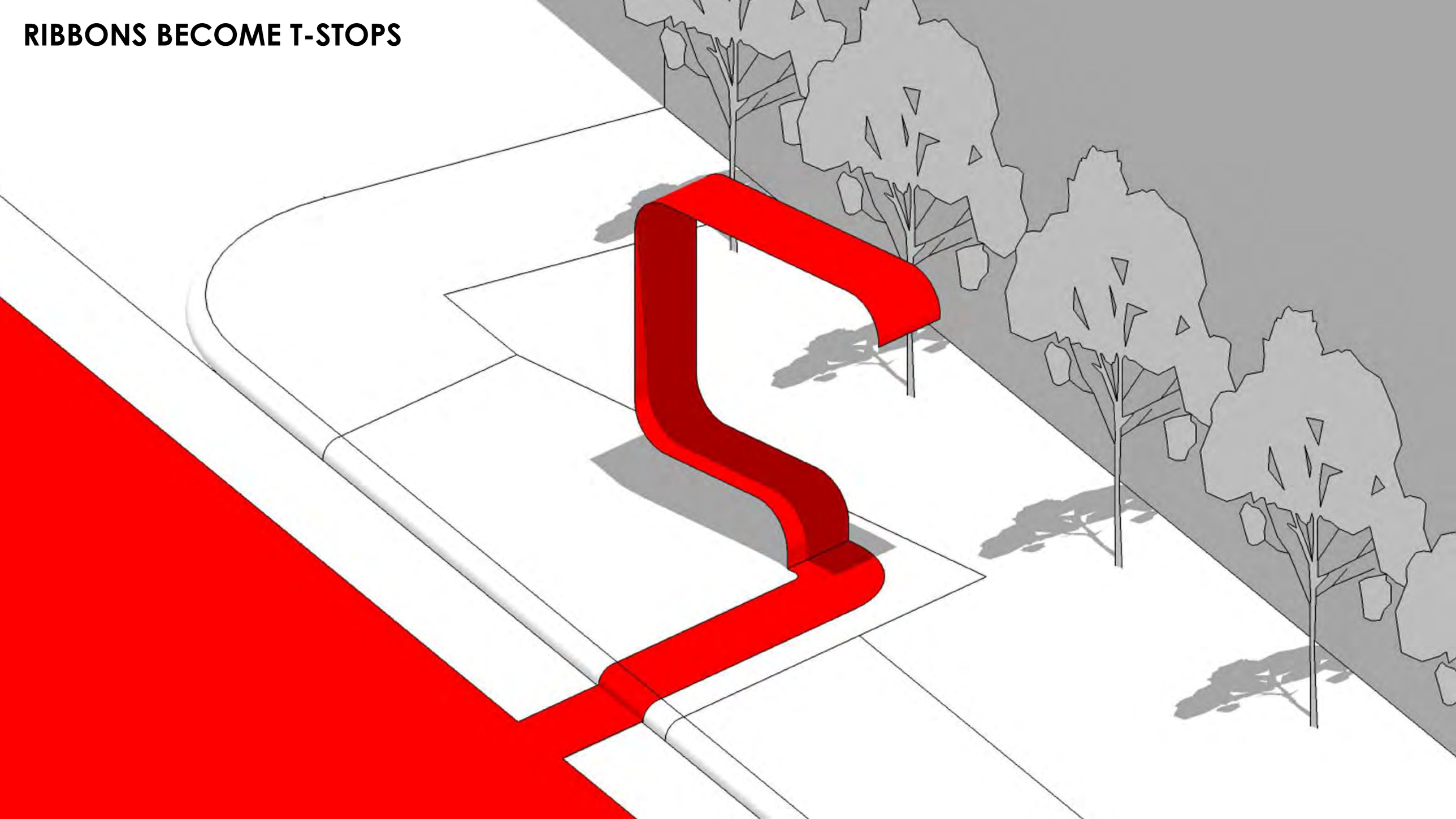


BUS ROUTES CREATE RIBBONS THROUGHOUT OUR COMMUNITIES

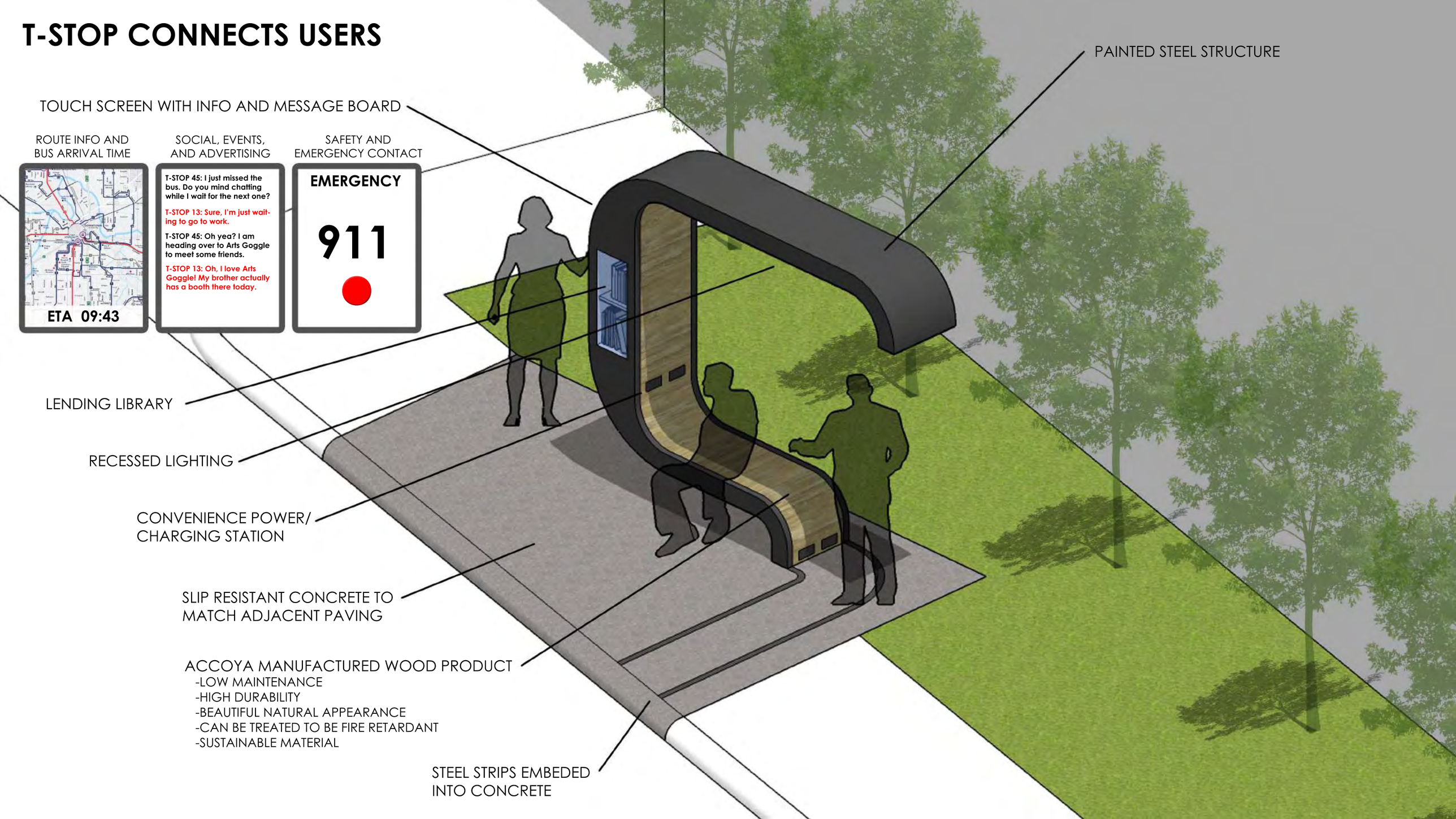


FORT WORTH, TEXAS

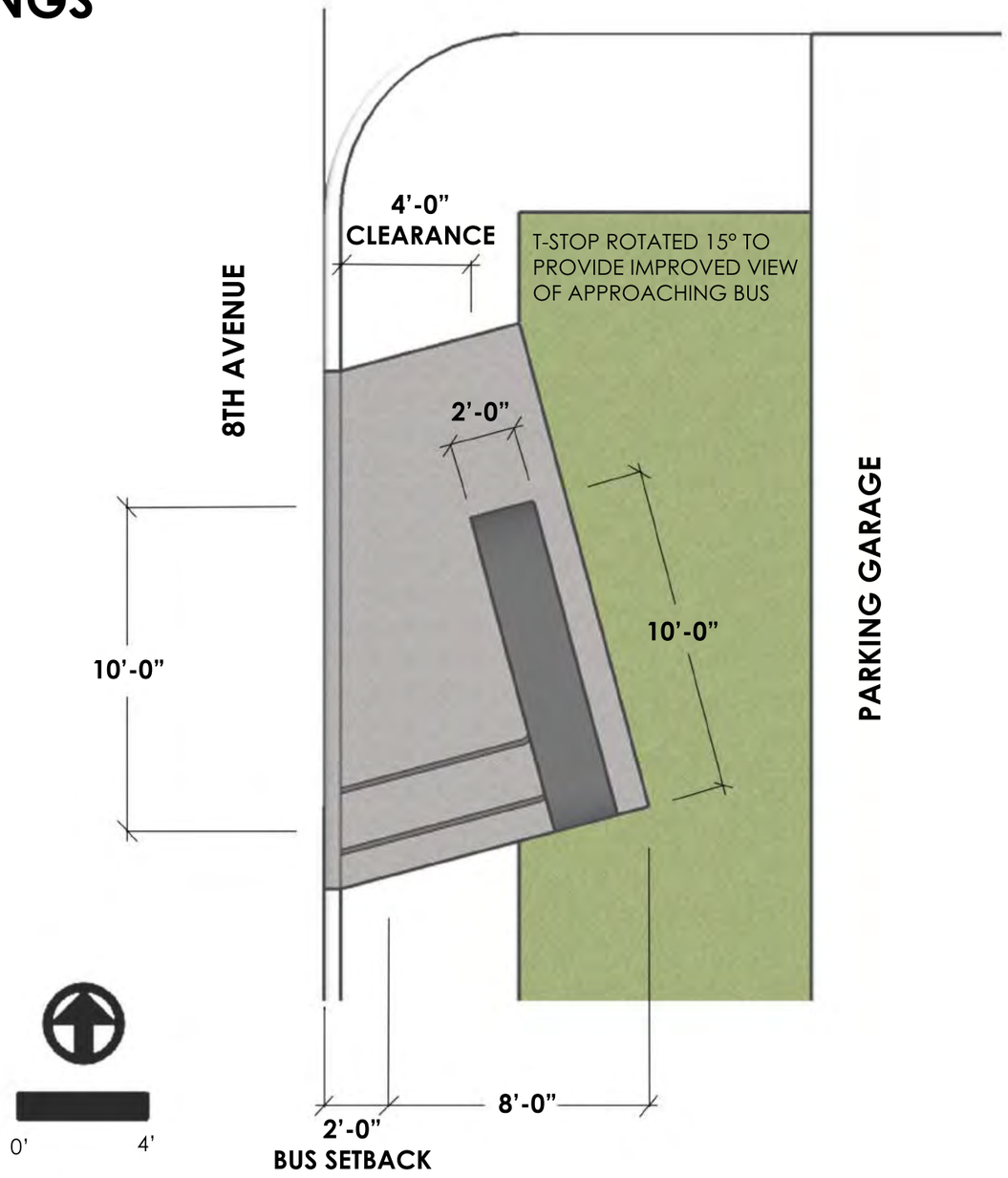
RIBBONS BECOME T-STOPS



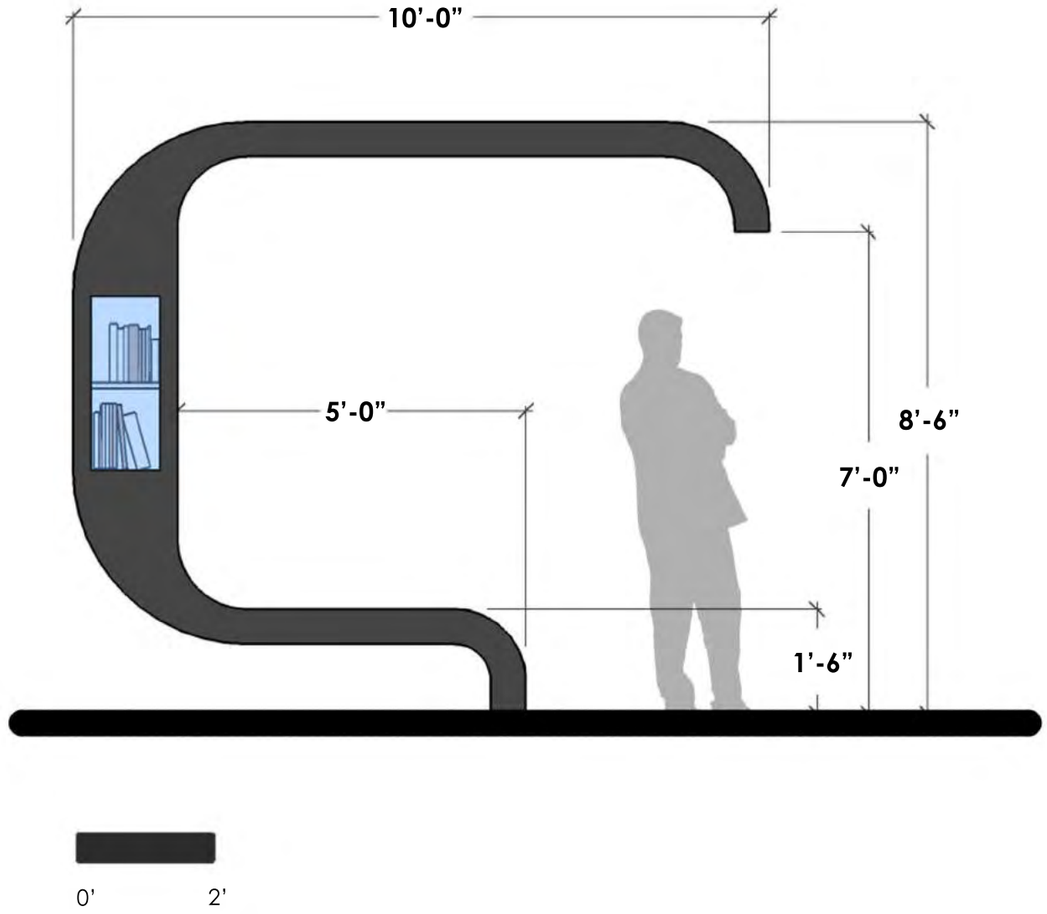
T-STOP CONNECTS USERS



DRAWINGS

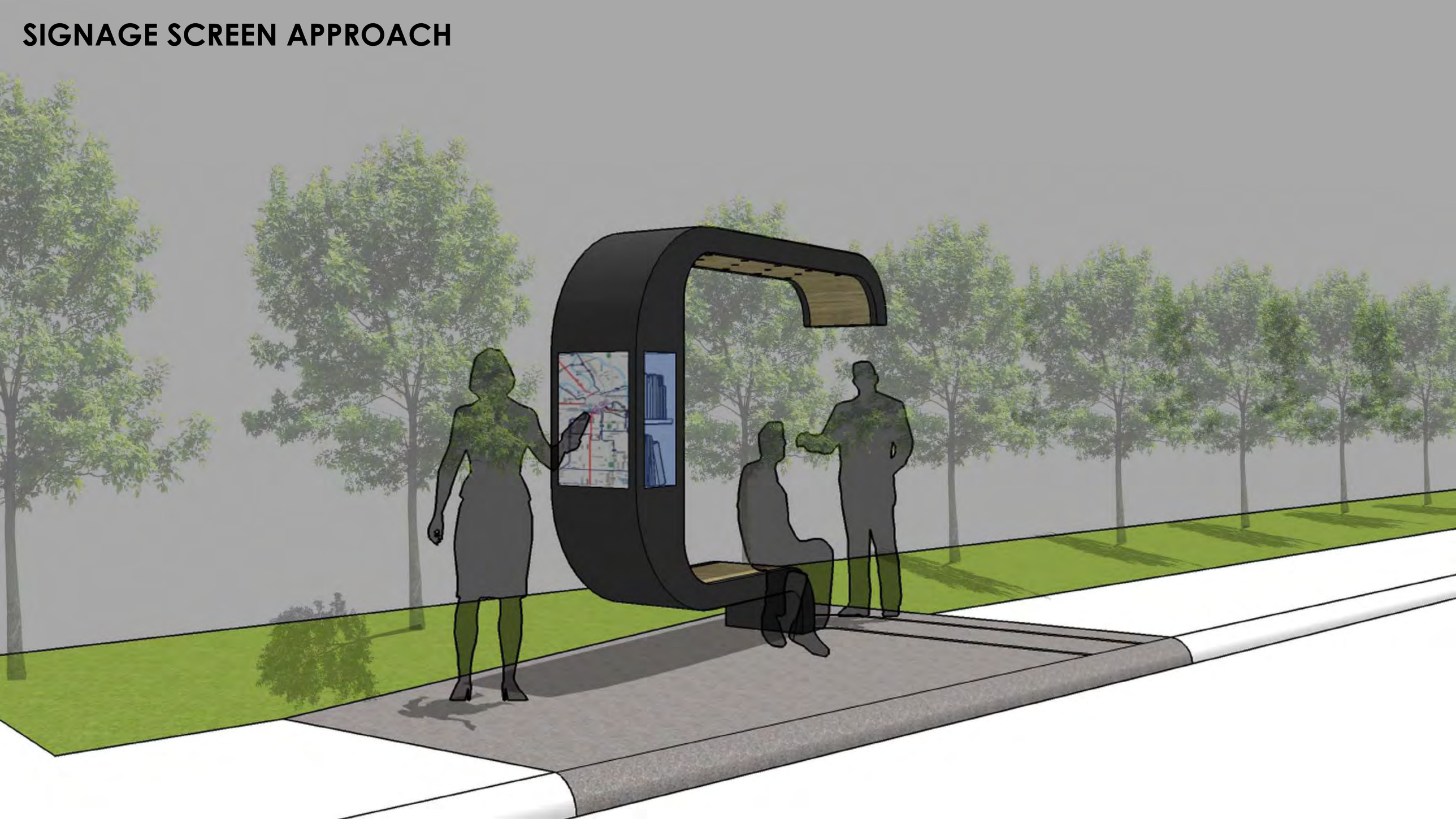


SITE PLAN

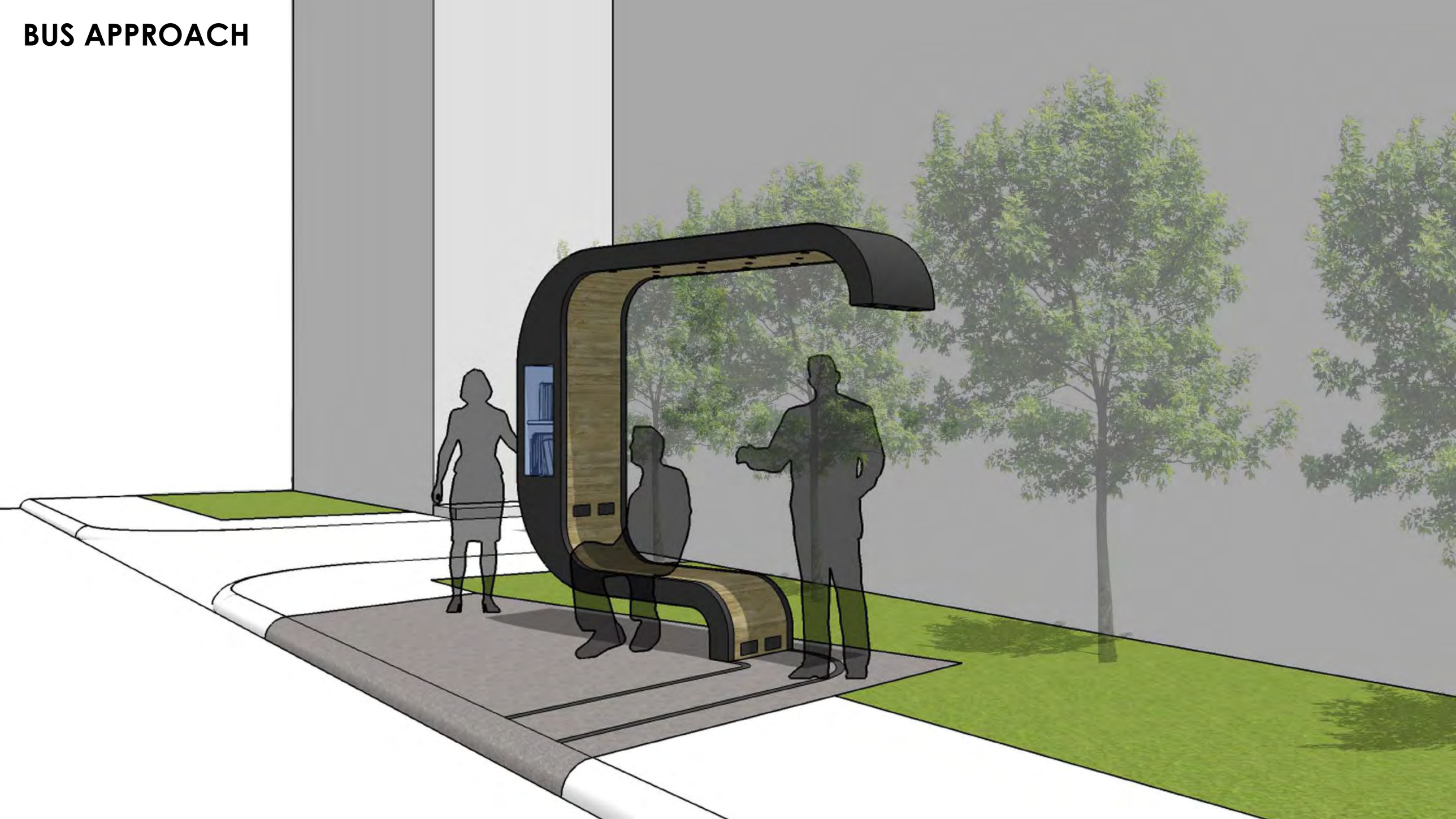


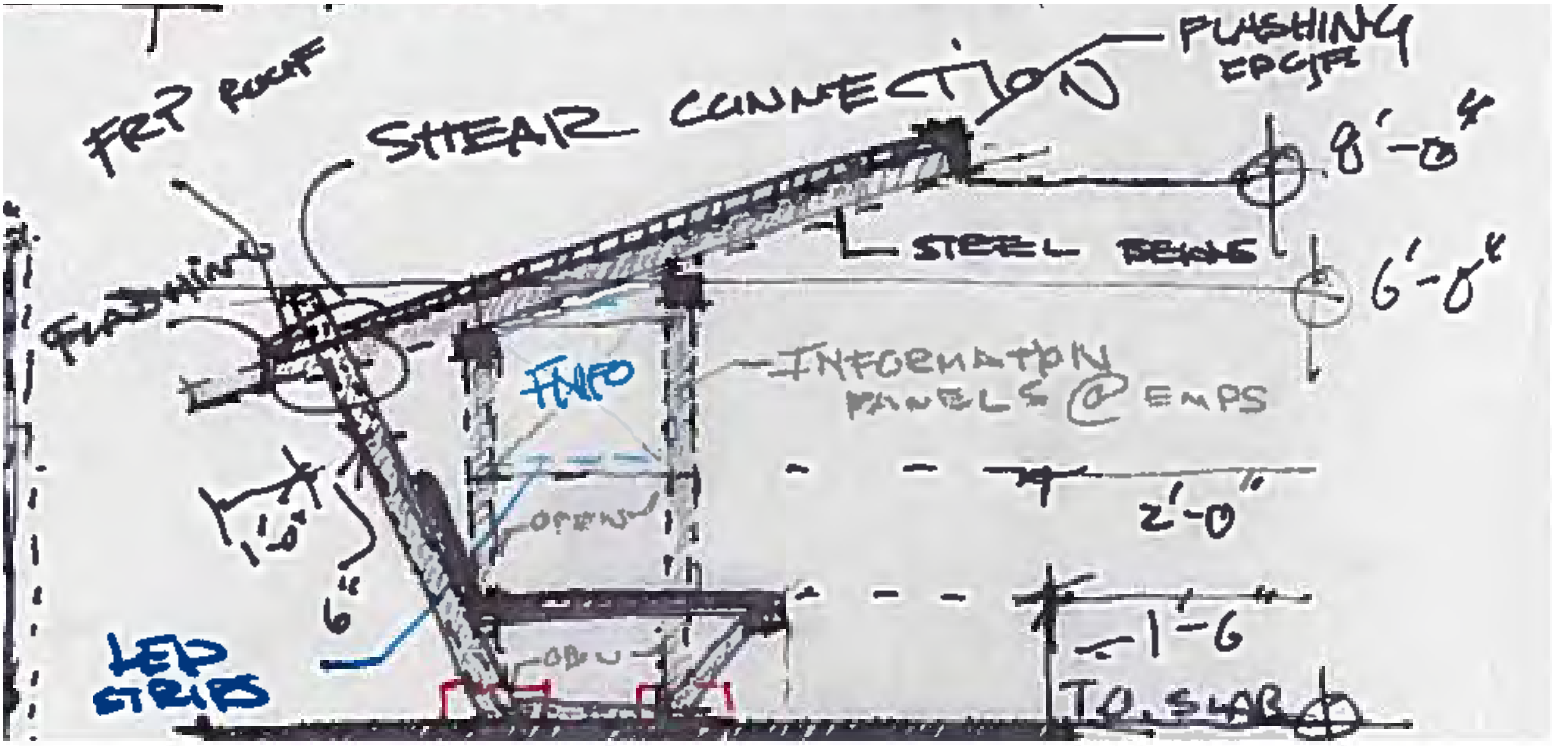
ELEVATION

SIGNAGE SCREEN APPROACH



BUS APPROACH



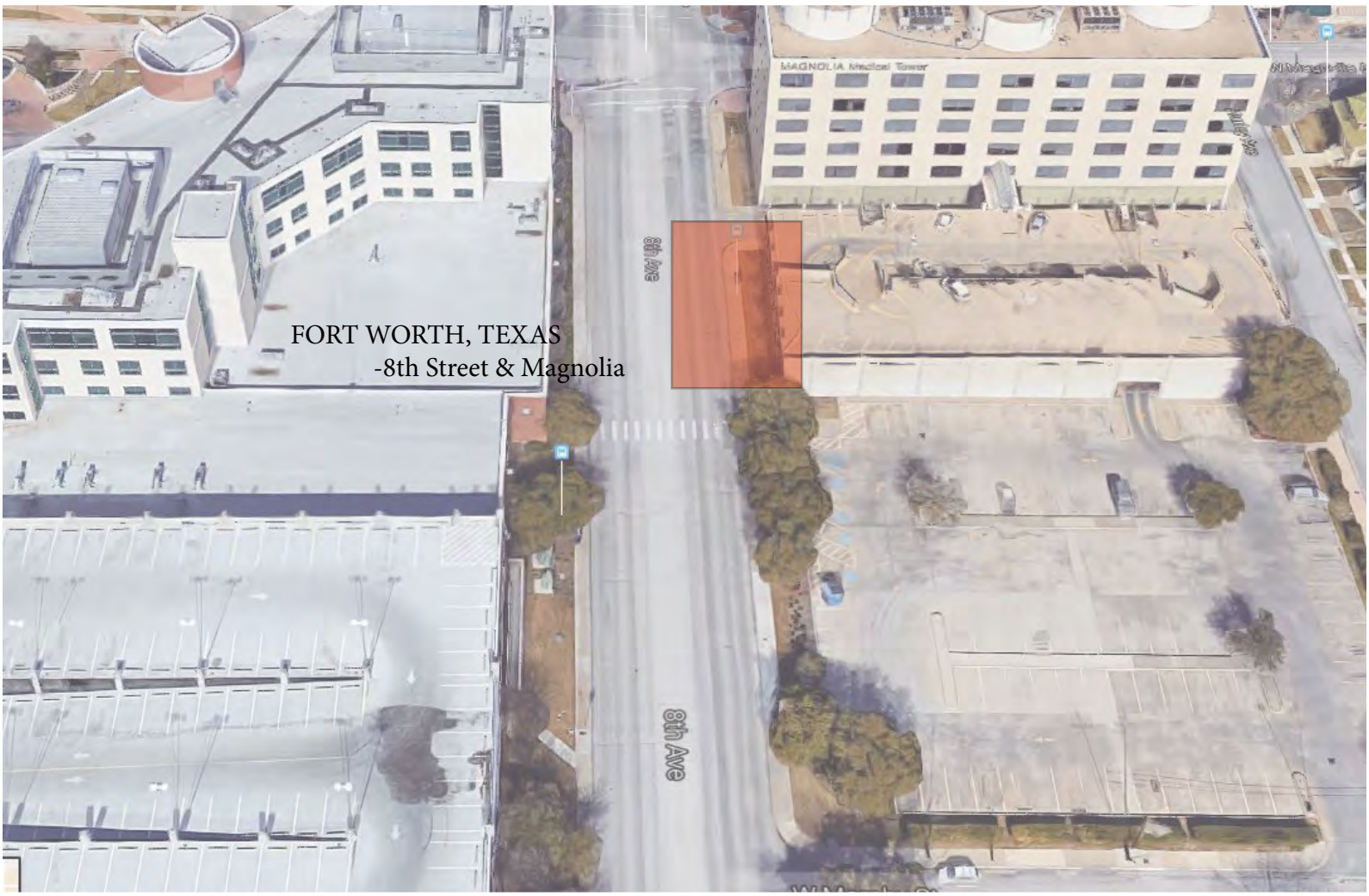


PROFESSIONAL CATEGORY:

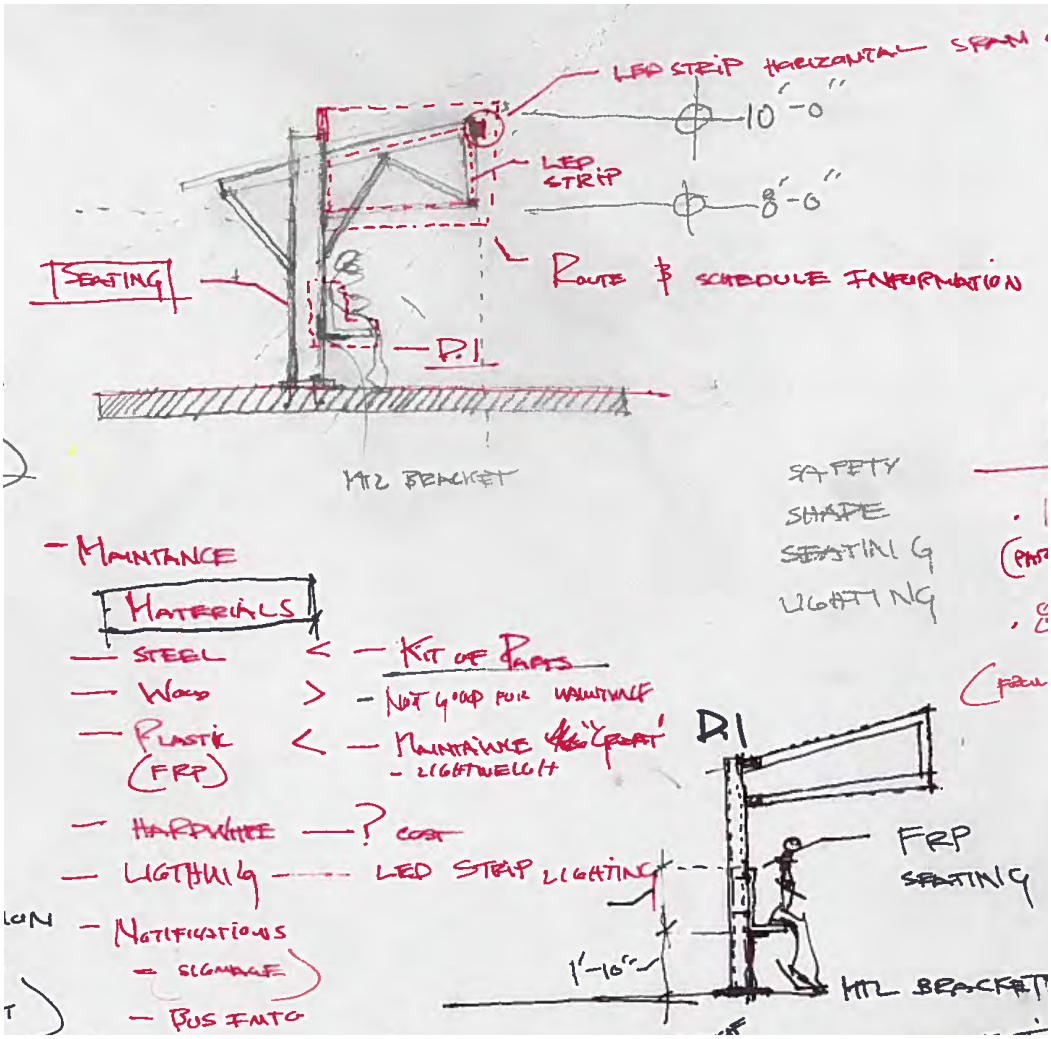
AIA Fort Worth Associate Member

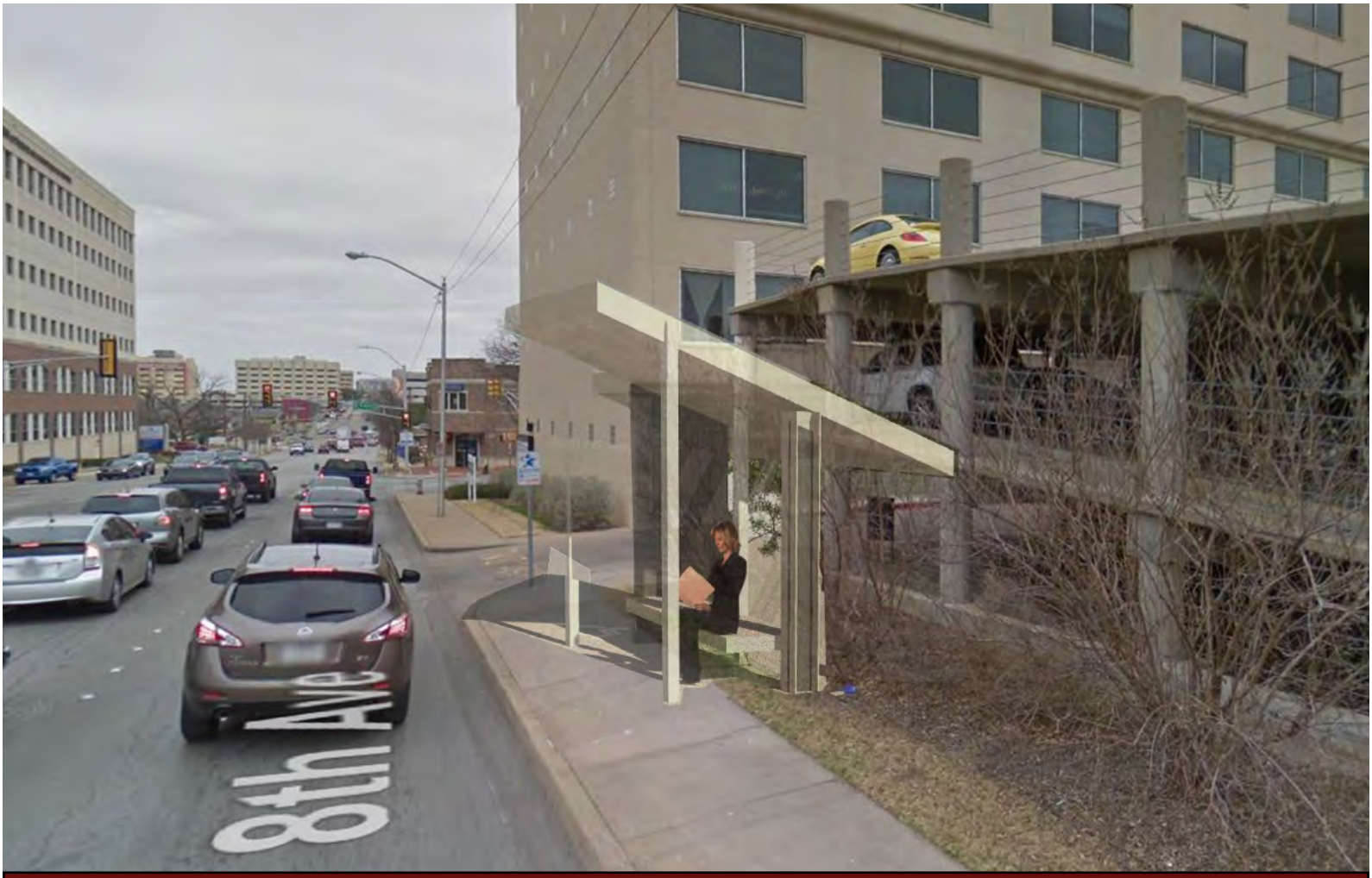
LOCATION:

Functional Stop - Magnolia and 8th Avenue.

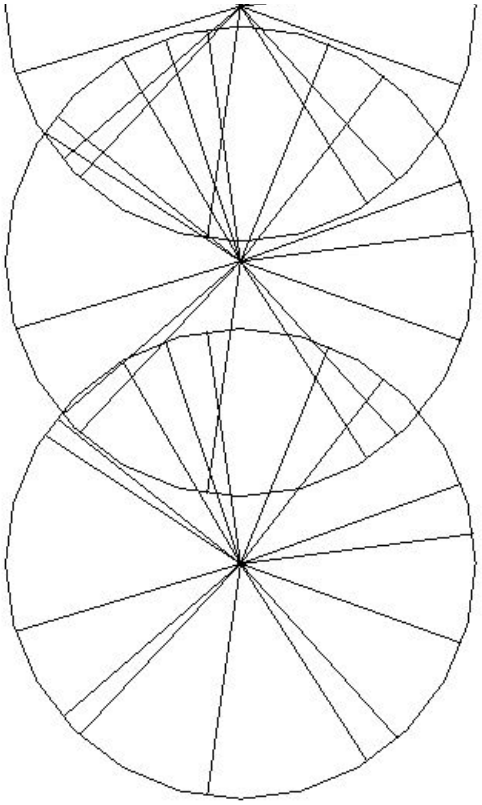

FORT WORTH, TEXAS
-8th Street & Magnolia
8th Ave
8th Ave
MAGNOLIA Medical Tower

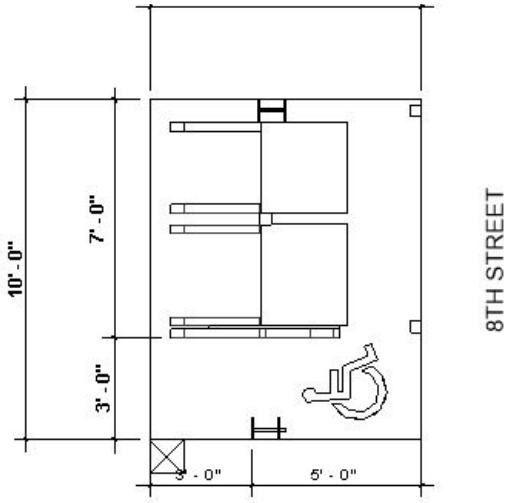
AERIAL VIEW


LED STRIP HORIZONTAL
10'-0"
LED STRIP
8'-0"
SEATING
ROUTE & SCHEDULE INFORMATION
P.I
MTL BRACKET
SAFETY
SHADE
SEATING
LIGHTING
- MAINTANCE
MATERIALS
STEEL
KIT OF PARTS
WOOD
NOT GOOD FOR WALLMOUNT
PLASTIC (FRP)
MAINTAINCE
- LIGHTWEIGHT
HARDWARE
? COST
LIGTHING
LED STRIP LIGHTING
NOTIFICATIONS
SIGNAGE
BUS INFO
P.I
FRP
SEATING
1'-10"
MTL BRACKET



PROCESS SKETCHES | 02

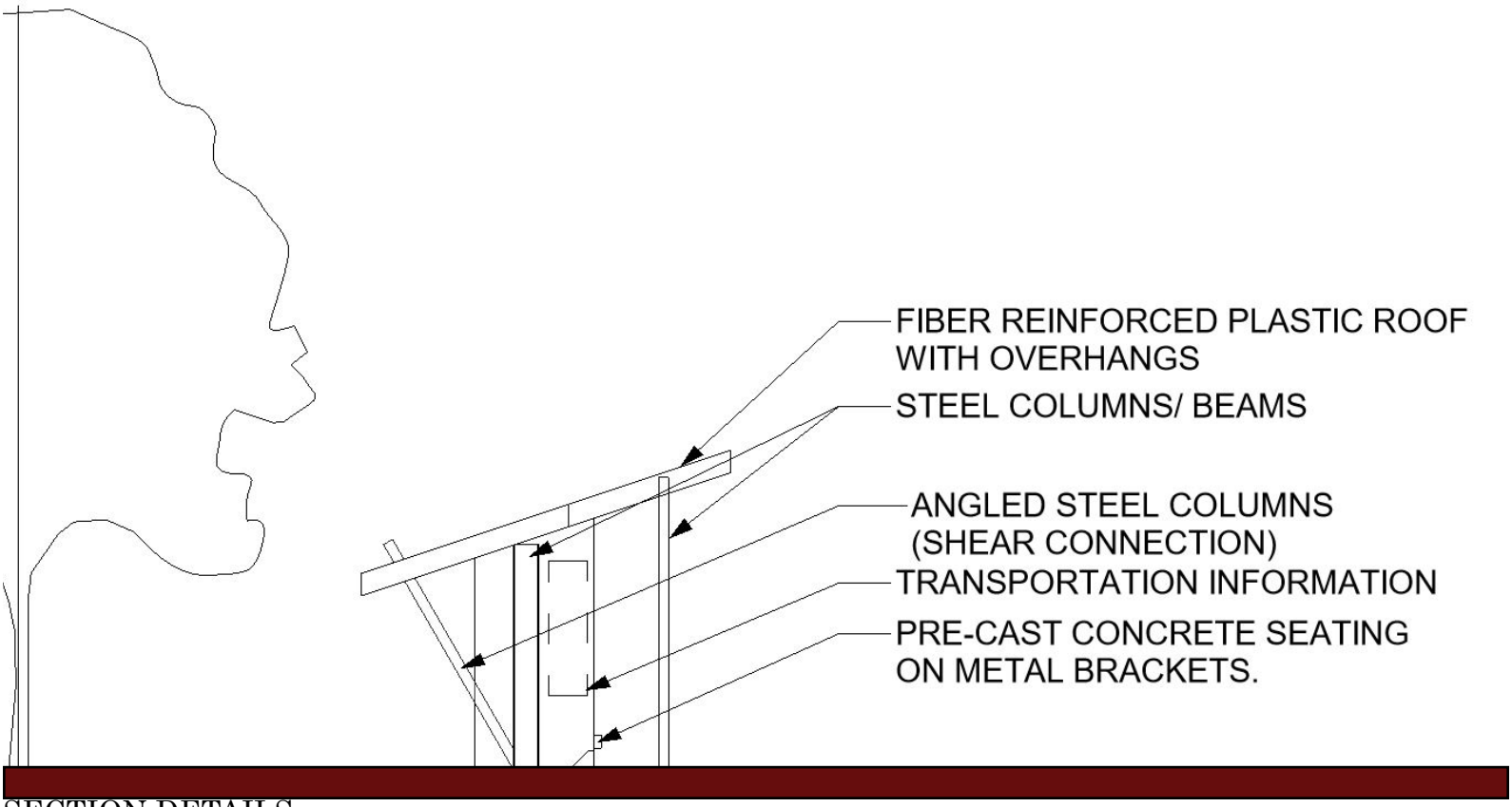




PLAN NORTH TRUE NORTH

1 FIRST FLOOR PLAN

1/4" = 1'-0"



SECTION DETAILS

Professional | Location 2 | Artistic Category

C&C Stop

Fort Worth is the city of cowboys and culture. We embody traditional Texas heritage while embracing artistic influences. This small bus stop provides an opportunity to display these characteristics by being placed around the city while creating a better experience for bus riders. This design draws inspiration from a symbol of local identity: the longhorn. It symbolizes the history and tradition of Fort Worth and is blended into the architecture to highlight a cultural embrace. The bus stop seeks to utilize this icon from to reinforce a positive connection with the riders and the city. By combining a symbol of cultural identity in a contemporary aesthetic the essence of Fort Worth is expressed while providing amenities for the users.

CREDIT SHEET

PROFESSIONAL CATEGORY

Entry Name: C&C Stop

Firm: HKS

Firm Location: Fort Worth, Texas

Team:

Ruel Mendoza

Wes Thomas

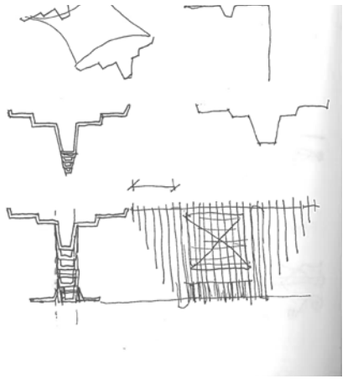
C&C Stop
8’ x 10’

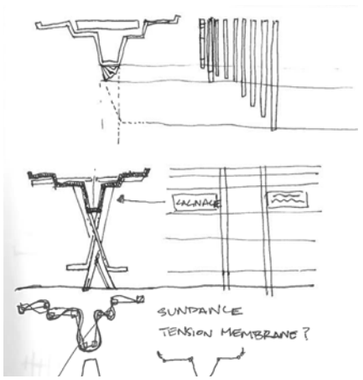
DIAGRAMS

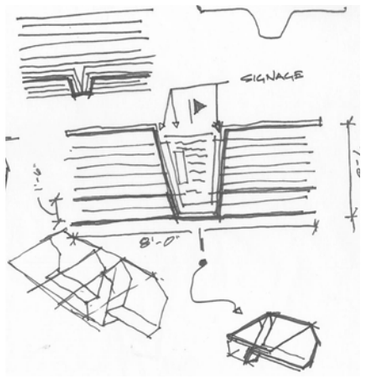
Local logos inspired the form and tie it back with the idea of (Cowboys &) culture of Fort Worth

SKETCHES

An icon as shading structure and seating aims to refinforce a connection connection to the city through a cultural icon.







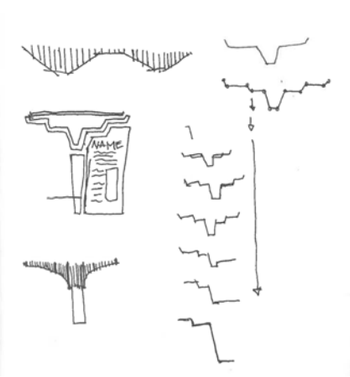
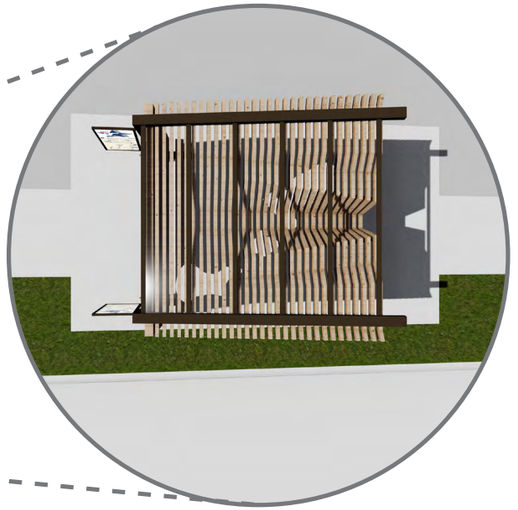


image sources:
http://www.destinationdfw.com/Moving-to-Fort-Worth-Texas-Cowboys-and-Culture/
https://en.wikipedia.org/wiki/File:Fort_Worth_T_logo.png

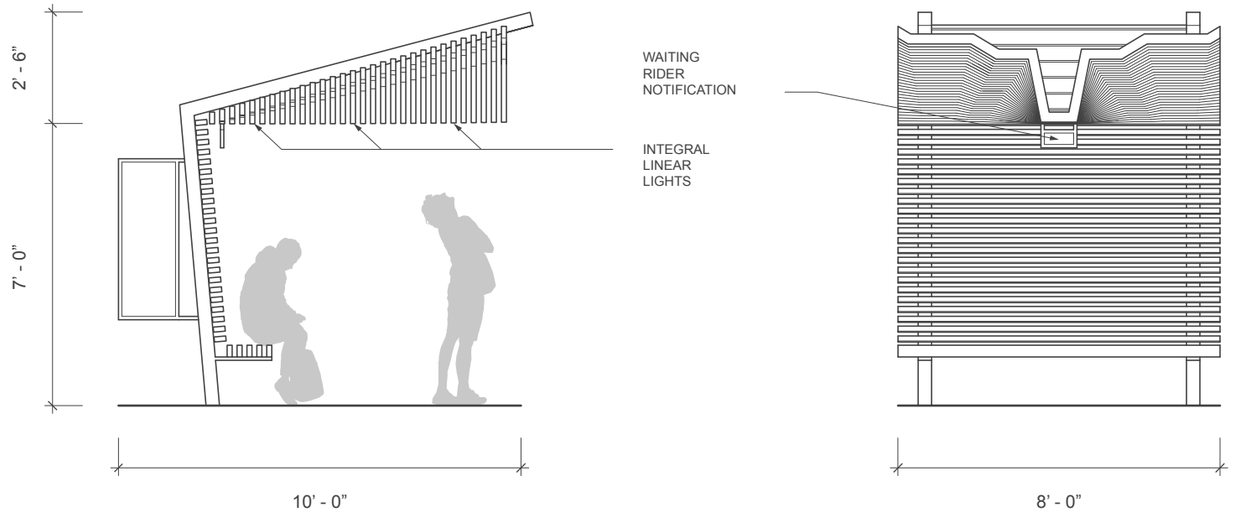


SCALE: 1" = 50'

N

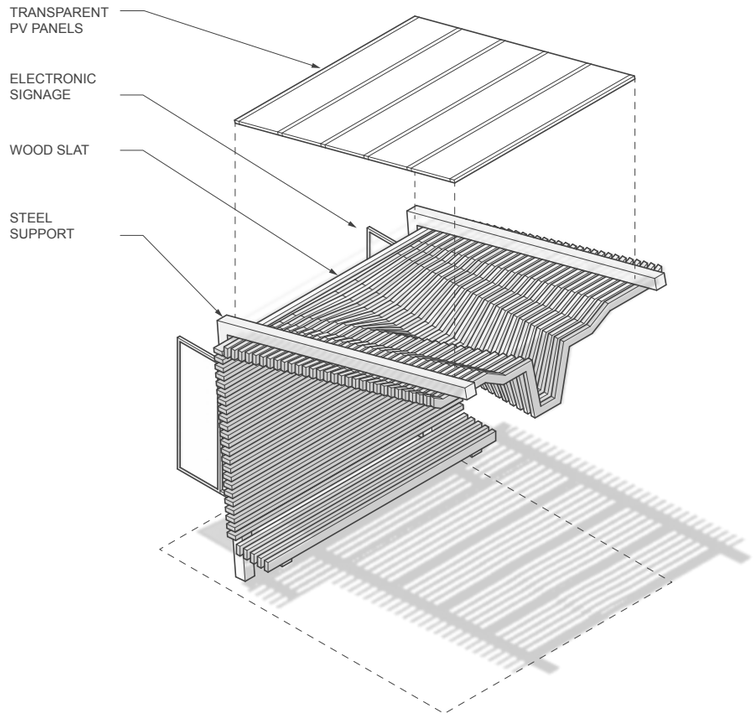
0 50' 100'

image sources:
https://www.google.com/maps/@32.7385423,-97.3385919,194a,35y,2.68h/data=!3m1!1e3?hl=en

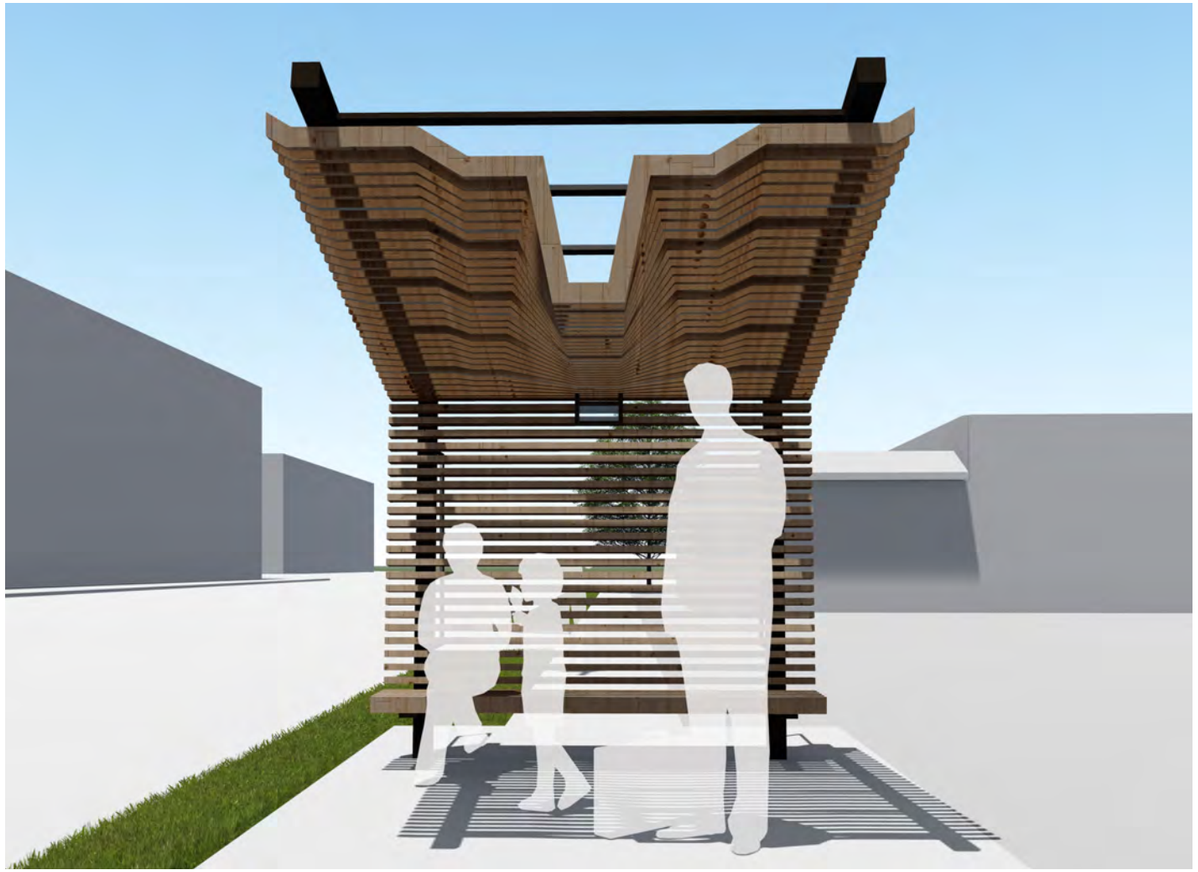


SCALE: 1/4" = 1'

0 4' 8'



PERSPECTIVE FROM SOUTH



PERSPECTIVE FROM EAST

PROFESSIONAL – LOCATION 2 (ARTISTIC)

Poro-City

Fort Worth is a city with full of potential for growth and development. In adjacent to its growth, more and more people are using transit system in the city. In effort to facilitate and enhance the experience of transit users in Fort Worth, Poro-City allows for users to pass through the bus stop in a safe and pleasant way. Using the idea of 'porosity', the functionality of a bus stop creates negative spaces that becomes active and positive when riders occupy the space. It also creates a structure that integrates nature, enhancing a transit user's experience. Poro-City is a new public space that provides a natural and interactive bus riding experience to enhance the urban fabric of Fort Worth.

CREDIT SHEET

PROFESSIONAL CATEGORY

Entry Name: Poro-City

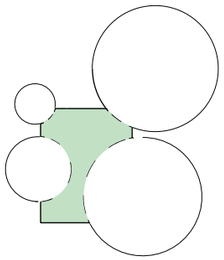
Firm: HKS

Firm Location: Fort Worth, Texas

Team:

Ruel Mendoza

Esther Jung



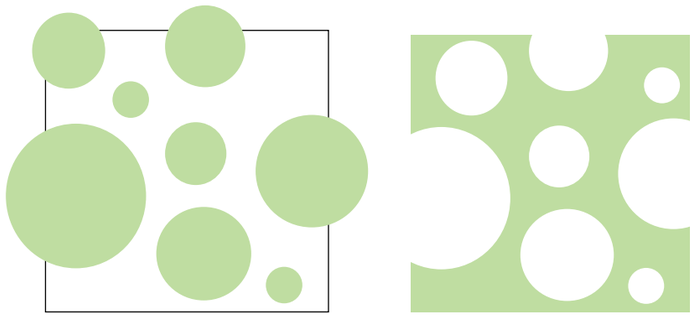
PORO-CITY

DIMENSION: 10′ x 8′ x 10′

View from East Side

POROSITY

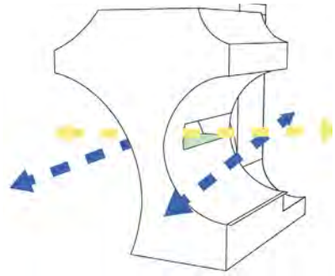
- a measure of the void (i.e. “empty”) spaces in a material, and is a fraction of the volume of voids over the total volume
- allowing things to pass through voids.



Positive and negative space is determined through the way the space is represented and perceived.

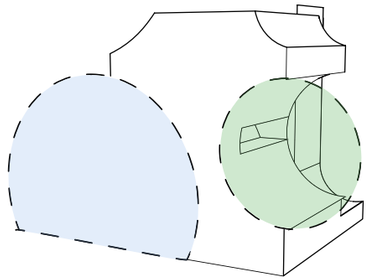
How could this idea of porosity be utilized to blur the distinction of positive and negative space and take advantage of both spatially and functionally ?

VISIBILITY



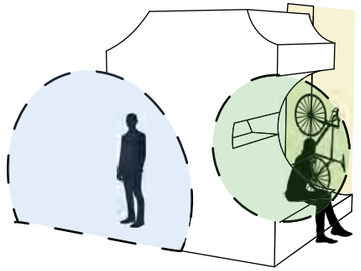
The strucuture allows users to be visible from all sides and lit during night time for safety of the bus users.

FUCTIONAL POROSITY



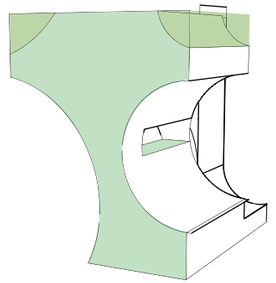
Function of the bus stop is to facilitate the experience of bus users and in respect to external environment.

SPATIAL POROSITY



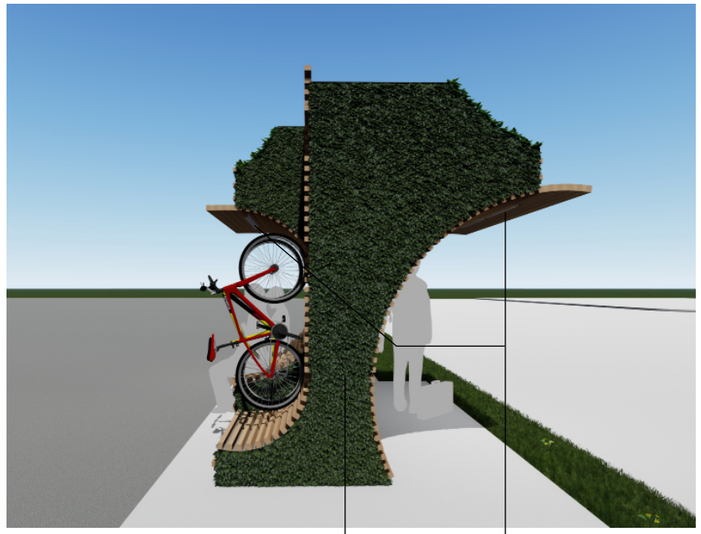
The void of the structure becomes a positive space once people occupy and utilize the spaces.

GREEN SPACE



Maximing green space and work as a pop-up for the city.

PENSYLVANIA AVE.



Green walls absorbes sunlight and rainwater. Having a more sustainable and green approach in the city.

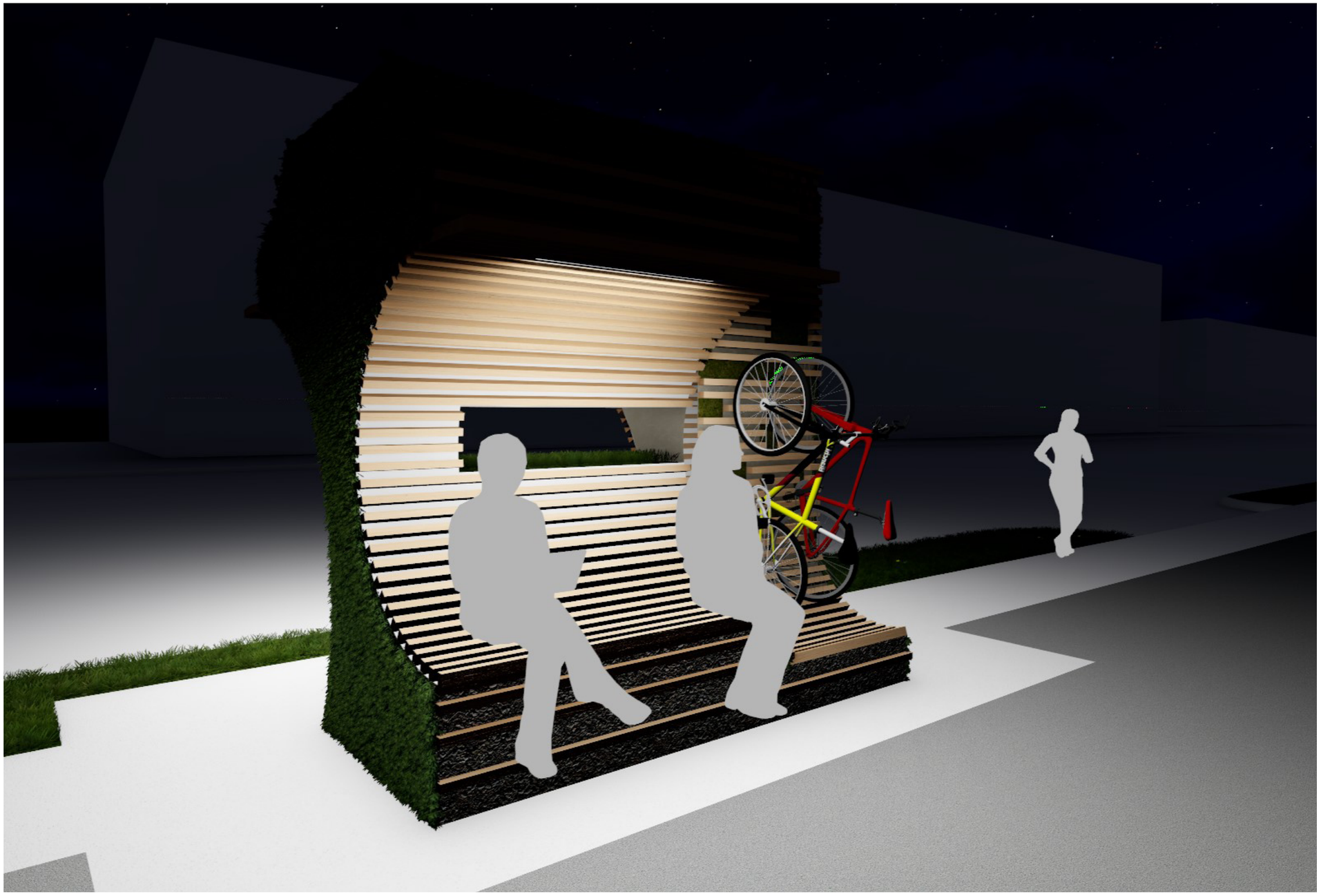
Lights are on both sides of the cantileved canopy for night time bus users.

The window provides views from both sides for visibility for users.

The structure is supported by two columns inside holding up the roof and both cantilevered walls.

Gabion wall on the bottom, for filtration and redirecting rain water.

Vertical bicycle racks for saving spaces on pedestrian road.



Night View

On the pedestrian side is for seating and vertical bicycle rack.

Small Stops Bus Stop Competition
Data Sheet

Artistic Stop
Location:
#4 and #6 route westbound stop; located west of the northwest corner of Pennsylvania and Henderson.

A tree is a natural structure; a complex biological network. A tree defines space and occupies the landscape, but also functions as a transport system with mechanical resilience.
The bus stop assumes its place in the landscape within an 8'x10' footprint. Like cows on the plain, pedestrians will be drawn to this urban oasis. From the whooshing rattle of the wind through the kinetic canopy to the evaporative cooling rooted paver system, bus patrons are invited to rest against the trunk. No resource is wasted.

Small Stops Bus Stop Competition
Credit Sheet

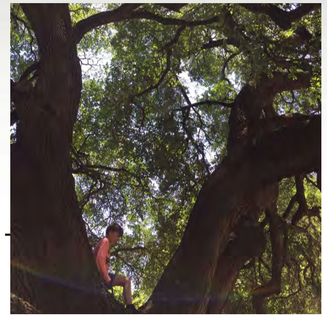
97w, LLC
1201 W. Magnolia Avenue Suite 251
Fort Worth, TX, 76104

Team Members:

Jason Eggenburger, AIA, NCARB
Steven Halliday, Assoc. AIA, LEED AP
Matthew Huddleston
Rachael Owens

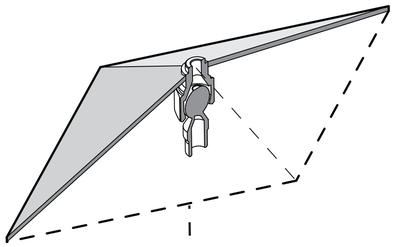
root 4 & 6

A bus stop prototype as a catalyst in the transportation and distribustion loop of the city



A tree is a natural structure; a complex biological network. A tree defines space and occupies the landscape, but also functions as a transport system with mechanical resilience.

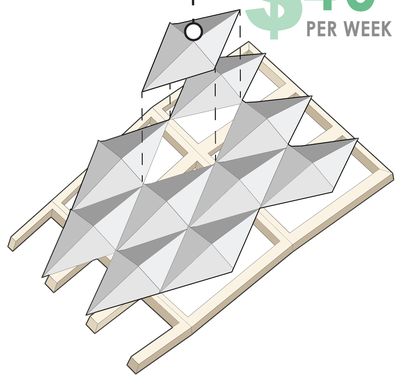
The bus stop assumes its place in the landscape within an 8'x10' footprint. Like cows on the plain, pedestrians will be drawn to this urban oasis. From the whooshing rattle of the wind through the kinetic canopy to the evaporative cooling rooted paver system, bus patrons are invited to rest against the trunk. No resource is wasted.

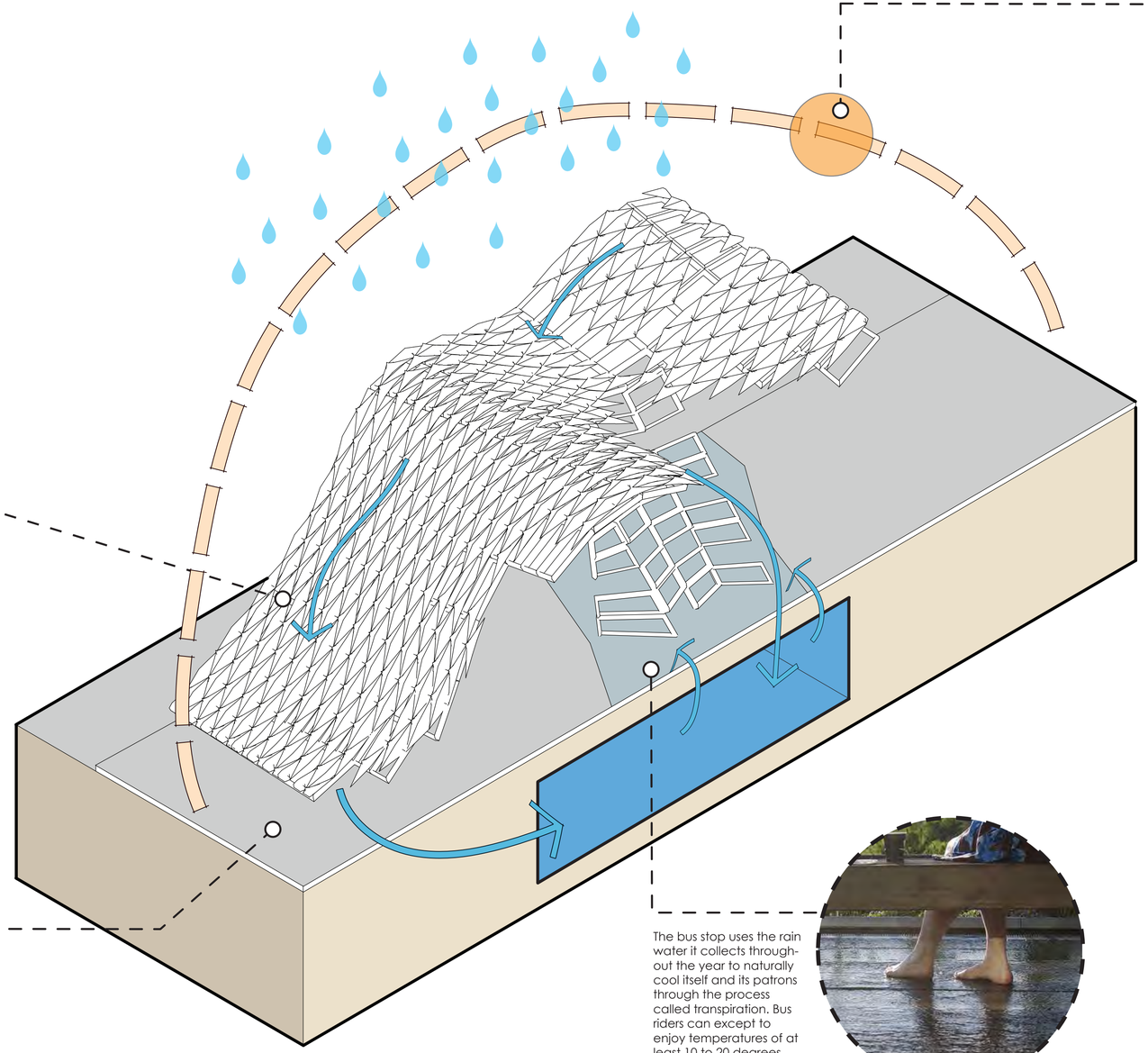


Each kinetic 'leaf' is attached to the tube steel canopy structure by a ball joint. A ball joint consists of a bearing stud and a casing enclosed socket. This connection allows the 'leaf' to move with any change in wind direction. The 'leaf' is connected through low-voltage wiring to a battery that provides all of the energy for the stop. The psithurism of the canopy creates an auditory sensation that is familiar and new.

$40
PER WEEK

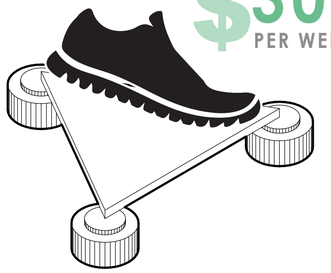
The canopy system consists of 300+ 'leaf' panels which produce 15KWH per day. Equivalent to $40 in energy costs each week

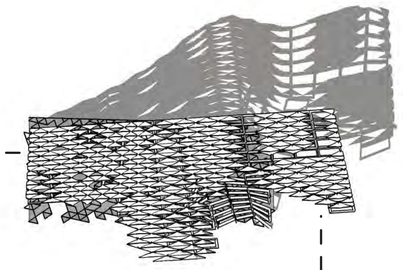




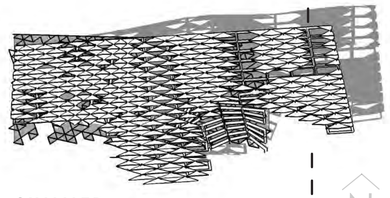
$30
PER WEEK

Kinetic pavers generate electricity from every footstep. The pavers produce $7 in energy costs per day, the energy is transferred to a battery to be stored for later use.





WINTER



SUMMER

N

Positioned along the north side of Pennsylavania Ave, the stop's east/west orientation allows for complete shade during the summer months while also allowing warming sunlight during the winter months.

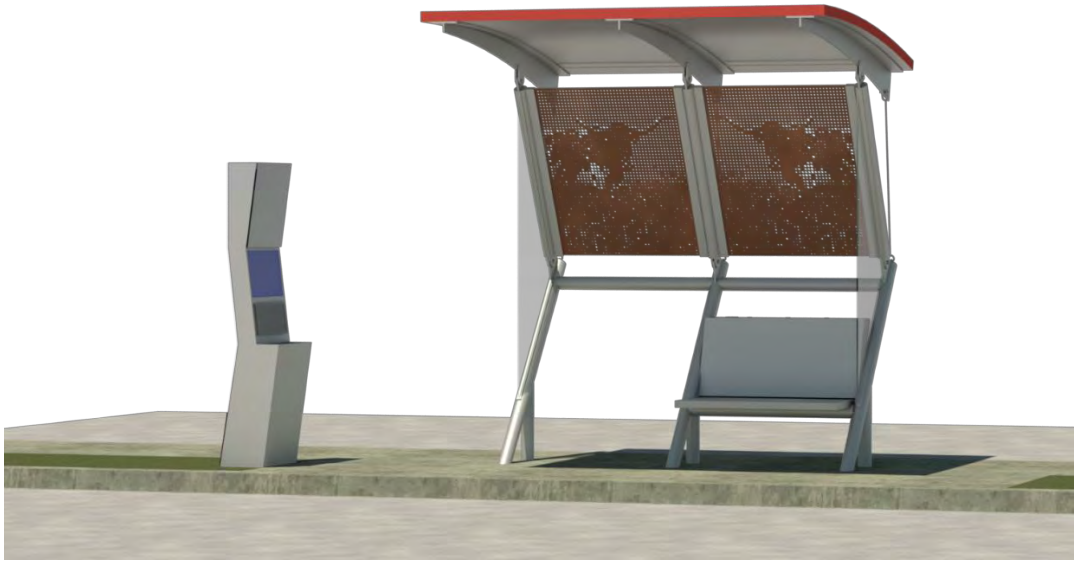
The bus stop uses the rain water it collects throughout the year to naturally cool itself and its patrons through the process called transpiration. Bus riders can except to enjoy temperatures of at least 10 to 20 degrees cooler than the outside air temperatures.

x 800
8'x7'x3' platin tank holds 800 gallons

x 100
100 gallons collected per inch of rainfall

x 3
the system harvests enough rain water to continue running for over 3 months, despite evaporation

TROT



Category: Artistic

Site: Pennsylvania and Henderson

TROT is designed as a structural expression of the anatomy of a horse's leg, evoking the idea of movement. Horses were one of the earliest forms of transportation, and images of cattle drives and horse stampedes fill our collective memory, particularly in Fort Worth.

Unadorned stainless steel pipes, fins, and cables support an LED-lit, arched metal roof that mimics an equine hip. A stainless steel bench rests between two of the pipe columns, and conveniently houses a charging station and a waiting rider notification button that sends an alert to the bus driver. The other space is left for wheelchair access. Back-lit perforated metal panels, shown here with a longhorn motif, and tinted plexiglass side panels provide a transparent enclosure.

A complementary sign structure is equipped with a small solar panel that powers a digital route map, and also houses a built-in trash bin.

TROT

Hahnfeld Hoffer Stanford

200 Bailey Avenue, Suite 200

Fort Worth, Texas 76107

817-921-5928

Team Members:

Robert A. (Tony) Hartin- Licensed Architect, TX# 15359; AIA 30209114

Maria Heaslip- Associate IIDA

Alma Luna- Project Coordinator

Josh Mauldin- Licensed Architect, TX# 23957; AIA 38048597

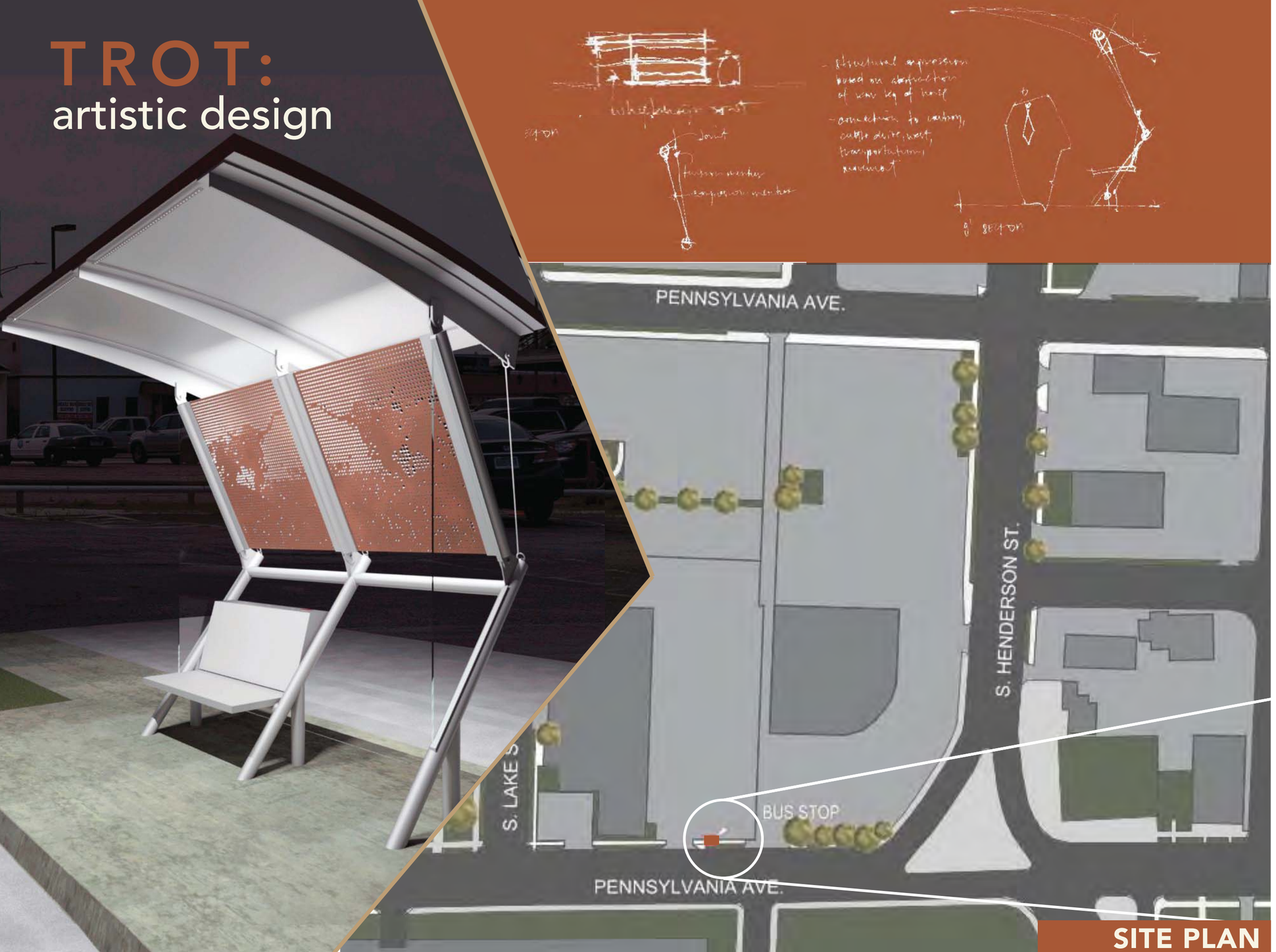
Joseph Mueller-Project Coordinator

Sarah Mitchell- Licensed Architect, TX# 23413; AIA 30385114;

Anita Rodgers-Project Coordinator

Adam Stanford- Project Coordinator

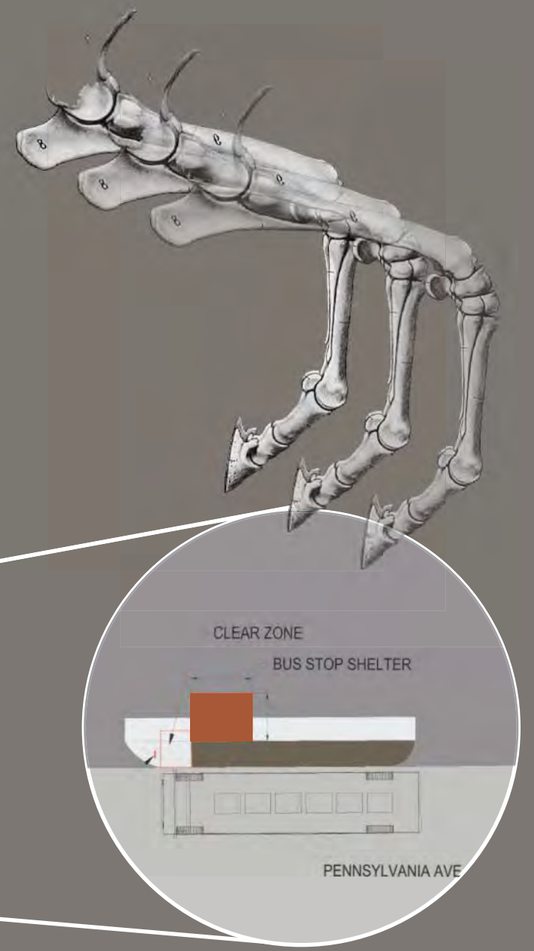
TROT:
artistic design



SITE PLAN

CONCEPT

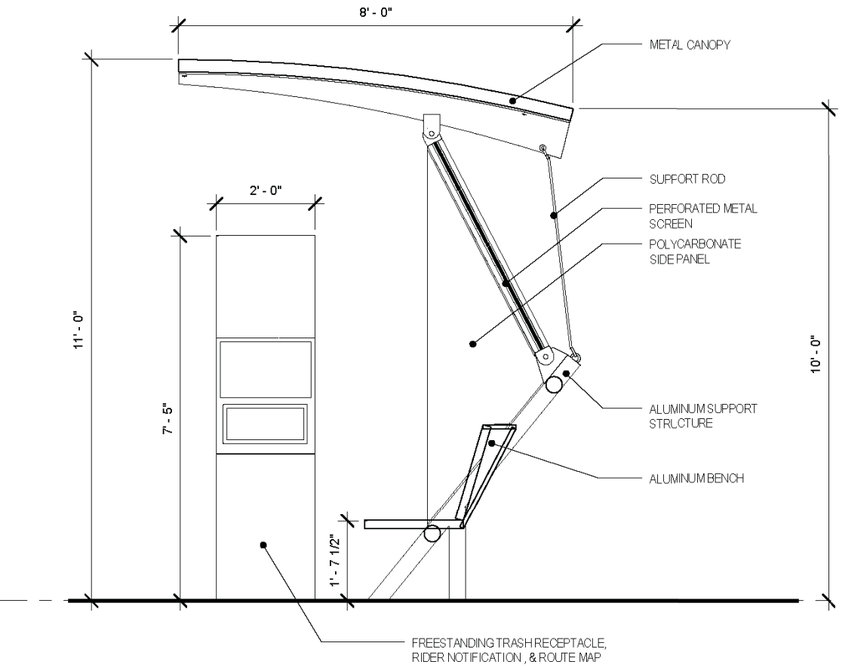
TROT is designed as a structural expression of the anatomy of a horse's leg, evoking the idea of movement. Horses were one of the earliest forms of transportation, and images of cattle drives and horse stampedes fill our collective memory, particularly in Fort Worth. TROT marries that grand imagery with function, resulting in a sleek, modern bus shelter.

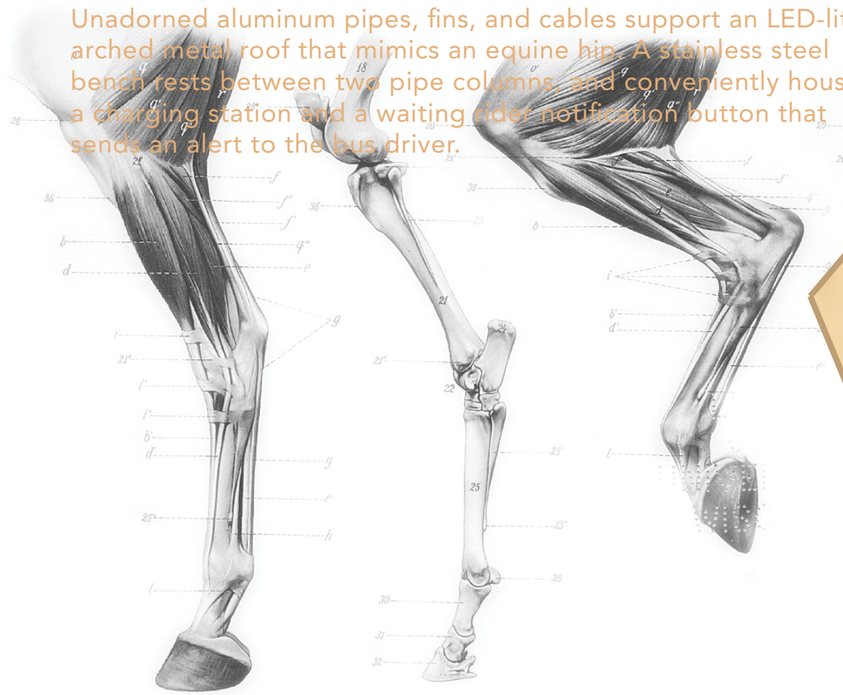


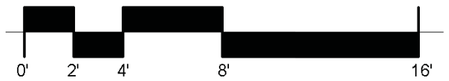
A STRUCTURAL EXPRESSION OF A HORSE'S LEG

Historically, horses were one of most- used forms of transportation, especially in Fort Worth, where images of cattle drives and horse stampedes fill our collective memory. TROT is designed to evoke the idea of movement by translating the anatomy of a horse's back leg.into steel components

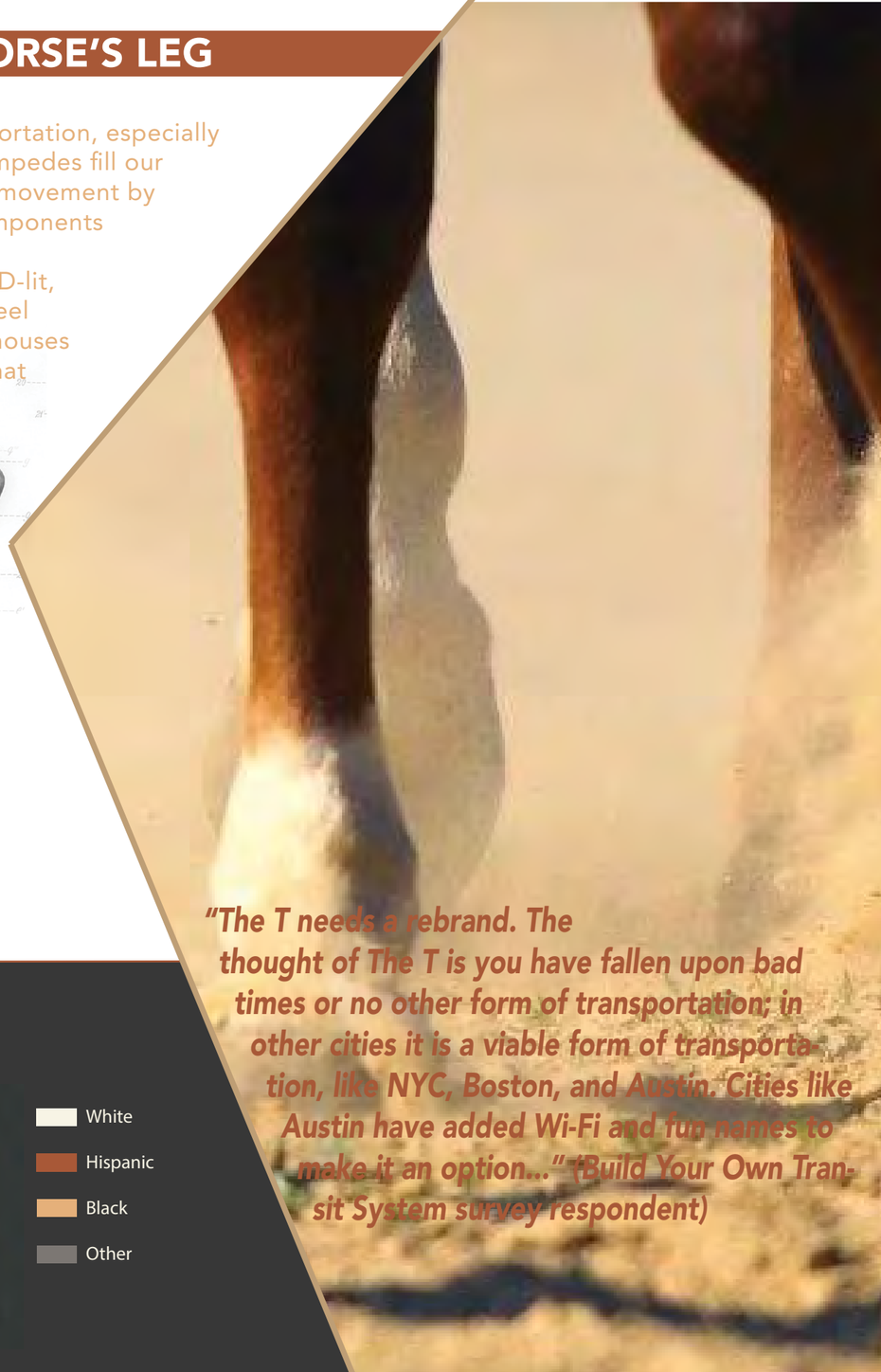
Unadorned aluminum pipes, fins, and cables support an LED-lit, arched metal roof that mimics an equine hip. A stainless steel bench rests between two pipe columns, and conveniently houses a charging station and a waiting rider notification button that sends an alert to the bus driver.







SECTION



"The T needs a rebrand. The thought of The T is you have fallen upon bad times or no other form of transportation; in other cities it is a viable form of transportation, like NYC, Boston, and Austin. Cities like Austin have added Wi-Fi and fun names to make it an option..." (Build Your Own Transit System survey respondent)

BABY BOOMERS

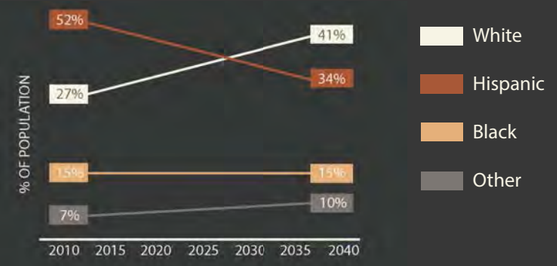
In Tarrant County, the population of residents age 65 and older is projected to increase by 174% by 2040, far more than any other age group in the county

55.4% INCREASE
in bus ridership since 2006

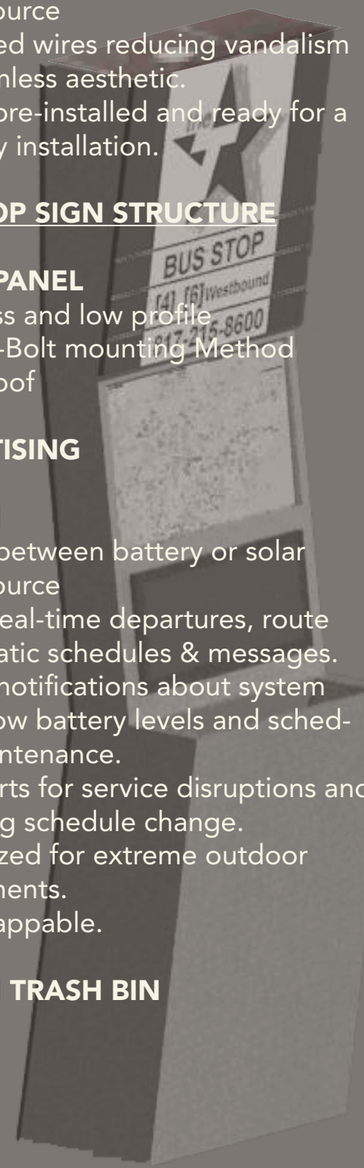
MILLENIALS

The Metroplex is growing, and a large share of that growth—31% of new residents between 2010 and 2040—is projected to come from Millennials. Looking forward, better transit options will be crucial to attracting and retaining Millennials in Fort Worth and Tarrant County

MINORITIES



TECHNOLOGY



1. USB PORT
Choose between battery or solar power source
Concealed wires reducing vandalism and seamless aesthetic.
Factory pre-installed and ready for a plug-play installation.

BUS STOP SIGN STRUCTURE

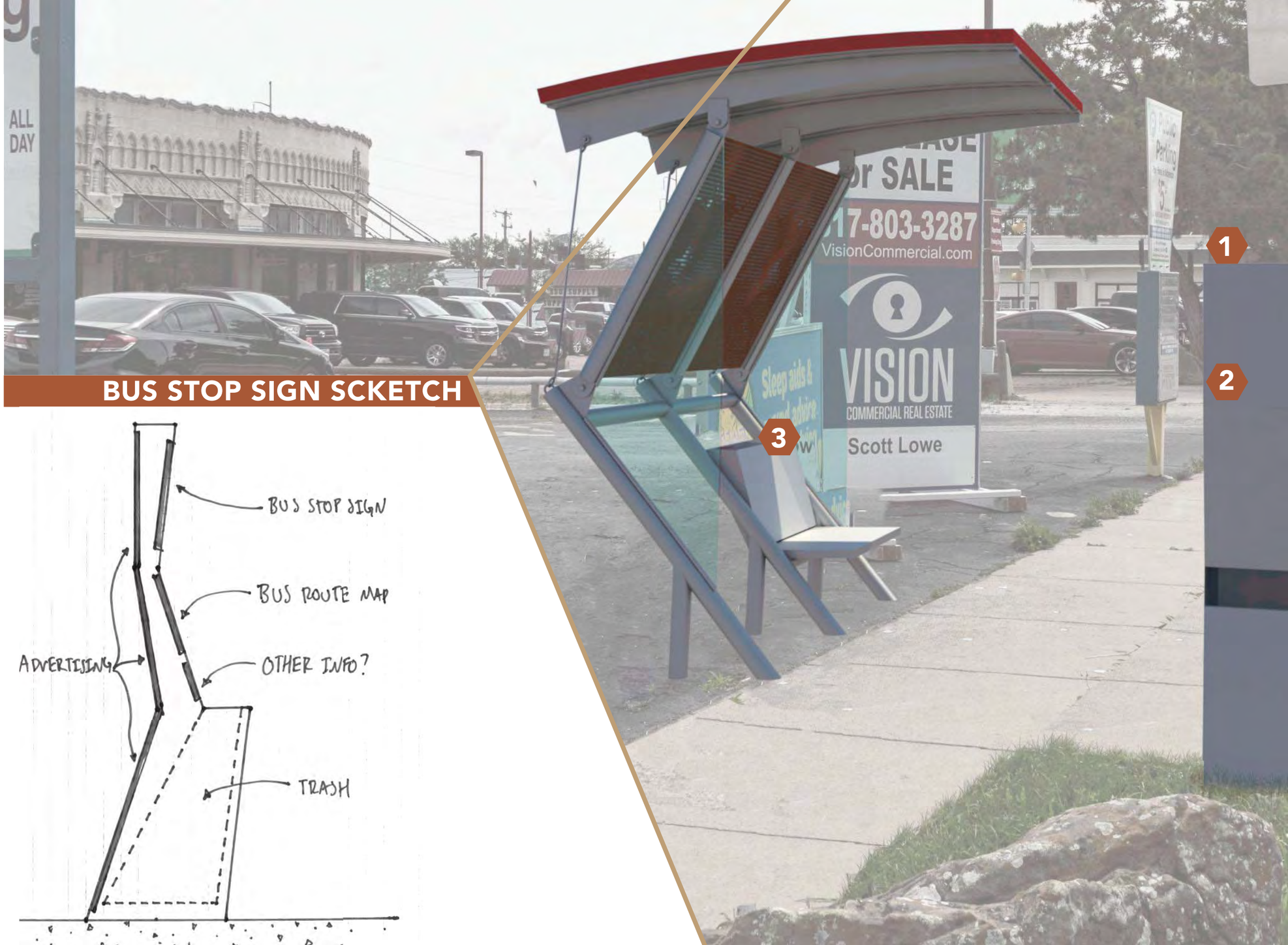
2. SOLAR PANEL
Frameless and low profile
Through-Bolt mounting Method
Waterproof

3. ADVERTISING

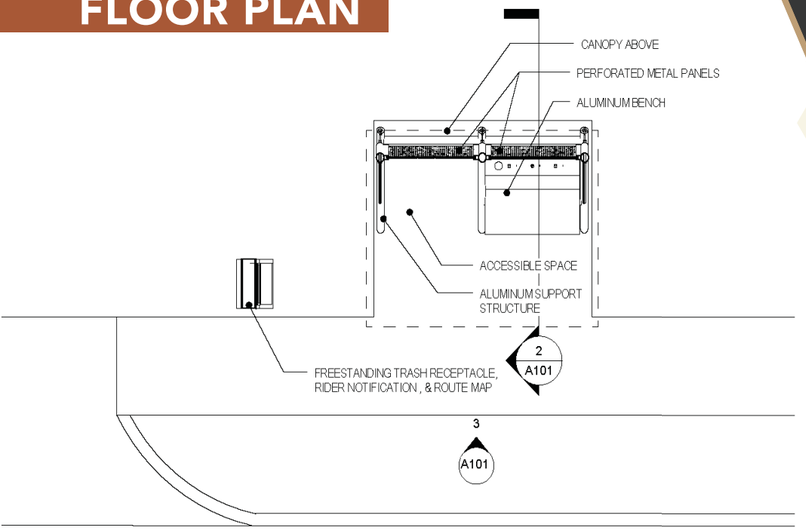
4. SCREEN
Choose between battery or solar power source
Display real-time departures, route maps, static schedules & messages.
Receive notifications about system health, low battery levels and scheduled maintenance.
Send alerts for service disruptions and upcoming schedule change.
Ruggedized for extreme outdoor environments.
Field swappable.

5. BUILT-IN TRASH BIN

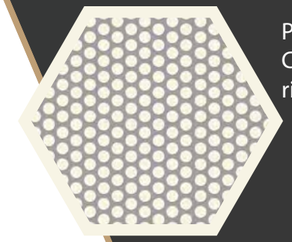
BUS STOP SIGN SCKETCH



FLOOR PLAN



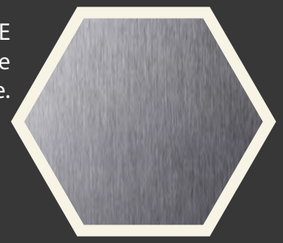
MATERIALS



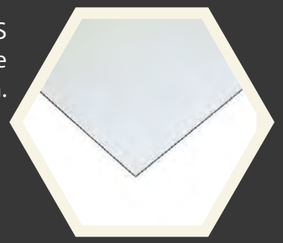
PERFORATED METAL
Custom perforated metal panels, made of laser-cut copper ,create extra shade for bus riders and carry a beutiful image that can change based on the bus stops location.

STAINLESS STEEL CABLE
Structural steel cables work together with the stainless steel pipe , like tendons work with bones, to mimic the anatomy of a horse's leg.

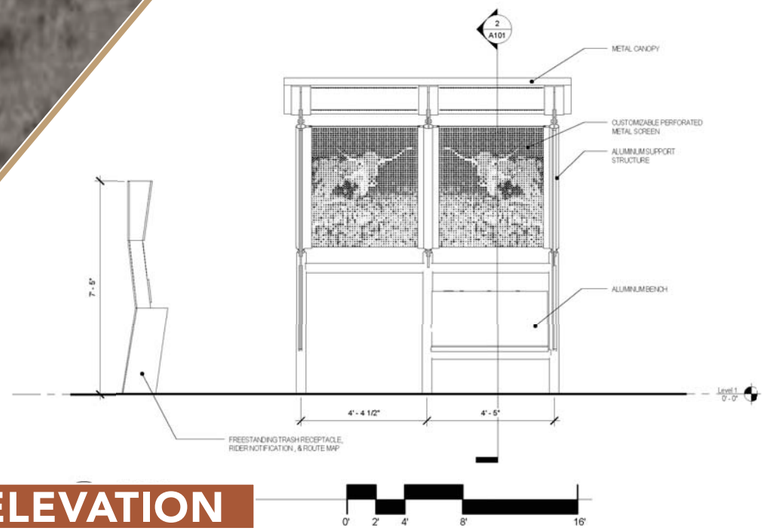
CAST ALUMINUM
cast alimunim bench cantilevers from the "leg" components of the bus shelter for a comfortable place for riders to sit while waiting for the bus



STAINLESS STEEL PIPE
Structural steel pipes work together with the stainless steel cable, like the bones in a horse's leg work with tendons, to support the roof structure.



TINTED PLEXIGLASS
Tinted plexiglass at the ends of the shelter provide additional sun protection to people waiting for the bus. the plexiglass could also change color based on the bus stop location.

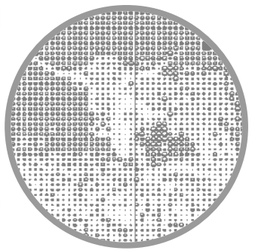


ELEVATION

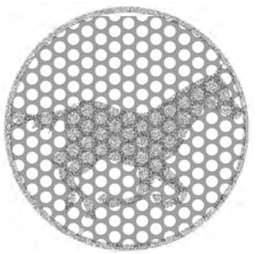
ALTERNATE IMAGES

Because each panel is laser cut, different images can be put into each one, allowing the image to change at each stop and for each area of Fort Worth. If each neighborhood has different themes, and each stop a different image, these bus stops can become subtle wayfinding devices throughout the city for bus riders and foot traffic alike.

DOWNTOWN
(PRAIRIE THEME)



STOCKYARDS
(CATTLE THEME)



NEAR SOUTHSIDE
(HORSE THEME)

Cross Timbers

Artistic Bus Stop

Pennsylvania and Henderson

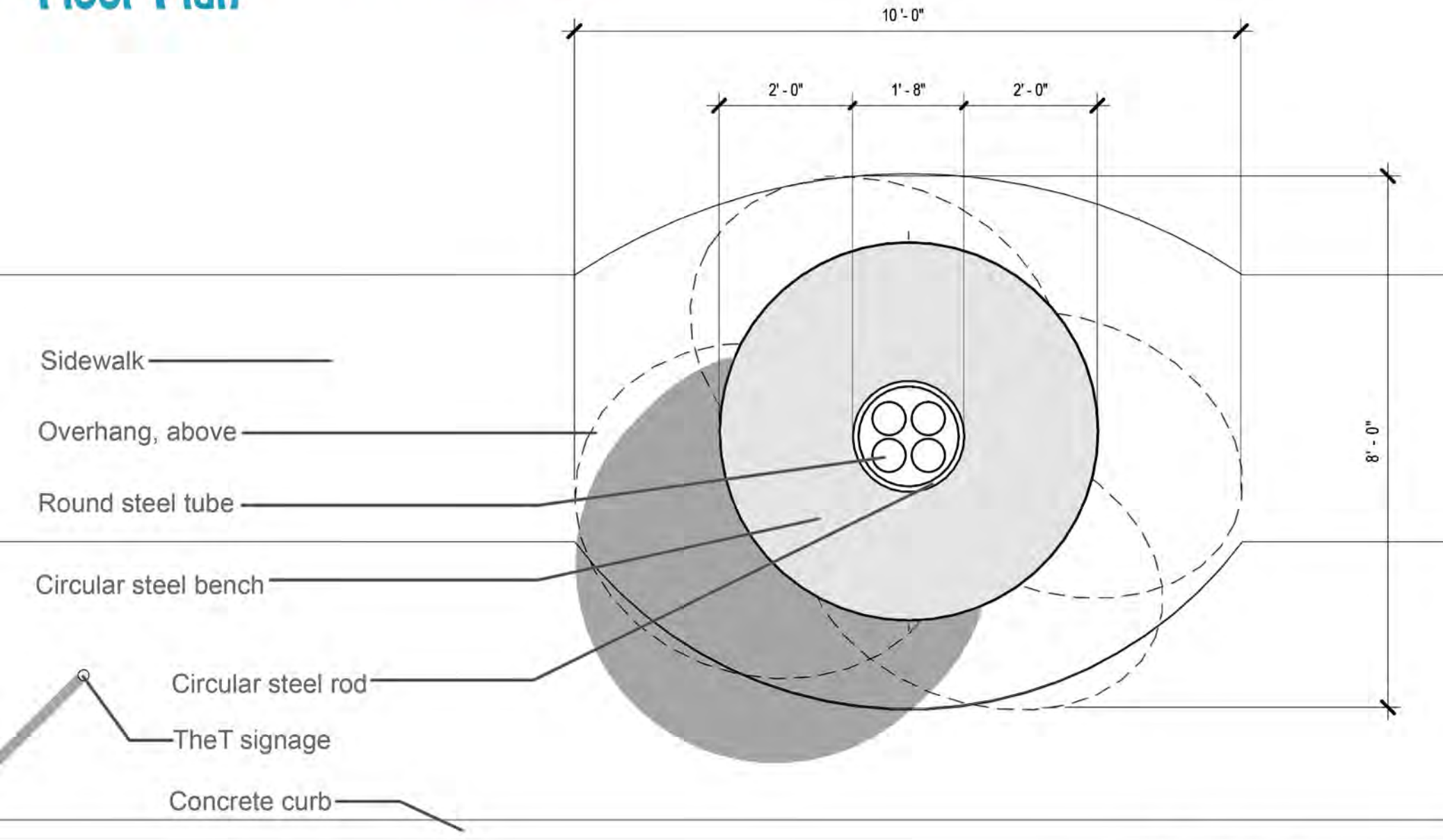
Imagine yourself sitting down, looking through a forest of trees, surrounded by natural light, and pleased by natural vibrant colors of the trees and sky.

These characteristics of a forest of trees are applied to the Cross Timbers Bus Stop design. Four tall curvilinear steel tubes, acting as tree trunks, rise at various directions and heights. Looped steel rods hug the steel tube tree trunks developing a vertical rhythmic pattern. Branches are slender steel rods welded from the tree trunks to the circular steel frames. Four circular steel frames represent forest branches crossing over one another with colorful leaves. A layer of blue and green etched laminated glass on sheet metal cut into the forms of branches infill the steel frames. Steel tube trunks and braced arched rods supports the curved bench. Colored motion sensor rope lighting, wrapped around the circular steel frames, alerts the bus driver to waiting passengers.

HUITT-ZOLLARS

Firm Name:	Huitt-Zollars, Inc.
Firm Location:	500 W. 7th Street
	Suite 300
	Fort Worth, Texas 76102
Licensed Architect/AIA:	Dustin Chappell
Team Member(s):	Amber Estrada
	Jim Fullmer
	Adolfo Gonzalez
	William Hoelscher
	Shalece Thompson

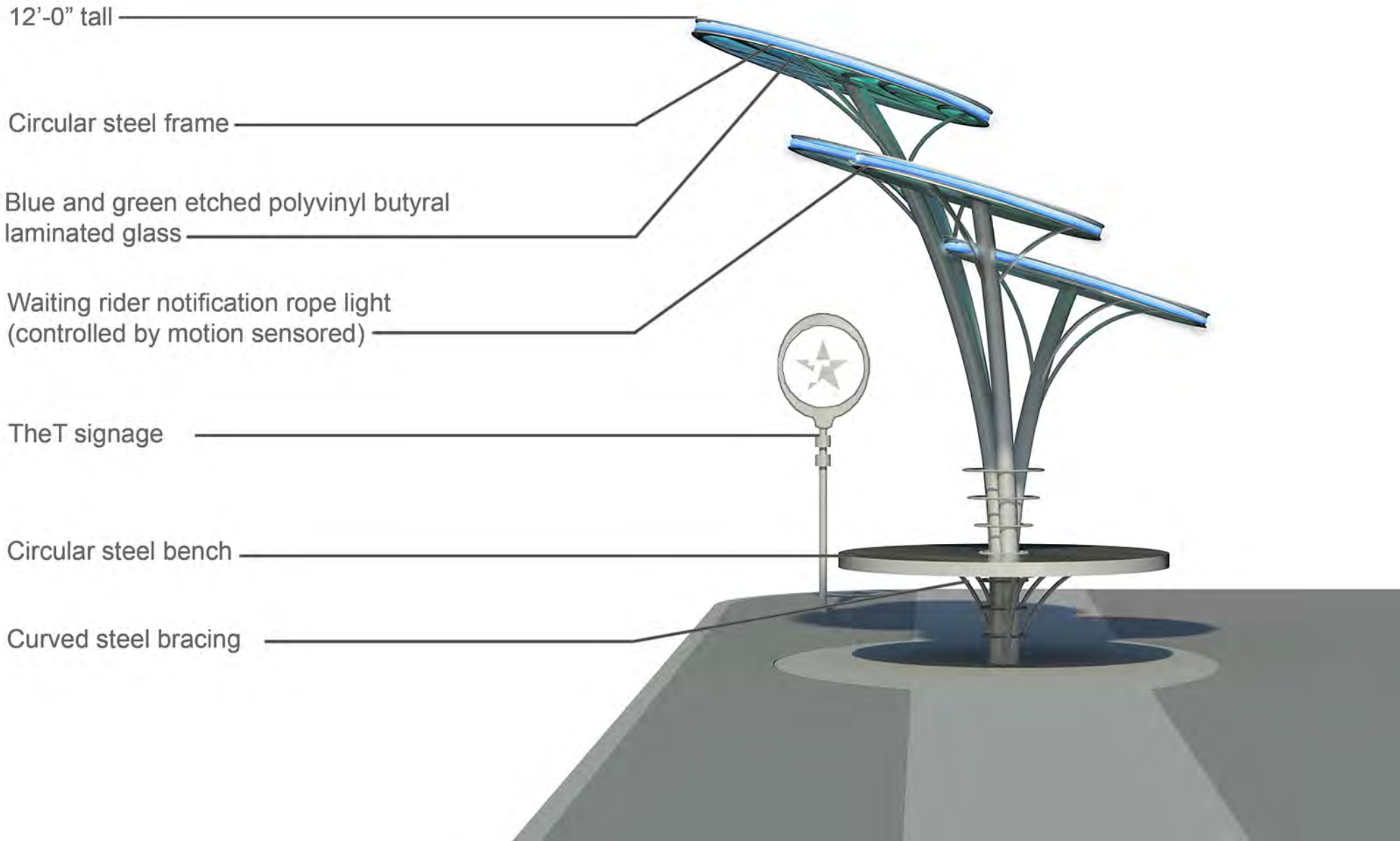
Cross Timbers
Floor Plan



Cross Timbers

Cross Timbers
Night Rendering

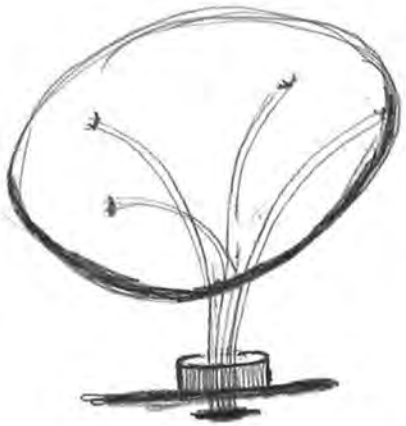
Cross Timbers
East Elevation

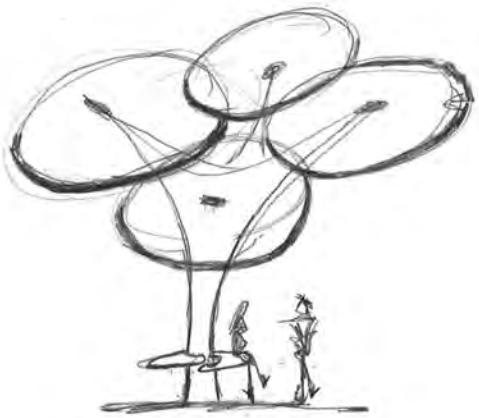


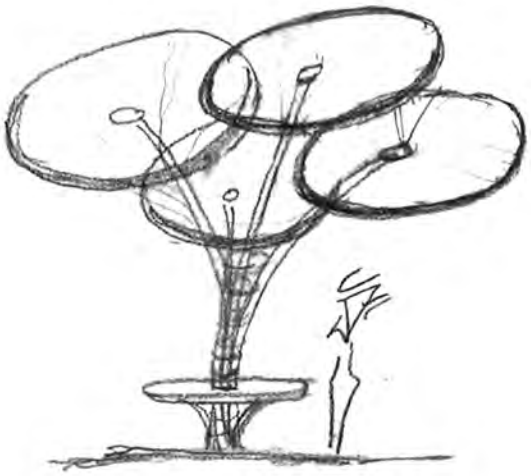
Cross Timbers

Bird's Eye Perspective

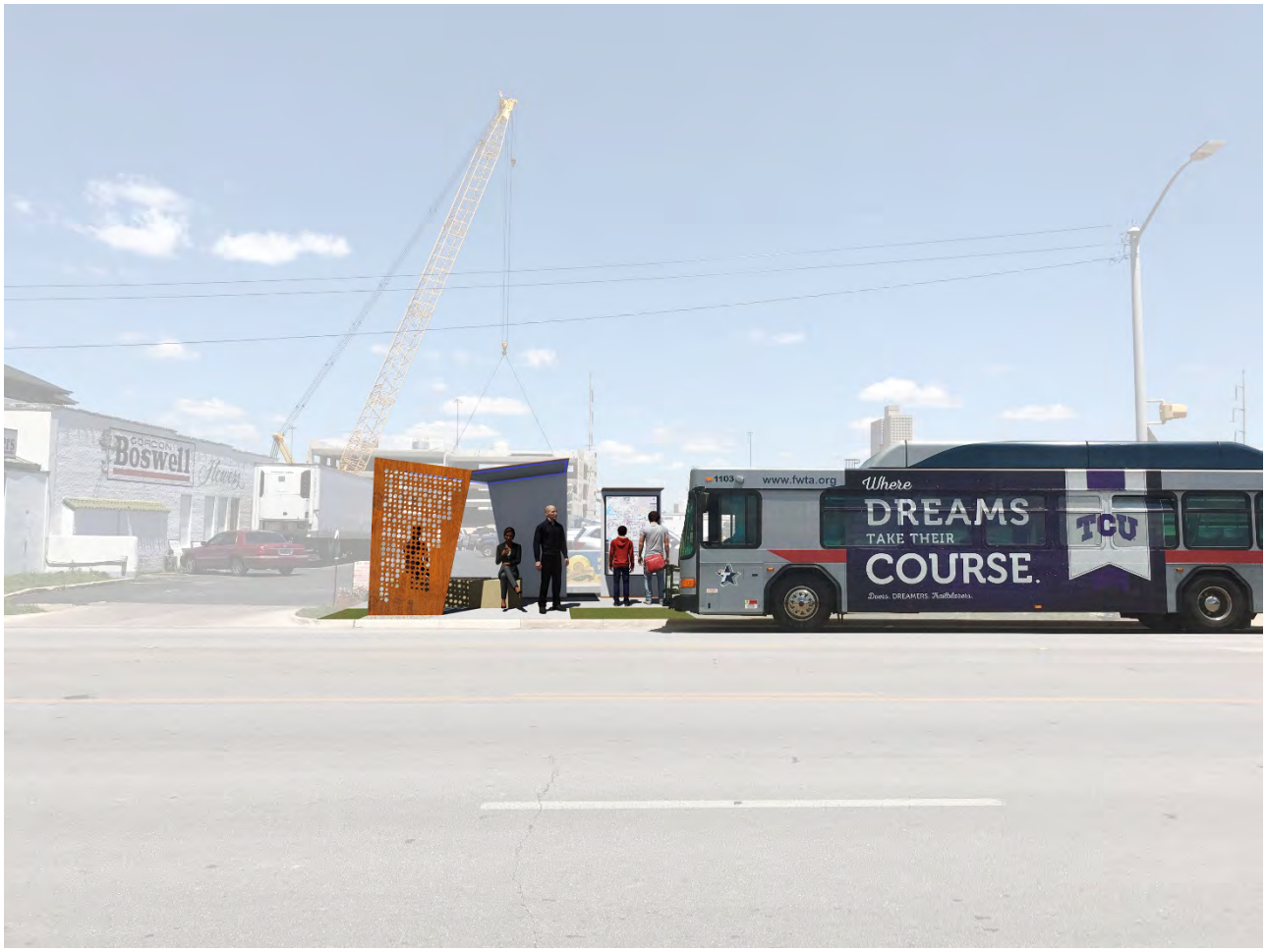
Cross Timbers
The Developing Stages







smallSTOPS – Data Sheet



The Star Stop – Stars are widely recognized as an iconic symbol of Texas, passenger shelters are an icon of a transportation system. The Star abstractions the form of the star to create a passenger shelter that will provide the Fort Worth Transportation Authority a recognizable icon throughout Fort Worth.

The ***artistic*** design of The Star passenger shelter creates a functional shelter well suited for those utilizing the Fort Worth T from the adjacent hospitals and businesses at ***Henderson Street and Pennsylvania Avenue.*** The form of the passenger shelter provides waiting rider comfort and security through creating a covered shelter that provides shade in the summers, protection from the rain, a well-lit location to wait for buses and an open shelter that allows one to not feel 'trapped'.

THINK.
DESIGN.
BUILD.

THE STAR STOP Project Team

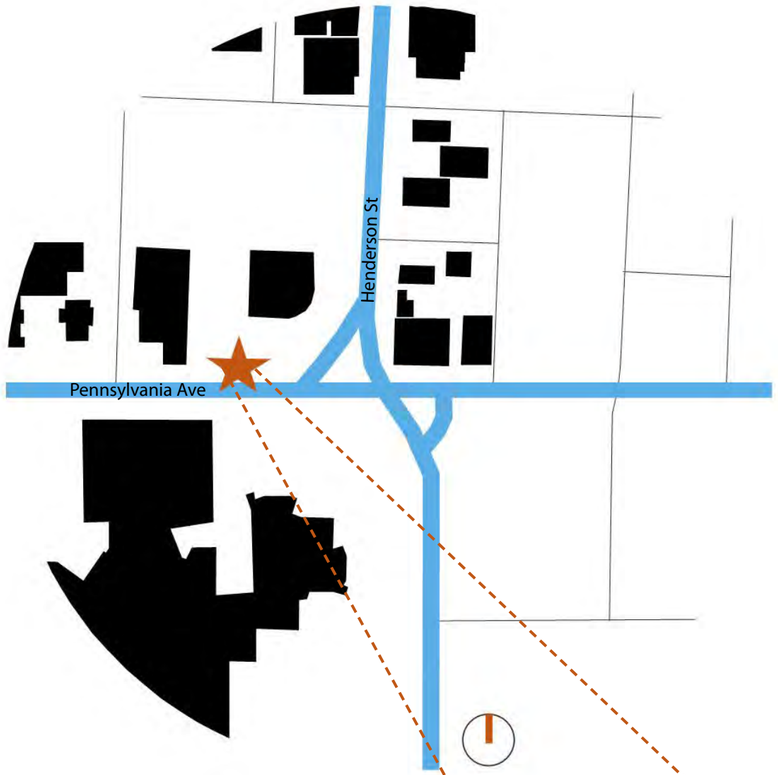
The Beck Group
810 Hemphill Street
Fort Worth, TX 76104

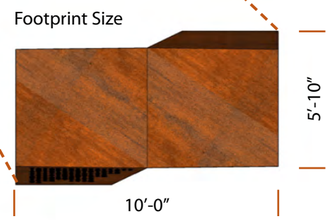
- Matthew Montgomery, AIA
- Justin Park

small STOPS
Bus Shelter Design Competition

The Star Stop

ARTISTIC DESIGN

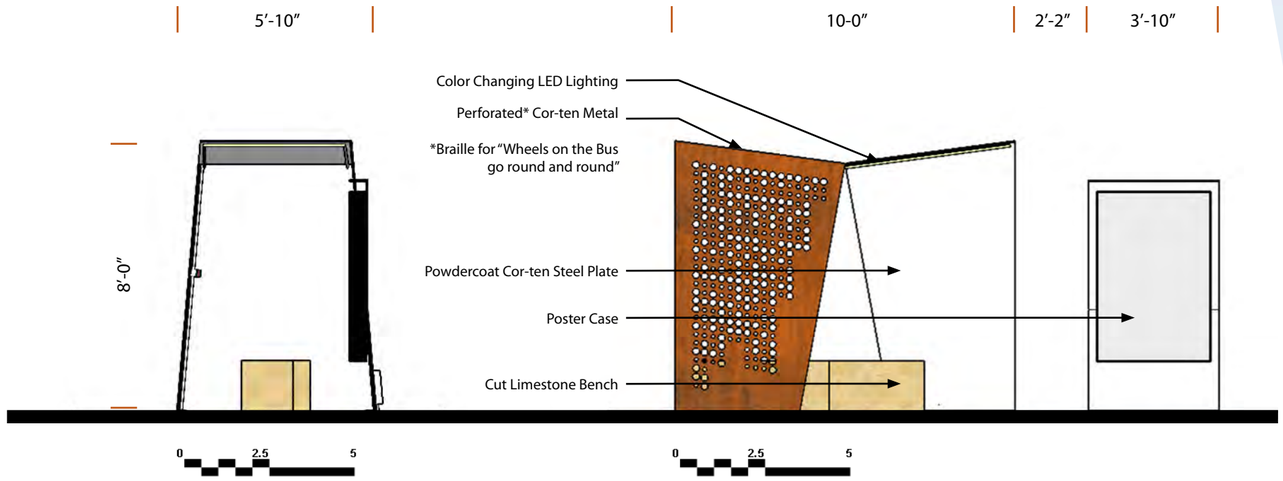


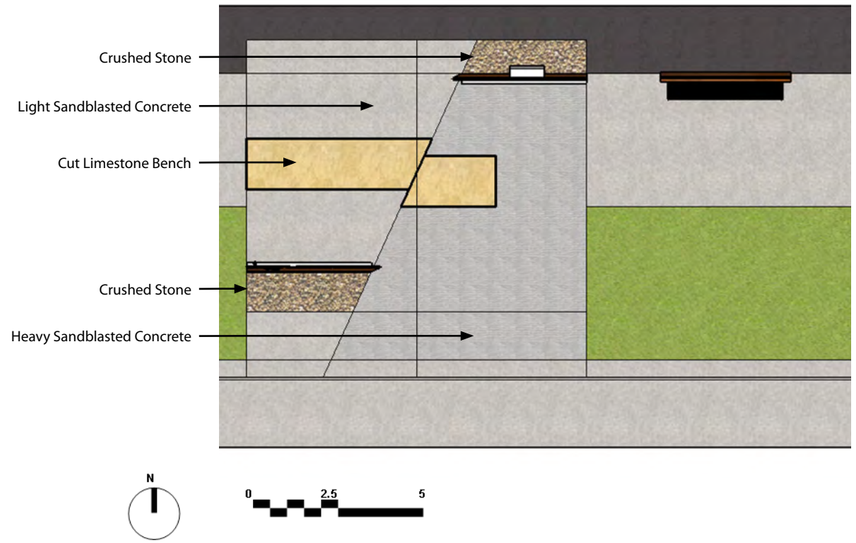


small STOPS

Bus Shelter Design Competition

Materials

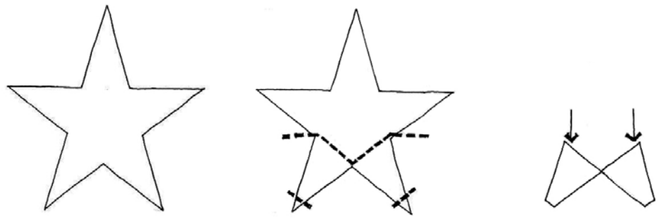

5′-10″
10-0″
2′-2″
3′-10″
Color Changing LED Lighting
Perforated* Cor-ten Metal
*Braille for "Wheels on the Bus go round and round"
8′-0″
Powdercoat Cor-ten Steel Plate
Poster Case
Cut Limestone Bench
0
2.5
5
0
2.5
5


Crushed Stone
Light Sandblasted Concrete
Cut Limestone Bench
Crushed Stone
Heavy Sandblasted Concrete
N
0
2.5
5


Public Parking
$2 PER HOUR / $5 ALL DAY
FOR LEA
or SALE
817-803-32
VisionCommercial
4 E. ROSEDALE
1127

Design Considerations

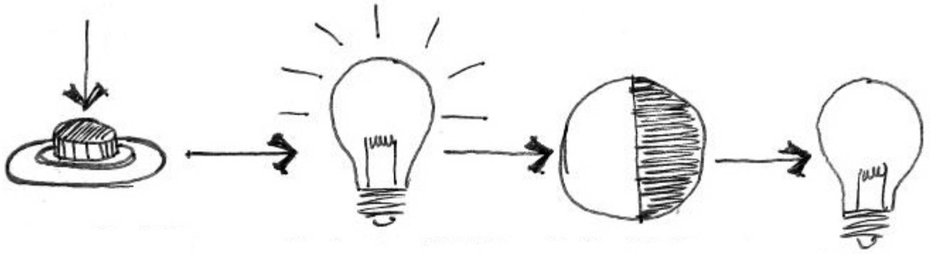
STAR DESIGN EVOLUTION



Cut

Push

WAITING RIDER NOTIFICATION



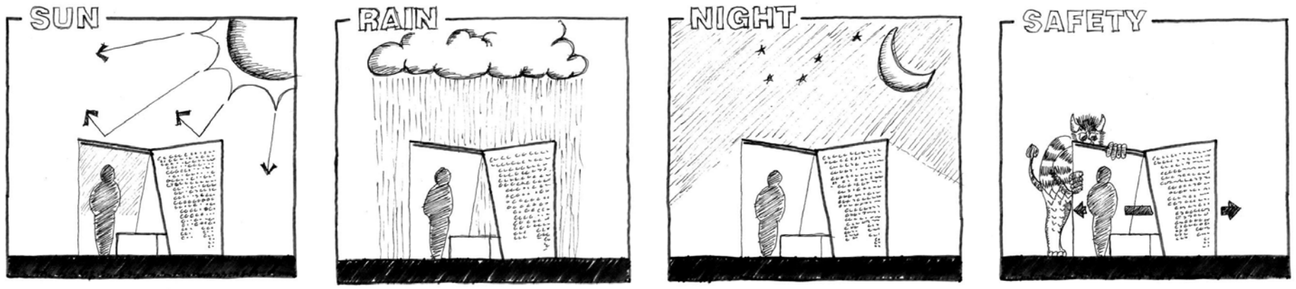
1. Rider pushes button

2. Shelter LED lighting changes from white to blue.

3. Shelter LED light stays blue for 30minutes (based on bus schedule).

4. Shelter LED light changes back to white until next rider pushes button.

PROTECTION



Bent plates provide shade during the summer

Bent plates provide protection during inclement weather.

Strip LED lighting provides security at night.

Limited walls and perforation for people to see and be seen.

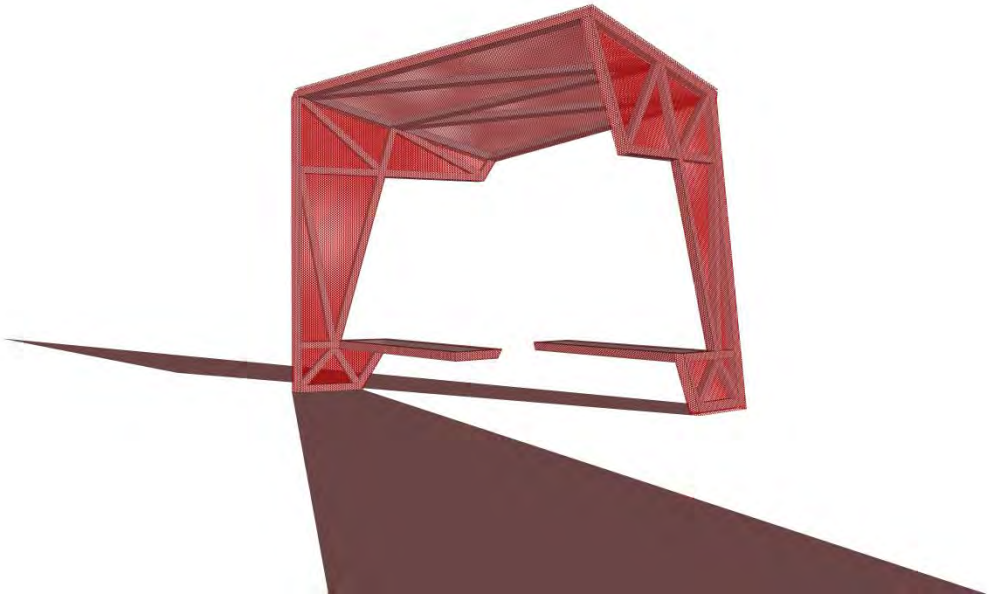
STOP

Unlike the typical bus–stops that we can acknowledge them only when we are parallel or perpendicular to them, this bus stop that would expose itself to multiple directions. The form was inspired by "origami" art is represented through one plane that starts from ground level, folds in and out, goes up, and comes back to the ground and merges with street again. Material selection brings light and openness to the seating area and yet provides an enclosed shelter.

It is an identity as oppose to only a typical stop. It breaks the typical bus–stop design norms such as: parallel alignment with grass line, or perpendicular alignment with curb, or maintaining one single line of direction from approach. It introduces itself to the users approaching it through multiple directions either by foot or by car and creates "I stop" moments (even for a minute) to experience this structure…

Category: Professional

Location: Both



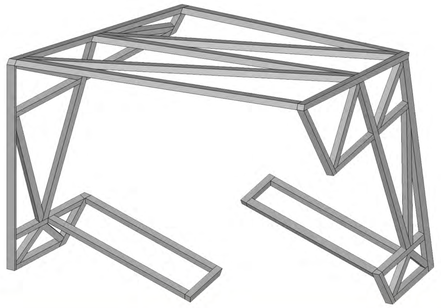
Firm Name: Jacobs

Firm Location: Fort Worth, TX

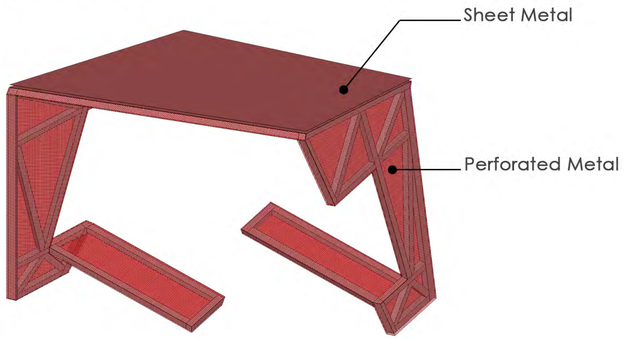
Project Team Members: Nima Malek

Construction Sequence Diagram

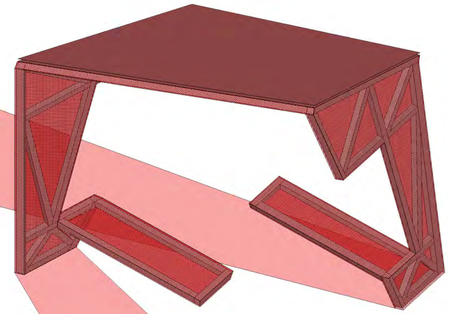
1. Steel Tube Structure

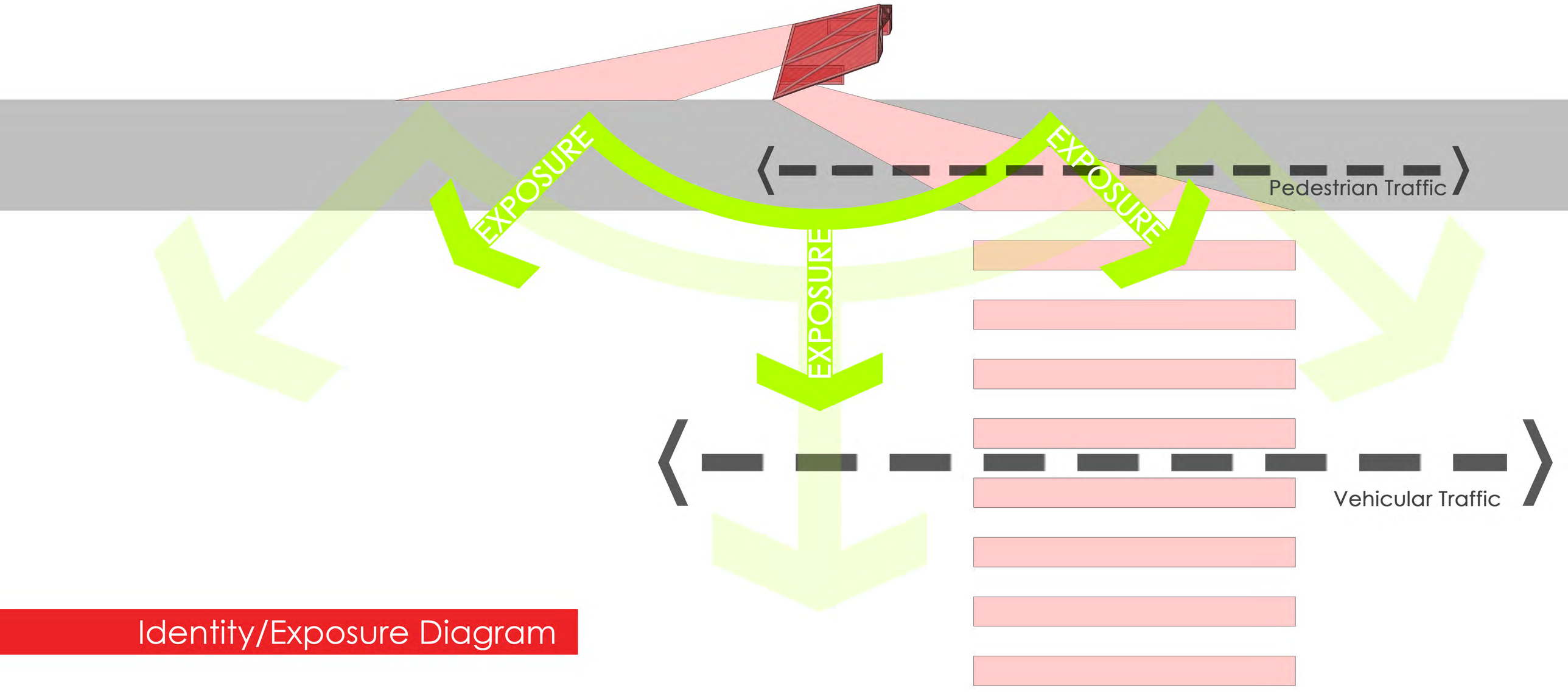


2. Skin



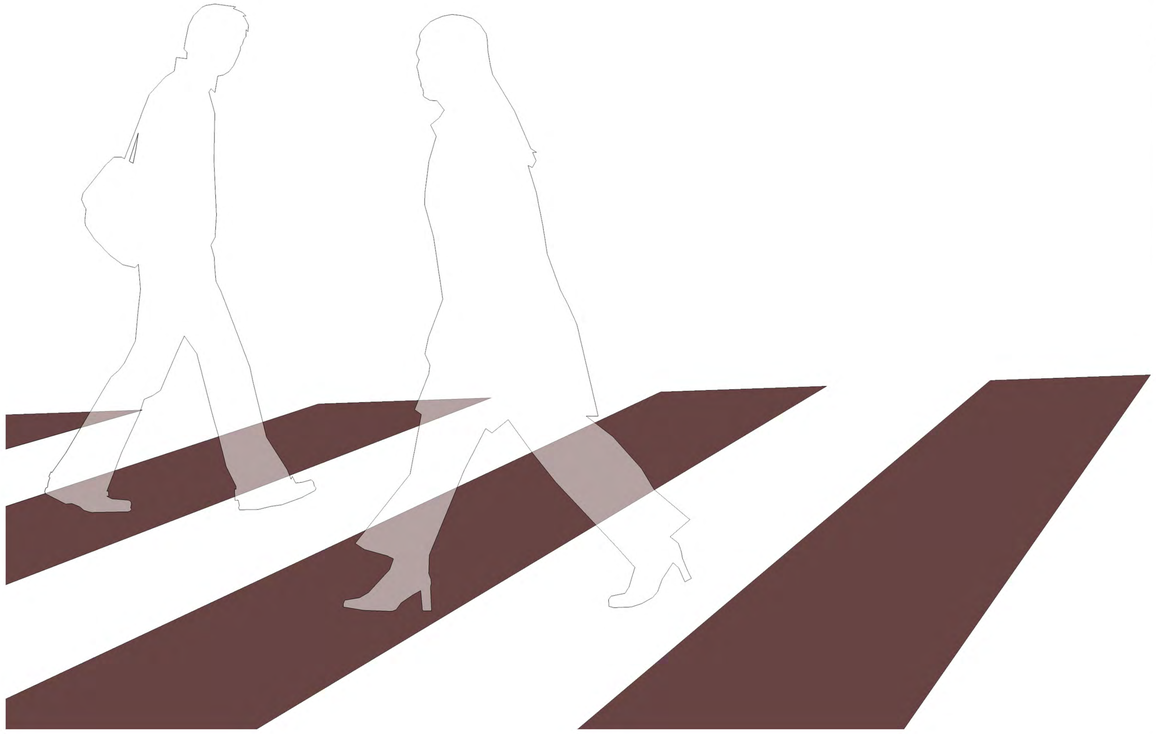
3. Ground Pattern

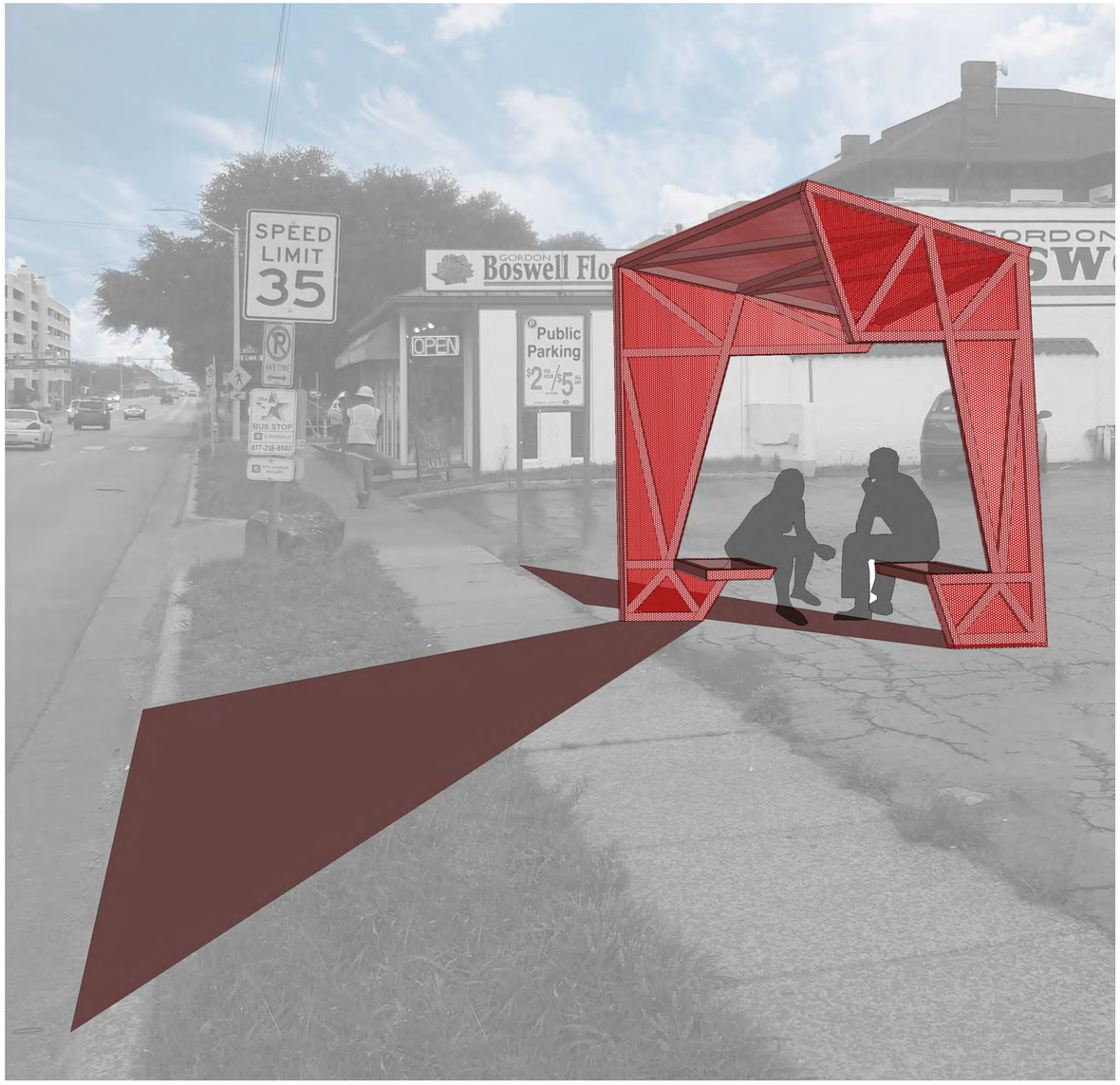




Identity/Exposure Diagram

Location 2

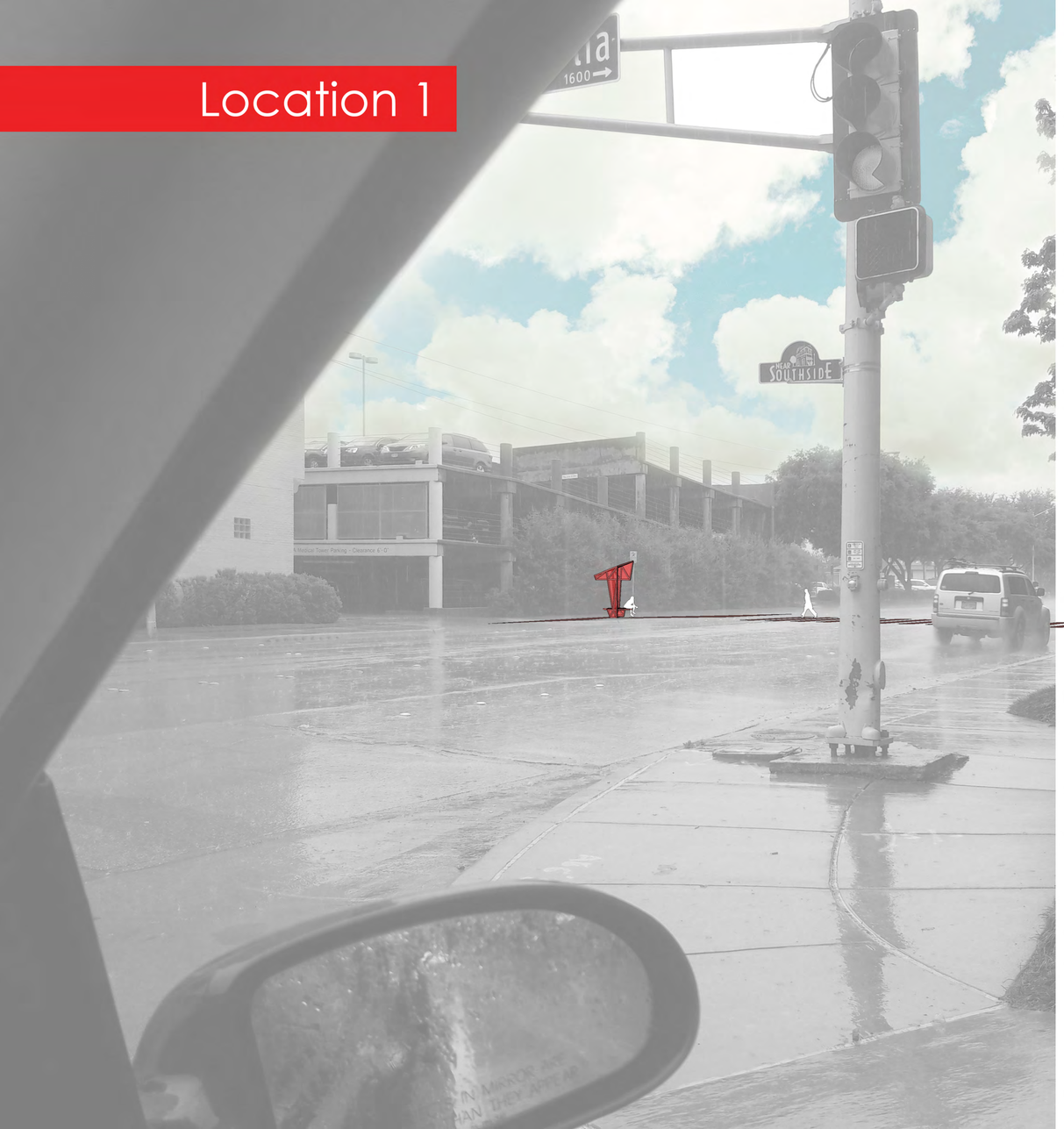



SPEED
LIMIT
35
ANY TIME
BUS STOP
817-215-8600
OPEN
Public
Parking
$2/$5

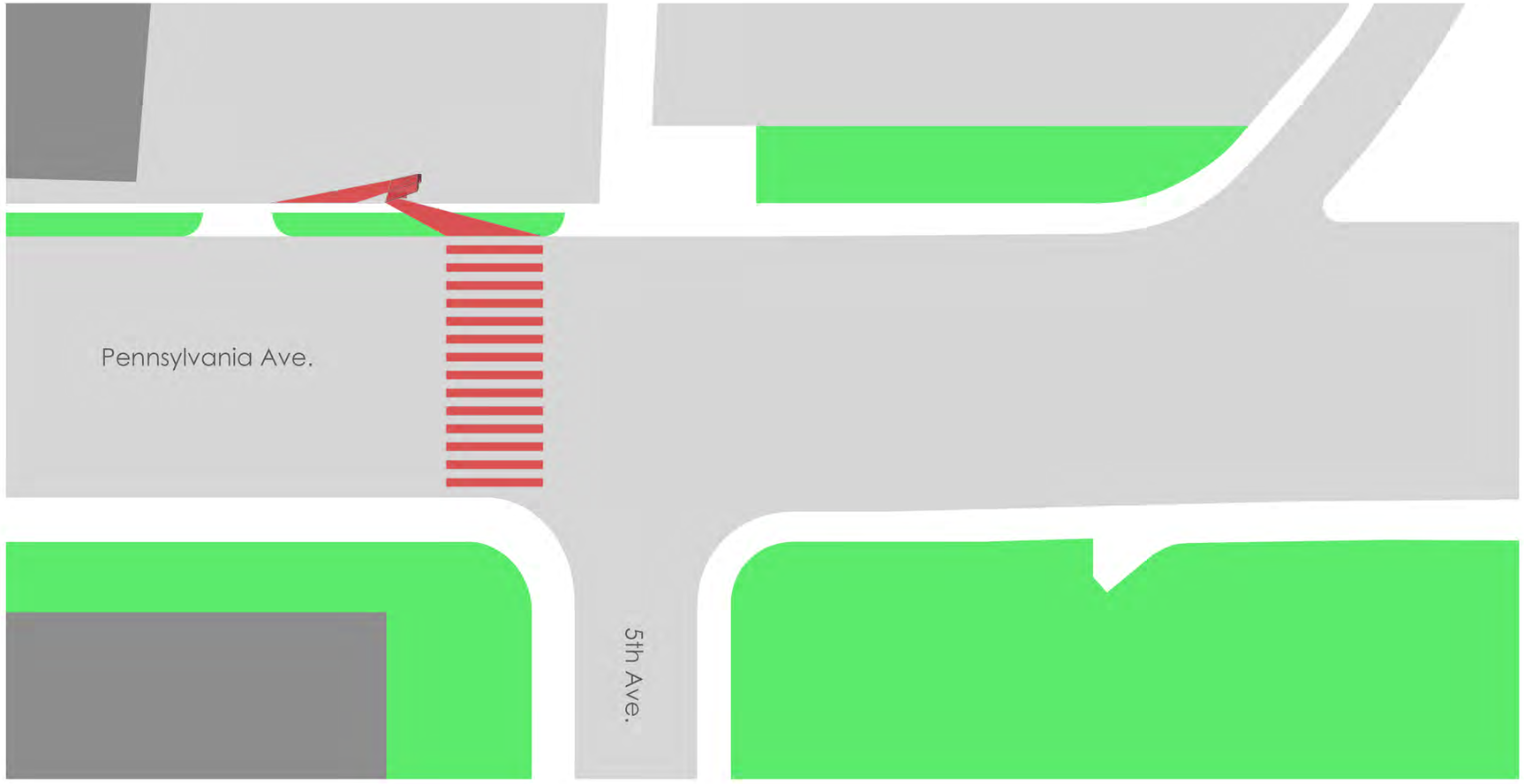
Location 2


FOR LEASE
or SALE
817-803-3287
VisionCommercial.com
VISION
COMMERCIAL REAL ESTATE
Scott Lowe
Public
Parking
$5

Location 1



Location 1



Location 2

Location 1