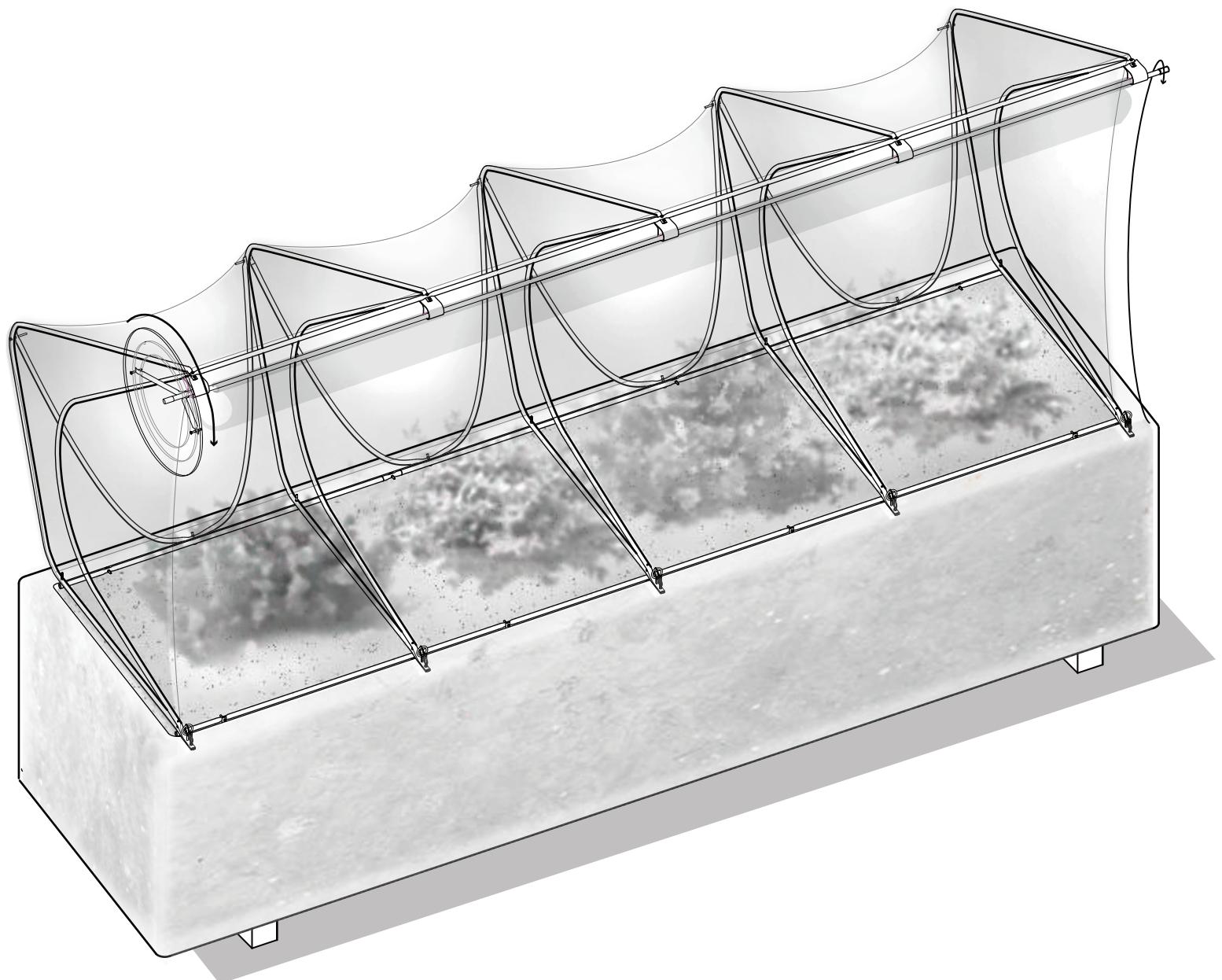




K. Euchukanonchai, K. Jiang, D. Kim, H. Qureshi, S. Zhen

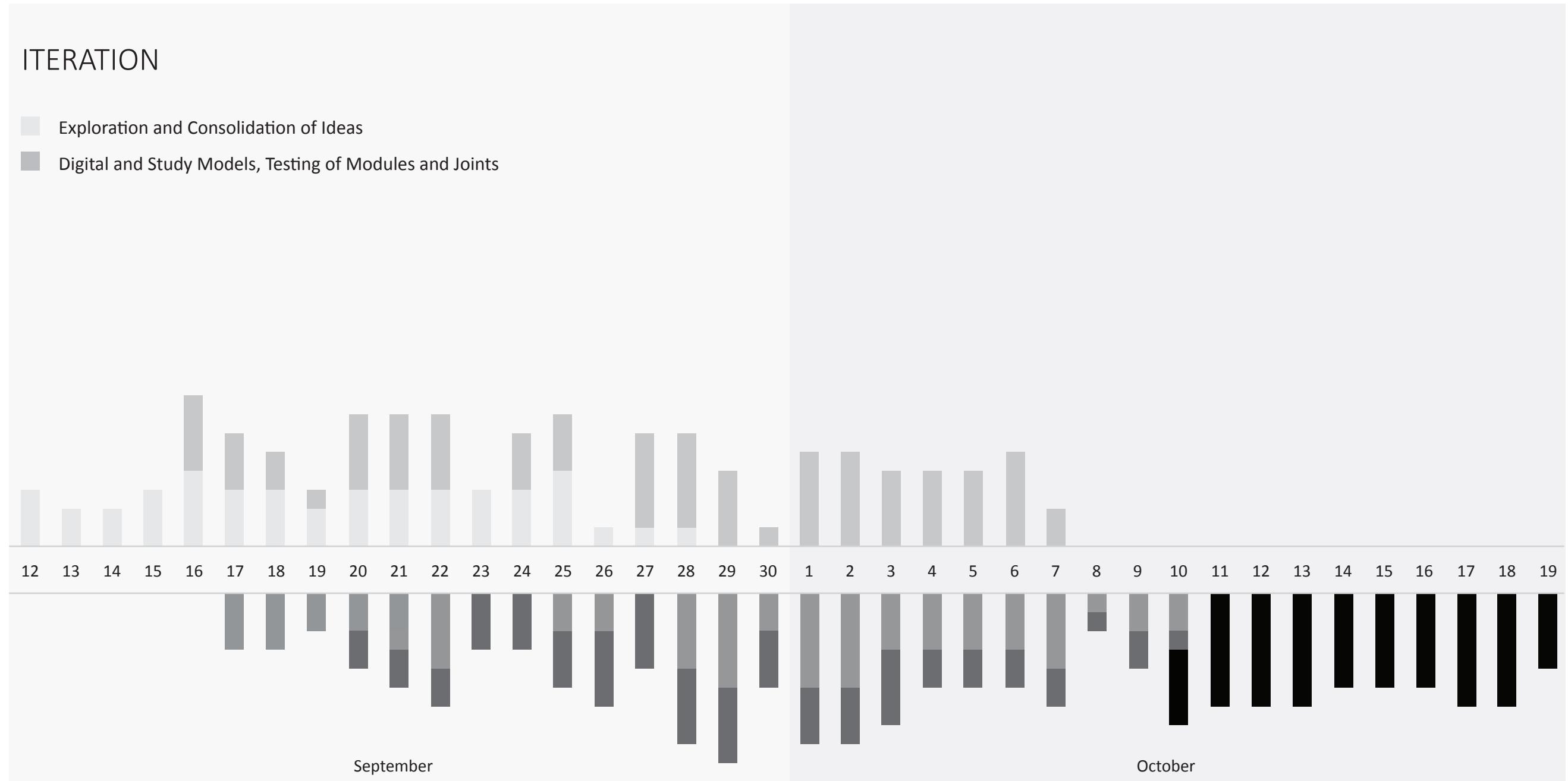


## TABLE OF CONTENTS

Section	Page
<i>Planning</i>	
Table of Contents	1
Schedule	A1 2
Budget List	A2 3
<i>Orthographic Drawings</i>	
Site Plan- Wind and Sun Path	B1 4
Site Plan- Building and Site Context	B2 5
Plan	B3 6
Elevation (Lateral)	B4 7
Elevation (Longitudinal)	B5 8
Section (Lateral)	B6 9
Axonometric: Open/Closed	B7 10
Axonometric: Labeled	B8 11
<i>Construction and Assembly</i>	
Studio Set-Up	C1 12
Tool List	C2 13
Hardware List	C3 14
Cut Sheet I: Conduit and Sheet Metal	C4 15
Cut Sheet II: Plastic	C5 16
Bend Sheet: Conduit and Sheet Metal	C6 17
Drilling and Flattening I	C7 18
Drilling and Flattening II	C8 19
Connection Detail I (Screw Joint)	C9 20
Connection Detail II (Wheel and Spool Joint)	C10 21
Assembly I: Modules	C11 22
Assembly II: Spool and Wheel	C12 23
Assembly III: Plastic	C13 24
<i>Transportation and Installation</i>	
Packing and Shipping	D1 25
Installation and Removal	D2 26

## ITERATION

- Exploration and Consolidation of Ideas
- Digital and Study Models, Testing of Modules and Joints



## FINALIZATION

- Technical, Experiential, and Shop Drawings
- Final design with Details and Joints
- Assembly

Schedule  
For Review  
Scale: N/A  
10.10.16  
2 of 26

A1

Citra  
K. Euchulkanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen  
Hoop House  
David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

## HARDWARE

Item	Quantity	Brand	Retailer	Lead Time	Weight	Price Per Unit	Price Per Item
#8/32 x 1.25" Machine Screws	18	Everbilt	Home Depot	30 minutes	0.1 lb	\$0.20	\$3.50
#8-32 x 2" in Machine Screws	50	Everbilt	Home Depot	30 minutes	0.1 lb	\$0.10	\$5.25
#8-32 Machine Screw Hex Nuts	50	Everbilt	Home Depot	30 minutes	0.05 lb	\$0.09	\$4.25
Grommet Tool Kit	1	General	Home Depot	30 minutes	1 lb	\$10	\$10
1/4" Eyebolt with Nut	6	Everbilt	Home Depot	30 minutes	0.25 lb	\$1.13	\$6.80
#2 S-Biner	5	Nite Ize	Home Depot	30 minutes	0.1 lb	\$1.94	\$9.70
1/2" Conduit Cap	1	Wheatland	Home Depot	30 minutes	0.5 lb	\$1	\$1
TOTAL					2.1 lb		\$40.50

Citra  
K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

Hoop House  
David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

A2

## MATERIAL

Item	Quantity	Brand	Retailer	Lead Time	Weight	Price Per Unit	Price
6"x.025"x18" Sheet Metal	1	Everbilt	Home Depot	30 minutes	1.5 lb	\$9	\$9
36"x.25"x24" Clear Acrylic Sheet	1	Artist's Cabinet	McMaster Carr	3 days	6.75 lb	\$30	\$60
TOTAL					8.25 lb		\$69

## GIVEN

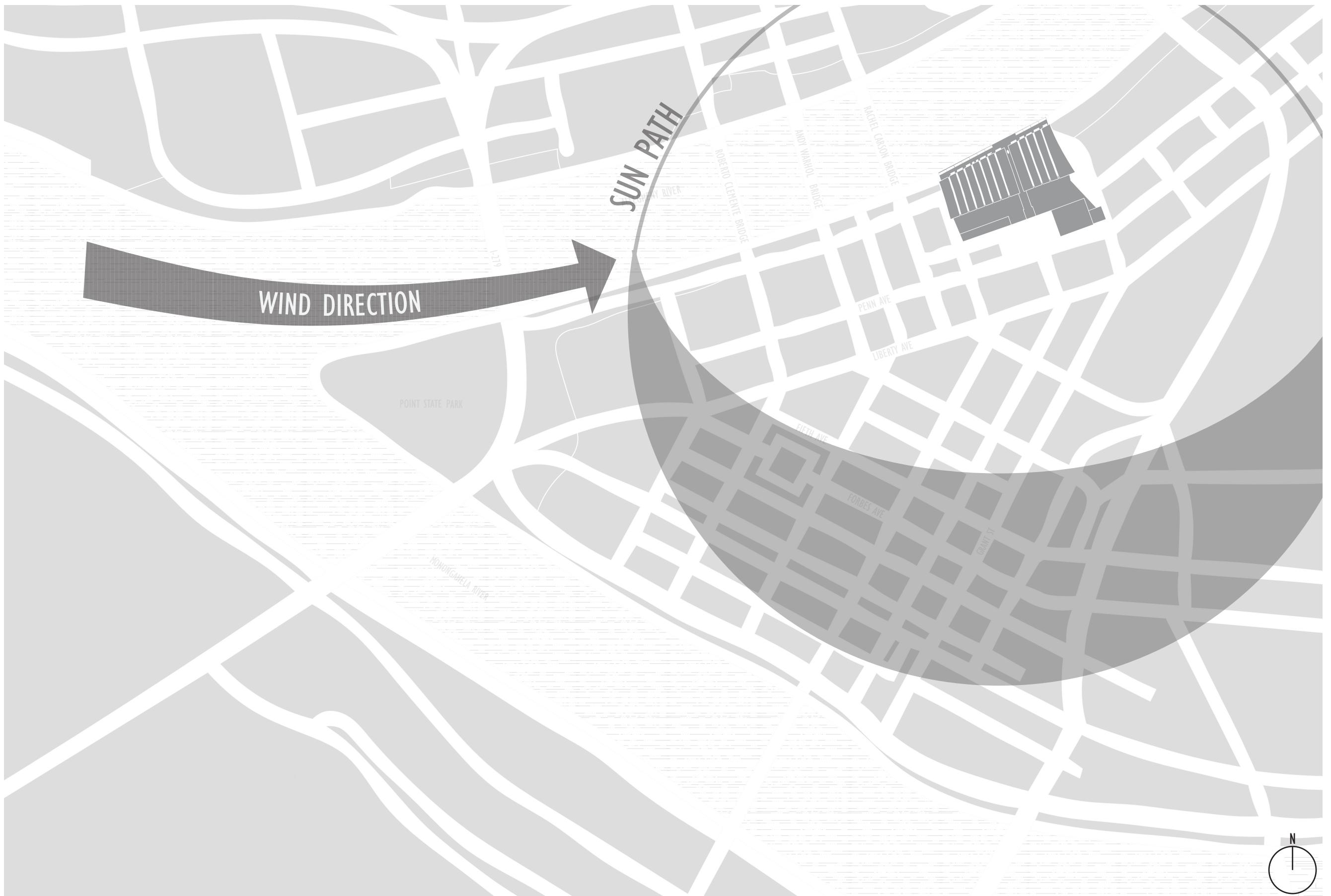
Item	Quantity	Brand	Retailer	Lead Time	Weight	Price Per Unit	Price*
10' Galvanized Steel Conduit, 1/2"D	18	Wheatland	JDB	1 minute	34 lb	\$0	\$0
10'x20' Greenhouse Plastic	N/A	UPFD	JDB	1 minute	1.2 lb	\$0	\$0

**TOTAL**

**45.55 lb**

**\$109.50**

Budget  
For Review  
Scale: N/A  
10.10.16  
3 of 26



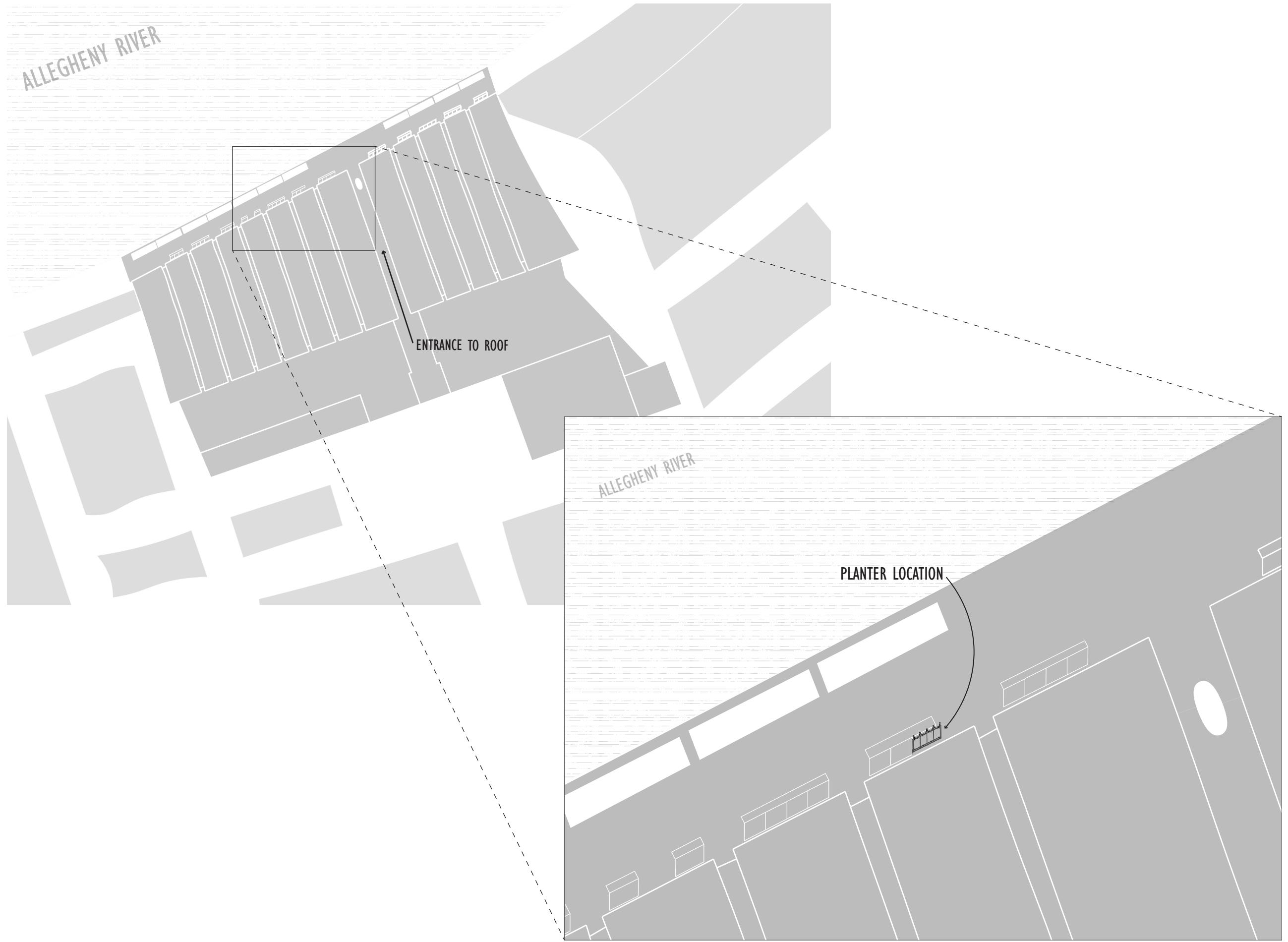
Site Plan - Wind and Sun Path | Hoop House

For Review  
Scale: N/A  
10.10.16  
4 of 26

Citra  
K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

B1



## Site Plan- Building and Site Context

For Review  
Scale: N/A  
10.10.16  
5 of 26

## Hoop House

David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

## Citra

K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

**B2**

# B3

## Plan

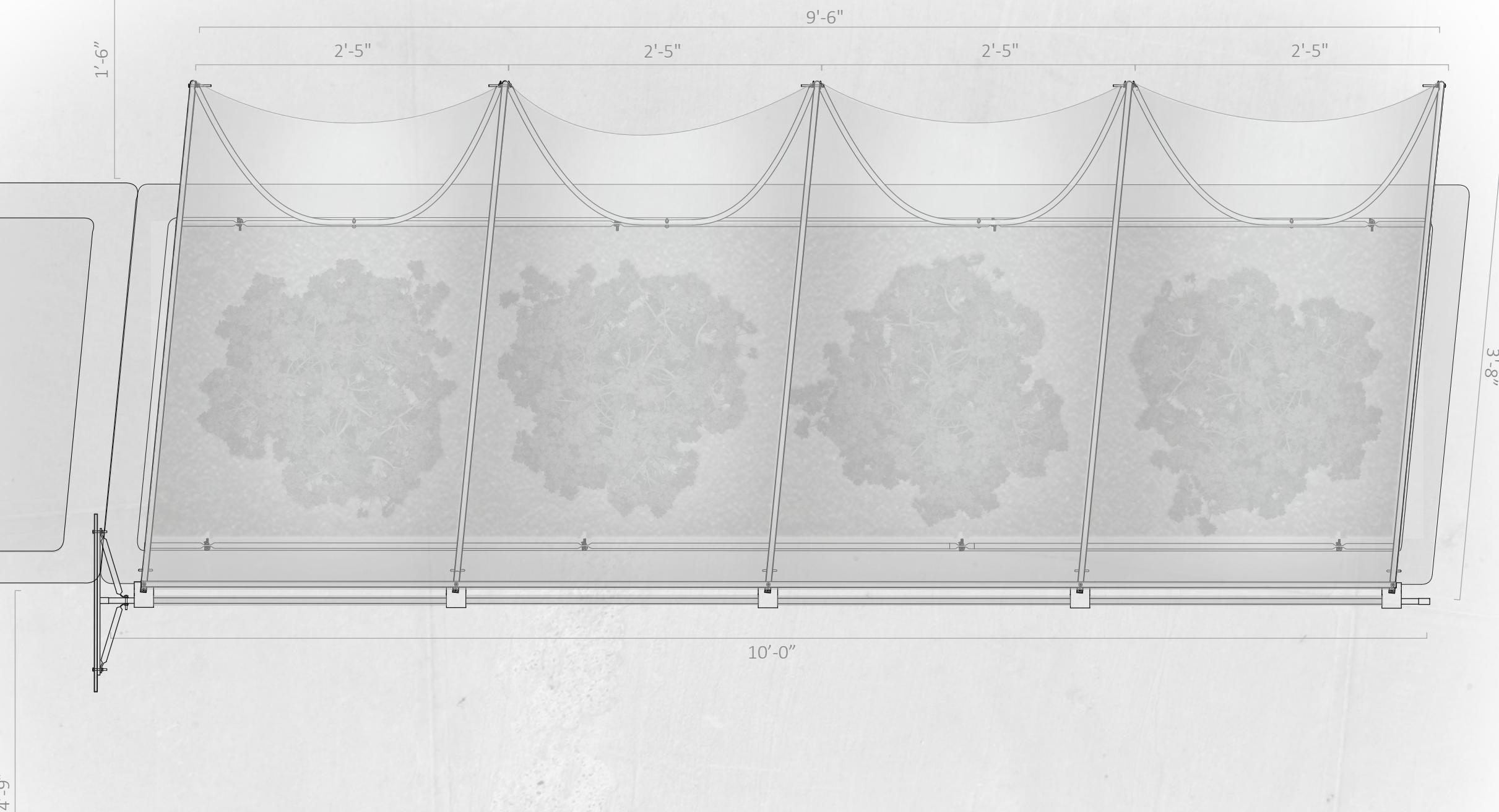
For Review  
Scale: 1'=1'  
10.10.16  
6 of 26



## Hoop House

David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

Citra  
K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen



## Elevation (Lateral)

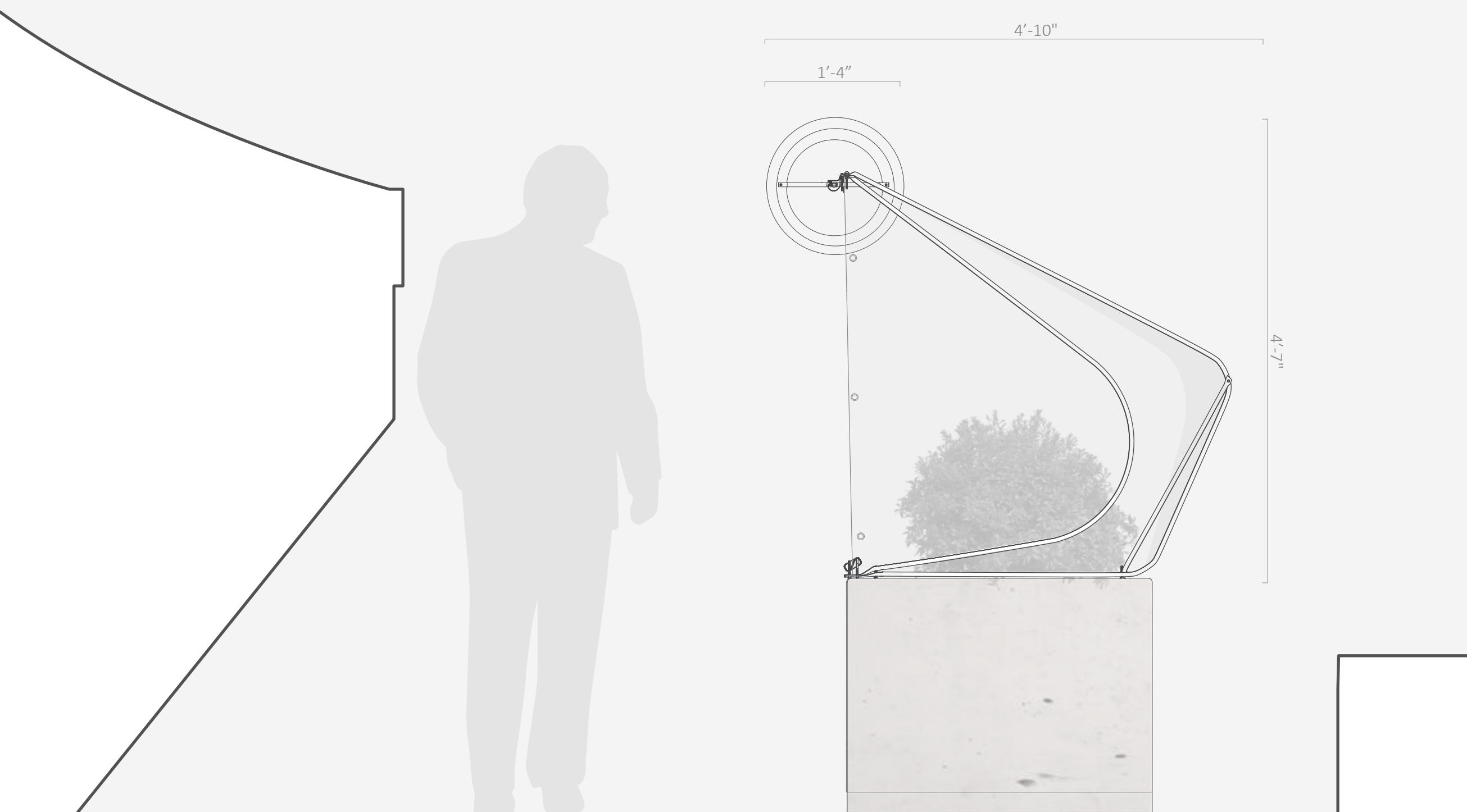
For Review  
Scale: 1'=1'  
10.10.16  
7 of 26

## Hoop House

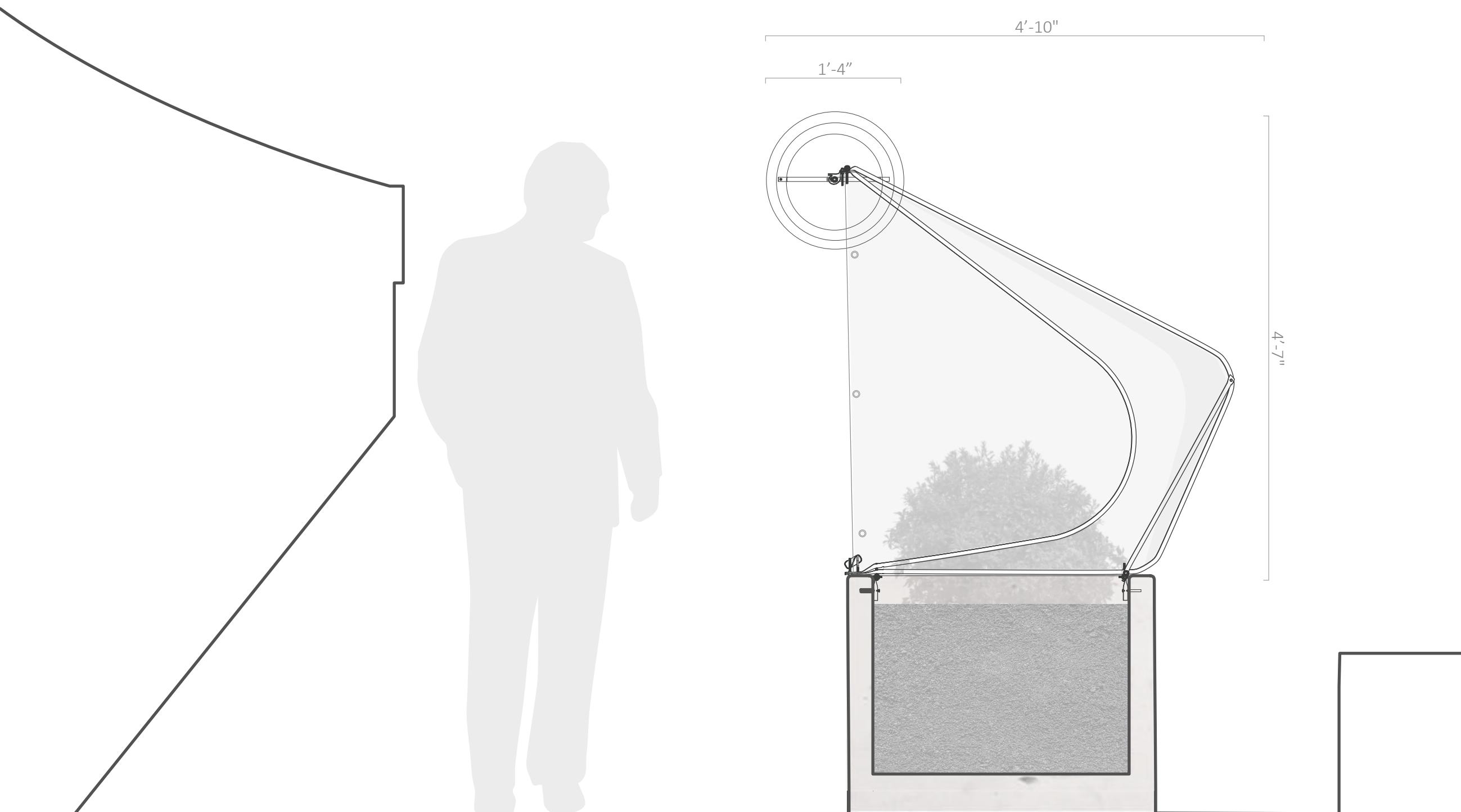
David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

Citra  
K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

# B4







Section (Lateral)

For Review  
Scale: 1'=1'  
10.10.16  
9 of 26

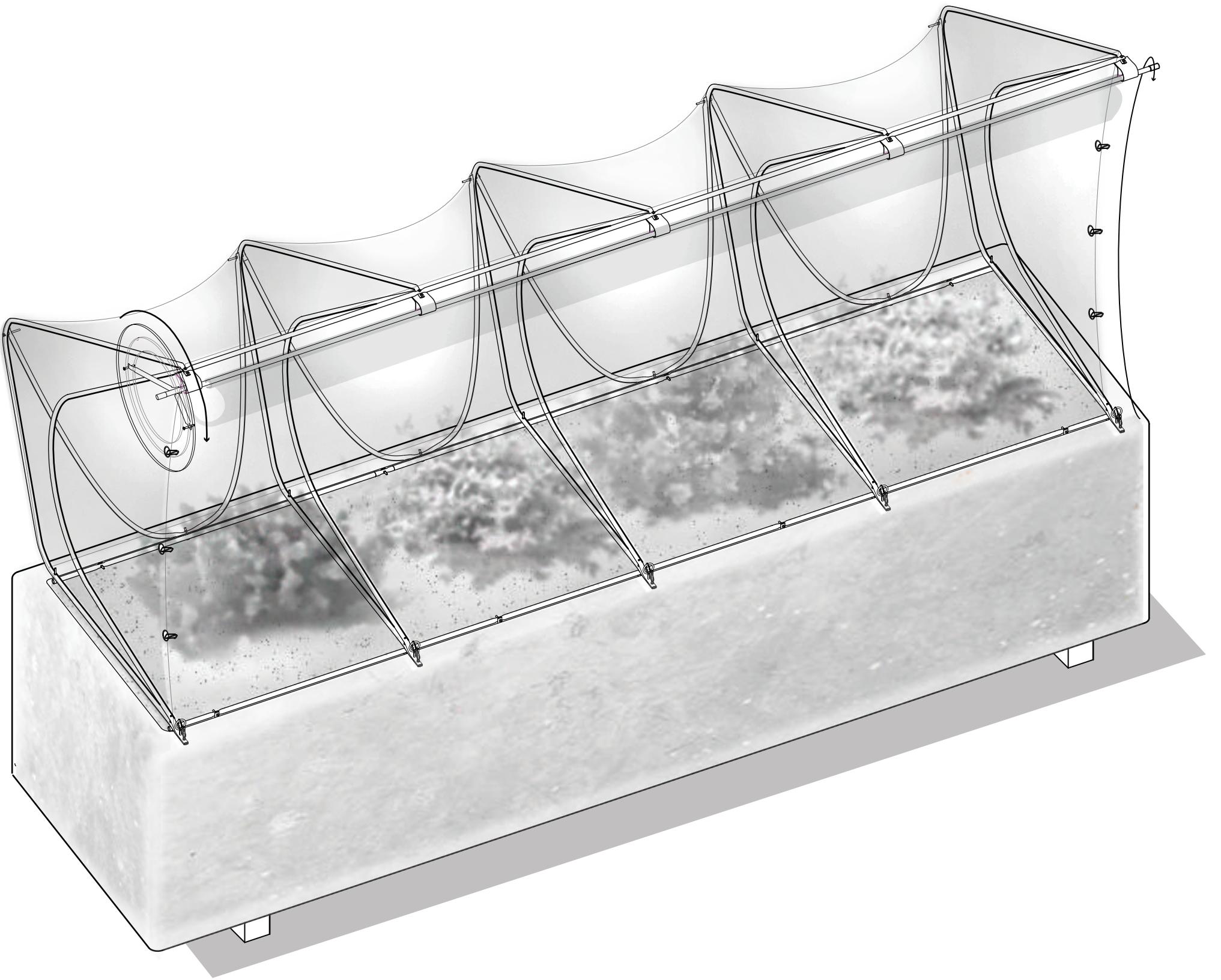
Hoop House

David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

Citra

K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

B6



## Axonometric - Open/Closed

### Hoop House

David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

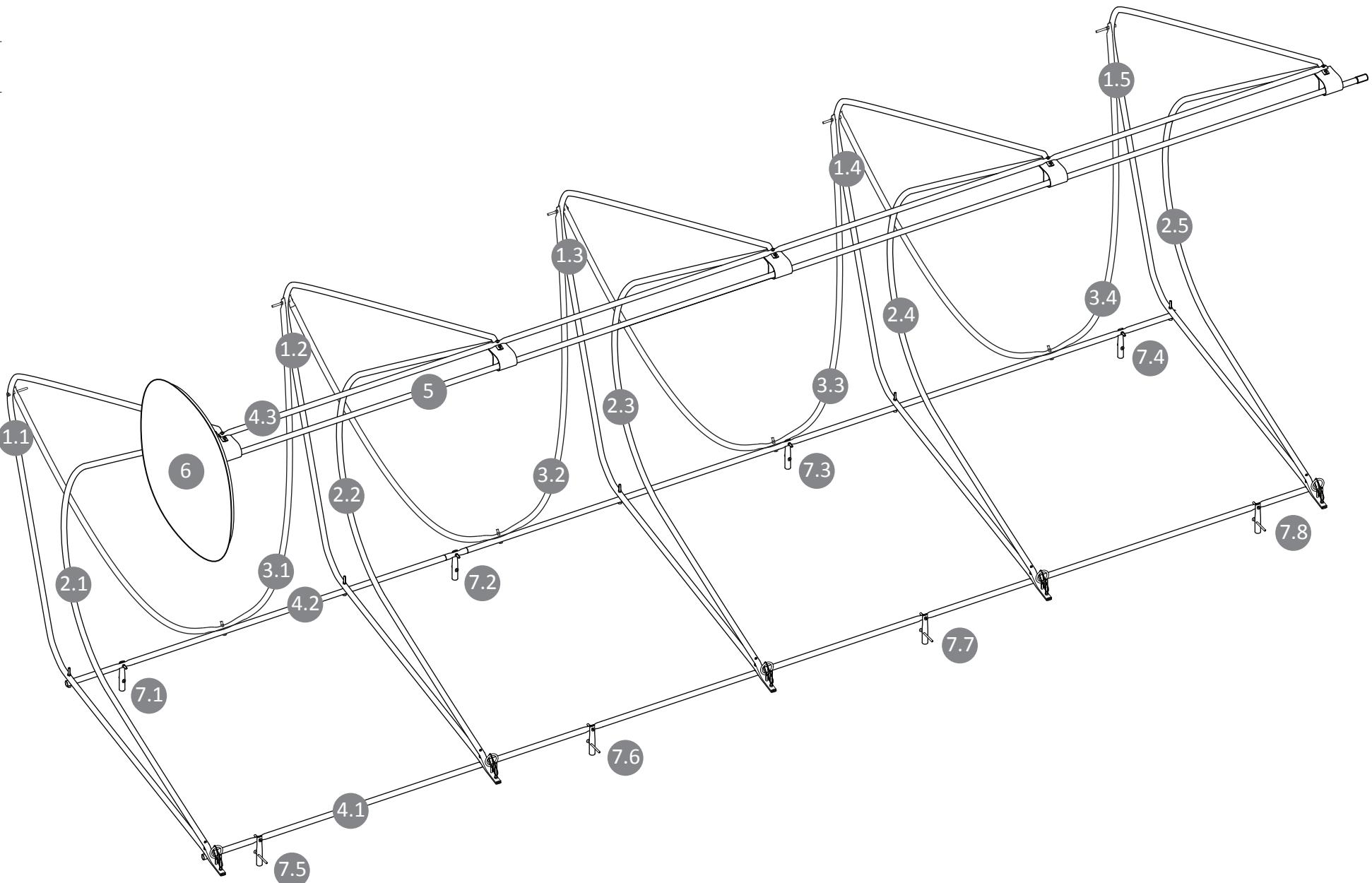
Citra

K. Euchulkanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

B7

For Review  
Scale: 1' = 1'  
10.10.16  
10 of 26

LABEL	ITEM
1.1 - 1.5	outer modules
2.1 - 2.5	inner modules
3.1 - 3.4	gussets
4.1 - 4.3	anchor bars
5	spool bar
6	acrylic wheel
7.1 - 7.8	anchoring pieces



## Axonometric- Labeled

For Review  
Scale: 1'=1'  
10.10.16  
11 of 26

## Hoop House

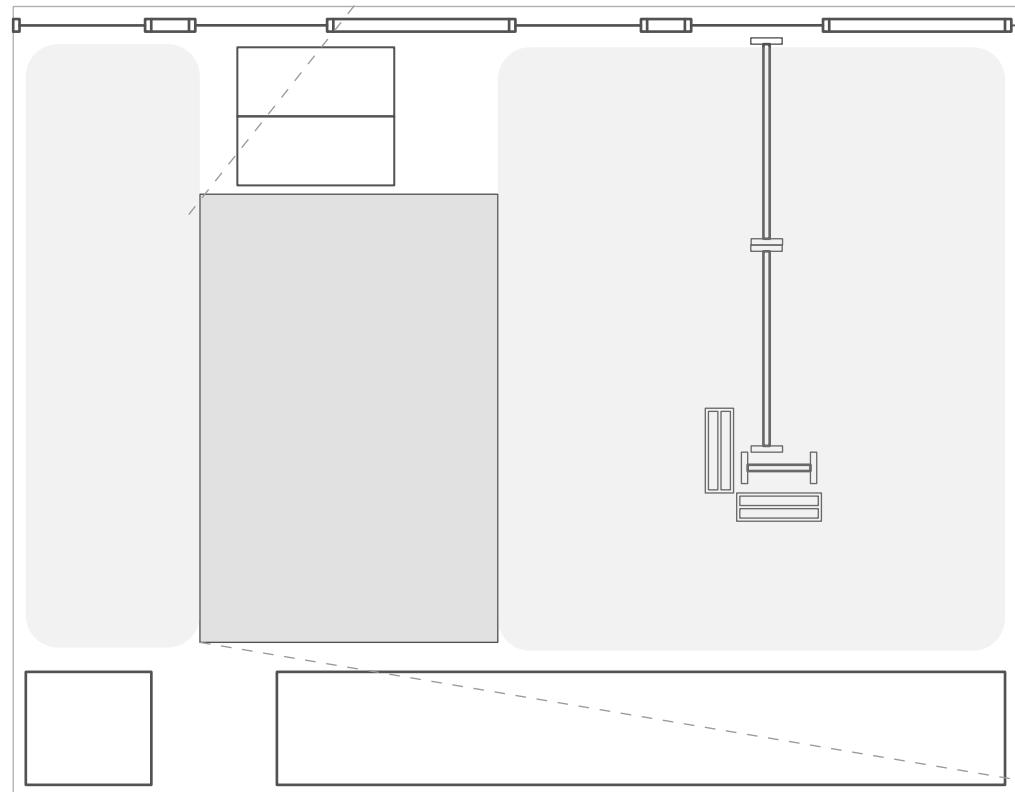
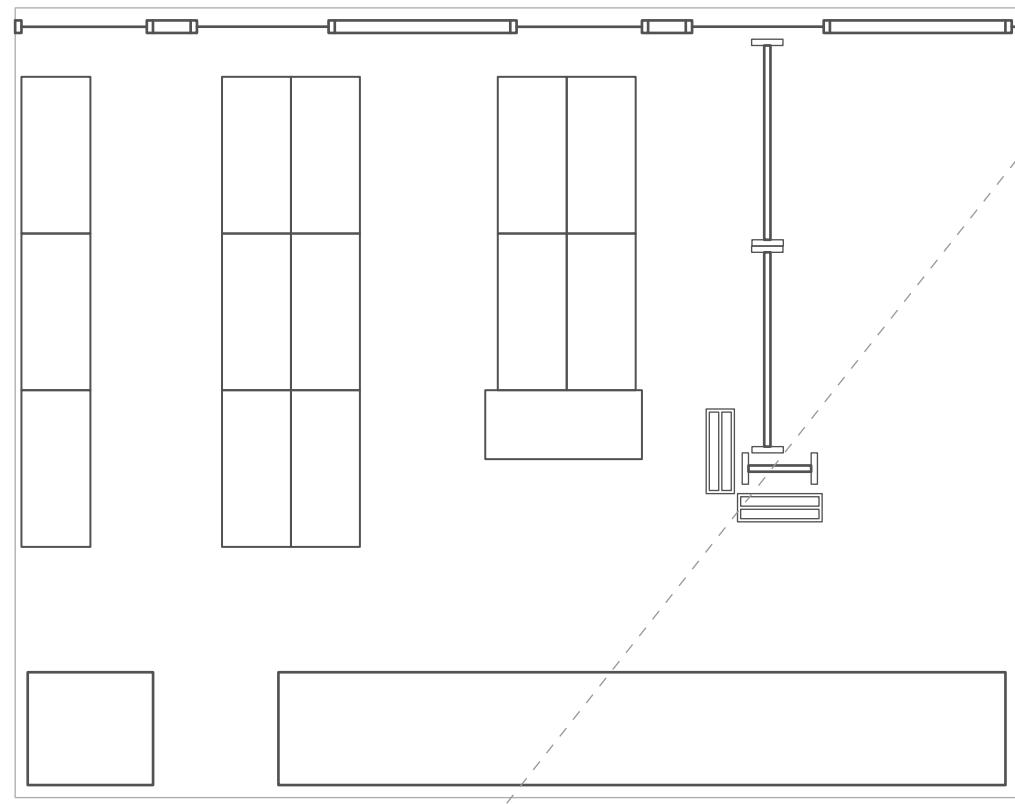
David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

## Citra

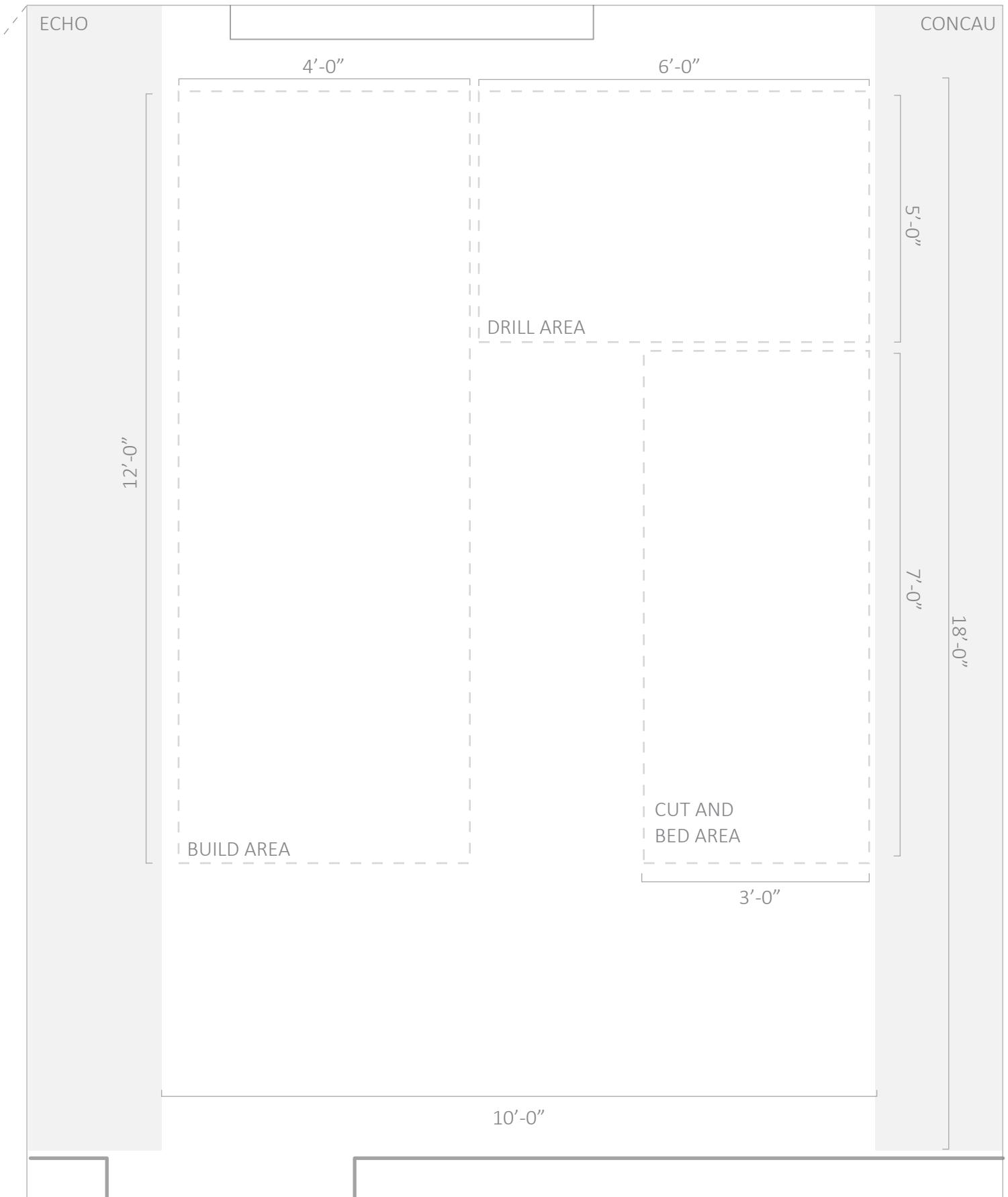
K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

# B8

CURRENT SETUP



NEW SETUP



Studio Set-Up

For Review  
Scale: N/A  
10.10.16  
12 of 26

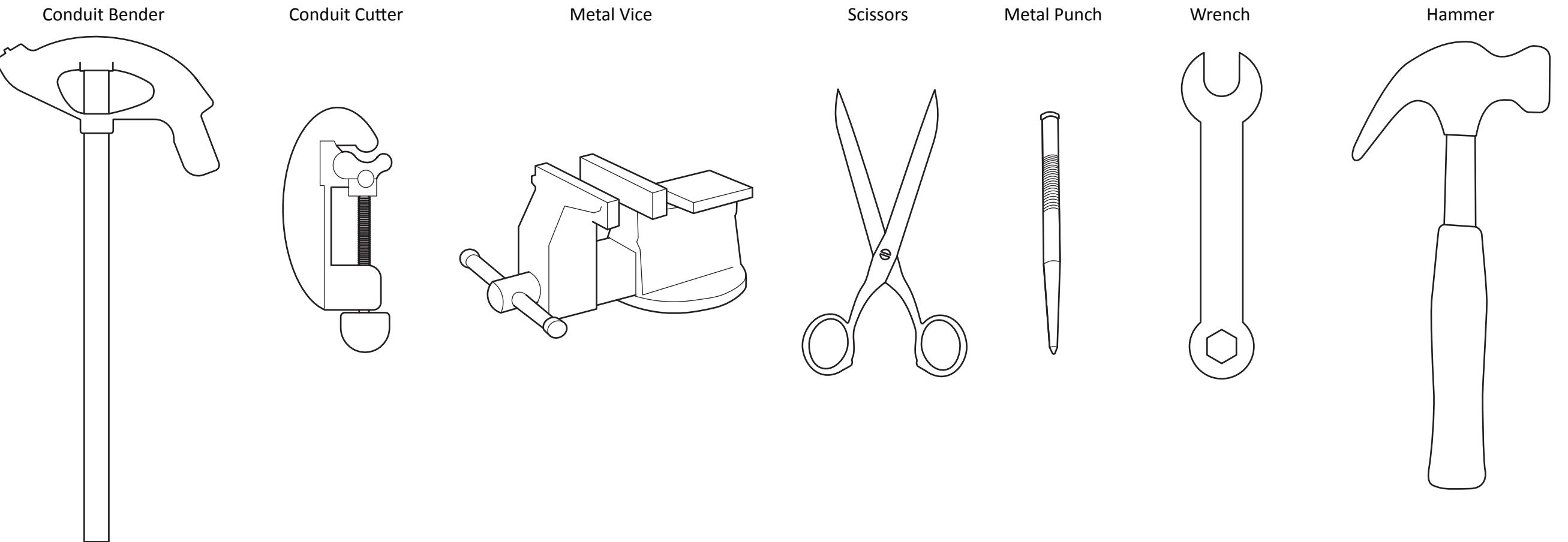
Hoop House

David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

Citra

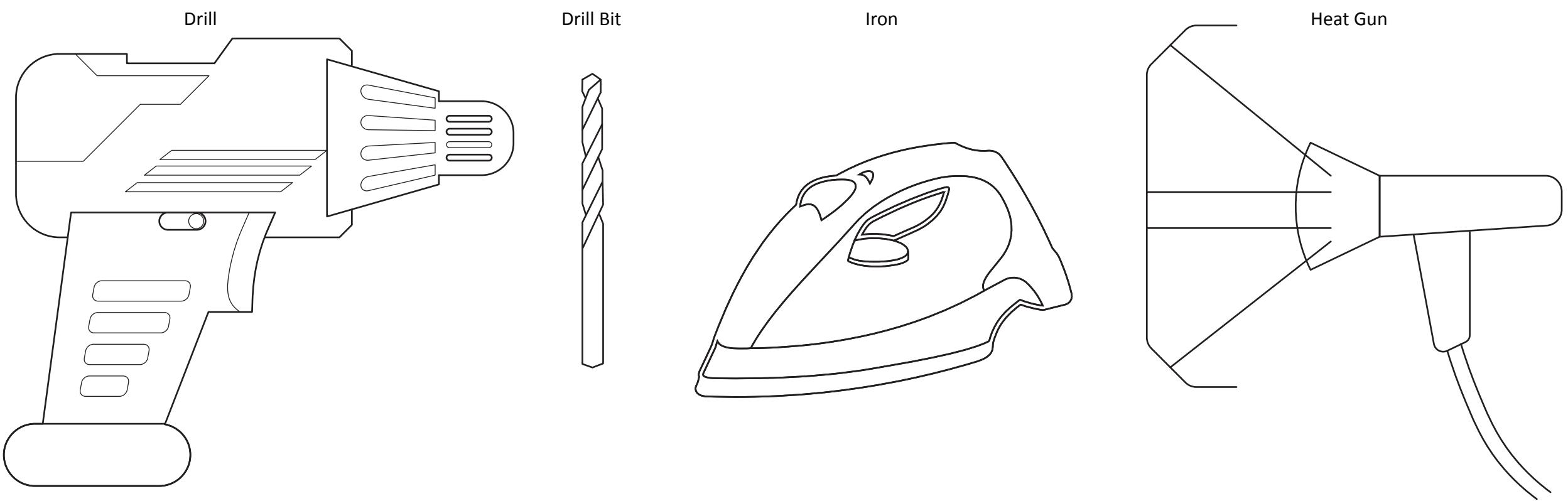
K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

C1



Citra  
K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

Hoop House  
David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222



Tool List  
For Review  
Scale: N/A  
10.10.16  
13 of 26

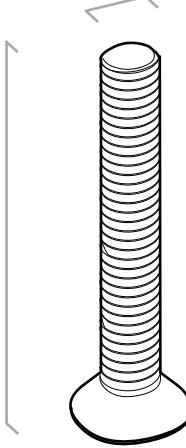
C2

#8-32 x 1.50" screw

x 18

3/10"

1.25"

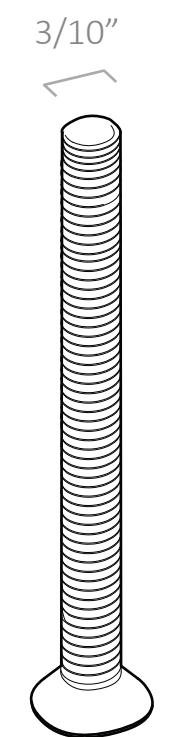


#8-32 x 2.00" screw

x 50

3/10"

2.00"

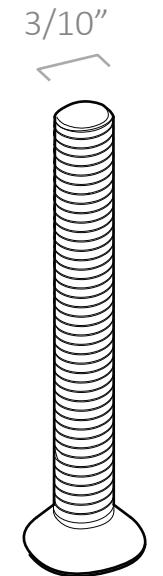


#8-32 x 1.50" screw

x 8

3/10"

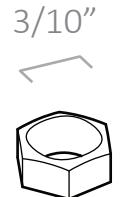
1.50"



#8-32 hex nut

x 50

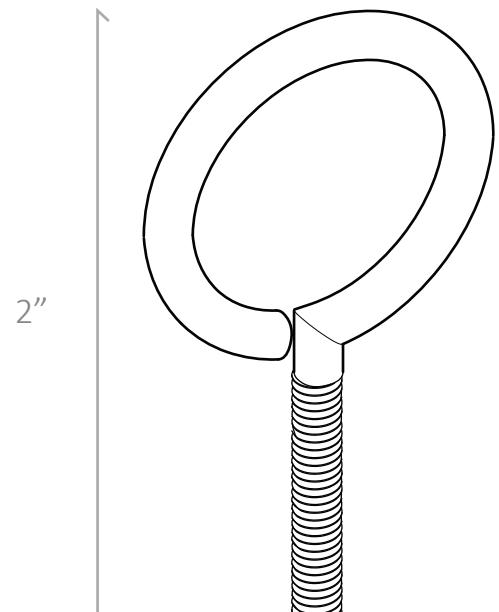
3/10"



1/4" eyebolt

x 5

1/2"

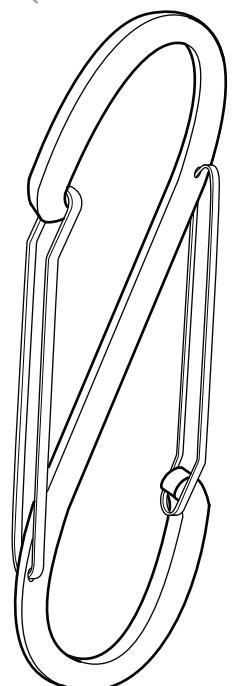


S-biner

x 5

7/8"

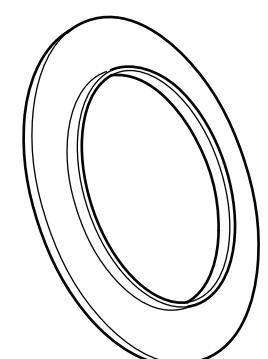
2"



eyelet top

x 11

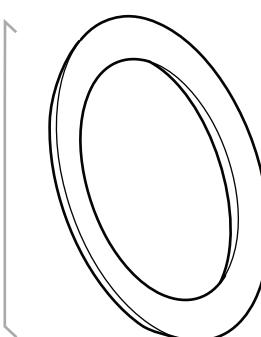
1.00"



eyelet bottom

x 11

1.00"



## Hardware List

For Review  
Scale: N/A  
07.10.16  
14of 26

## Hoop House

David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

## Citra

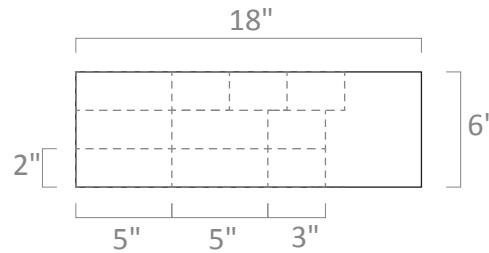
K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

C3

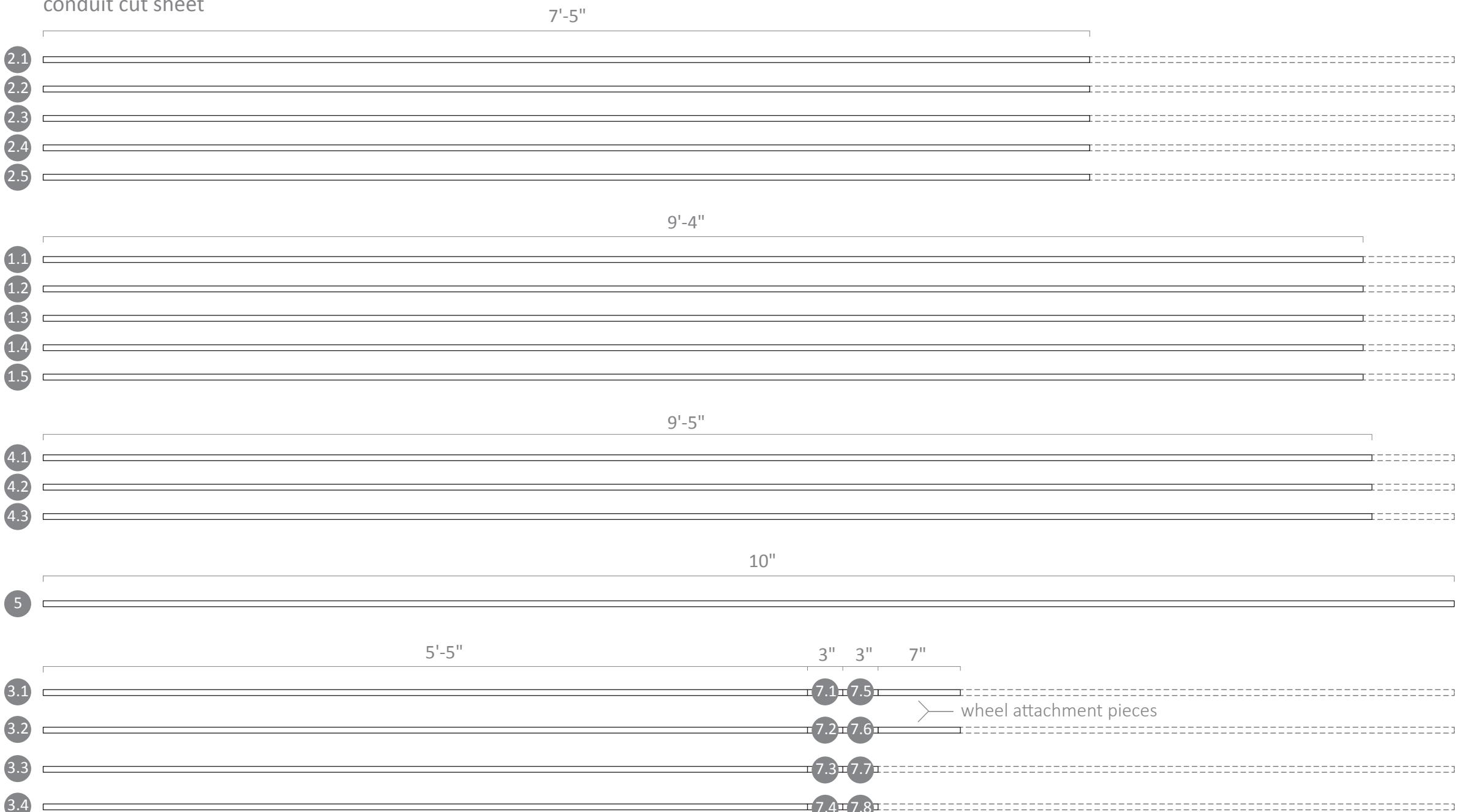
Cut Sheet I: Conduit and Sheet Metal

For Review  
 Scale: N/A  
 10.10.16  
 15 of 26

metal sheet cut sheet



conduit cut sheet



total number of 10' conduit pieces : 18

Citra  
K. Euchulkanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

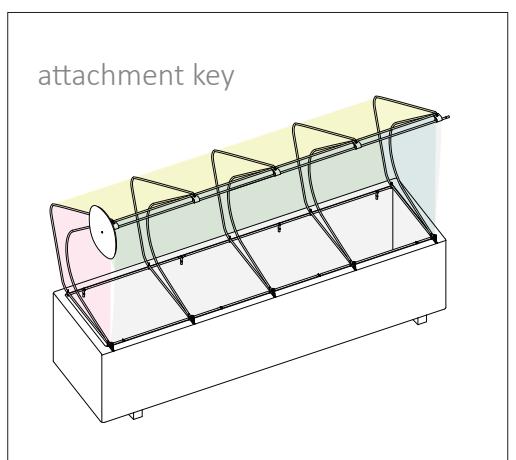
## Hoop House

David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

G5

## Cut Sheet II: Plastic

For Review  
Scale: N/A  
10.10.16  
16 of 26



4'-2"

9'-9"

17'-6"

8'-9"

9'-6"

19'-7/16"

13-1/4"

16-3/16"

3"

50-1/4"

148°

87°

80°

108°

170°

114°

46-3/4"

34-5/8"

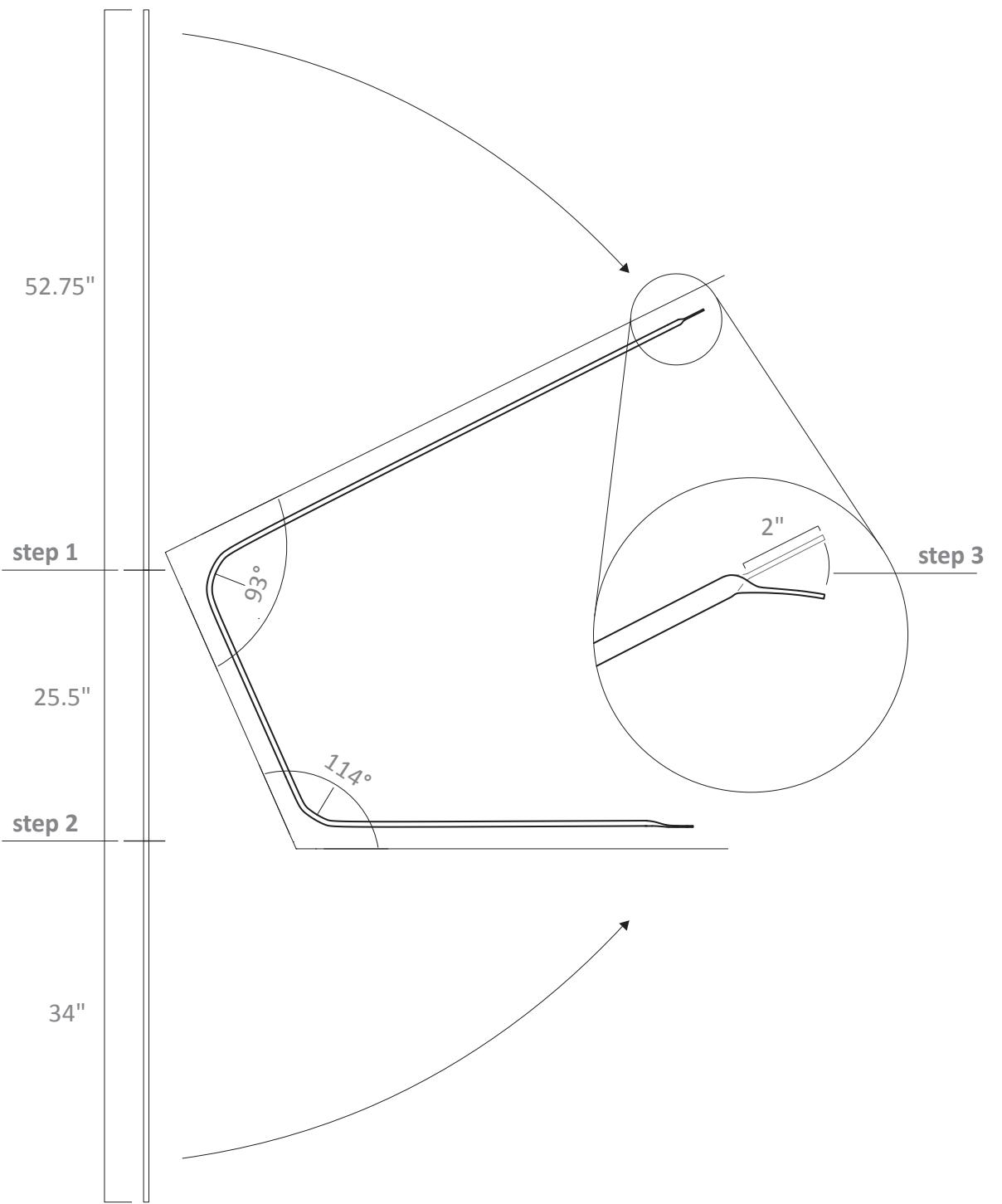
114°

80°

210°

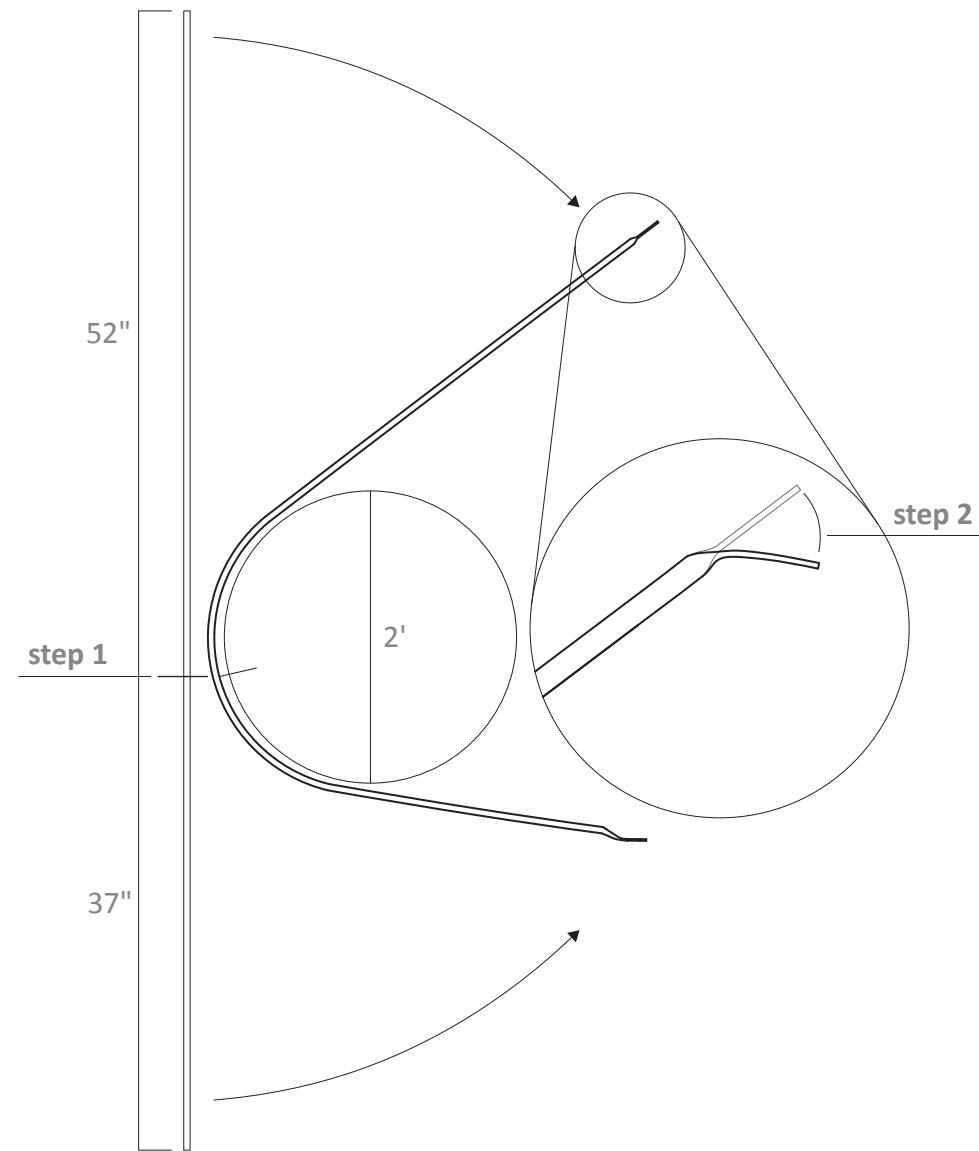
119-7/16"

module 1.x

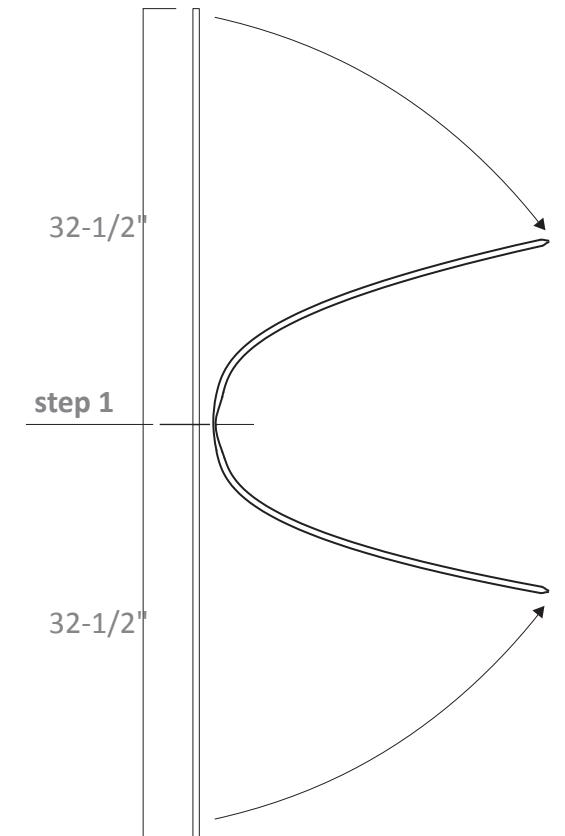


LABEL	ITEM
1.1 - 1.5	outer modules
2.1 - 2.5	inner modules
3.1 - 3.4	gussets
4.1 - 4.3	anchor bars
5	spool bar
6	acrylic wheel

module 2.x



module 3.x



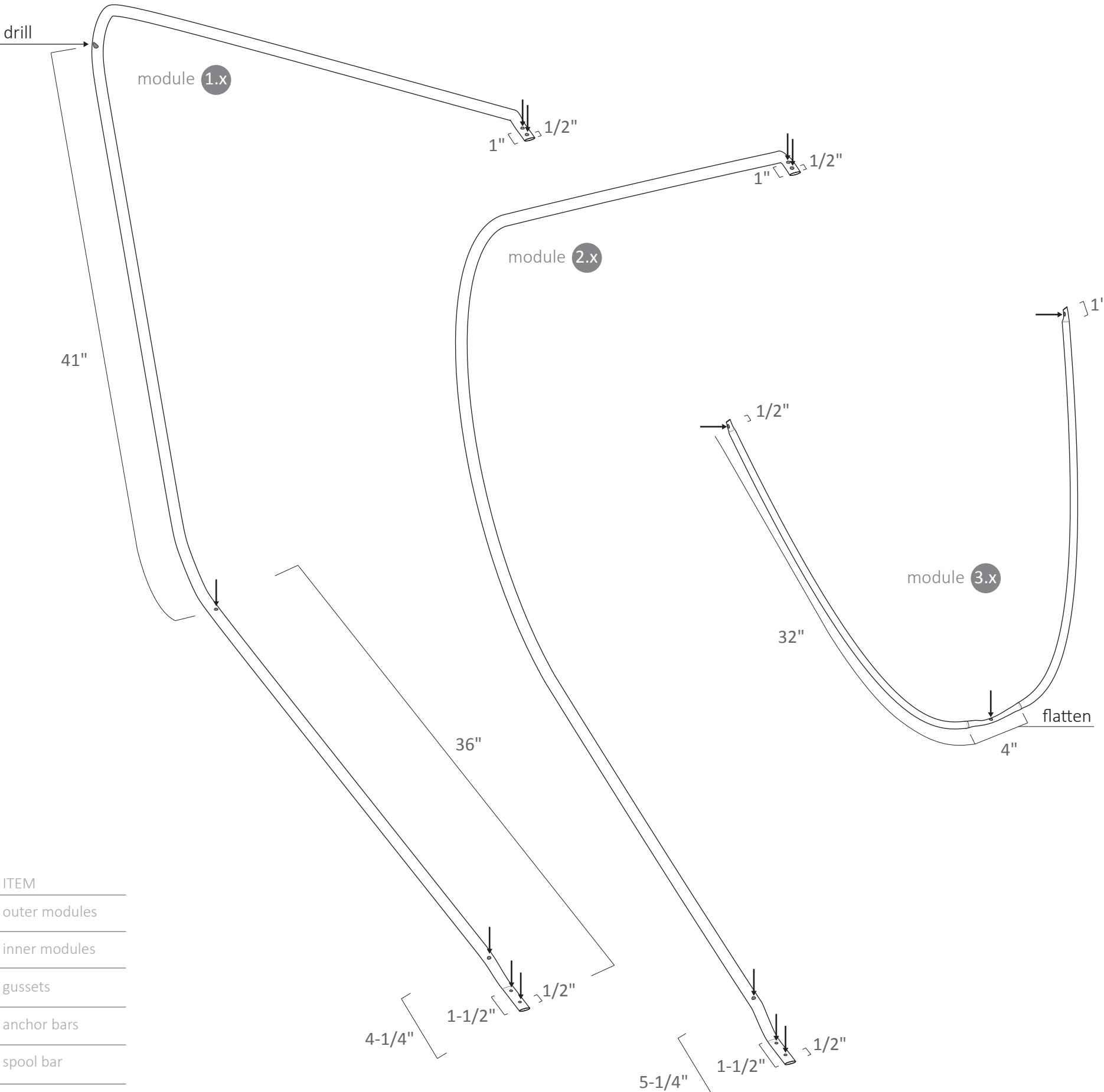
Bend Sheet: Conduit and  
Sheet Metal

C6

For Review  
Scale: N/A  
10.10.16  
17 of 26

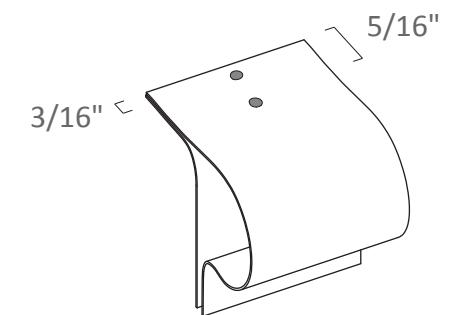
Citra  
K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

Hoop House  
David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

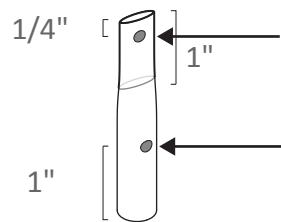


LABEL	ITEM
1.1 - 1.5	outer modules
2.1 - 2.5	inner modules
3.1 - 3.4	gussets
4.1 - 4.3	anchor bars
5	spool bar
6	acrylic wheel
7.1 - 7.8	anchoring pieces

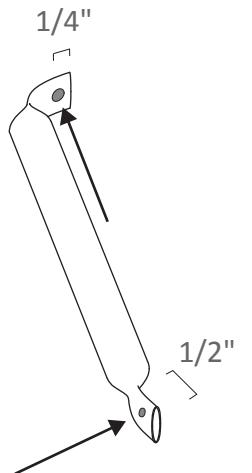
sheet metal



anchoring pieces



wheel attachment pieces



## Drilling and Flattening |

For Review  
Scale: N/A  
10.10.16  
18 of 26

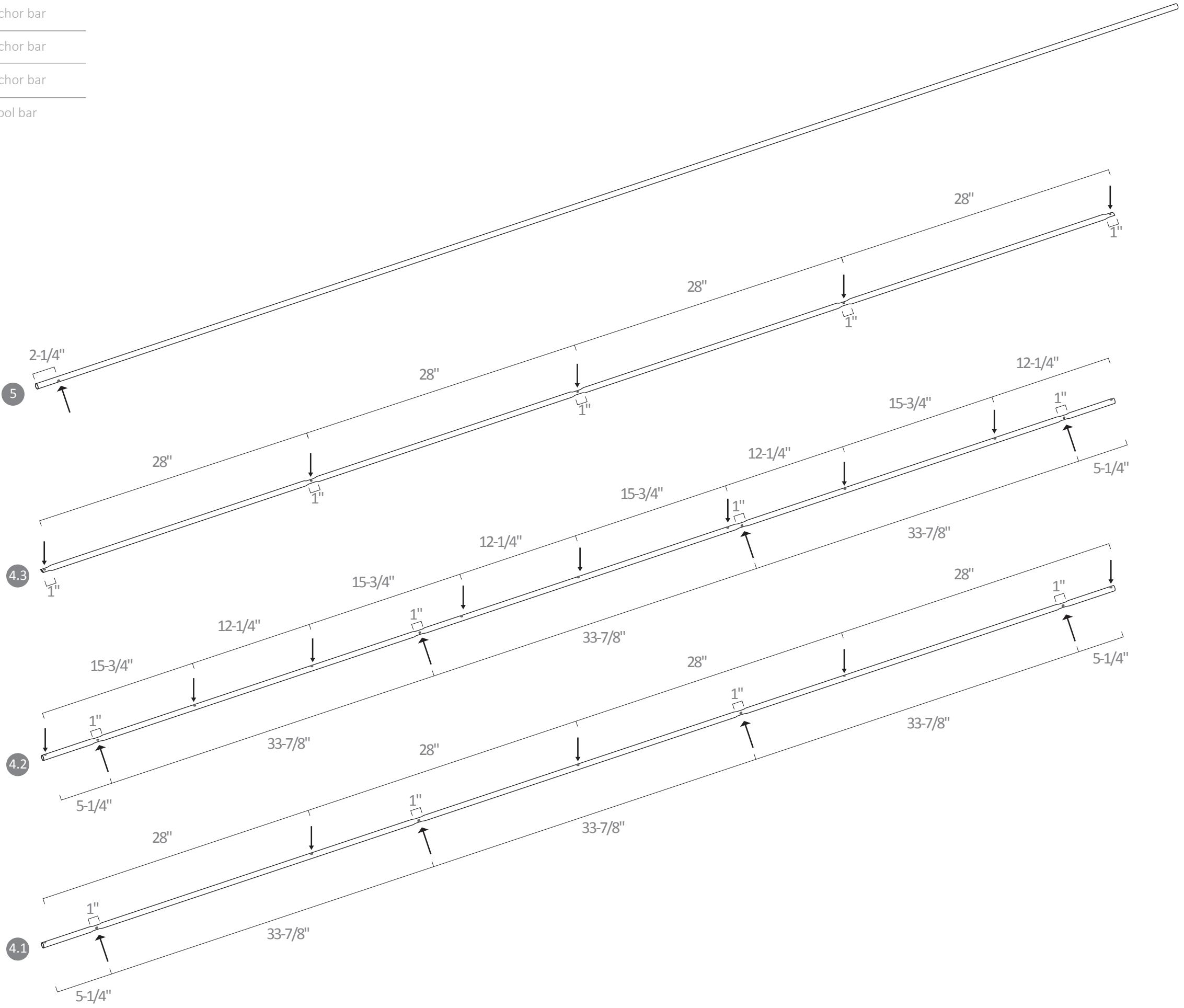
## Citra Hoop House

David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

C7

K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

LABEL	ITEM
4.1	anchor bar
4.2	anchor bar
4.3	anchor bar
5	spool bar



# C8

## Drilling and Flattening II

For Review  
Scale: N/A  
10.10.16  
19 of 26

## Hoop House

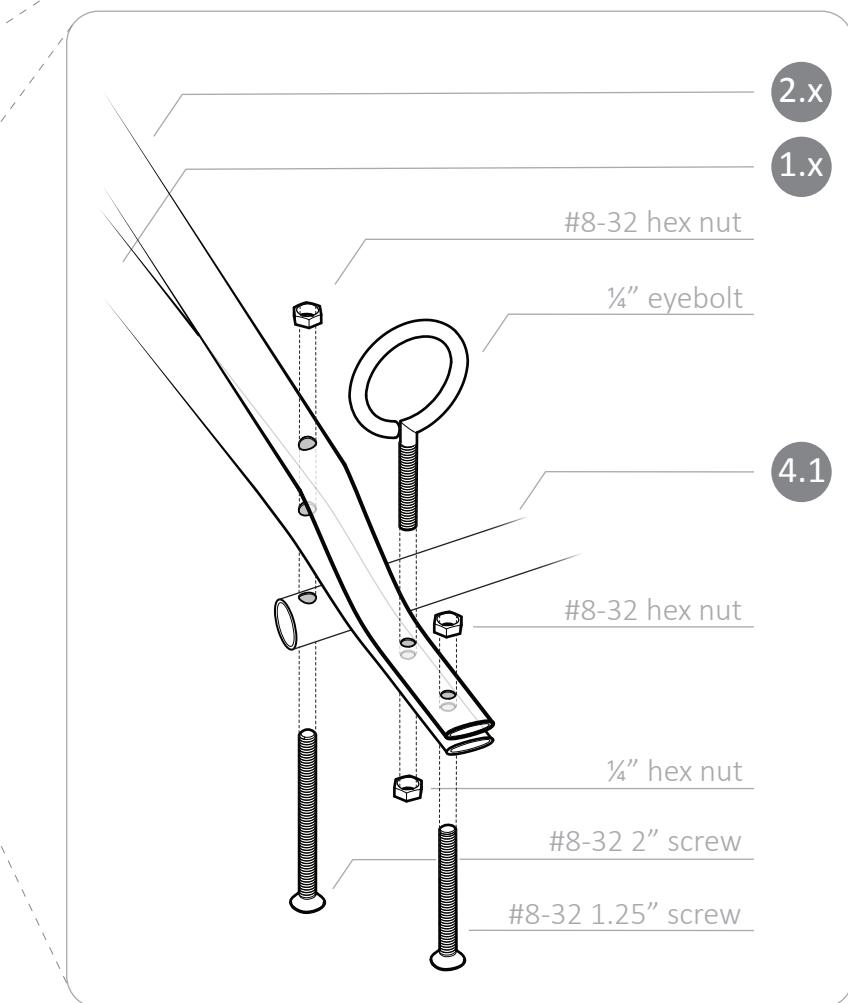
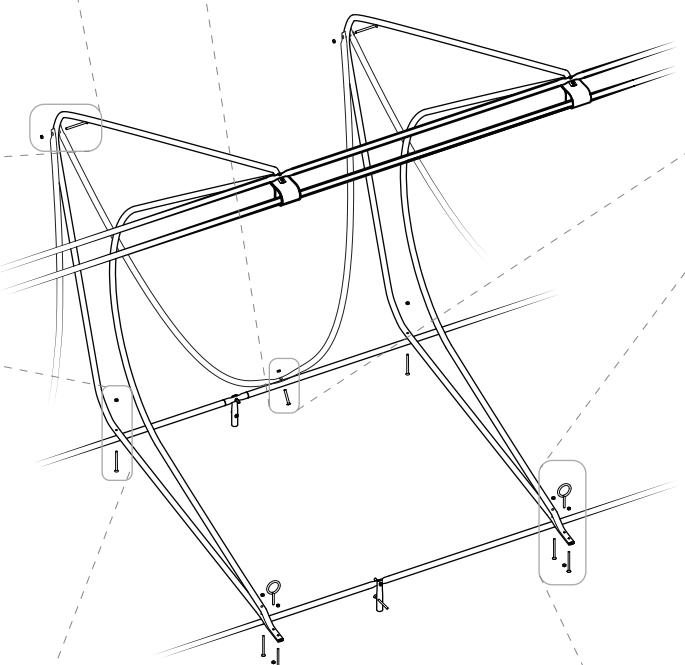
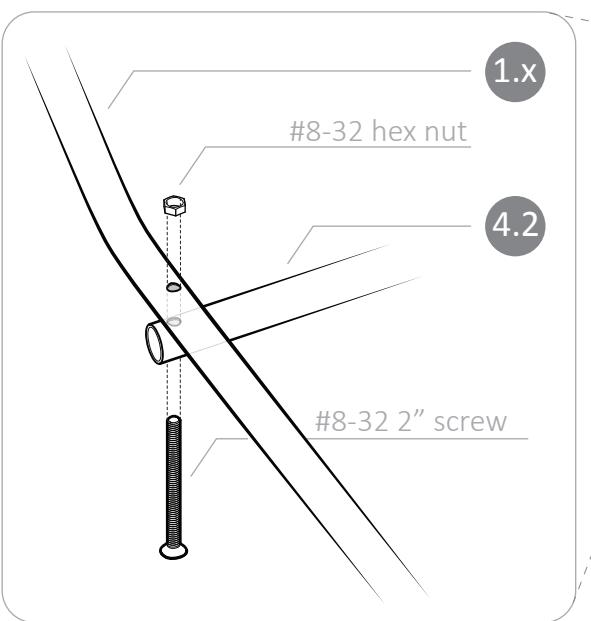
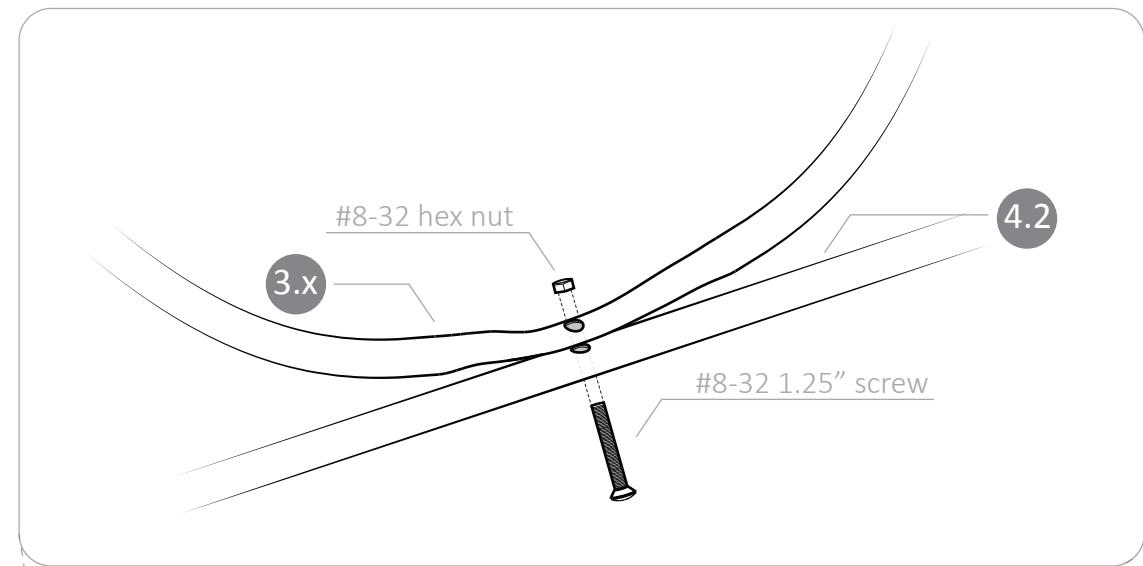
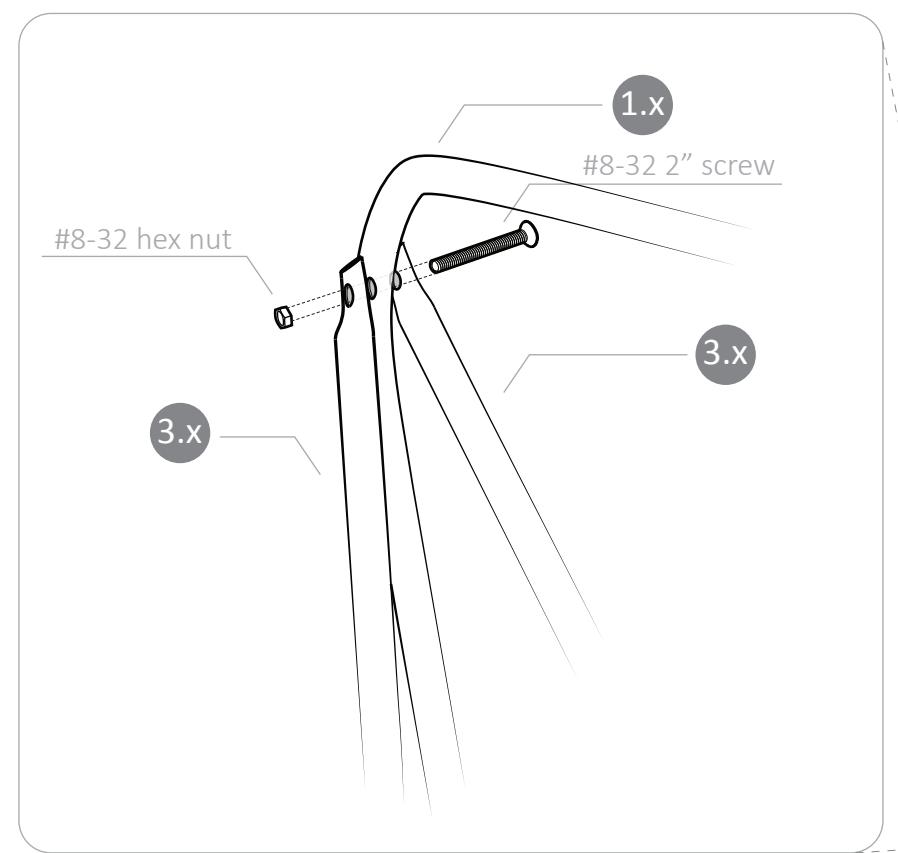
David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

## Citra

K. Euchulkanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

## Connection Detail I: Screw Joint

For Review  
 Scale: N/A  
 10.10.16  
 20 of 26



LABEL	ITEM
1.1 - 1.5	outer modules
2.1 - 2.5	inner modules
3.1 - 3.4	gussets
4.1 - 4.3	anchor bars
5	spool bar
6	acrylic wheel
7.1 - 7.8	anchoring pieces

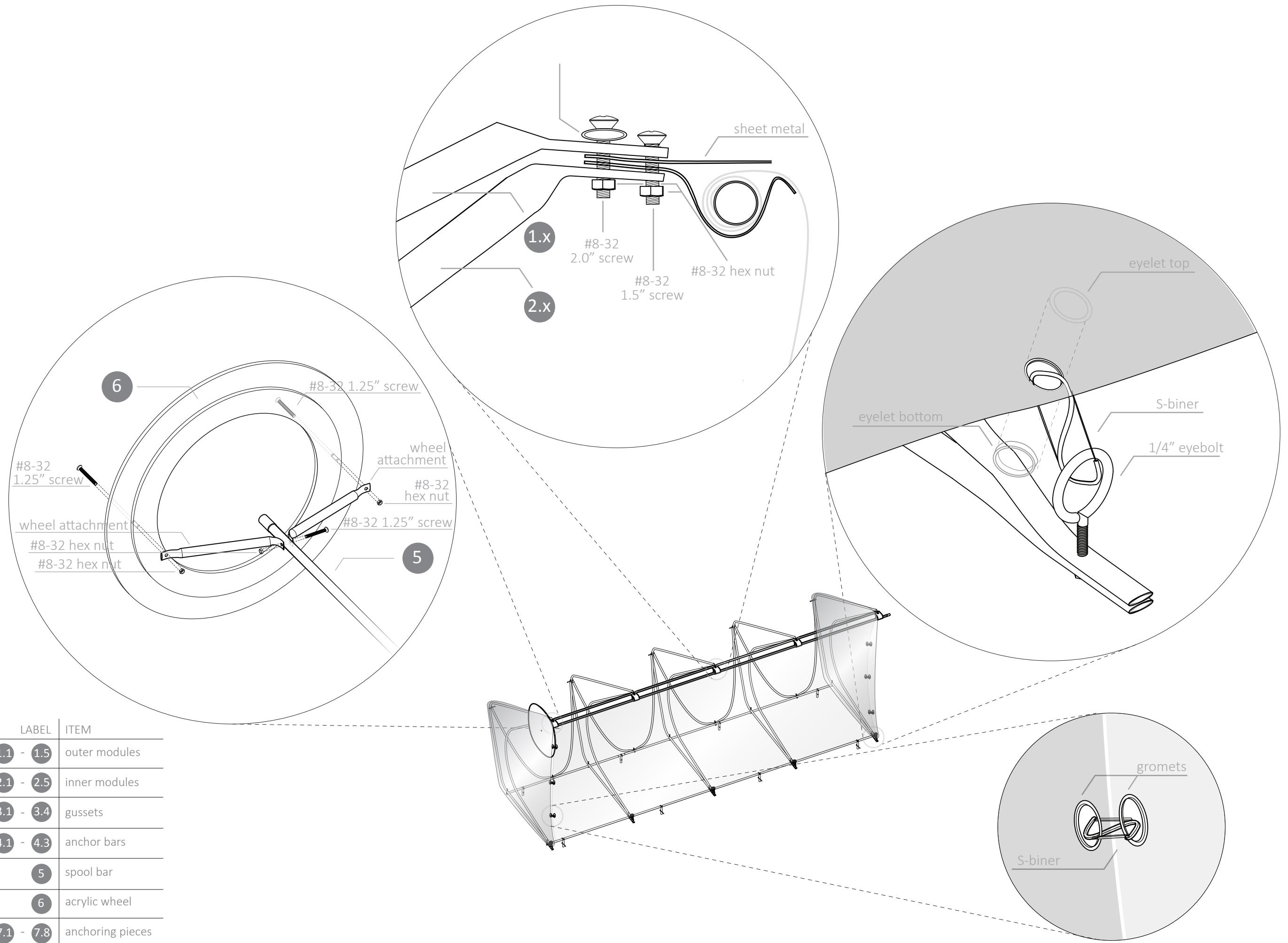
Citra  
 K. Euchukanonchai  
 K. Jiang  
 D. Kim  
 H. Qureshi  
 S. Zhen

Hoop House  
 David Lawrence Convention Center (Roof)  
 199 10th St, Pittsburgh, PA 15222

# C10

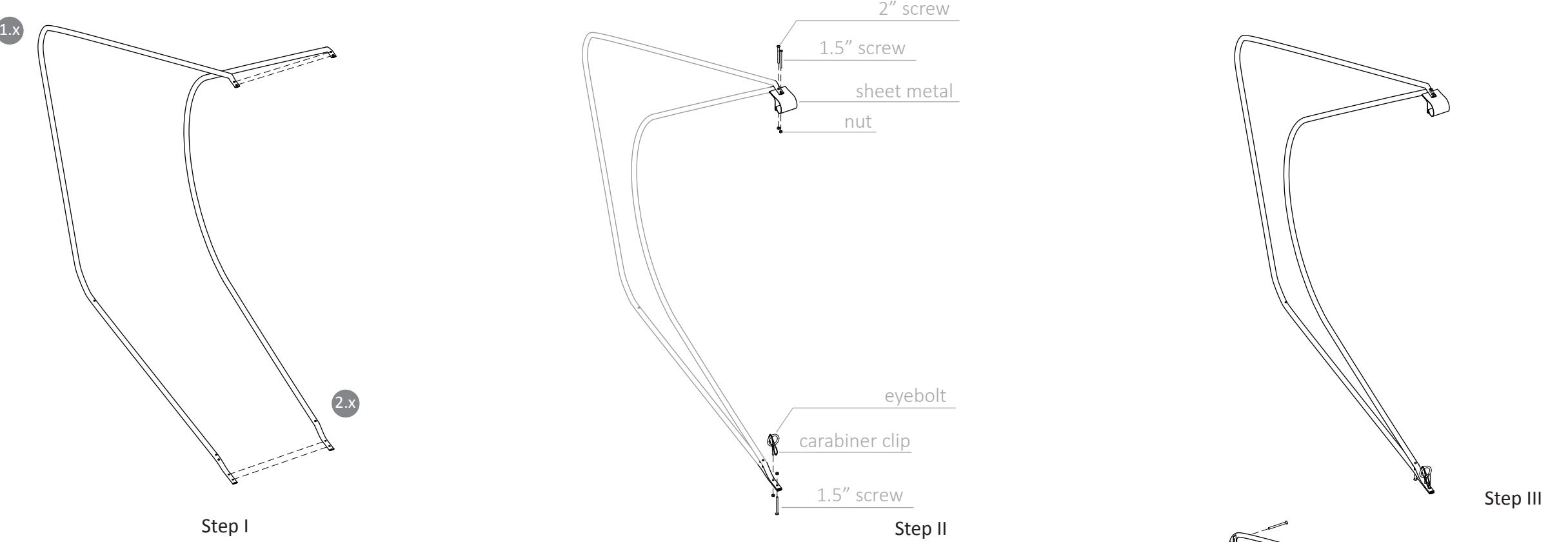
## Connection Detail II: Wheel and Spool Joint

For Review  
 Scale: N/A  
 10.10.16  
 21 of 26



## Assembly I: Modules

For Review  
 Scale: N/A  
 10.10.16  
 22 of 26



LABEL	ITEM
1.1 - 1.5	outer modules
2.1 - 2.5	inner modules
3.1 - 3.4	gussets

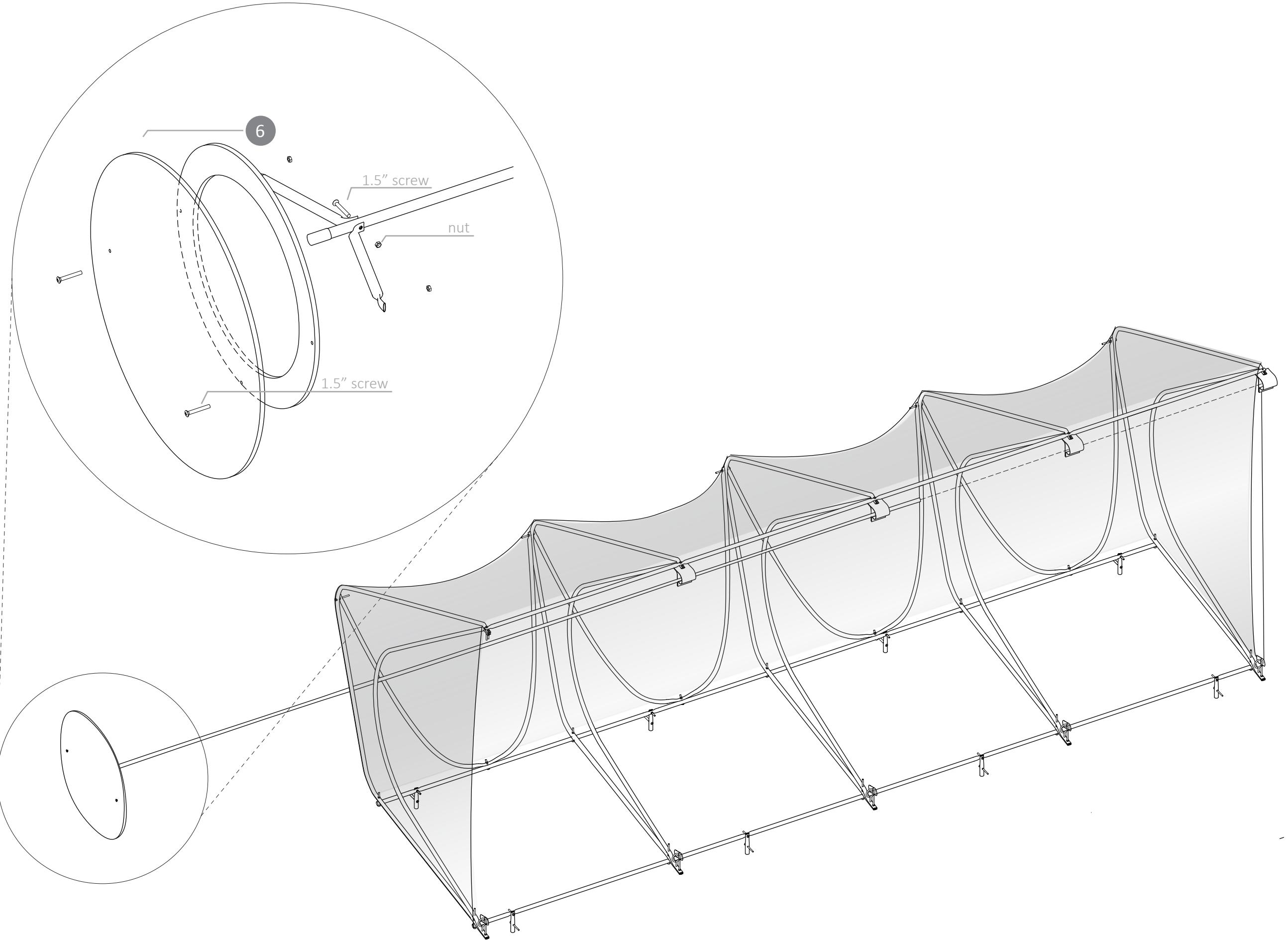
Citra  
K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen

Hoop House  
David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

For Review  
Scale: N/A  
10.10.16  
23 of 26

C12

## Assembly II: Spool and Wheel



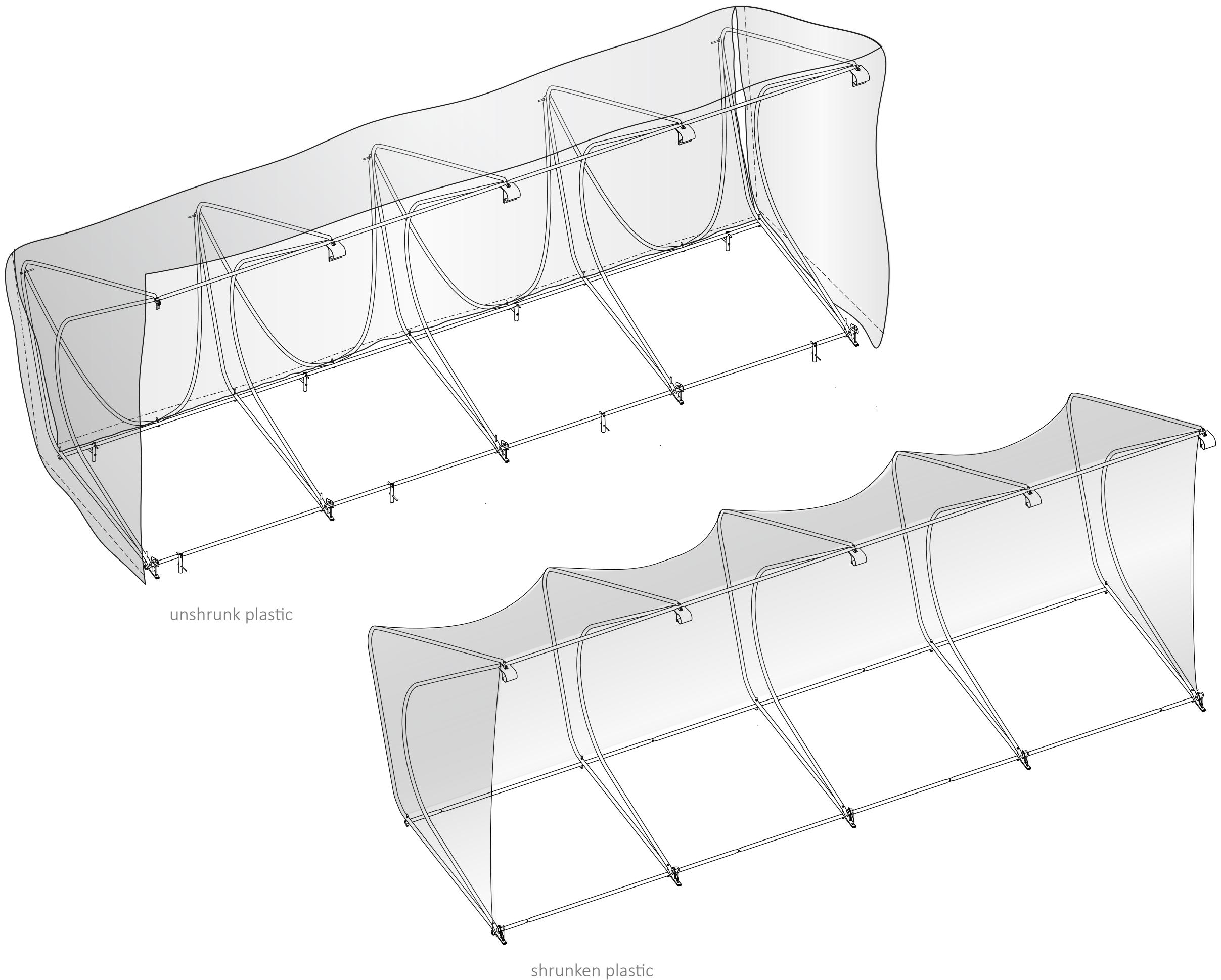
LABEL	ITEM
6	acrylic wheel

### Assembly III: Plastic

### Hoop House

David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

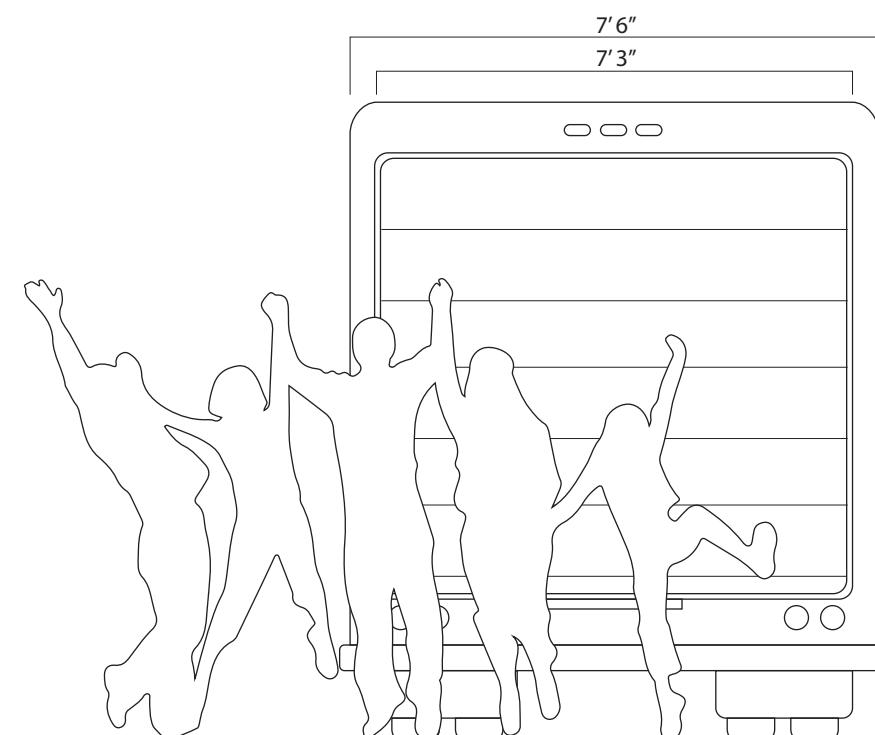
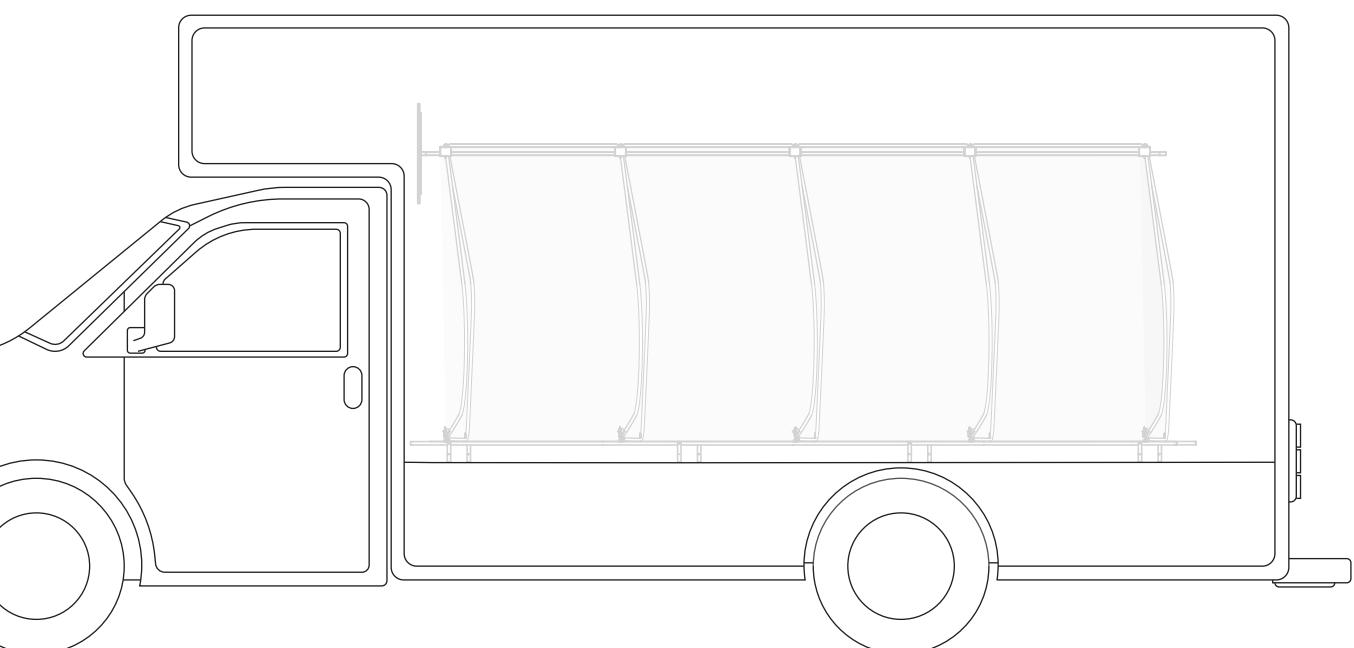
C13



**D1**

## Packing and Shipping

For Review  
Scale: N/A  
10.10.16  
25 of 26

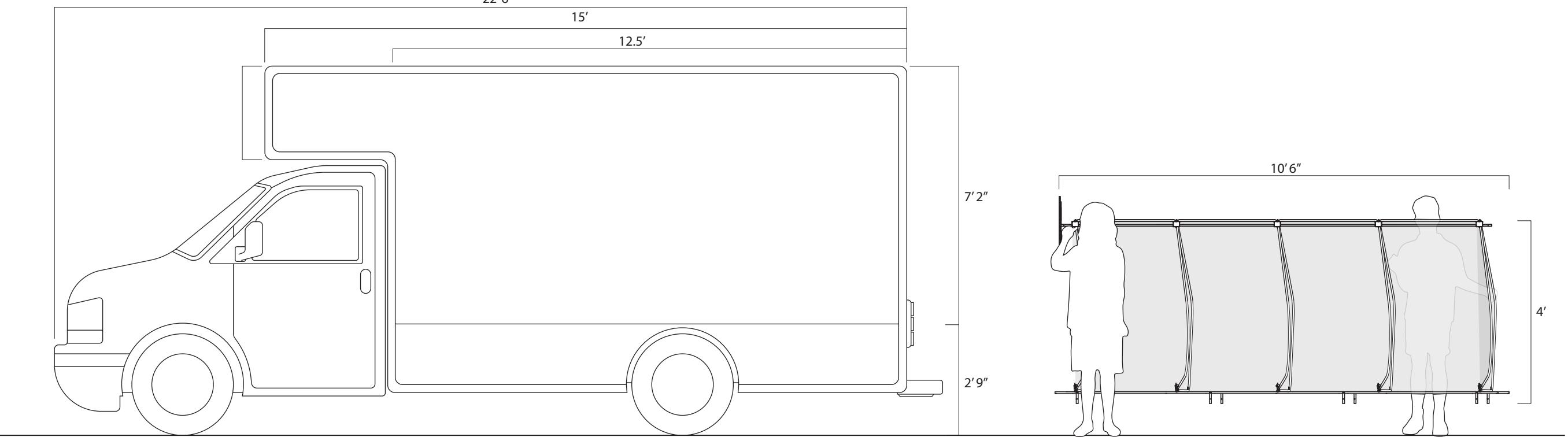


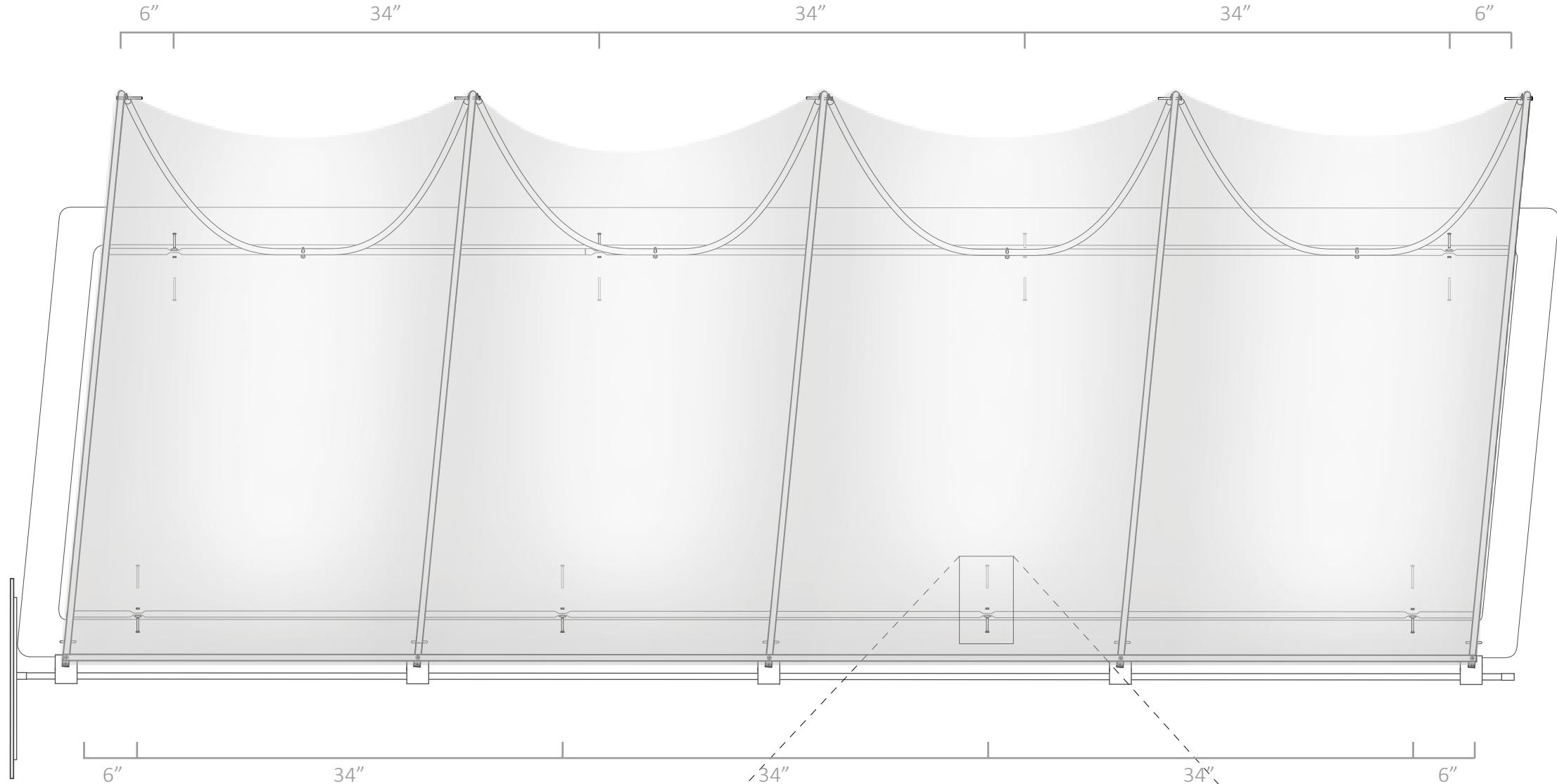
## Hoop House

David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

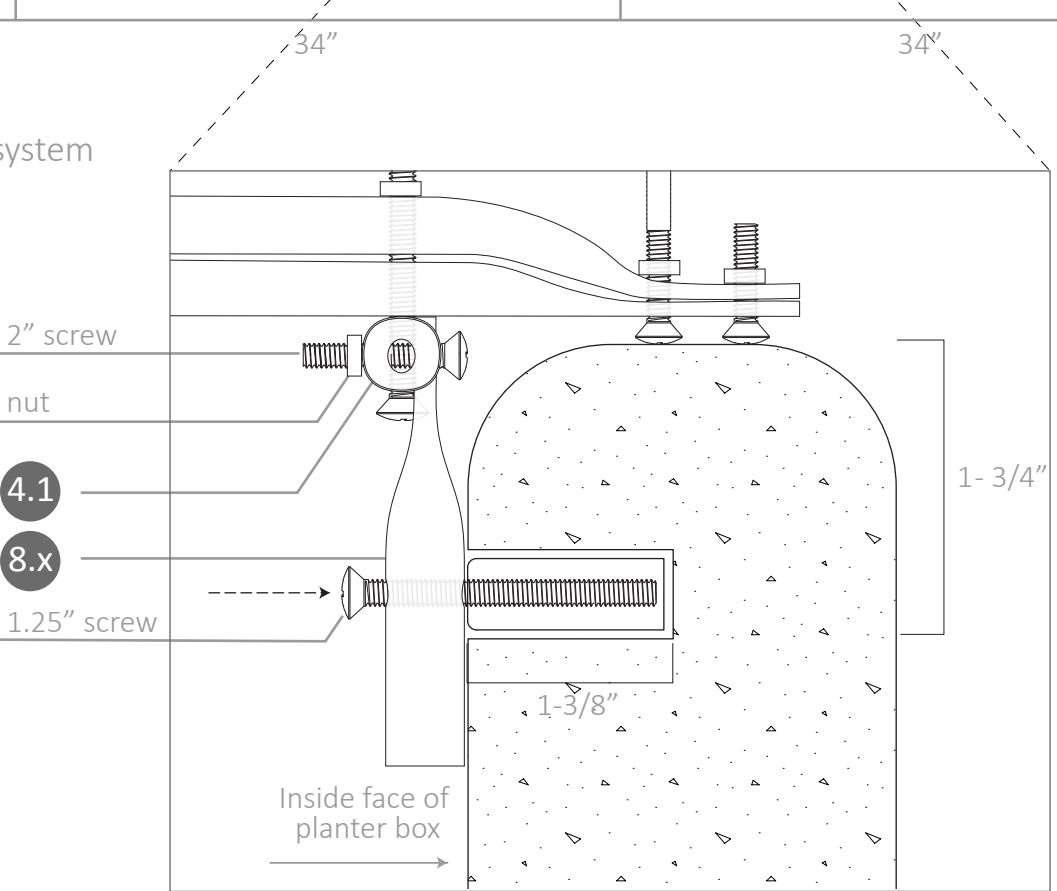
## Citra

K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen





anchoring system



LABEL	ITEM
1.1 - 1.5	outer modules
2.1 - 2.5	inner modules
3.1 - 3.4	gussets
4.1 - 4.3	anchor bars
5	spool bar
6	acrylic wheel
7.1 - 7.8	anchoring pieces

# D2

## Installation and Removal

For Review  
Scale: N/A  
10.10.16  
26 of 26

Hoop House  
David Lawrence Convention Center (Roof)  
199 10th St, Pittsburgh, PA 15222

Citra  
K. Euchukanonchai  
K. Jiang  
D. Kim  
H. Qureshi  
S. Zhen