When Trees
Aren't An Option:

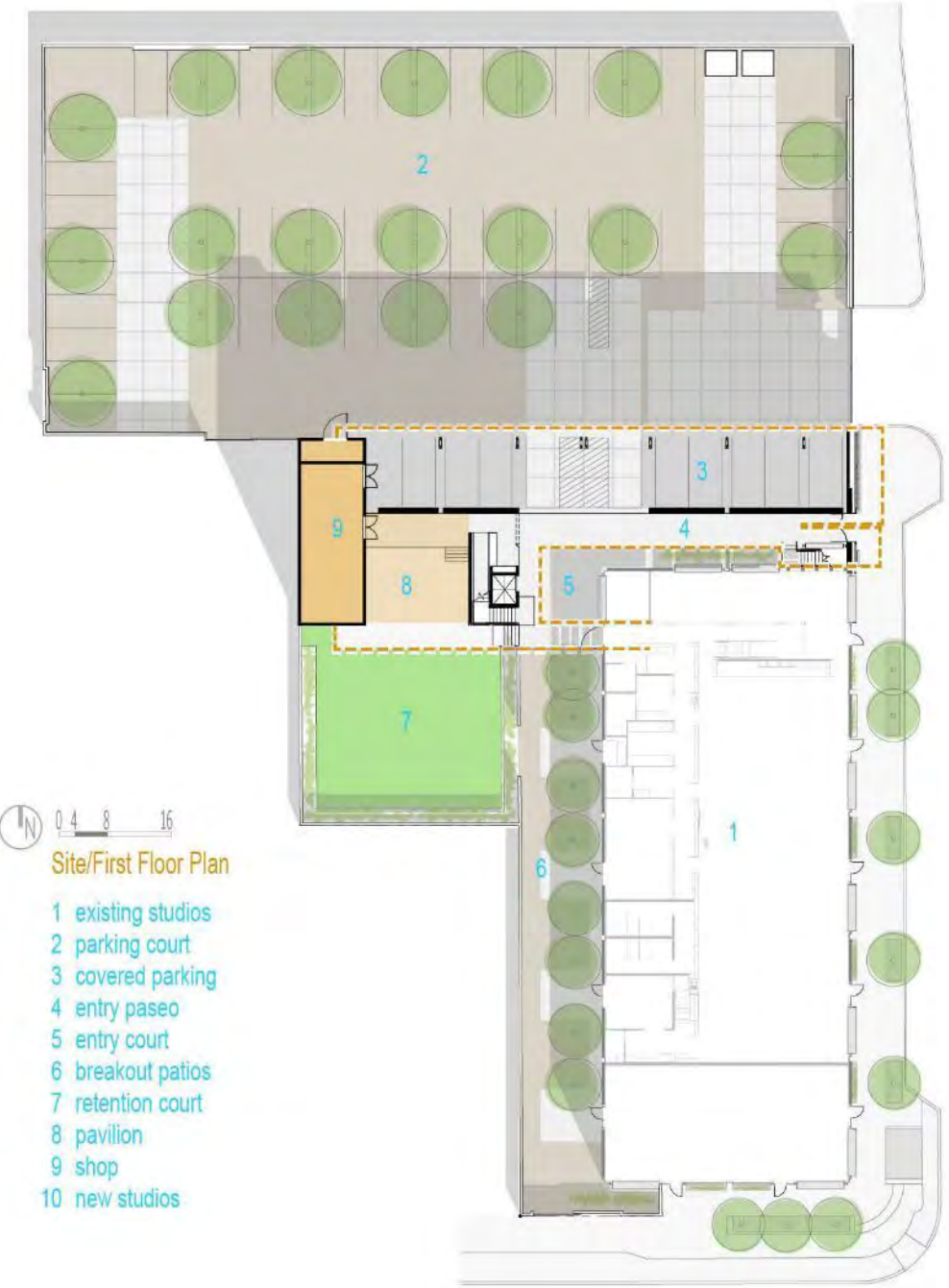
STRUCTURAL SHADE IN A "COOL" CITY

COMPACT

STOP

Scottsdale Quarter

SIGN & SIGN
432
464



0 4 8 16

Site/First Floor Plan

1 existing studios
2 parking court
3 covered parking
4 entry paseo
5 entry court
6 breakout patios
7 retention court
8 pavilion
9 shop
10 new studios

Farmer Avenue

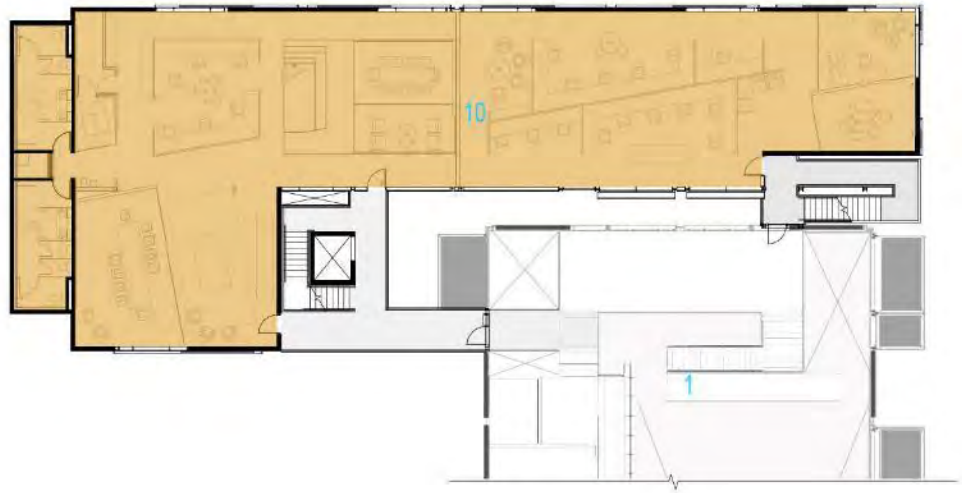
5th Street

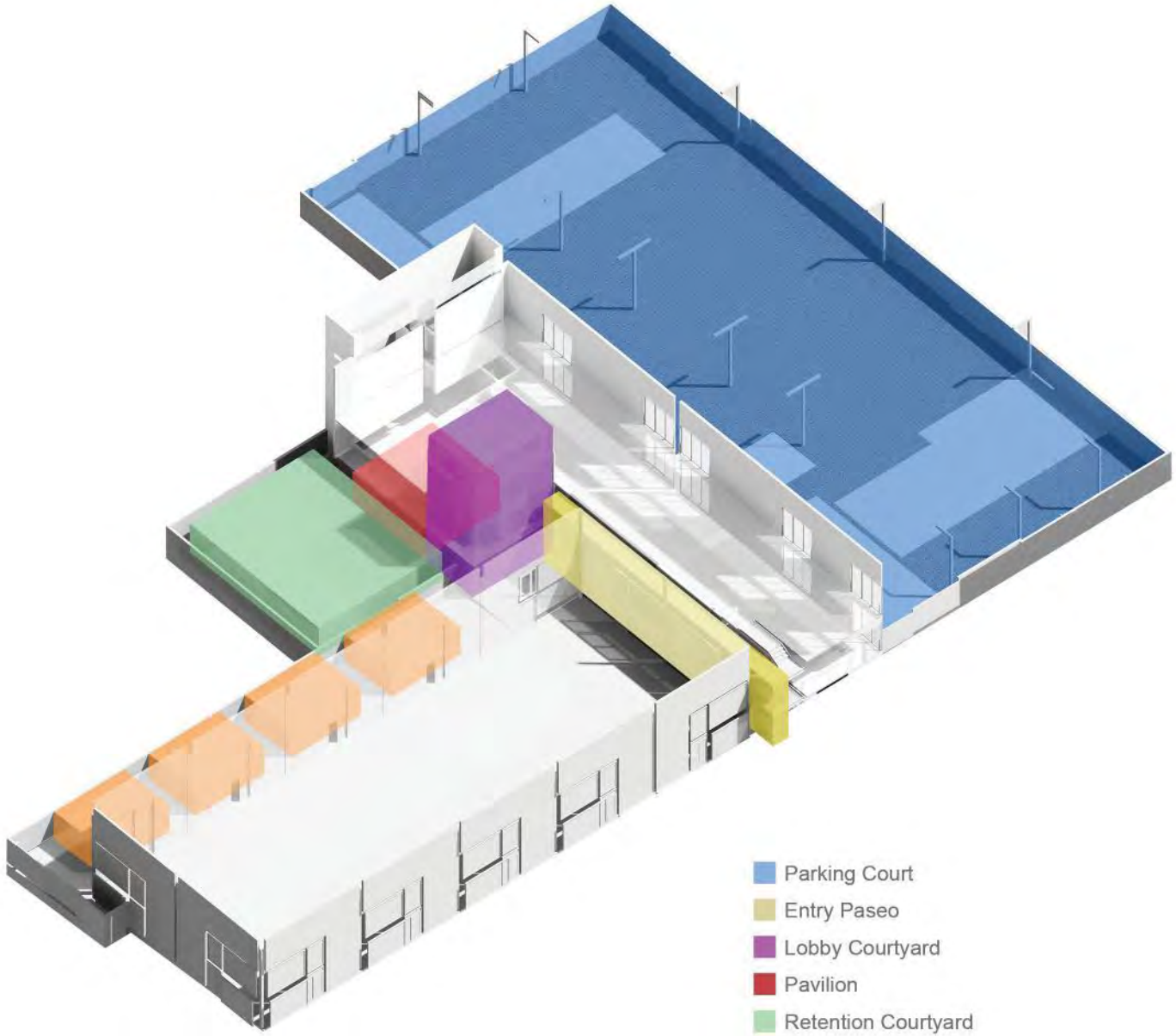
0 4 8 16

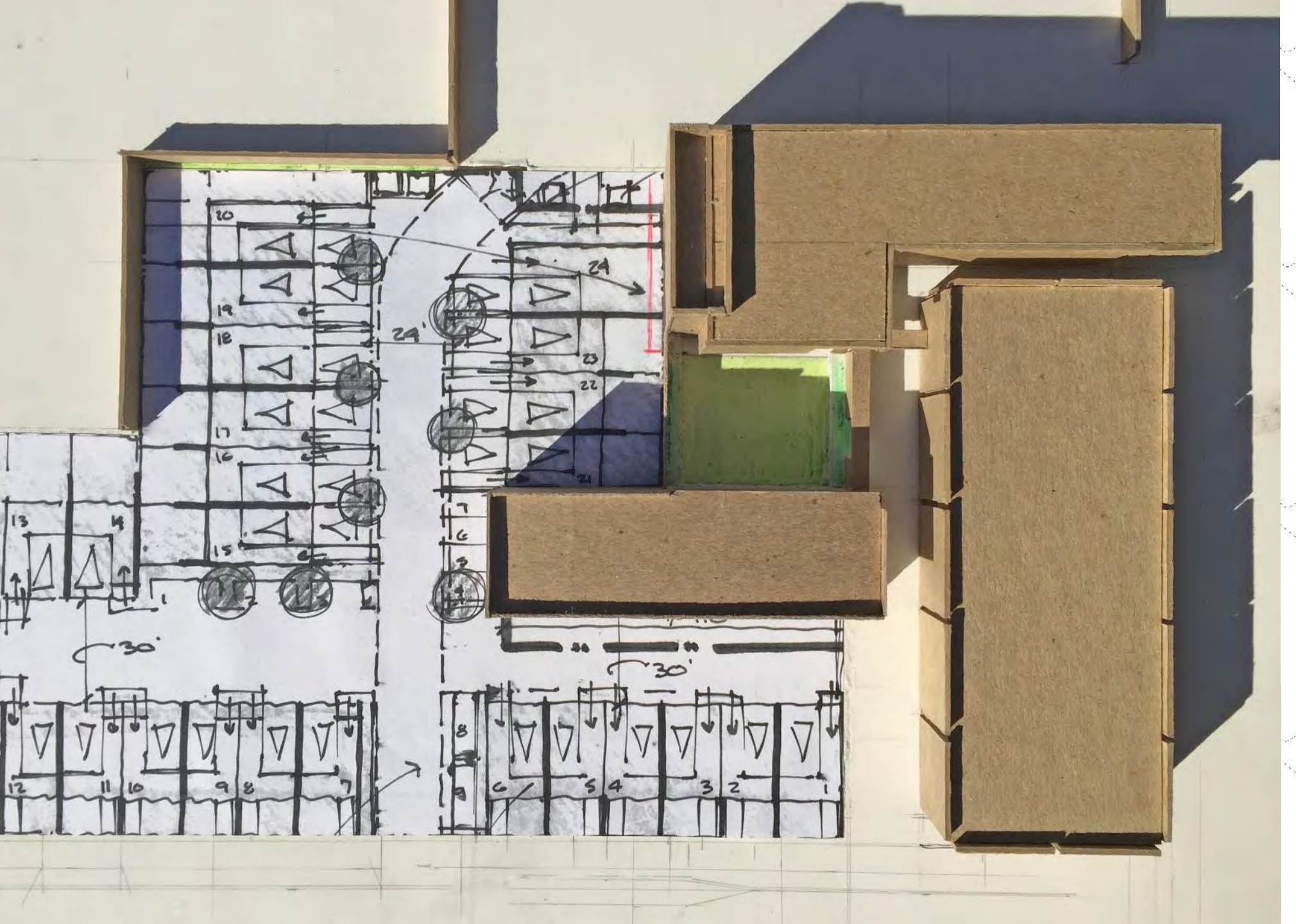
Third Floor Plan

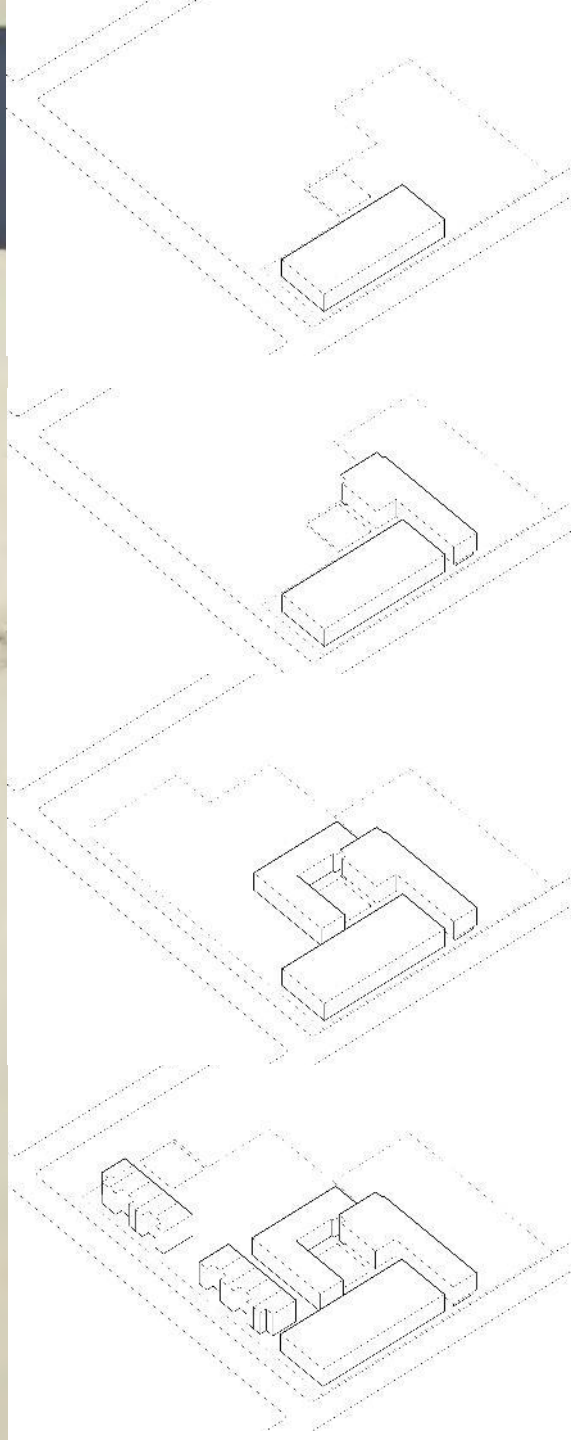
0 4 8 16

Second Floor Plan



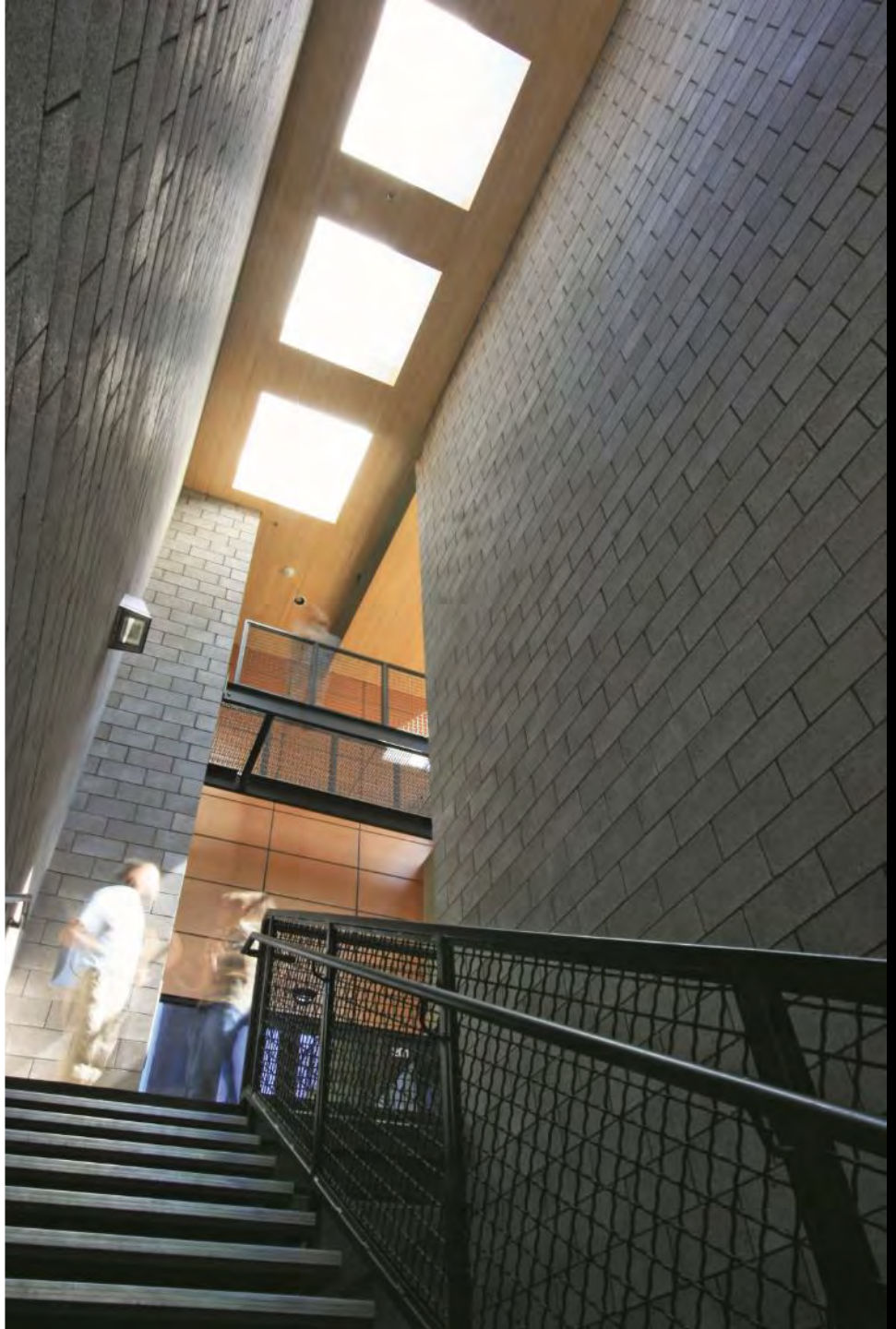

Parking Court
Entry Paseo
Lobby Courtyard
Pavilion
Retention Courtyard
Breakout Spaces


20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
24
24'
23
22
21
30'
30'



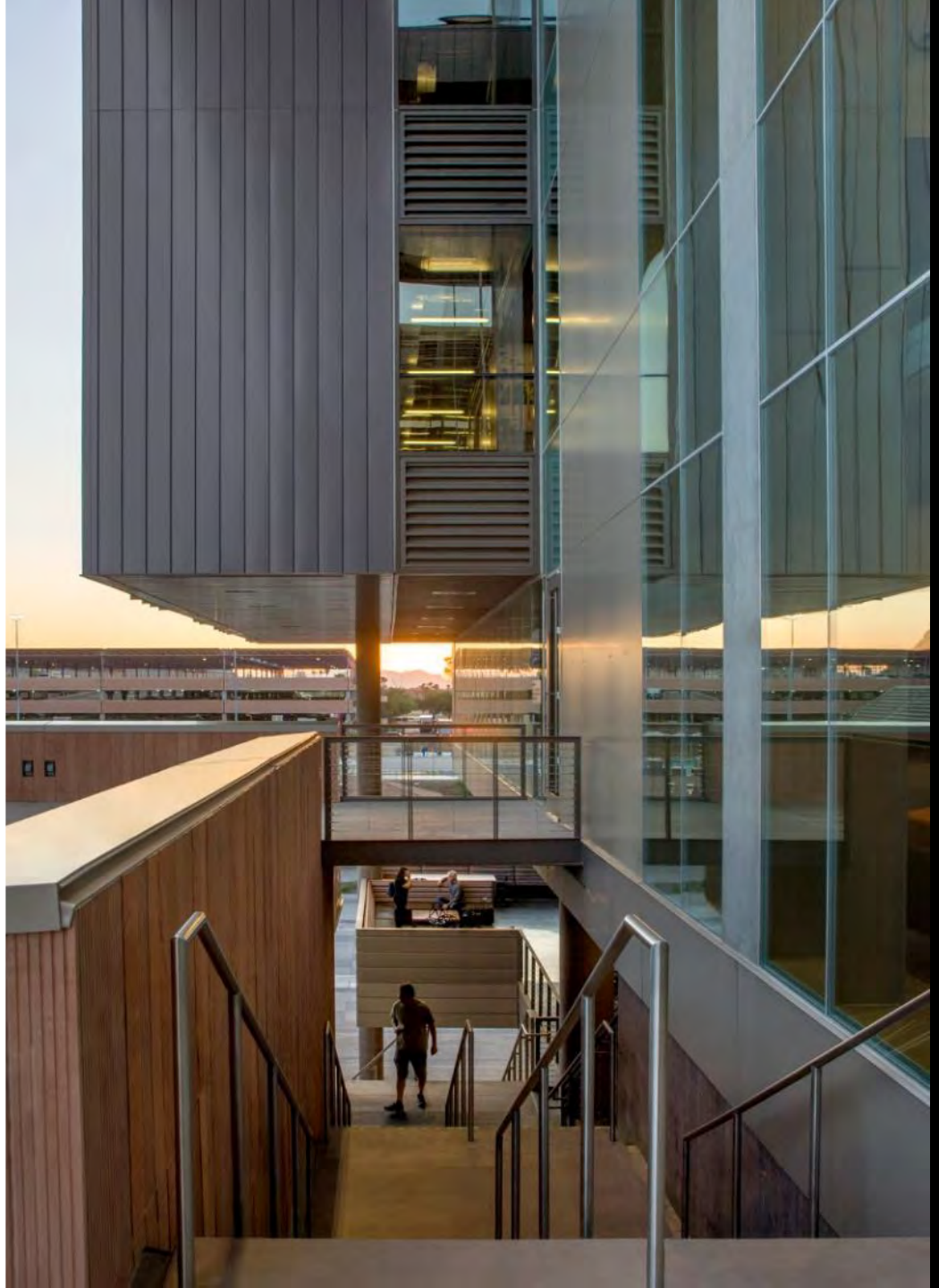
IN BETWEEN

Existing Building
Entry Paseo
Covered Parking
Parking Court



Classroom 2
Classroom 1

ORIENTATION



ASU

STARBUCKS COFFEE

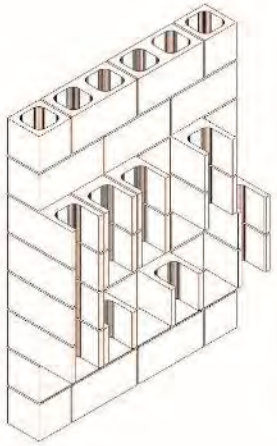
STARBUCKS
COFFEE

VERTICAL

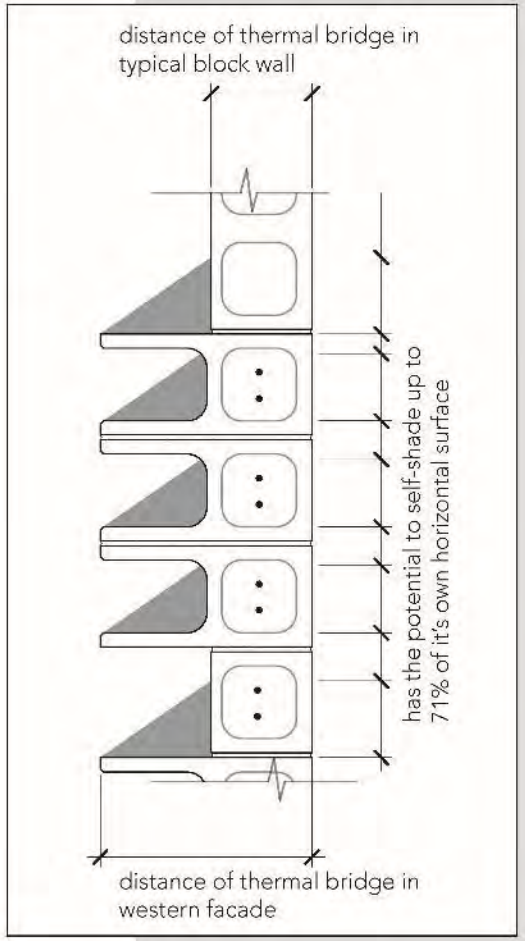
Sunblock

maximum solar exposure from afternoon sun

transmission of heat through building core to program space



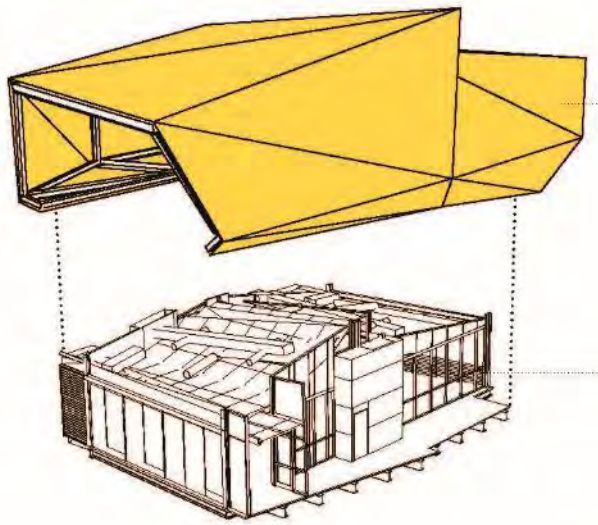
A-block assembly



200
200

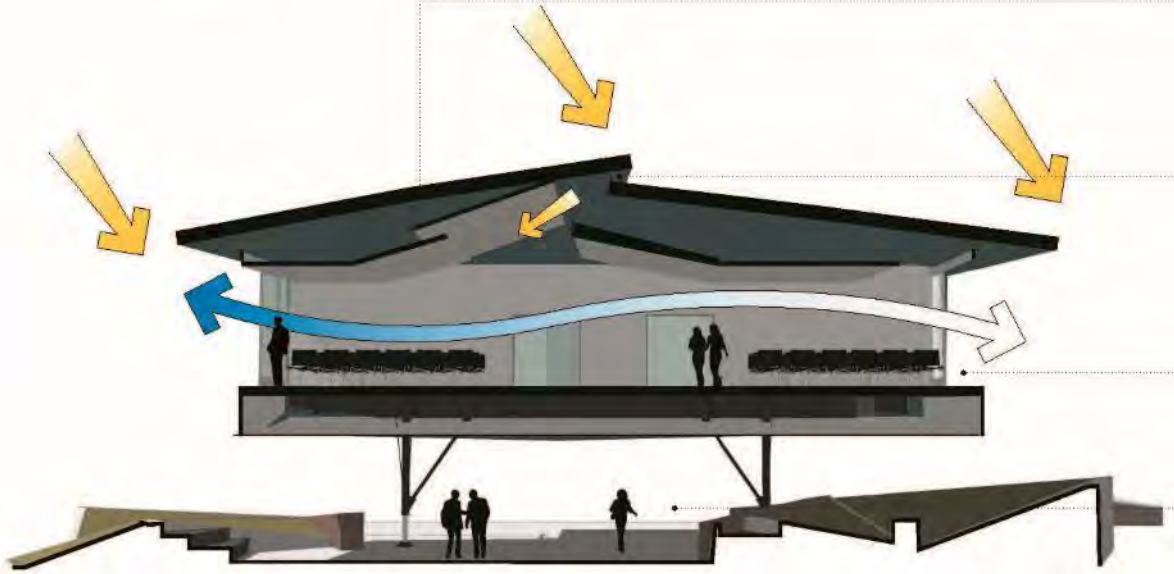
UNDER

Solar Shell



protective insulated metal shell

"glass box"



a shell wraps to cover vulnerable east and west elevations, while providing a deep overhang to protect southern glazing

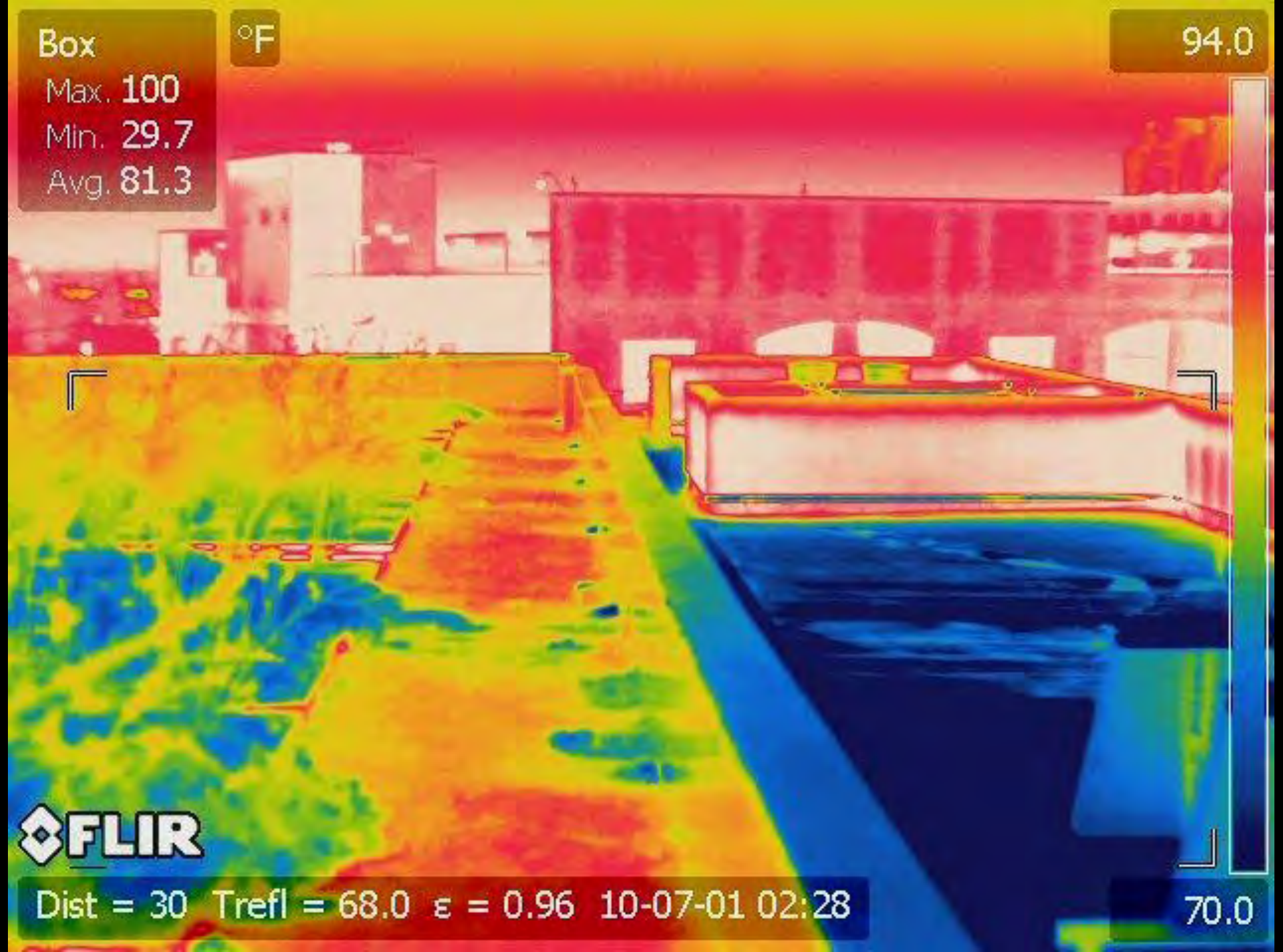
open north and south elevations, as well as clerestories, allow natural daylighting in the space

sliding doors allow natural ventilation

the building is elevated to create an exterior urban space, acting as a counterpoint to the semi-enclosed apce above

TEMPE TRANSPORTATION CENTER
STOP

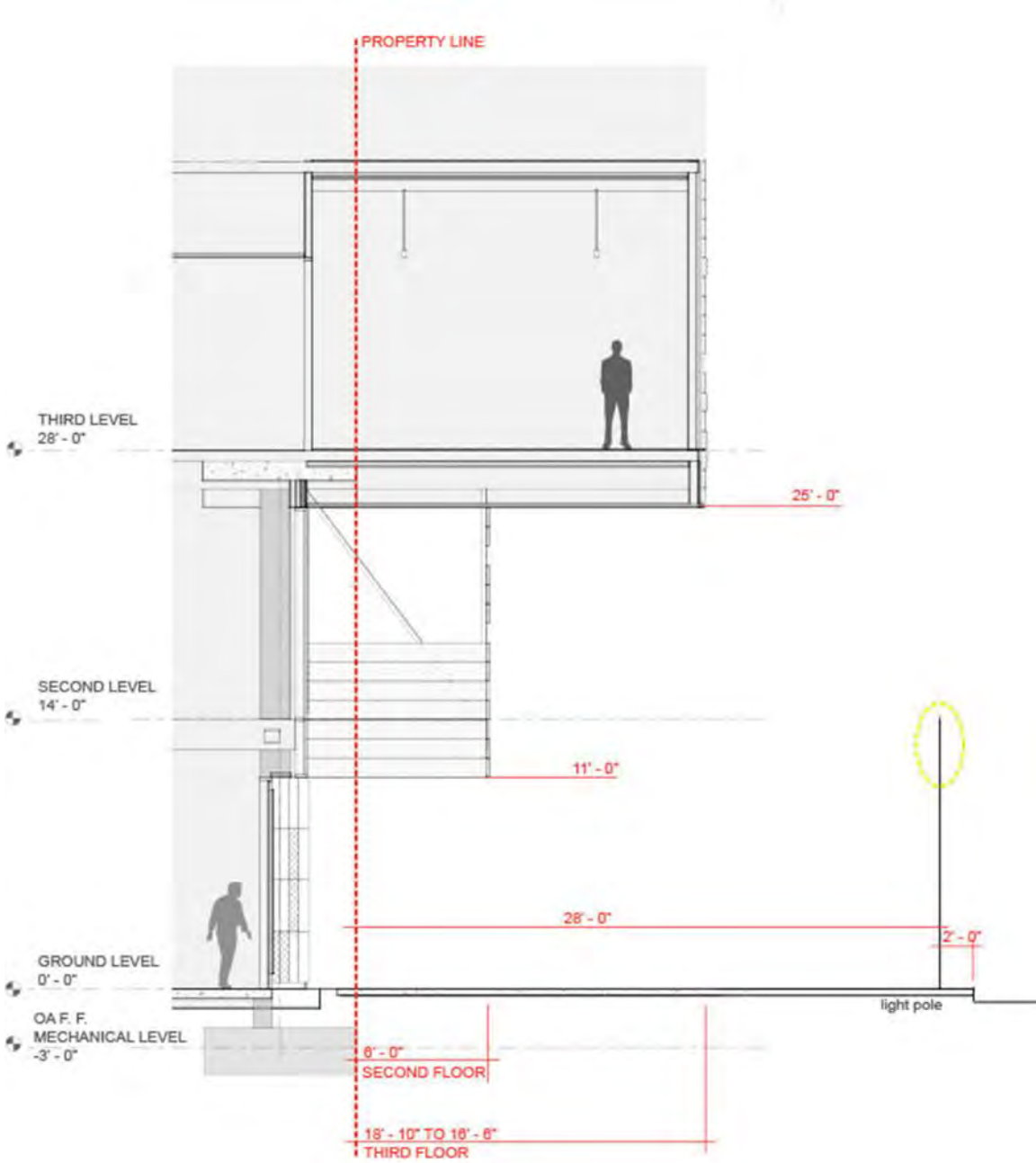
EXTEND


Box
Max. 100
Min. 29.7
Avg. 81.3
°F
94.0
FLIR
Dist = 30 Trefl = 68.0 ε = 0.96 10-07-01 02:28
70.0

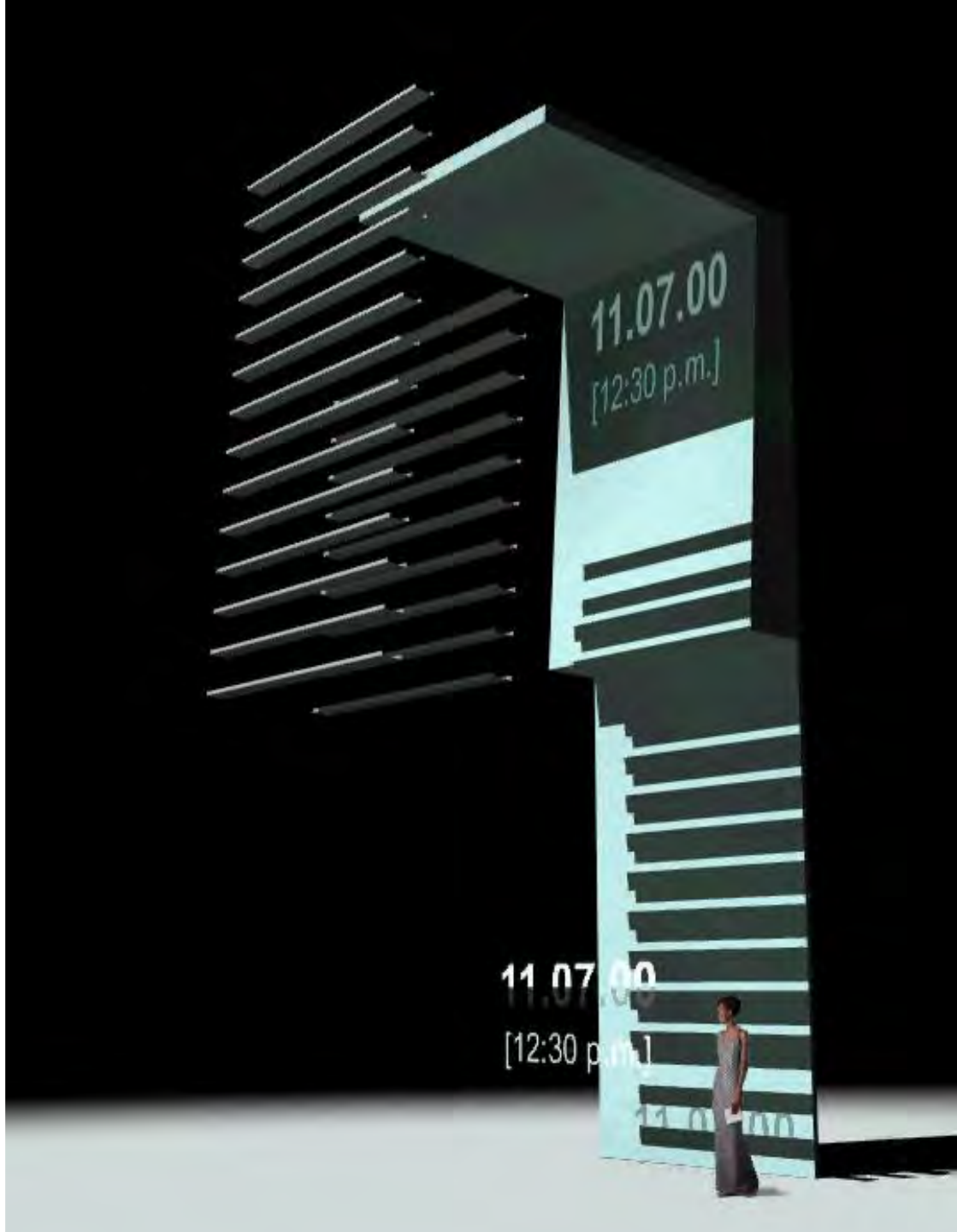
ASU
COLLEGE AVENUE

ASU

SUN DEVIL
MARKETPLACE



College Avenue section


11.07.00
[12:30 p.m.]

ARIZONA
SCIENCE
CENTER

ORIGINAL CONDITION

EXPANDED LOBBY CONDITION

B

C

Coolidge Police Department
City Council Chambers
911 S. Arizona Blvd.

PORCH

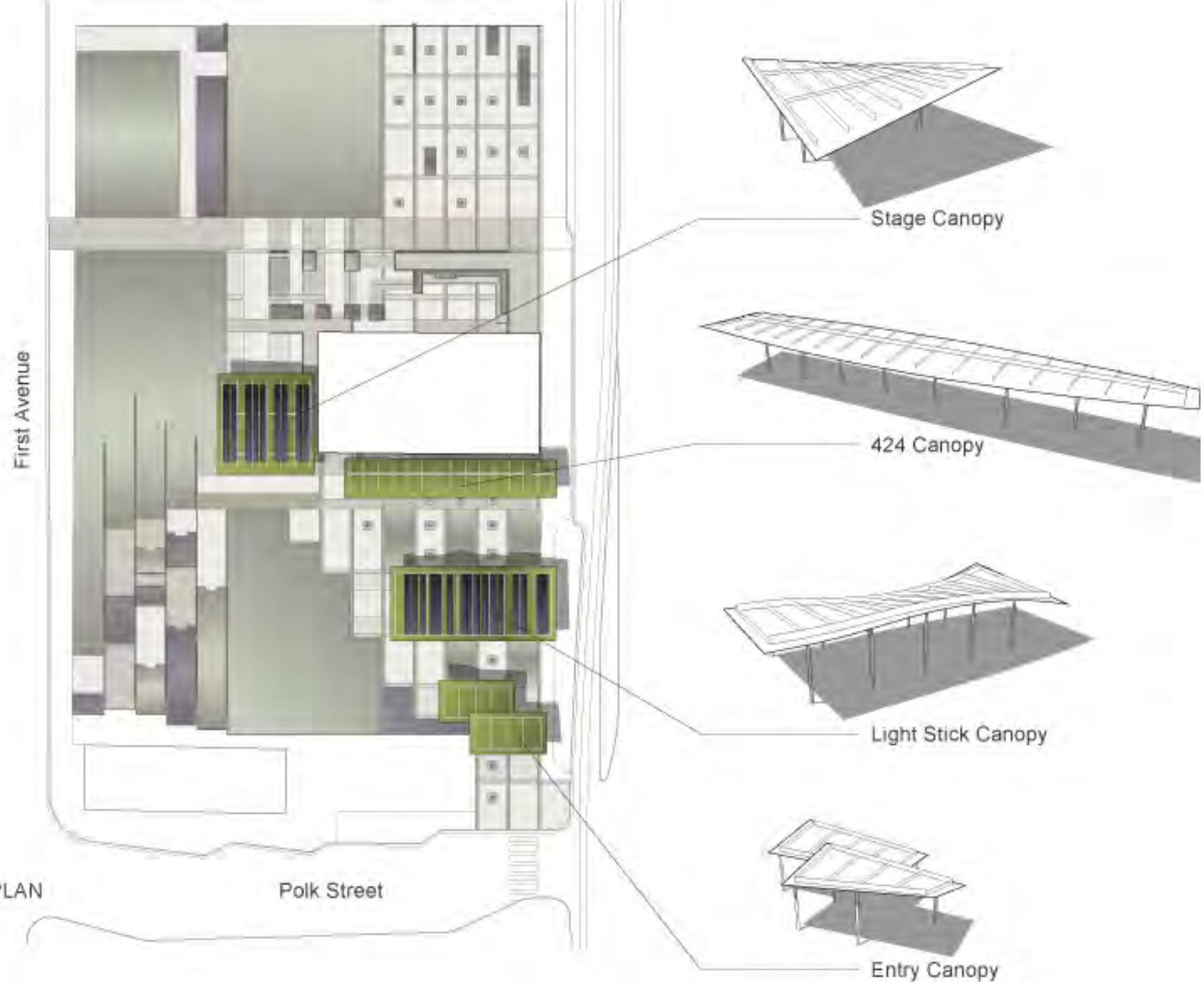
Coolidge Police Department
City Council Chambers

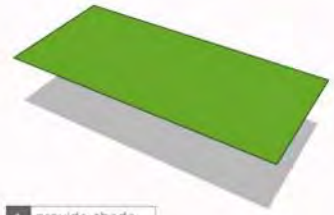
COPPER SKY

GRAND CANYON UNIVERSITY ARENA

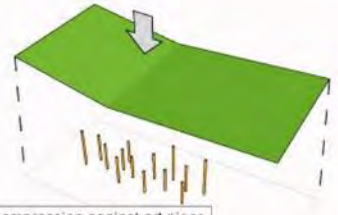
EXIT

FREE
STANDING

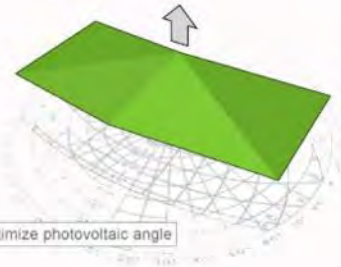

First Avenue
Polk Street
SITE PLAN
0
40'
Stage Canopy
424 Canopy
Light Stick Canopy
Entry Canopy



1 provide shade



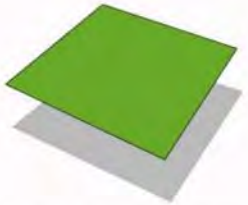
2 compression against art piece



3 optimize photovoltaic angle

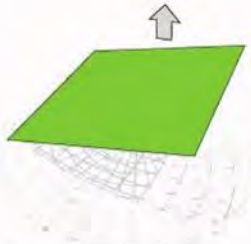
4 recognize pedestrian circulation

5 **Light Stick Canopy**

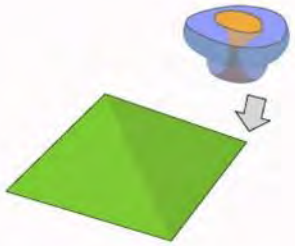


1 provide shade

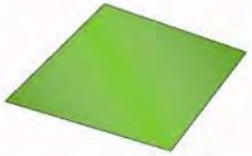
2 provide clearance for stage



3 optimize photovoltaic angle

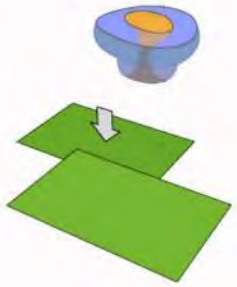


4 deflect away from art piece



5 **Stage Canopy**

1 provide shade

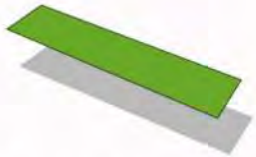


2 create frame for art piece

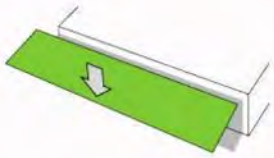
3 optimize photovoltaic angle

4 create a sense of entry to the park

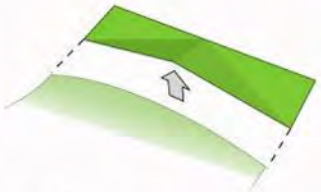
5 **Entry Canopy**



1 provide shade

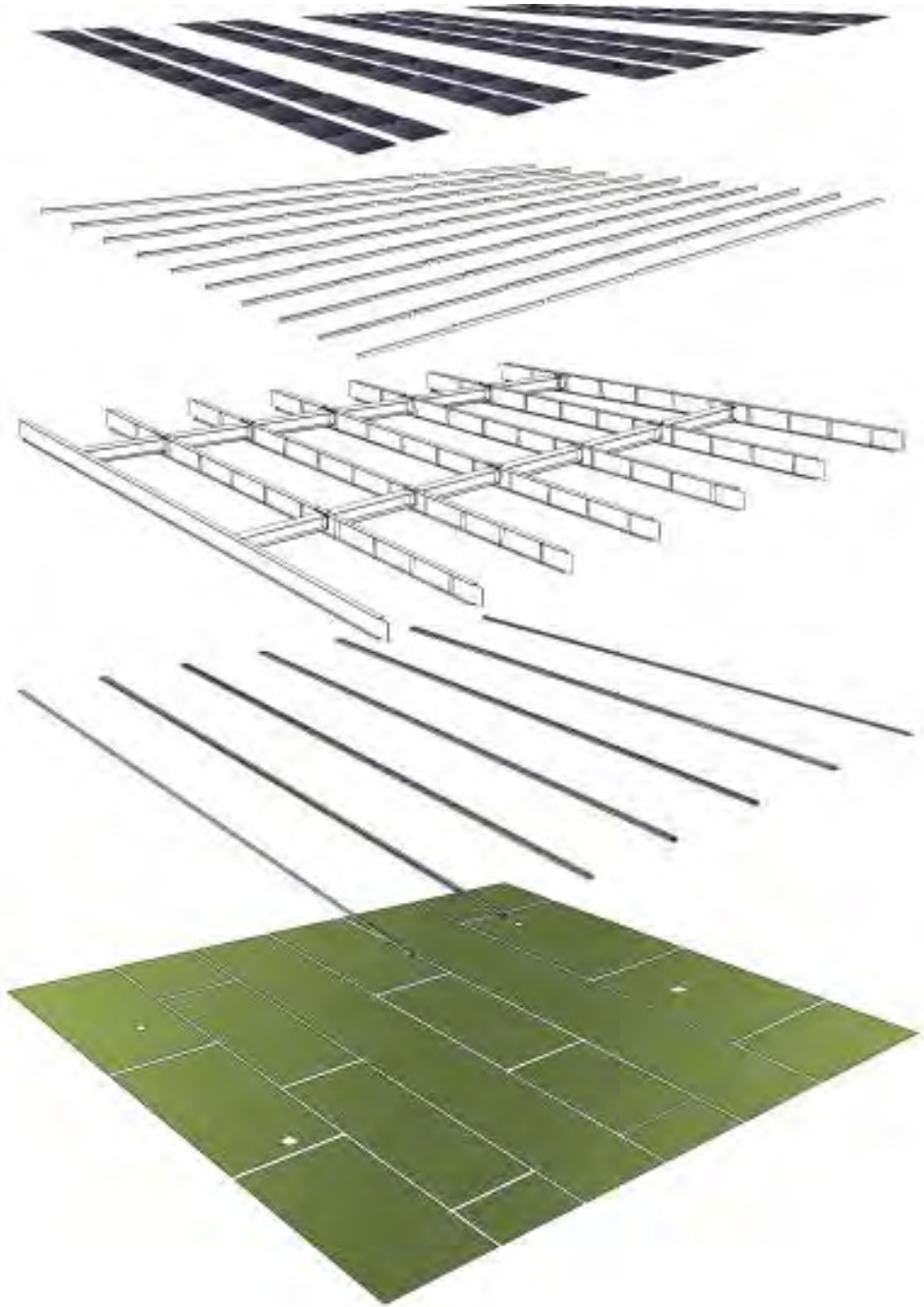


2 maximize shading of adjacent building facade



3 resond to geometry of nearby canopy

4 **424 Canopy**



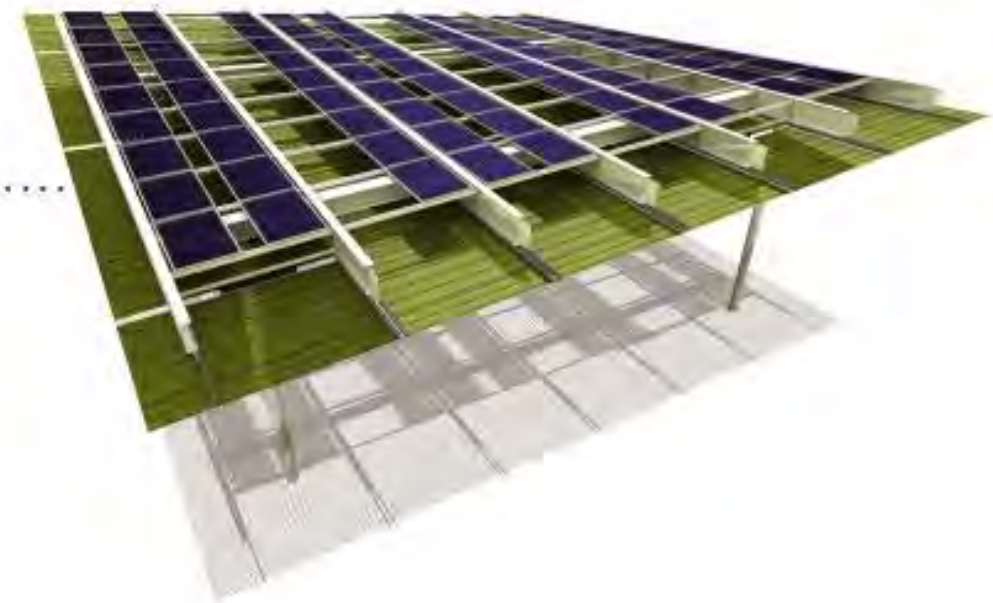
photovoltaics

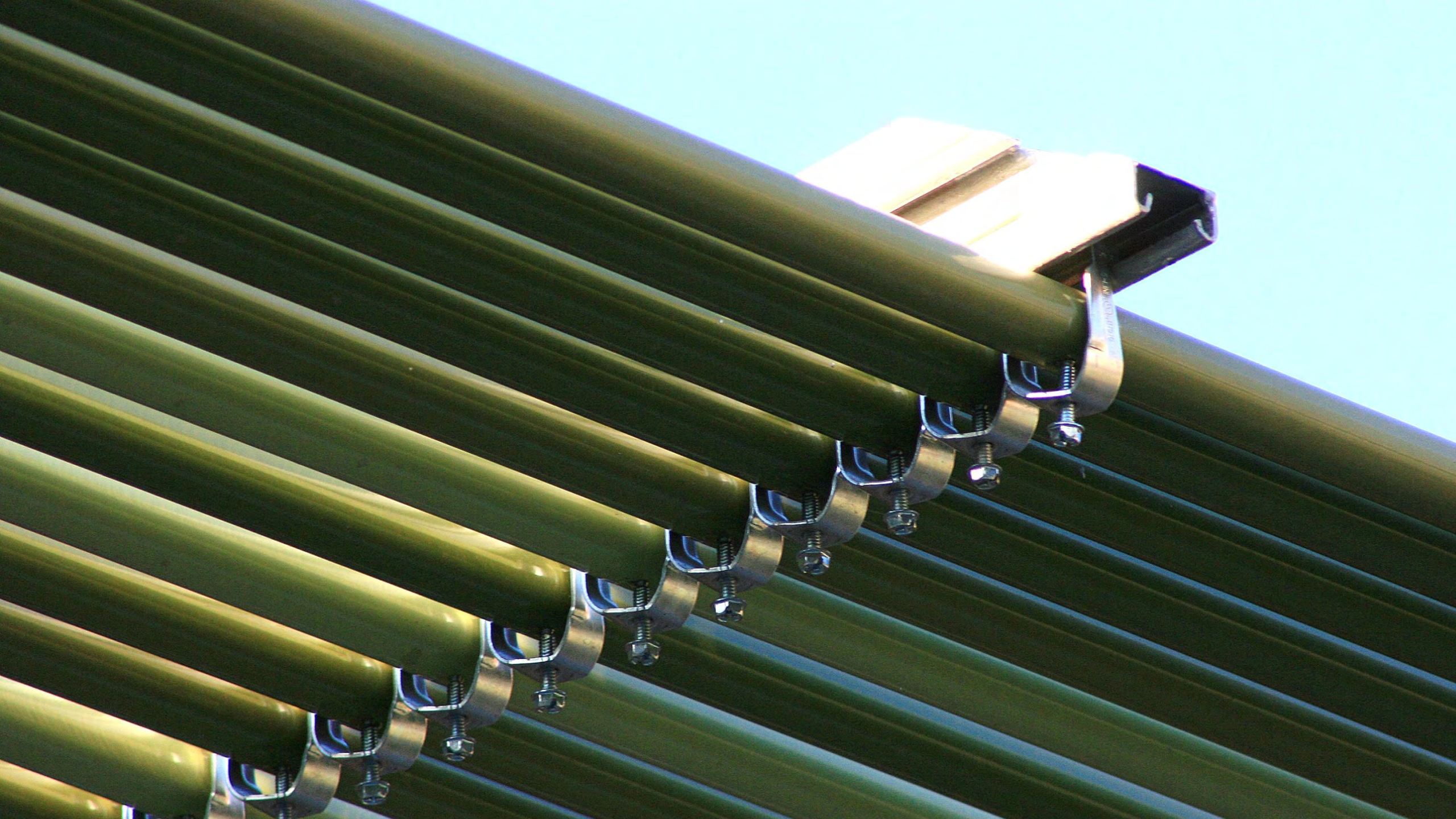
mounting angles

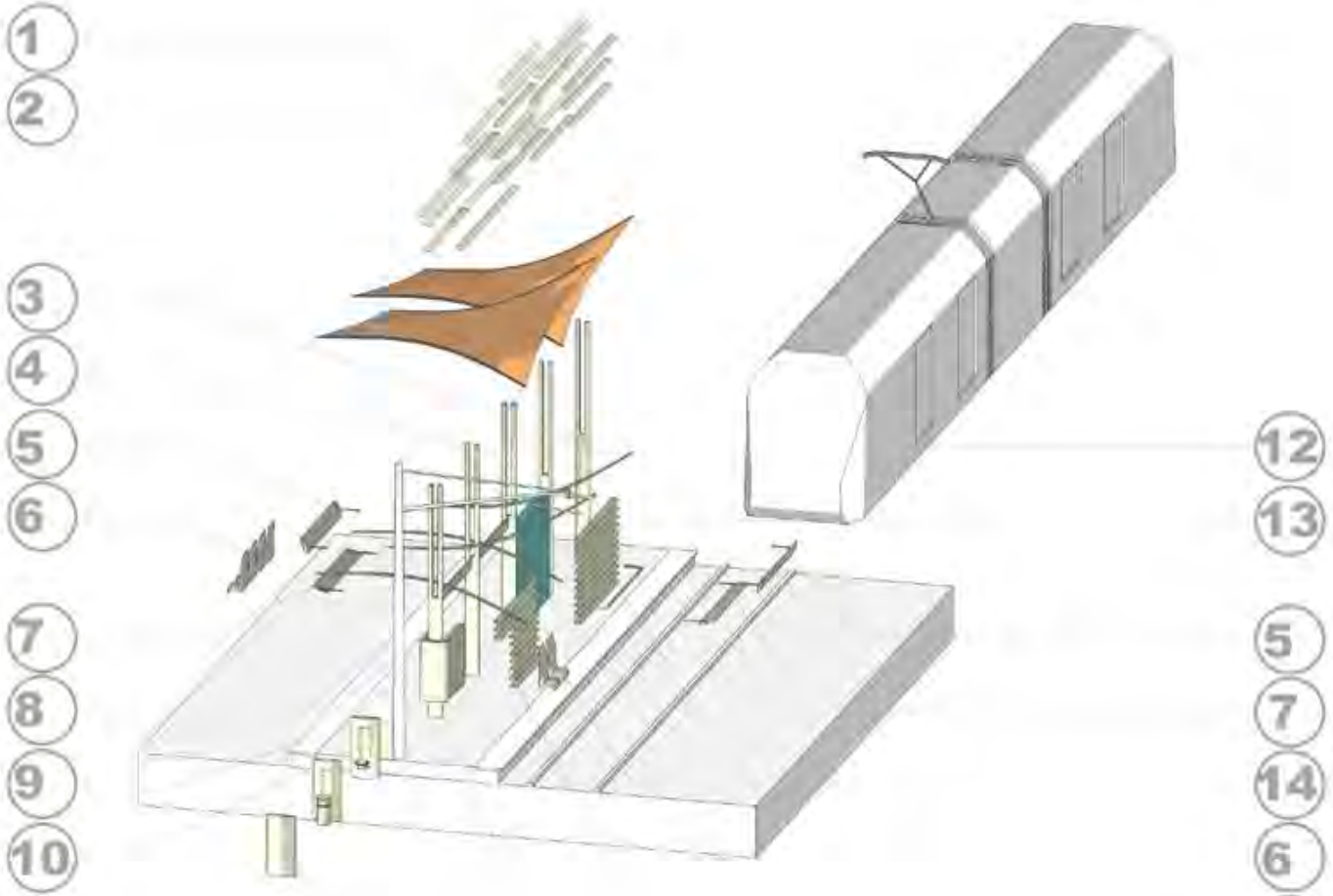
structural steel

unistrut

conduit scrim







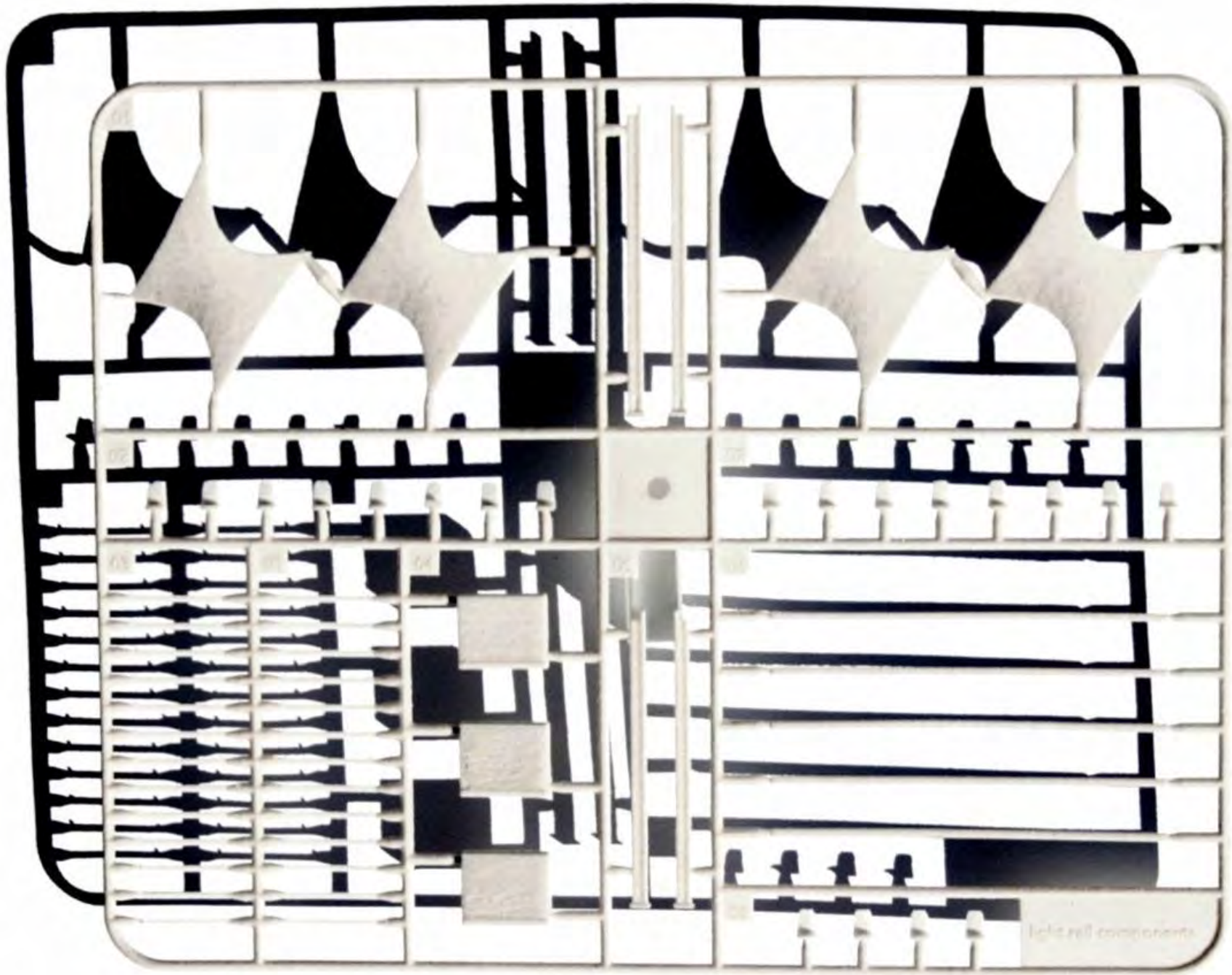
1 UPPER LOUVERS
2 TENSILE CANOPY
3 CANOPY STRUCTURE
4 STRUCTURAL COLUMNS
5 STATION SIGN
6 SEATING
7 STATION LIGHT FIXTURE
8 MAP CASE
9 DRINKING FOUNTAIN
10 REFUSE RECEPTICLE
11 LOUVER END CAP
12 TRAIN
13 BIO MASS
14 LEANING TUBE
15 LOWER LOUVER
16 PLATFORM
17 OCS POLE

east-west oriented platform
5:00 pm, august 21st

VALLEY METRO RAIL

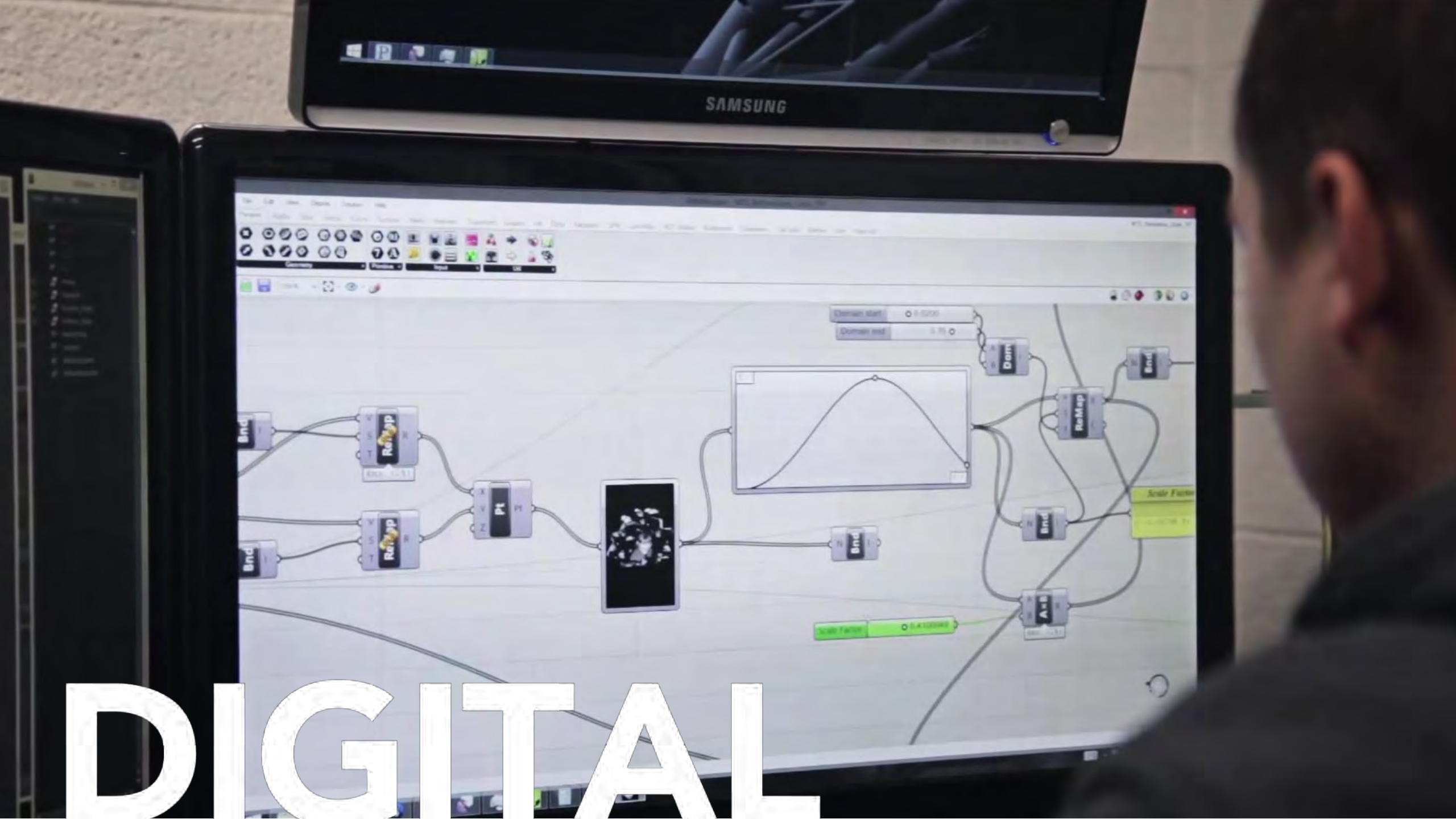
COOLING SCREEN

otak + ARCHITEKTON
01.10.03



ASU Tempe campus
University Dr/Rural Rd

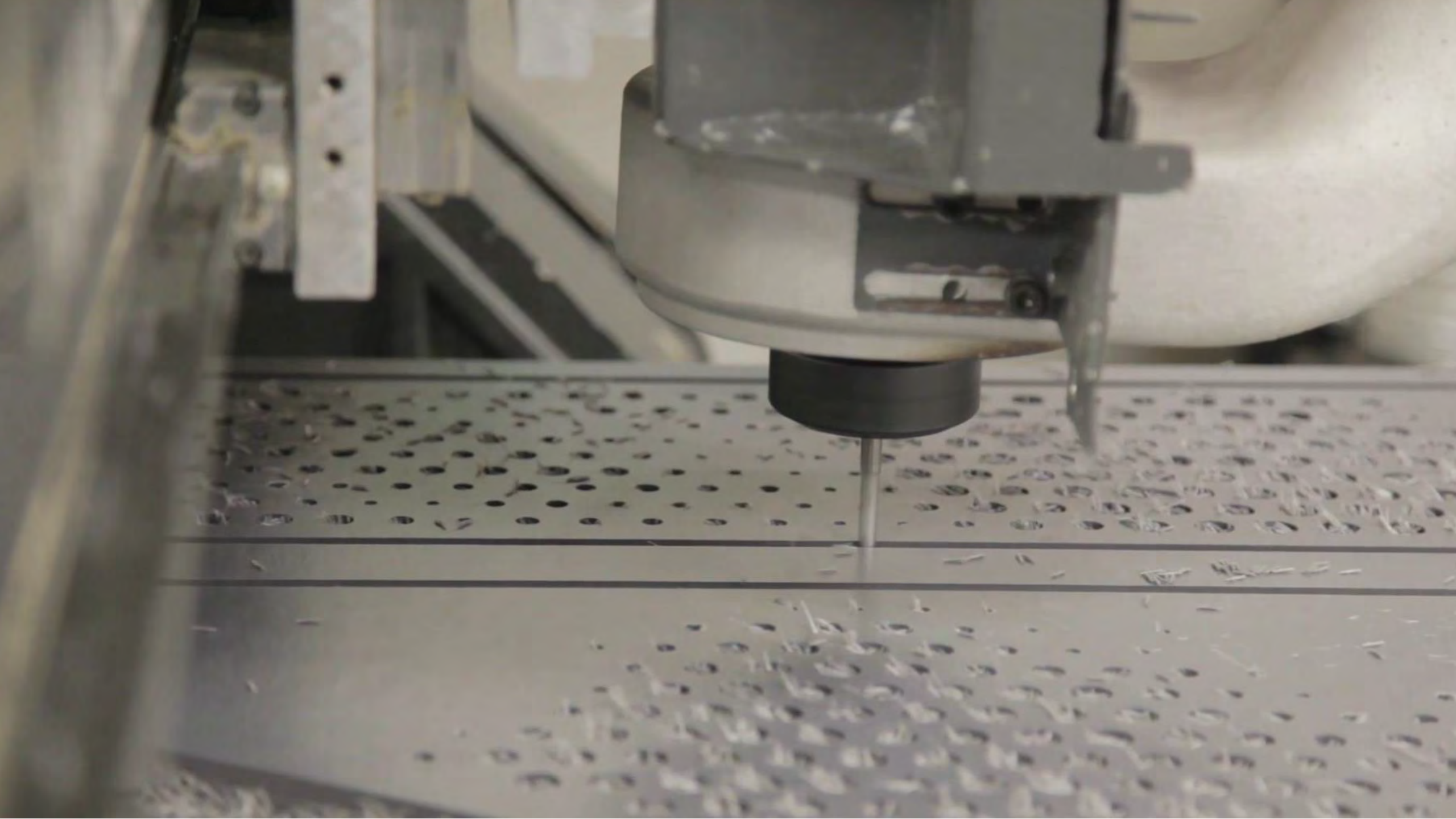
ASU Sun Devil Stadium



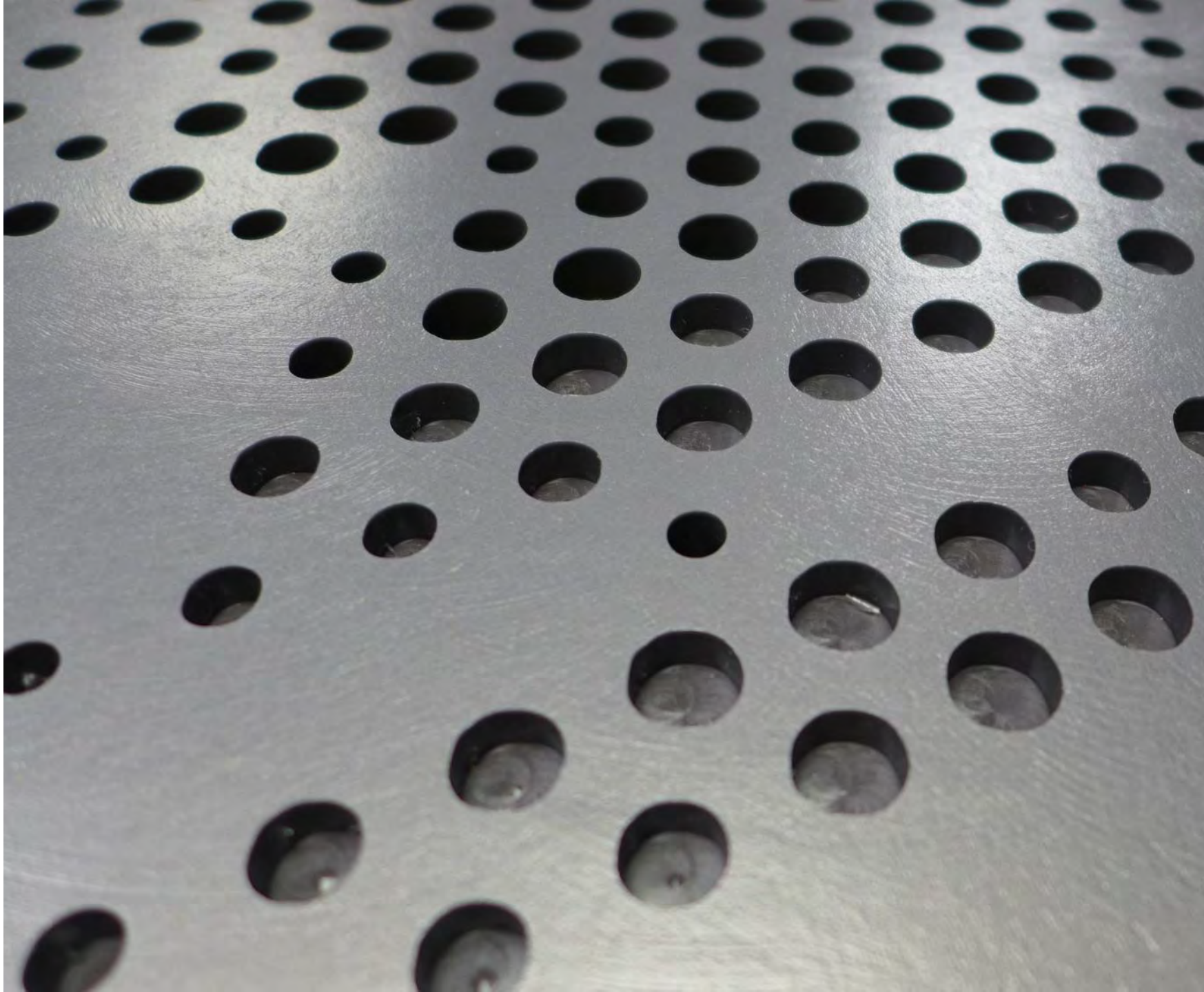
DIGITAL

Arizona
Capitol
Times

MultiCam
3000 Series
CAUTION

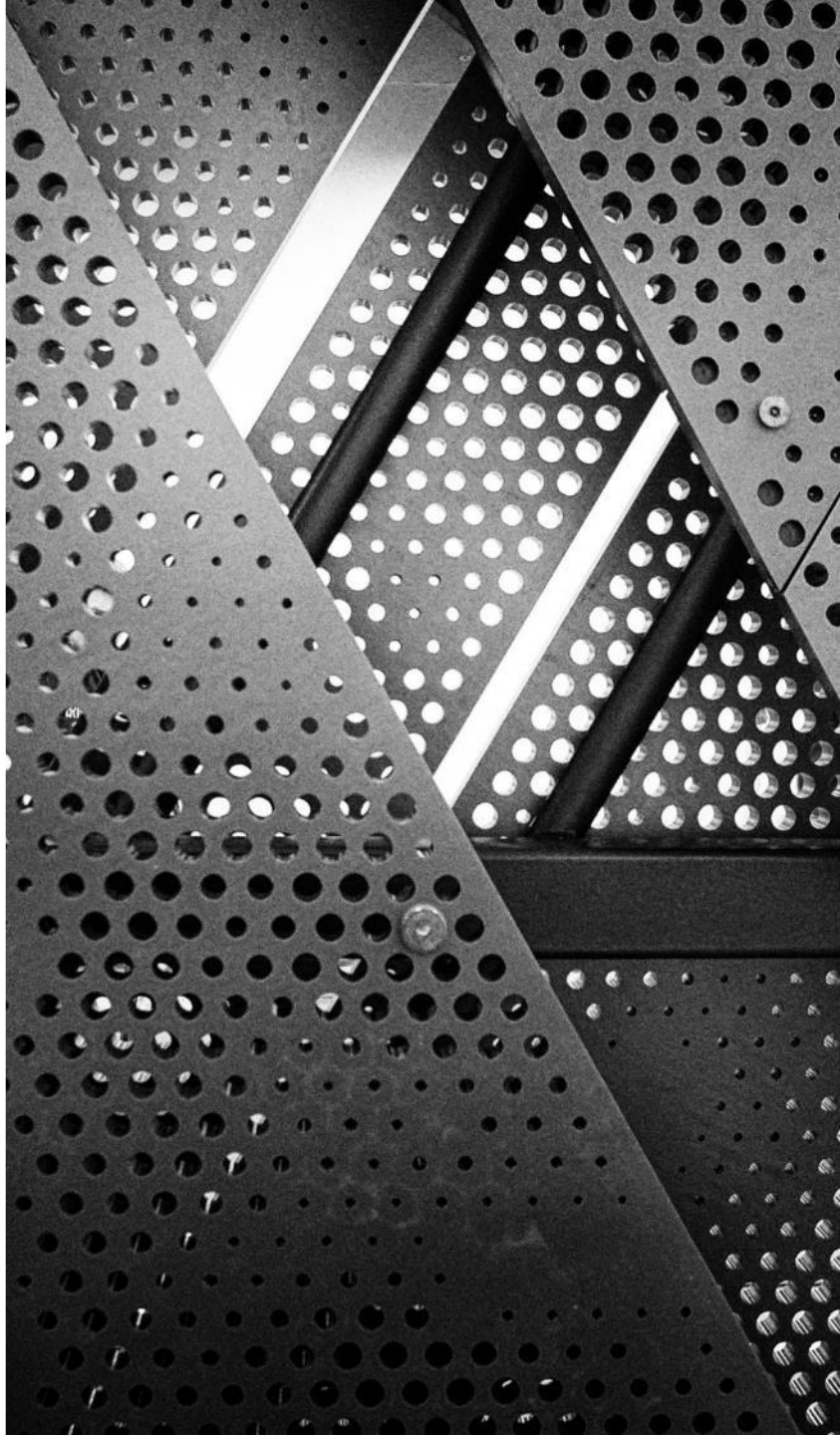


0 Series



CRAFTSMAN
Eternal

DEWALT



THANK YOU