

# BRIDGING THE GAP

Safety and Connection among students, faculty, and staff should be the top priority on a college campus. Although The University of Texas at Arlington prides itself on diverse campus culture, the physical division of Cooper street, with only three spaced-out bridges, presents a conflict.

An ever-expanding campus that grows over time with only small parcels considered and a limited budget sacrifices cohesive solutions. Cooper street dictates these solutions, not the community. It is time to return to our Campus to the students, faculty, and staff and demonstrate The University of Texas Arlington's united community.



SOUTH WEST CORNER

Image: M. Elizabeth Moore

# HISTORY OF UTA & ARLINGTON

In 1876, Arlington settled as a route along the Texas and Pacific Railways. Once known for its cotton ginning and agricultural products, Arlington is primarily an industrial and commercial center with automotive and aerospace industries that developed after 1950. Now, Arlington is also known for its sports centers and entertainment industry.

As the largest university in North Texas and the second largest in The University of Texas System, UTA is found in the heart of Dallas-Fort Worth. In the past 50 years, the University of Texas in Arlington has increased its population five times since 1967.

[https://www.theshorthorn.com/news/past-and-present-cooper-street-concerns/article\\_0b57d9bc-17a0-11e9-9734-a39bc66e0f6a.html](https://www.theshorthorn.com/news/past-and-present-cooper-street-concerns/article_0b57d9bc-17a0-11e9-9734-a39bc66e0f6a.html)

Arlington specifically, the University of Texas in Arlington needs design solutions for its current and future growth, not just bandaids answers covering an ever-growing necessity.

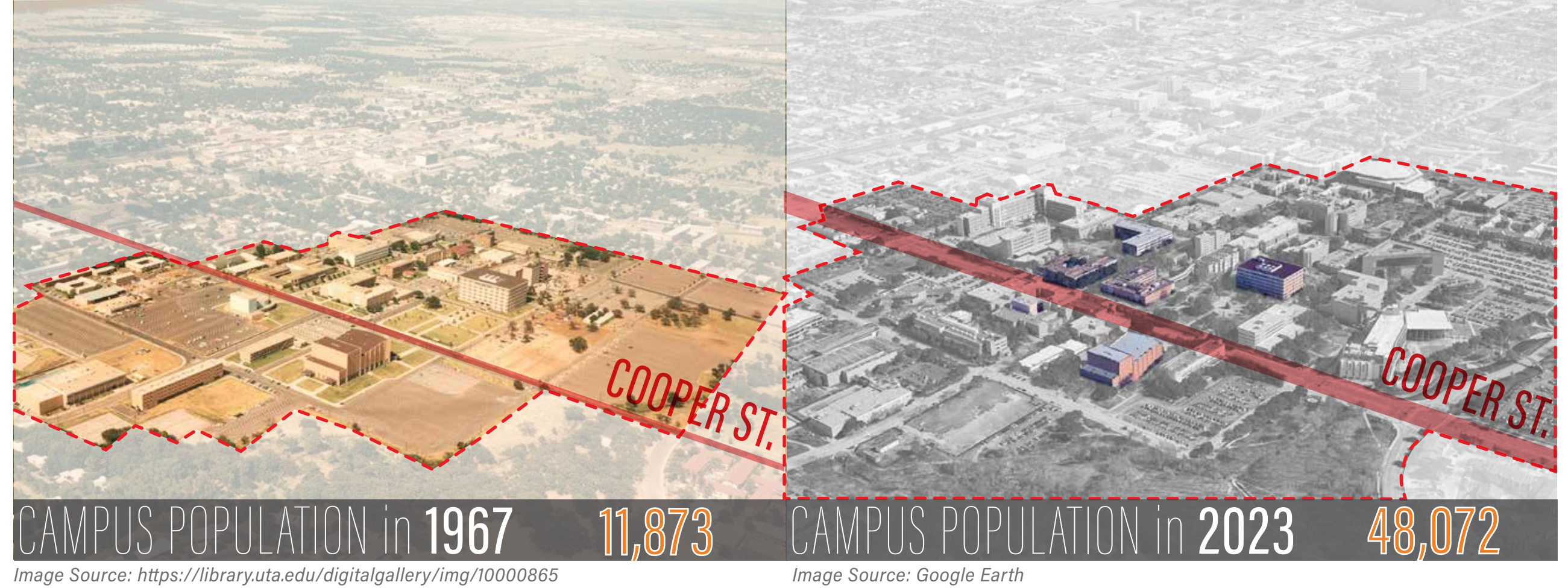


Image Source: <https://library.uta.edu/digitalgallery/img/10000865>

Image Source: Google Earth

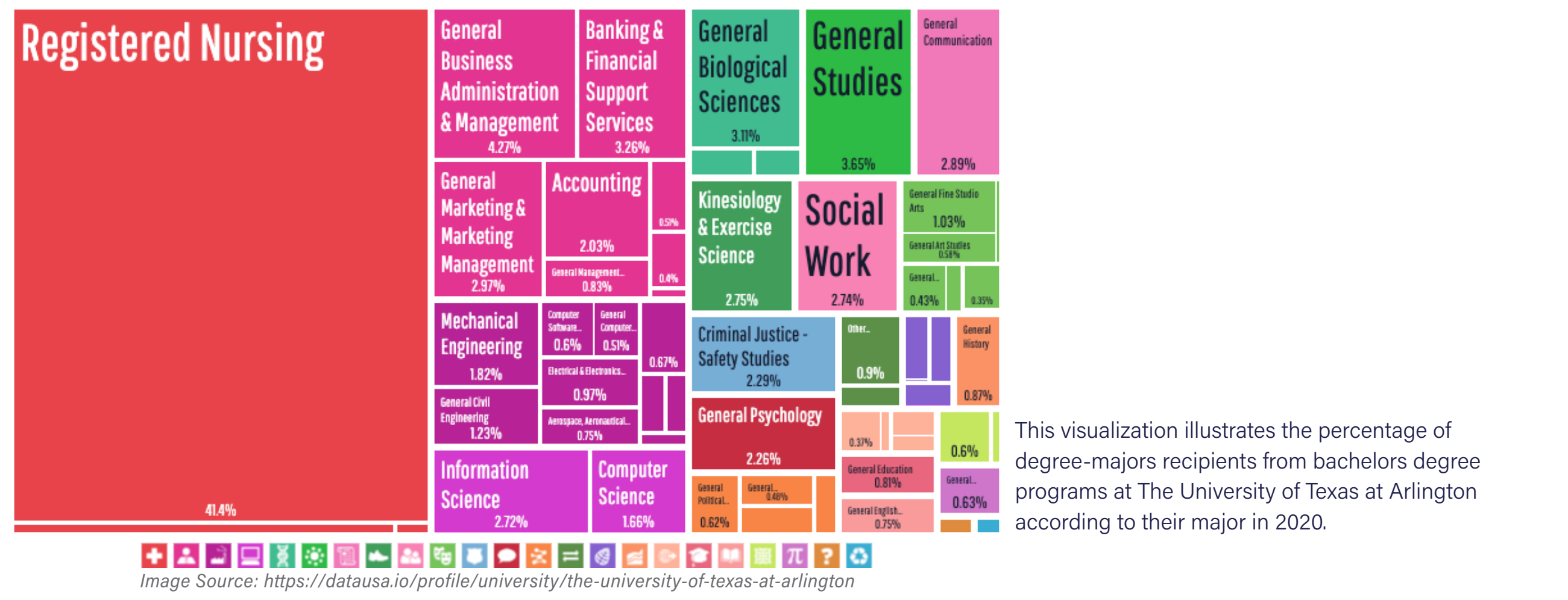
# CAMPUS CULTURE

University of Texas in Arlington embodies a diverse student body, with a Hispanic student body near equal in numbers to the white student body. In addition, UTA holds almost 10 percent international students and 90 percent commuter students from all walks of life.

Arlington, Texas, is no longer a Texas suburb but has grown into a major US city. Arlington is ranked number 50 for most populated cities in the United States and has a current population of 392,786 people. Tampa, Florida (387,050) and Wichita, Kansas (395,699) are similar in size to Arlington, Texas.

Source: <https://www.biggestuscities.com/city/arlington-texas>

UTA is ranked fifth in the nation for campus ethnic diversity, reflecting its long-standing status as home to one of Texas's most diverse undergraduate student populations. Federally designated as both a Hispanic- and an Asian American, Native American, and Pacific Islander-Serving Institution, UTA is a leader in inclusive and equitable programming to support students from diverse backgrounds.



This visualization illustrates the percentage of degree-majors recipients from bachelors degree programs at The University of Texas at Arlington according to their major in 2020.

Image Source: <https://datausa.io/profile/university/the-university-of-texas-at-arlington>

# THE SITE

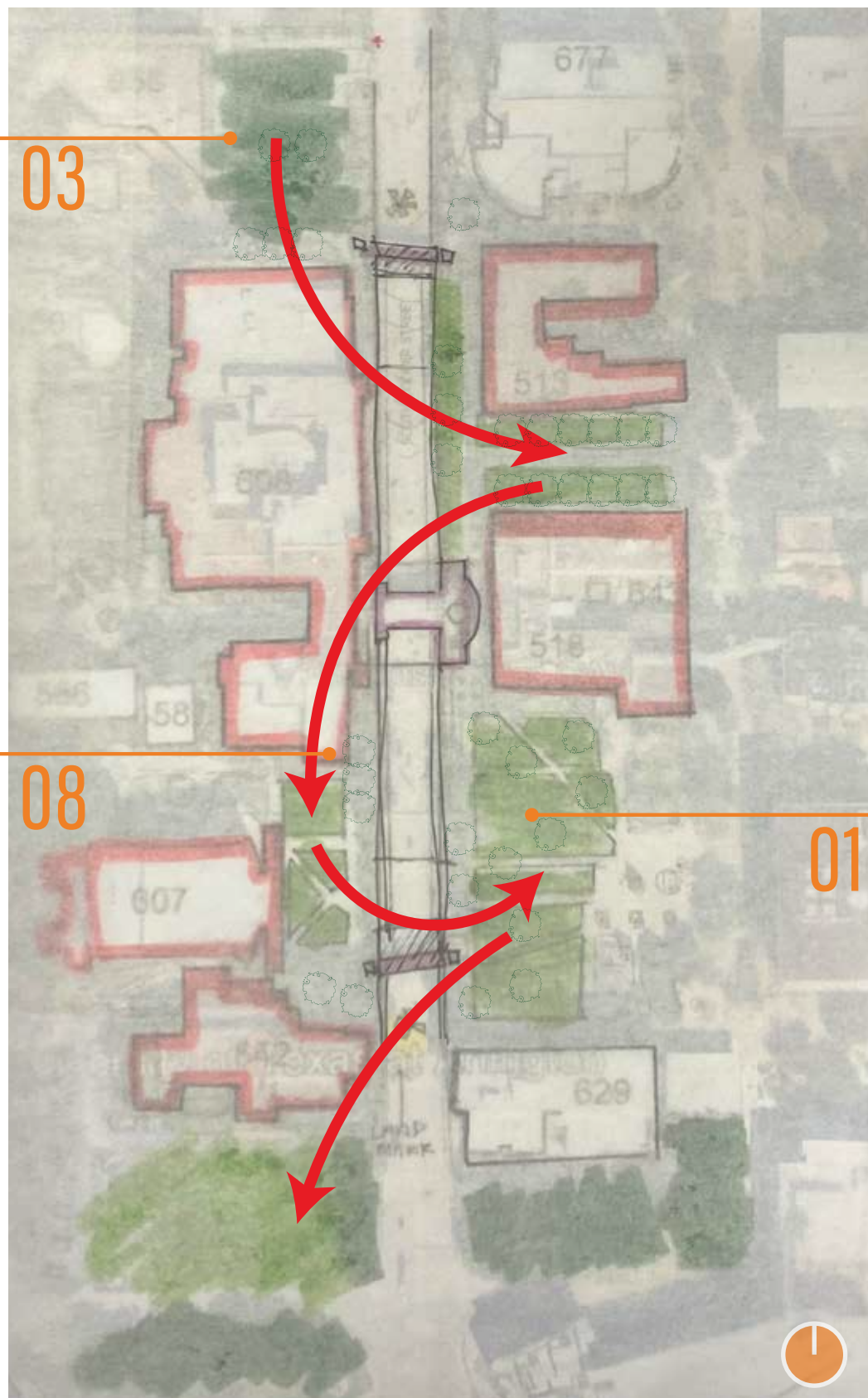
This highway, masking as a 35 MPH suburban road, is a major arterial for Arlington. This North-to-South ravine cuts right through the heart of the University of Texas in Arlington, dividing East and West Campus, the science from the arts, reducing safety and increasing noise pollution.

Although the West-to-East circulation routes need to be reworked, some conditions must be preserved. The beautiful 50-year-old trees need protection and preservation. In addition, the visual view across Campus from West to East must be maintained. It is crucial not to create a visual barrier while trying to fix a physical barrier.

# CONCEPT & APPROACH

03 Potential Green Pockets for rerouting pedestrian and biking circulation.

08 50-year old trees that need to be preserved from construction.



Drawing: Patricia Cerda

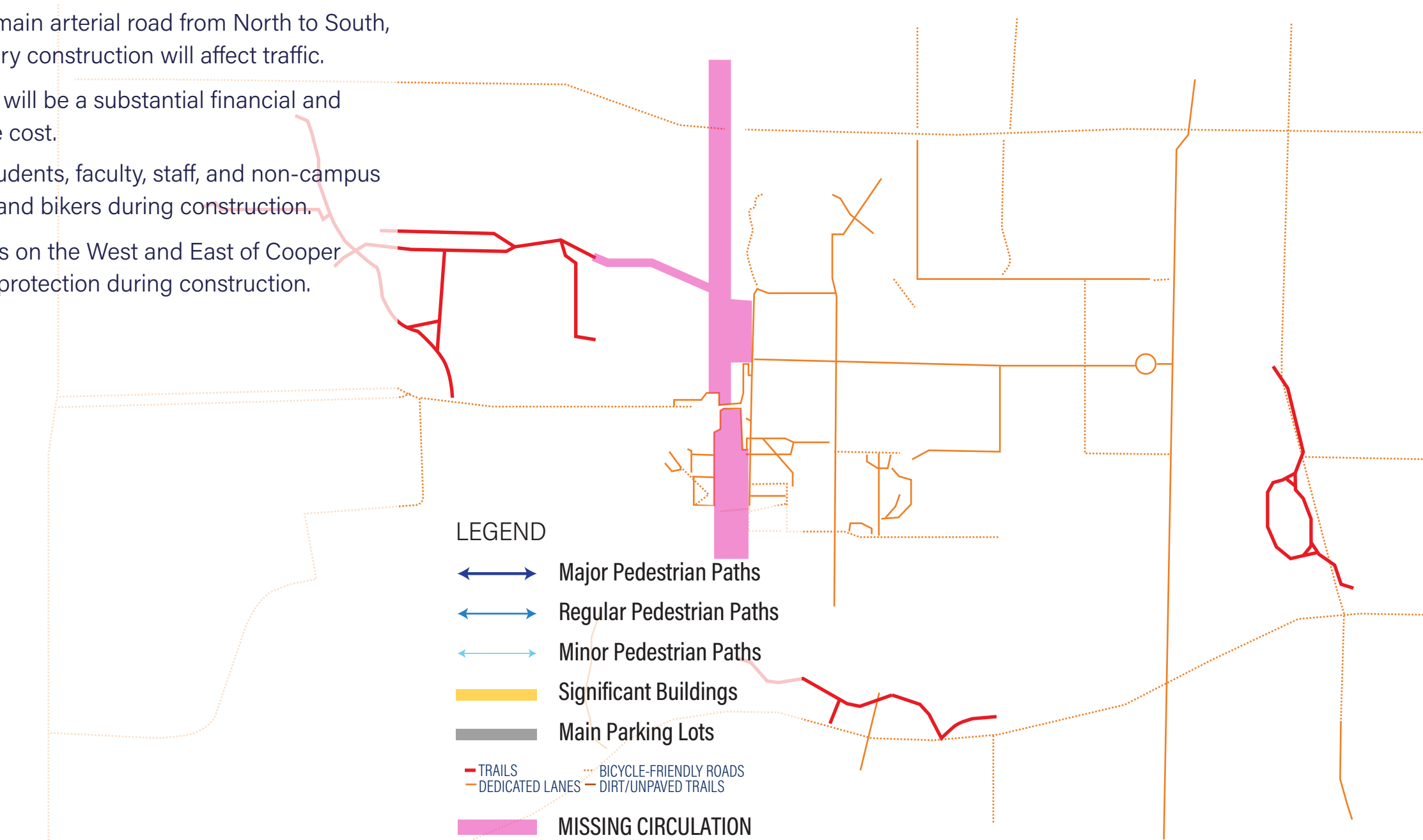
# OPPORTUNITIES

- 01 Chance to unite West and East campus to feel like one united Campus.
- 02 Expand community space for students, faculty, and staff, as well as the Arlington residence.
- 03 Safely reroute pedestrians and bikers away from Cooper Street.
- 04 Increase safety and decrease noise pollution, contributing to better health for the community.

# CONSTRAINTS

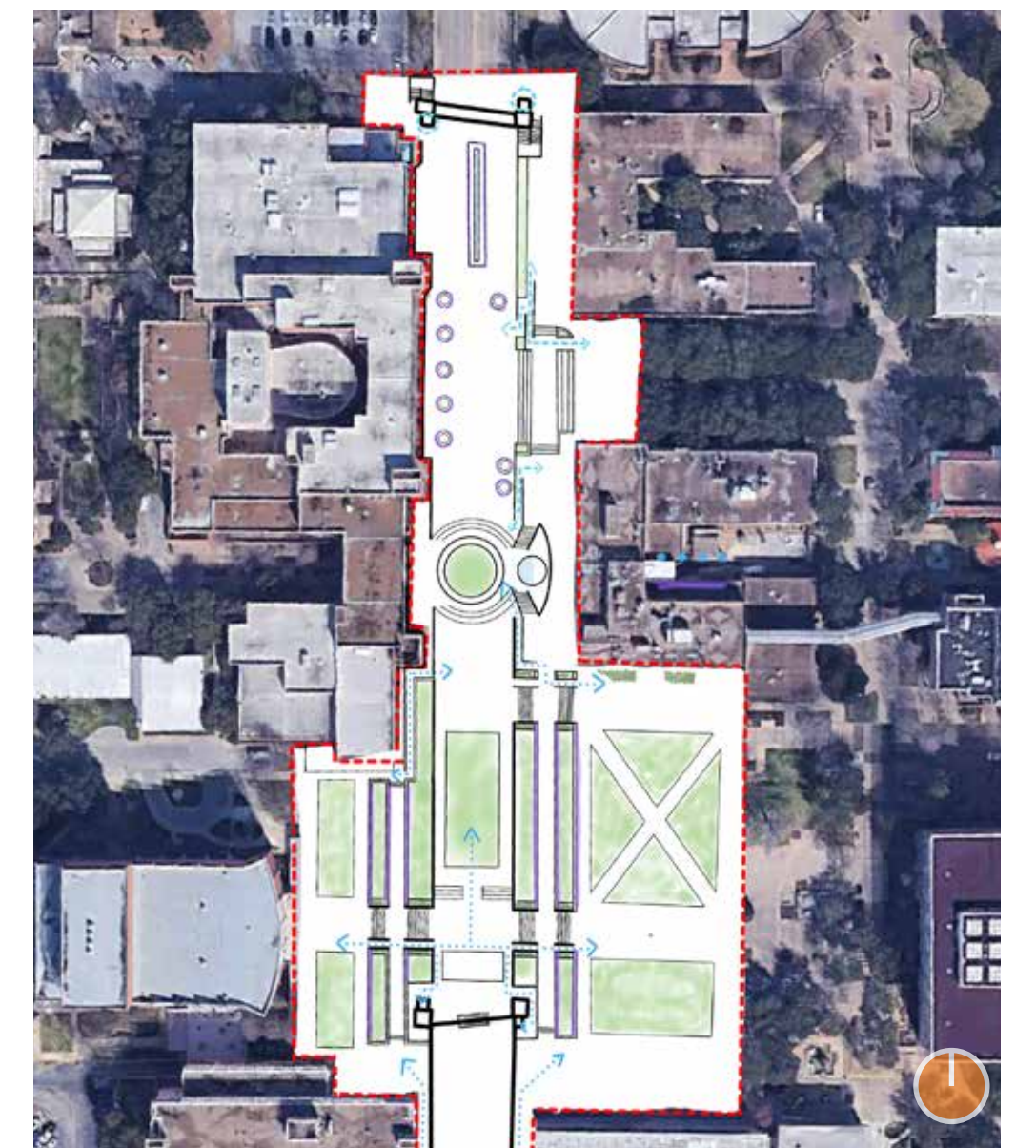
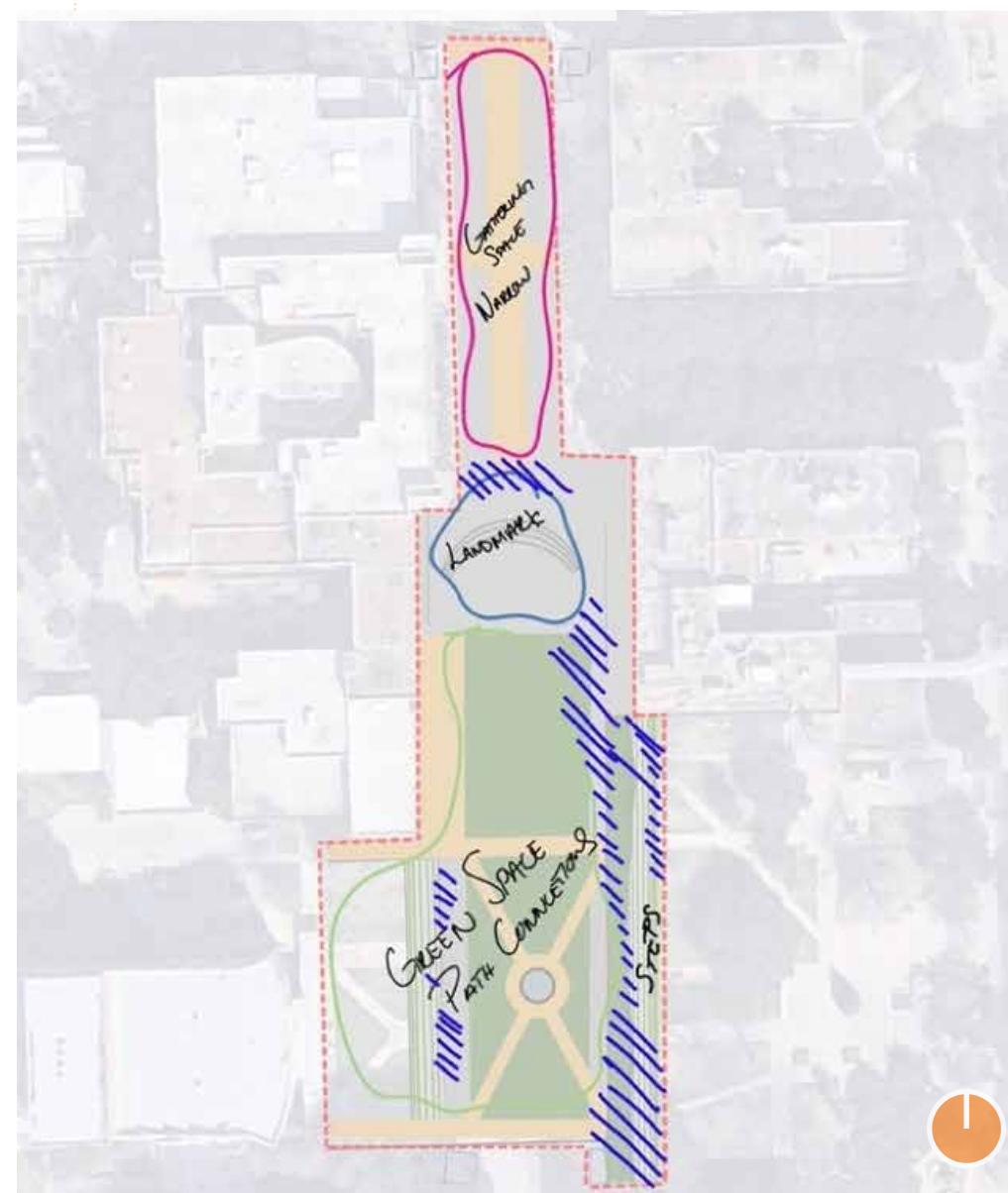
- 05 Cooper is a main arterial road from North to South, and temporary construction will affect traffic.
- 06 Any solution will be a substantial financial and maintenance cost.
- 07 Rerouting students, faculty, staff, and non-campus pedestrians and bikers during construction.
- 08 Existing trees on the West and East of Cooper Street need protection during construction.

# CURRENT BIKING & PEDESTRIAN CIRCULATION



### LEGEND

- Major Pedestrian Paths
- Regular Pedestrian Paths
- Minor Pedestrian Paths
- Significant Buildings
- Main Parking Lots
- TRAILS
- DEDICATED LANES
- BICYCLE-FRIENDLY ROADS
- DIRT/UNPAVED TRAILS
- MISSING CIRCULATION



Drawing: Alexander Arceo



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ALEXANDER ARCEO  
AMANDA NGUYEN  
LEKAMMUN WOODS  
M. ELIZABETH MOORE  
PATRICIA CERDA

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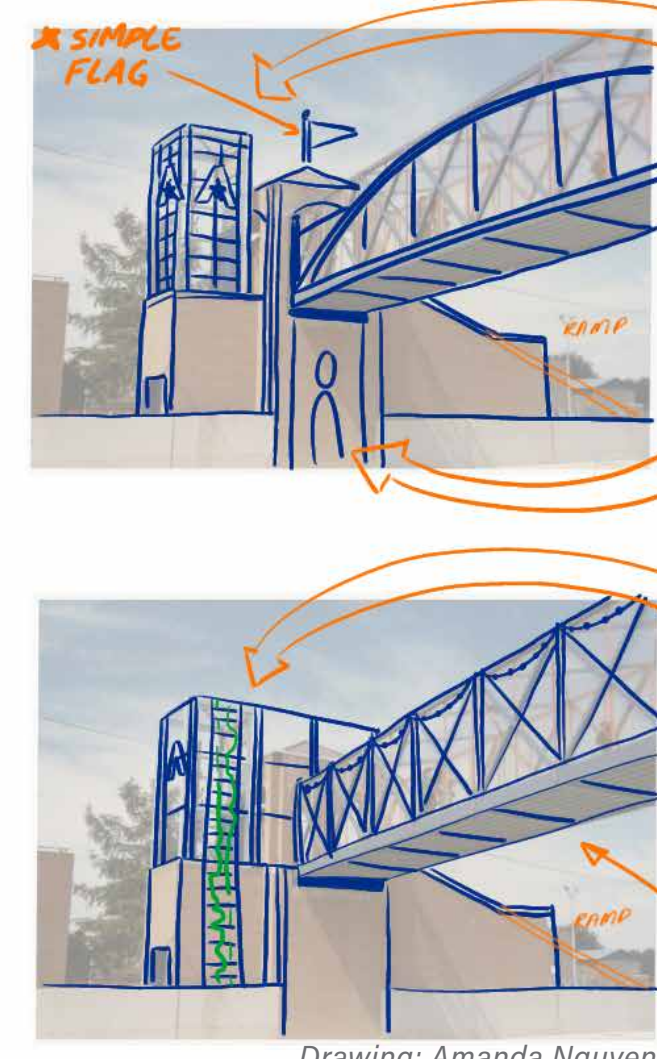
# PHASE 1 2.5MILLION 1YR

An advertisement of what is to come and establish Green Pockets

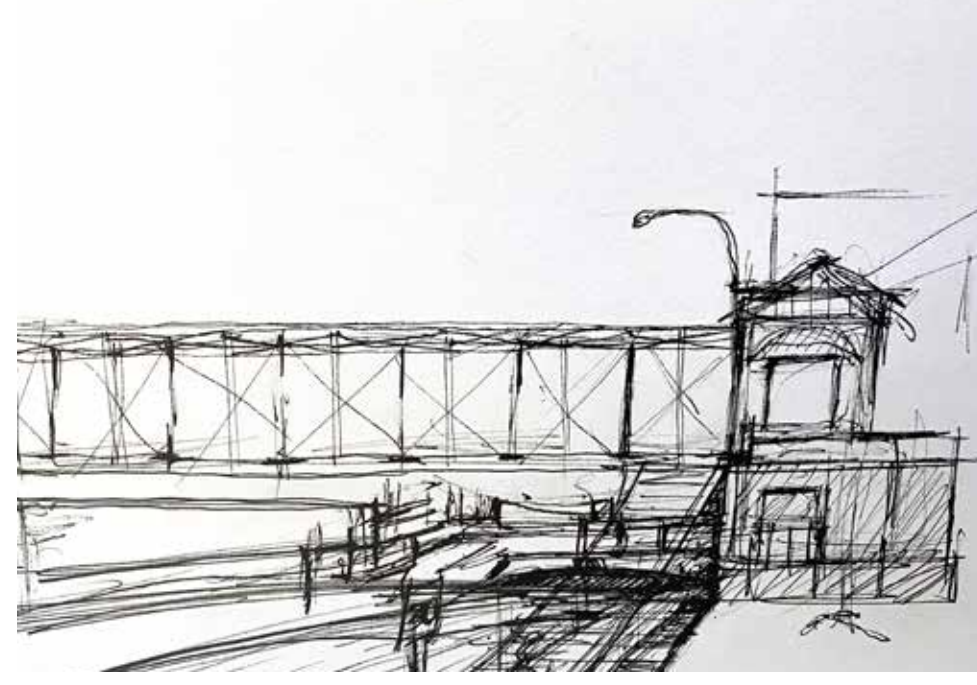
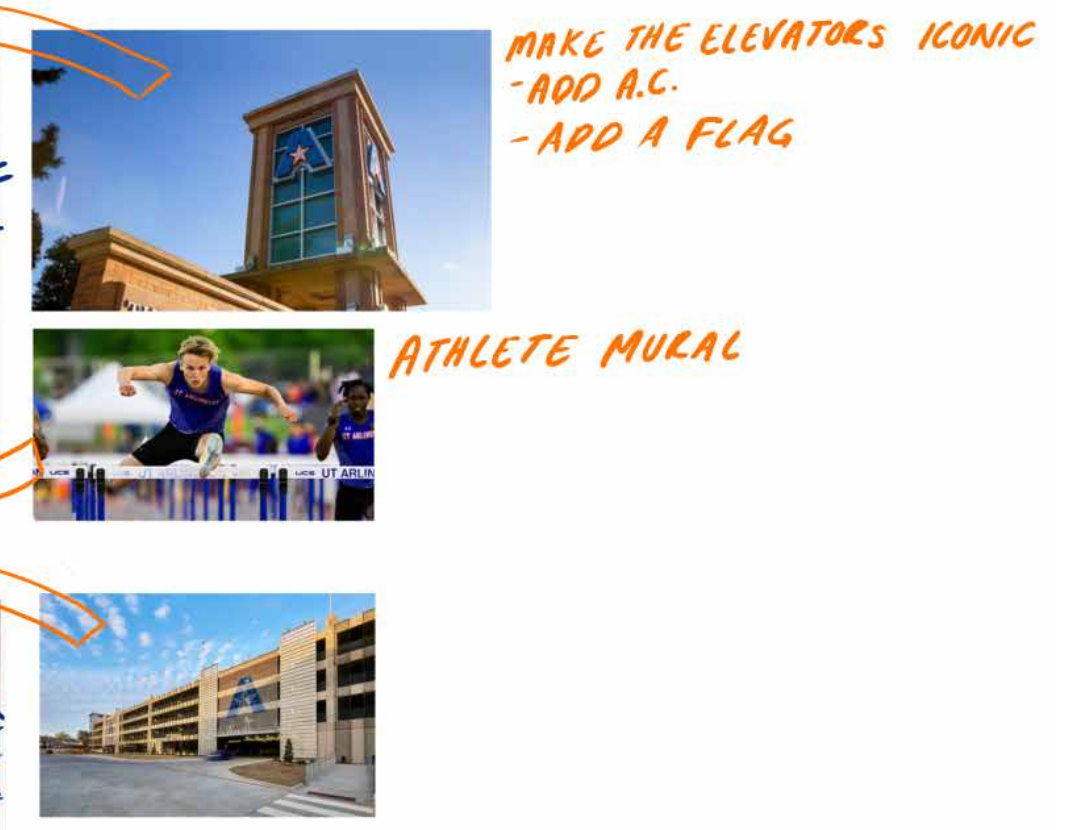
- 01 Update North and South Bridge materials with sustainable materials planned for future phases.
- 02 Lightweight CNC and Vinyl branding for all Elevators and replace lighting on bridge walkway.
- 03 Identify and cultivate green pockets for future development.
- 04 Student and Arlington community collaborate on mural design and execution on retaining walls.
- 05 Signage advertising for other phases of the project - banners showing future development.
- 06 Events to raise money for future development with the city and university engagement.



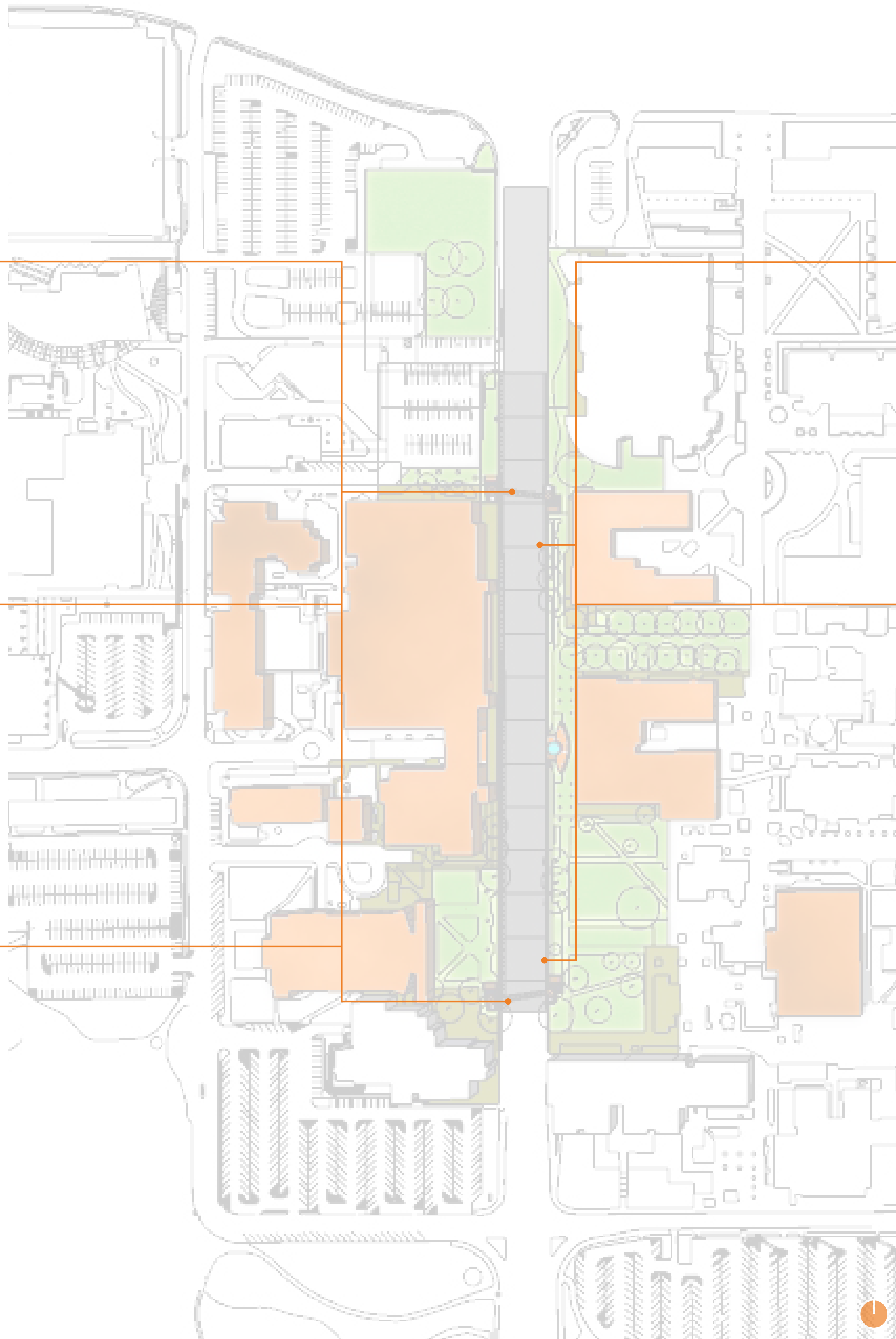
Image: M. Elizabeth Moore



Drawing: Amanda Nguyen

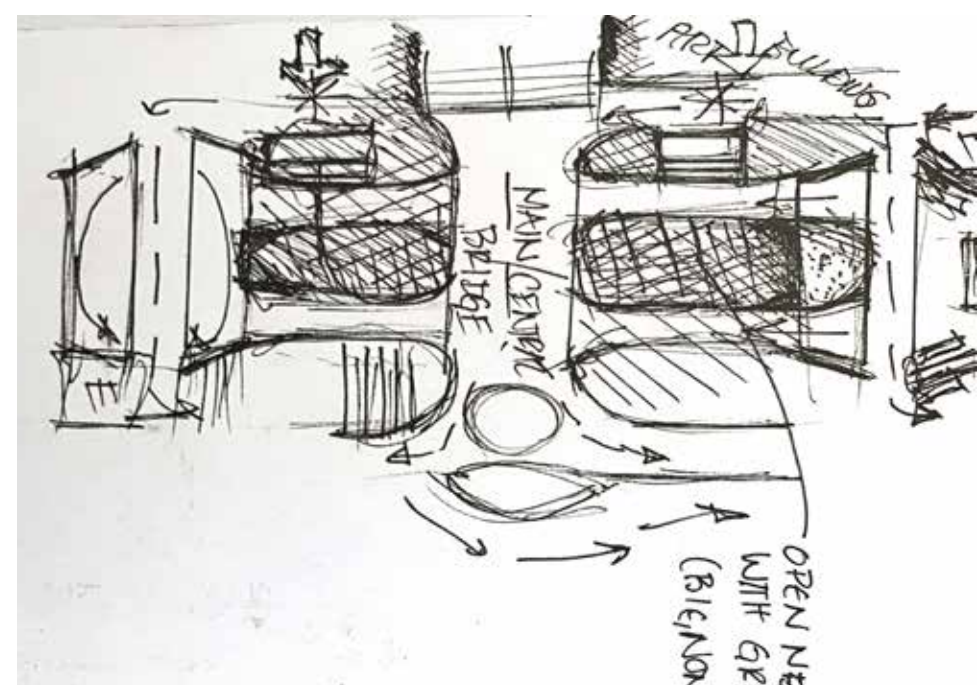


Sketch: M. Elizabeth Moore



## GREEN SPACE PLAN

- 01 Update North and South Bridge materials with sustainable materials planned for future phases.



- 02 Lightweight CNC and Vinyl branding for all Elevators and replace lighting on bridge walkway.



- 03 Solar Pergola on elevator outside ceiling and shade structure. Bridge ceiling, self-supported.



- 05 The basic raw materials for Vinyl are natural gas, saltwater and air. Vinyl is 100 percent recyclable, so natural resources can be further conserved by recycling Vinyl scrap.



www.ucdavis.edu

- 04 Mural design at UC Davis. California about diversity and Inclusion.



elmhurst.edu/academics/departments/art/faculty/rafael-blanco

- 04 Color Isn't Race by Rafael Blanco, Art Department at Elmhurst University in Illinois.



- 04 Mural under Deck reference.



- 04 Mural under Deck reference.



- 01 Plexiglass



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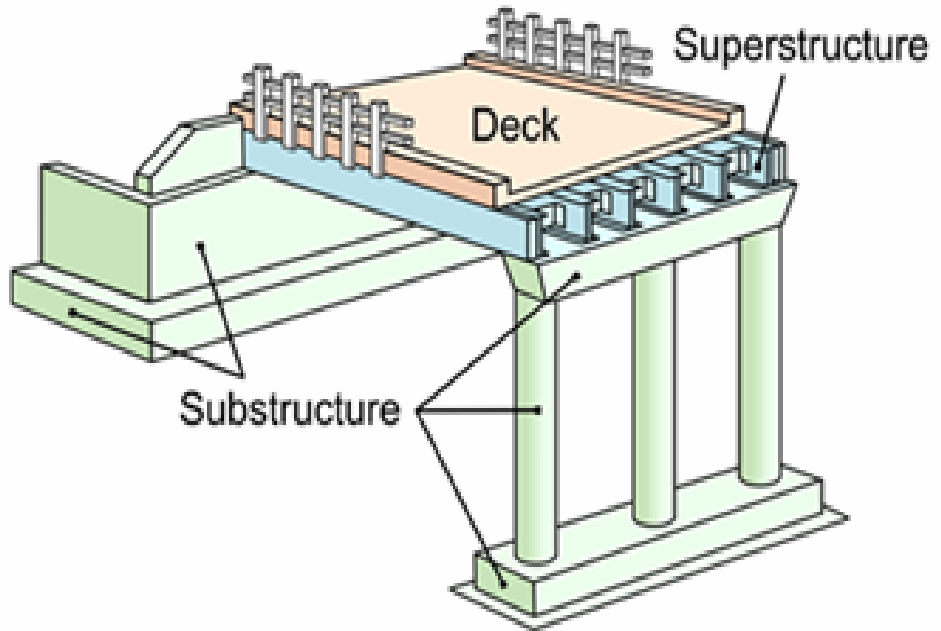
**PHASE 2** 25MILLION 2YRS

Reroute pedestrian traffic off cooper street and prepare foundation.

- 01 Construction of pedestrian and bike routes with temporary outer lane closure (1st West, 2nd East)
- 02 Eliminate sidewalks on Cooper Street level, and use 10' in center for Deck Foundation.
- 03 Deck foundation follows existing road topography and minimal alteration retaining wall.
- 04 Continue to develop Green Pockets and construct terracing on the West and East sides.
- 05 Sustainable deck construction off-site, designed for vegetation growth and stormwater retention.



OVERALL NORTH TO SOUTH



<https://www.shortspansteelbridges.org/open-grid-decks/>

- 01 Prefabricated deck systems are a commonly used applications of modular bridge technology.



VIEW TO NORTH



- 04 Terracing from West (Texas Hall) to East (Main Library).



- 02 2nd street and 3rd street tunnel in Los Angeles, California



VIEW TO SOUTH



- 03 Land bridge project could transform University of Memphis area - 33 Million; Haizlip Studio



- 04 Klyde Warren Park, Dallas, TX: 5.2-acre park spanning over the Woodall Rodgers Freeway.



VIEW TO EAST

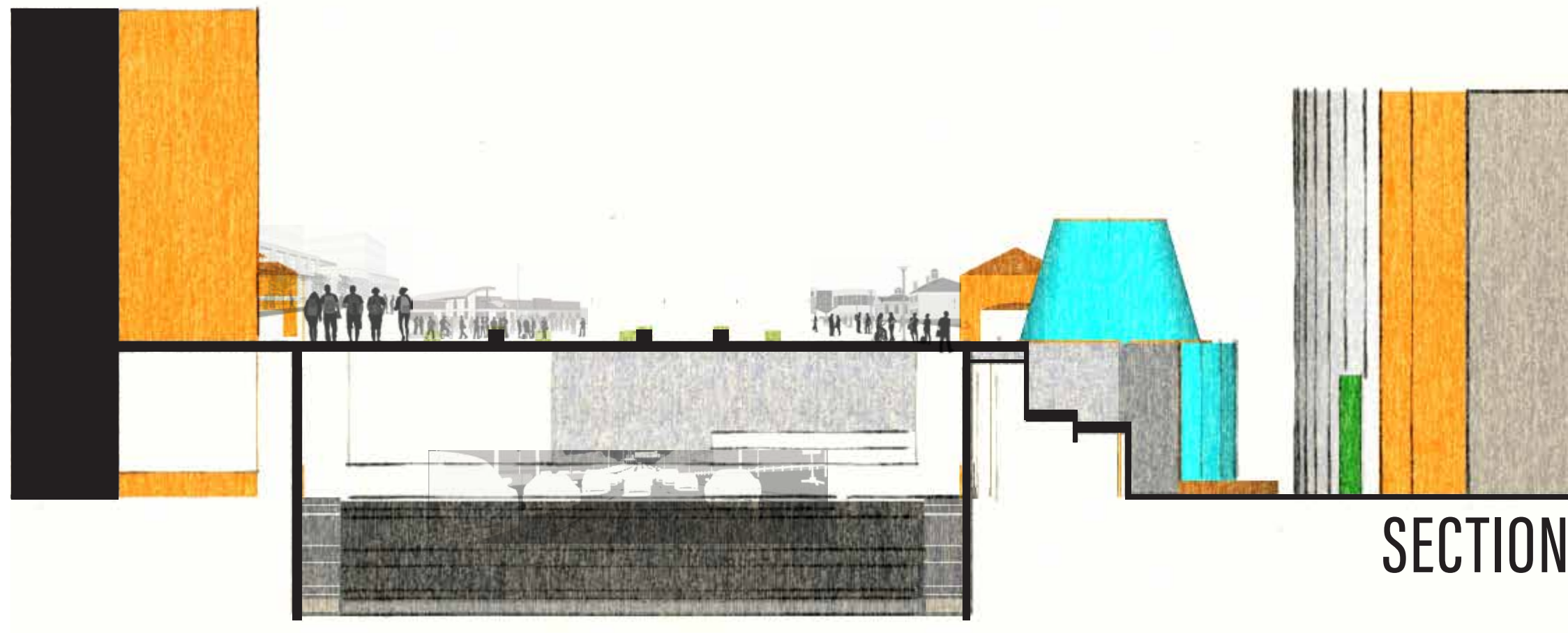


- 03 Rutgers University bridge would connect campuses as park suspended over Raritan River.

# PHASE 3 10MILLION 3YRS

Install deck platform and establish social spaces and vegetation.

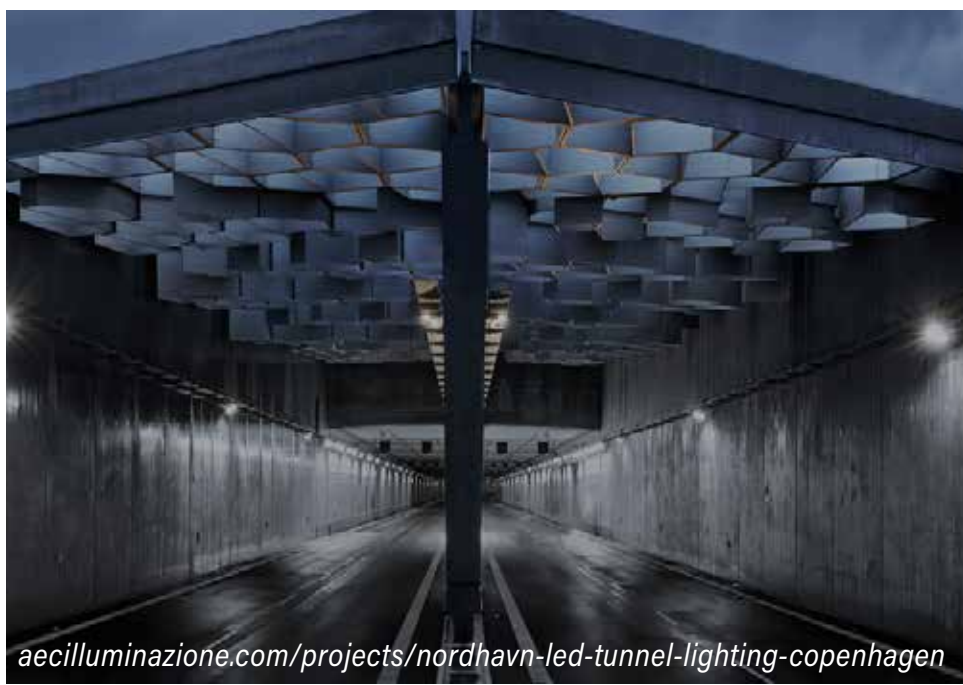
- 01 Off-site deck sections installed. Cooper rerouted, but for the most minimal time possible.
- 02 Outside furnishing, ornamental planting, shade structures and sustainable lighting system.
- 03 Student competitions and community engagement on uses for social spaces.
- 04 Deck rented out for events to all of the DFW areas for future revenue for Campus.



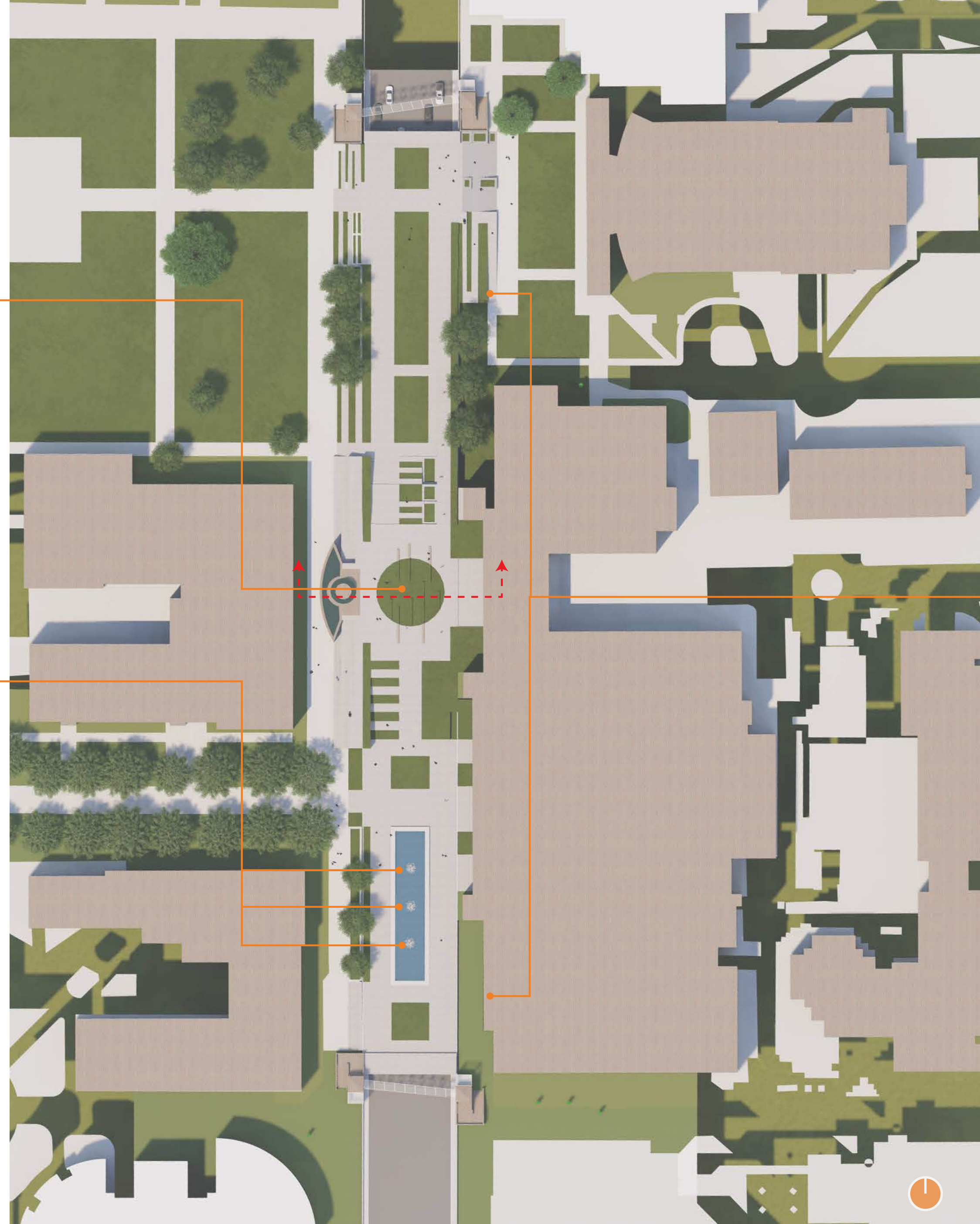
02 Shade structure from UTD by PWP Landscape Architecture Firm.



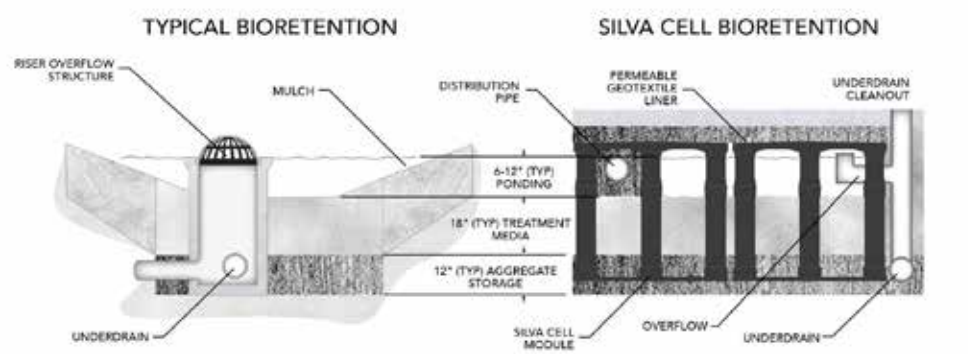
02 Sun tube lights for under Deck. Provides safety and sustainable light solution.



02 High performance LED Floodlights for greater energy savings. More security, visual comfort.



MASTER PLAN



<https://www.deeroot.com/wp-content/uploads/stories/2020/12/SilvaCell>

02 The Silva Cell is a modular suspended pavement system that uses soil volumes to support large tree growth and provide powerful on-site stormwater management through absorption, and interception.



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