WELCOME

CSU Master Plan (MPC) Committee Meeting

September 11, 2019

Colorado State University

Today’s Agenda

1. **Safety, Access, and Mobility Infrastructure Planning - Part 1 (Context, Streets, Parking) – *Informational*** *(Fred Haberecht)*

2. **University Ave. Streetscape Improvements at Shepardson – *Request to Approve*** *(F. Haberecht and David Hansen)*

Safety, Access, and Mobility Infrastructure Planning (Main Campus)

Part 1: Context, Streets and Parking

Part 2: Pedestrians, Bicycles and Transit

Part 3: Areas of Concern

Why Now

Over the last few decades, CSU has created a safer and more accessible campus that entices our campus community to stay on campus.

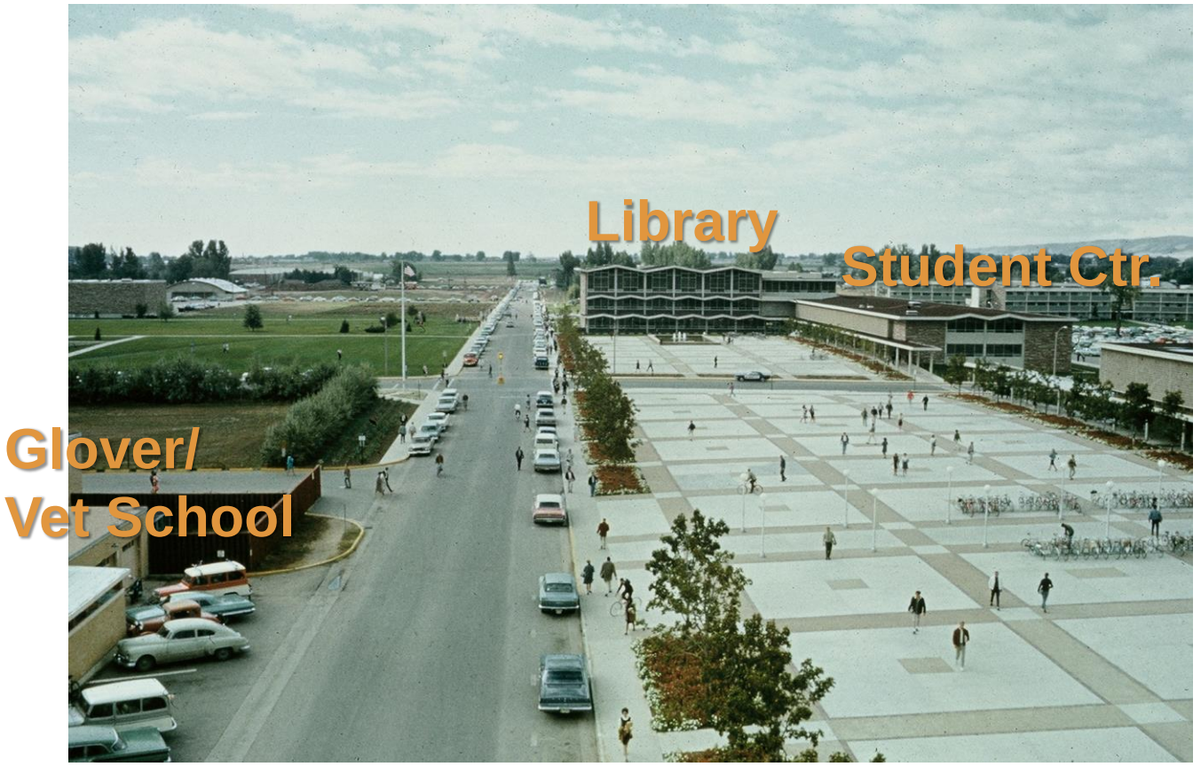
Our multi-modal systems are being tested and some facilities are beyond their capacity. As the university and the City of Fort Collins continue to grow, planning decisions made now have the potential to enhance a safe, accessible and sustainable system.

What We've Done

We followed the Campus Master Plan by:

- Implementing 3 pedestrian & bicycle underpasses
- Creating pedestrian & bicycle-focused infrastructure around and on campus
  - *In 1998, campus had no dedicated bike paths*
  - *Today we have over 7 miles of bike paths, 9 miles of bike lanes and/or routes and over 18,000 bike parking spaces*
  - *Created separated bikeways including the Braiden Bikeway and the bike path in the Science Quad ("Campus Loop – Prairie Side")*
- Moving parking to the campus perimeter
- Closing streets
- Separating the student housing zone from "academic core"

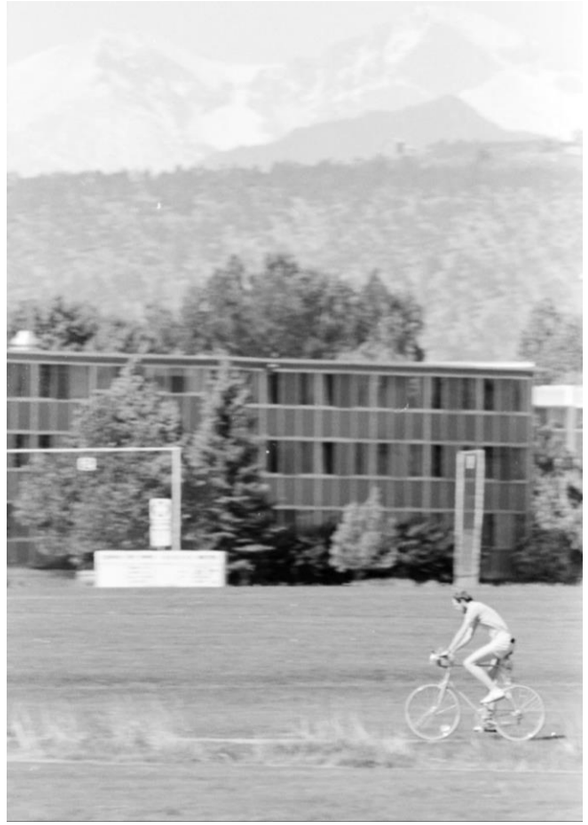
What We've Done



Parking along Center Avenue looking south

Parking at the perimeter of campus, College Avenue Parking Garage

What We've Done



Bike paths that started as "cow paths"

Credit: CSU Archives

Shields Street pedestrian and bicycle underpass

What We've Done

Intersection of Center Avenue and University Avenue

Credit: CSU Archives

Signalized intersection for bicycles and pedestrians, south of Pitkin and Shields

What We've Done

Buses and vehicles on Center Avenue looking at MRB, just past Lake Street, 2005

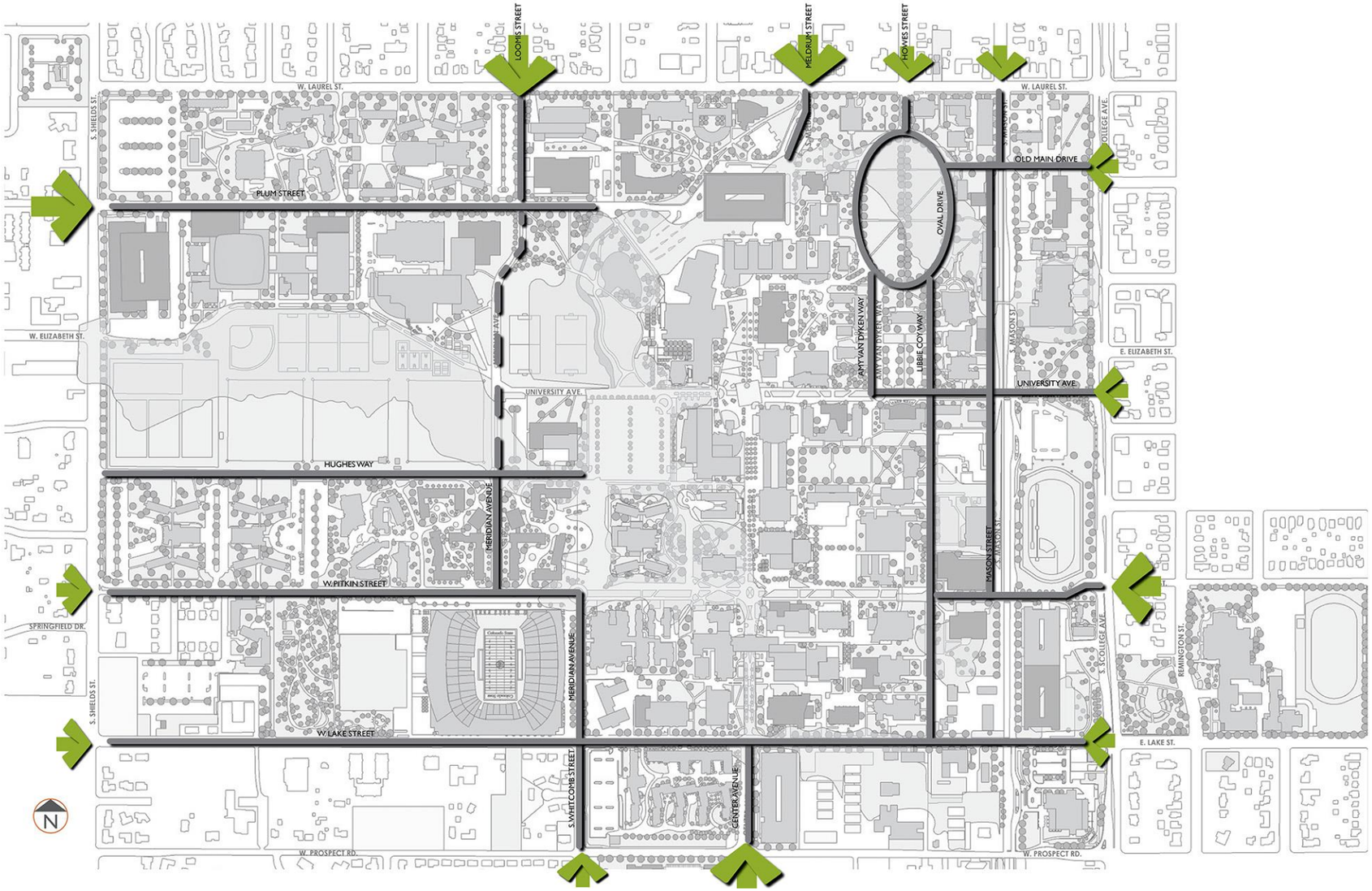
Dedicated guideway for MAX bus rapid transit, 2016

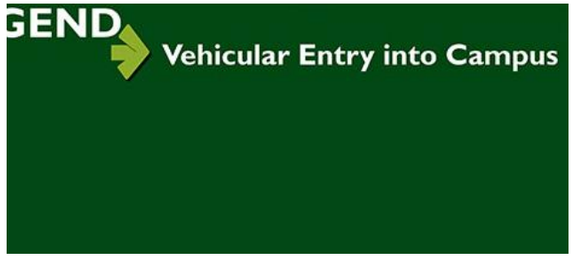
What We've Done

Braiden Drive as a vehicular street, 2008

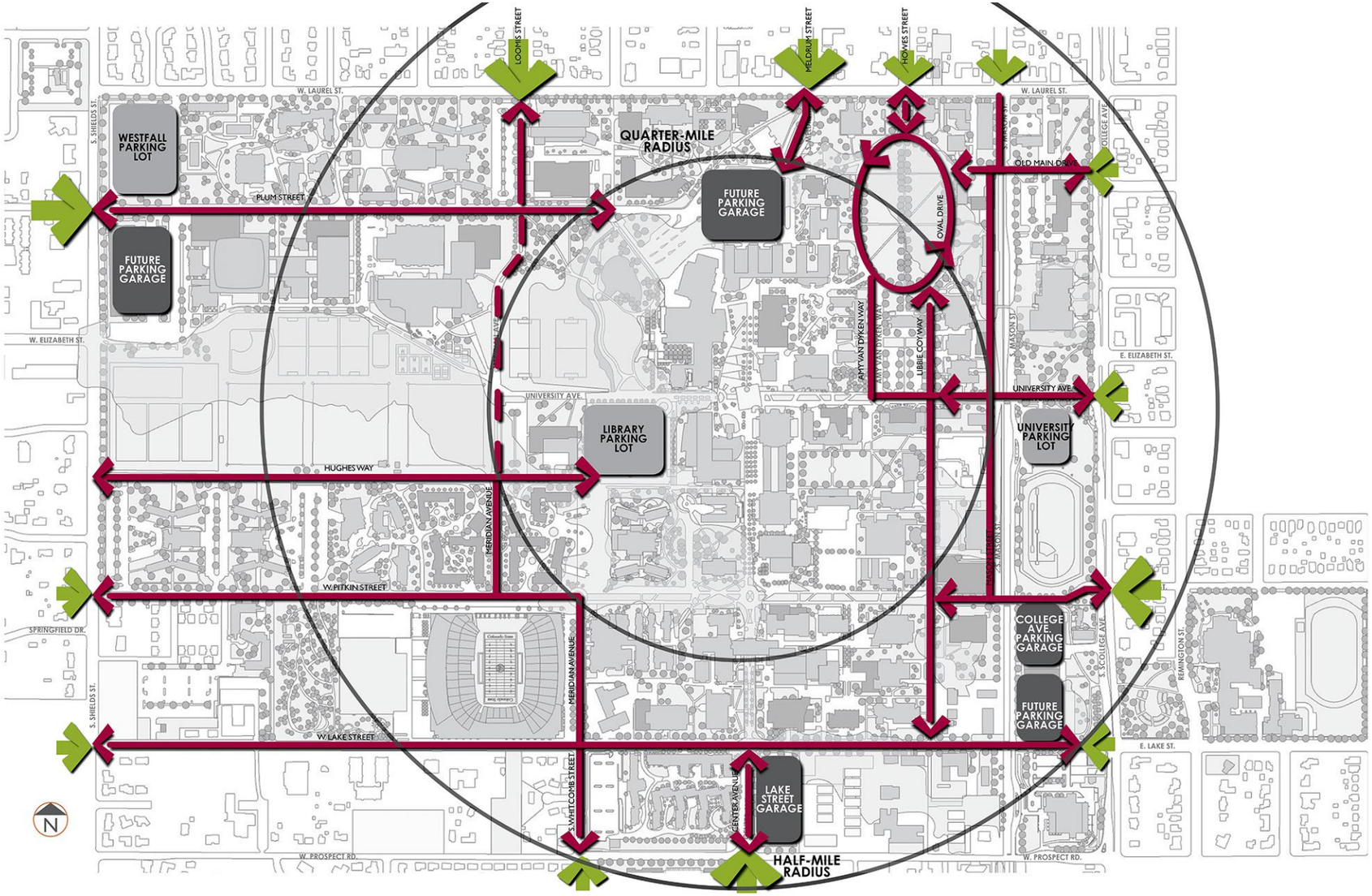
Braiden Bikeway, 2017

Context: Entries into Campus





Context: Streets & Parking



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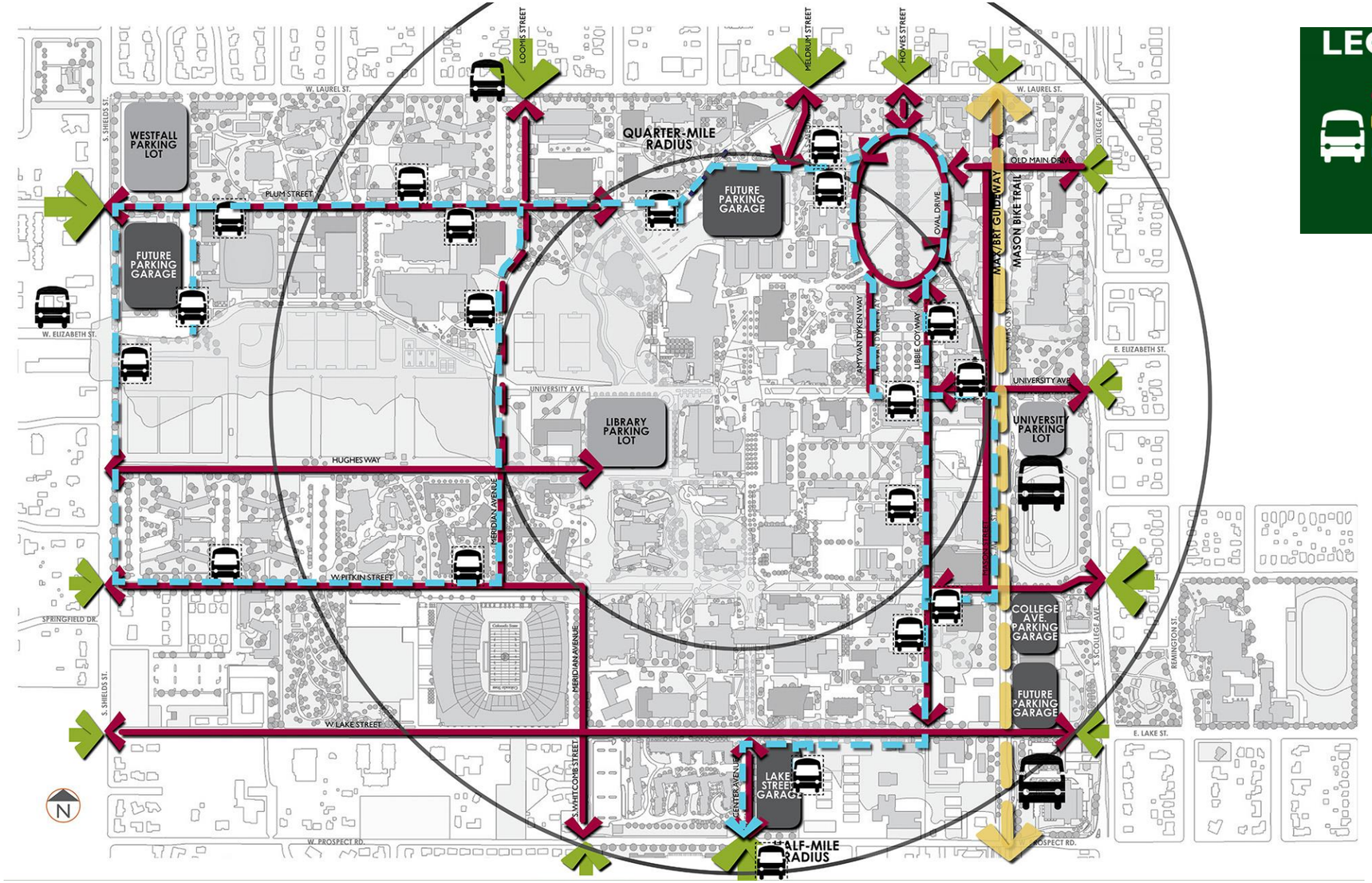
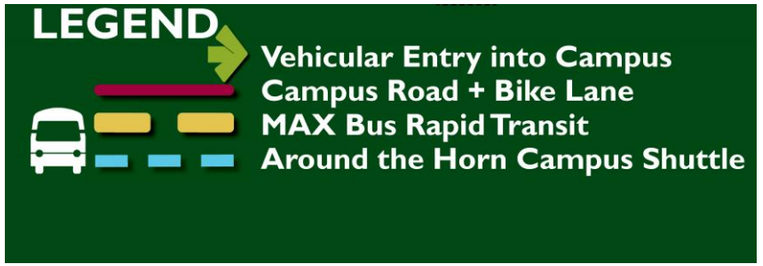
Vehicular Entry into Campus

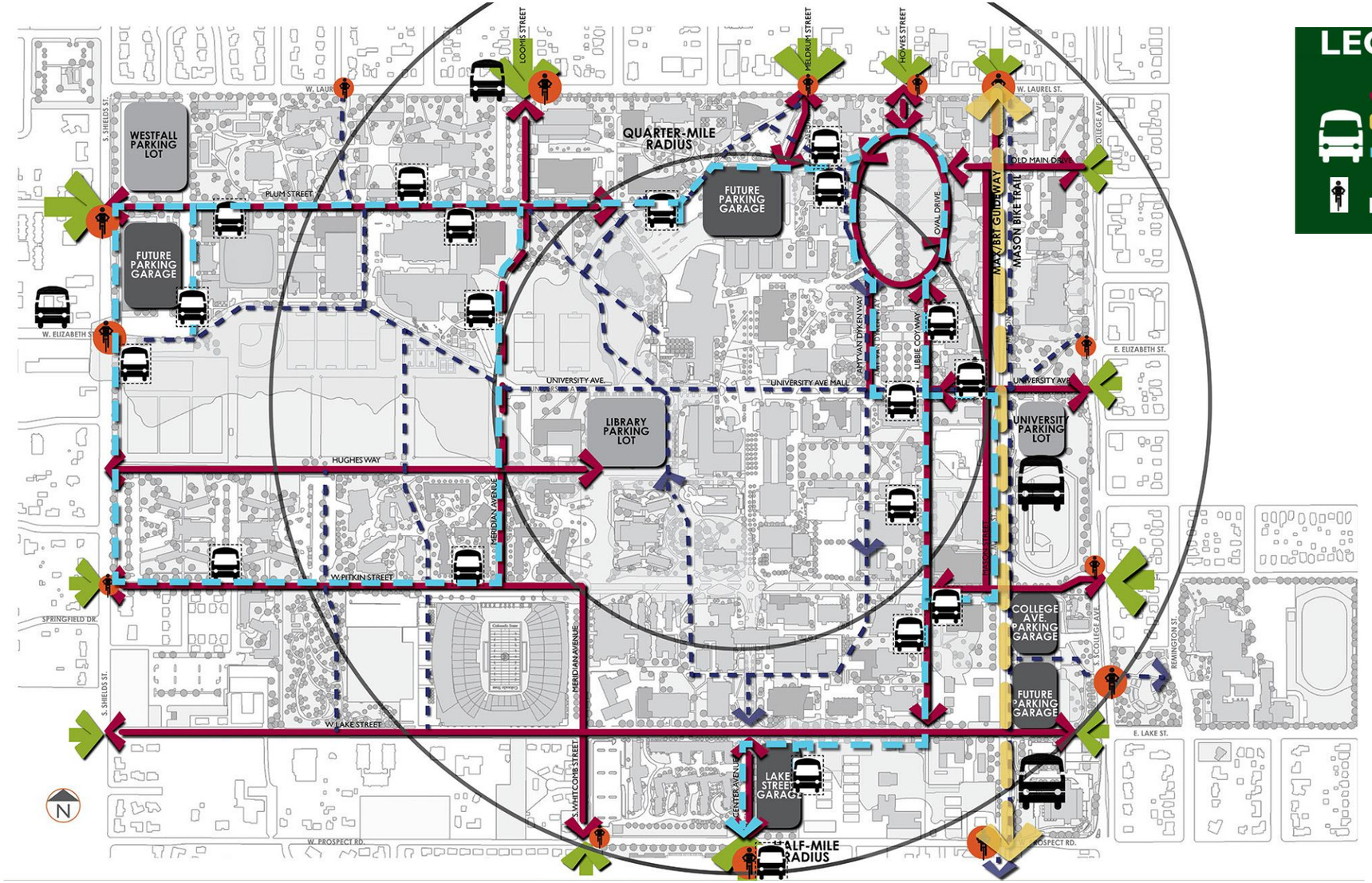
Campus Road + Bike Lane

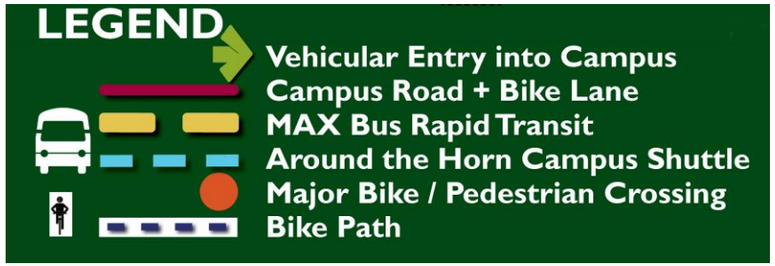
Context: Campus Transit



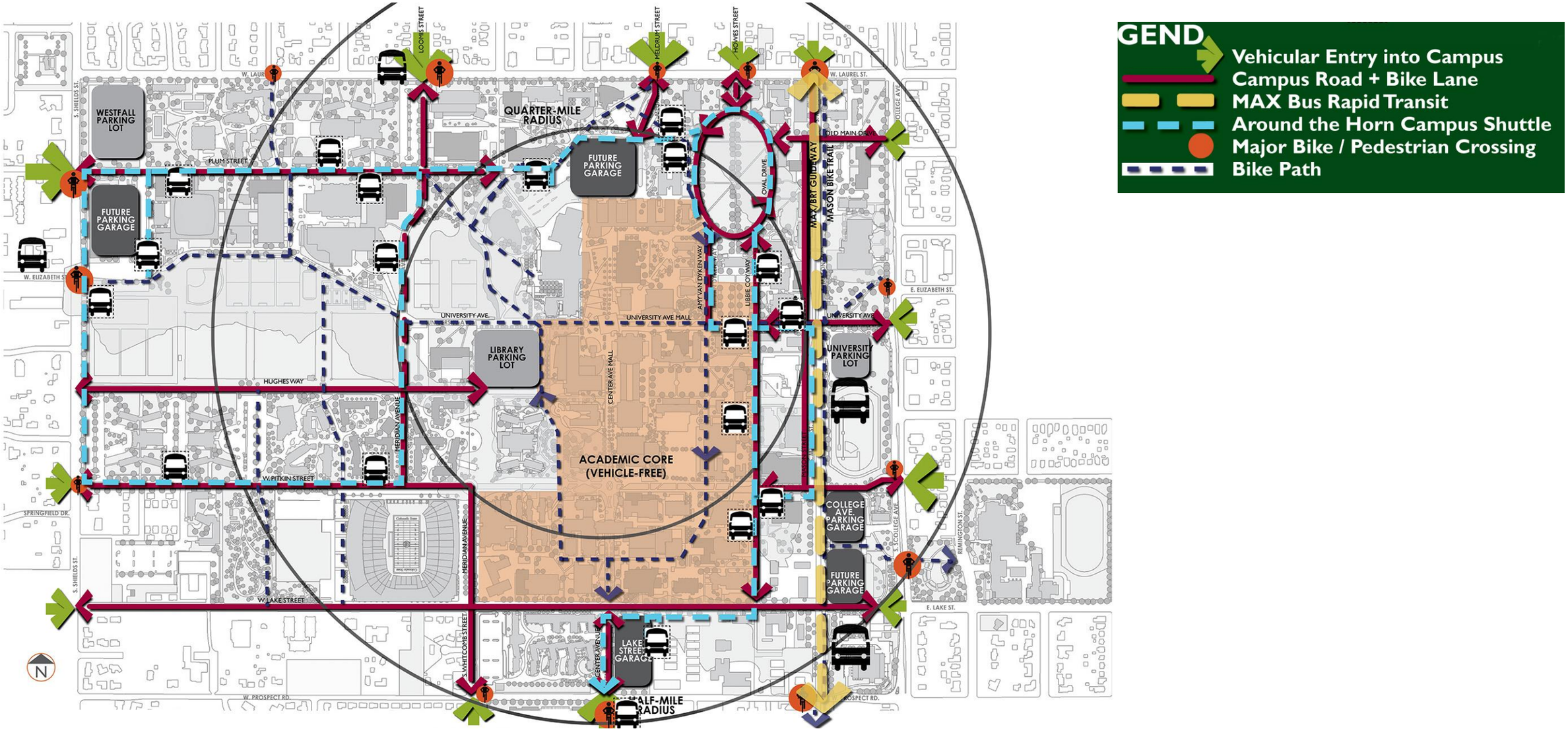


Context: Bicycles





Context: Pedestrians & the Vehicle-Free “Core”



Context

The campus plan is a distributed pattern of daily bike and vehicular trips supported in multi-modal approach on the four sides of Main Campus.

This results in a “hub and spoke framework” where the academic core is free of parking and vehicular movement.

- Streets feed in from the edges
- Vehicular parking is associated with outer core of campus
- Transit network in and around campus
- CSU bike network connects with City bike network
- The “academic core” of campus is largely vehicle-free: Emphasis on pedestrians
- Bike parking is associated with the inner core of campus

Impacts of Growth on and Around Campus

Student population has increased 18% since 2009

Transit ridership has tripled since 2005

Impacts of Growth on and Around Campus

Increased density around the campus

Parking in neighborhoods has been substantially limited

Impacts of Growth on and Around Campus

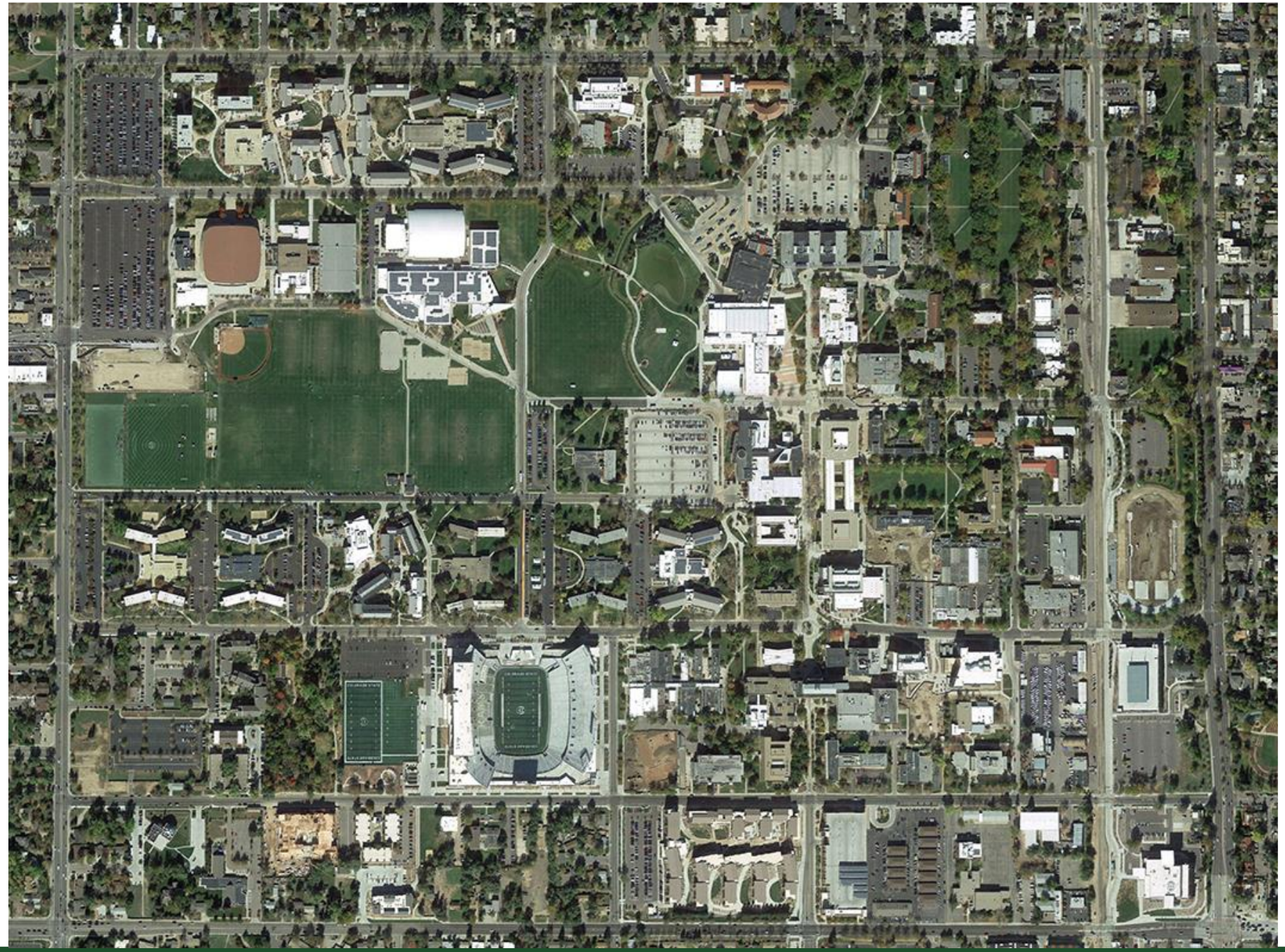
More buildings along the academic spine

Impacts from an on-campus stadium

Campus Planning Criteria

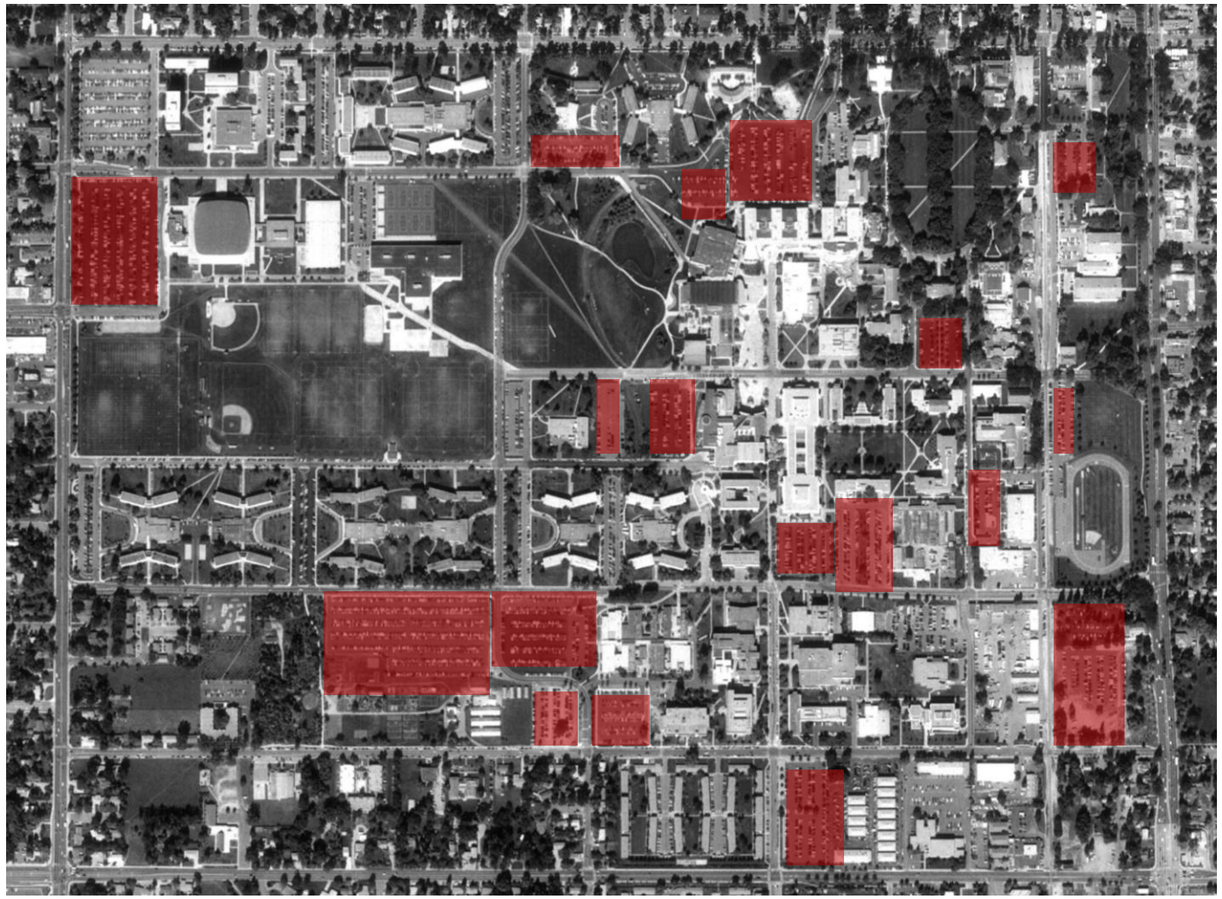
- **Safety**
- **Access**
- **Sustainability**

Campus Today



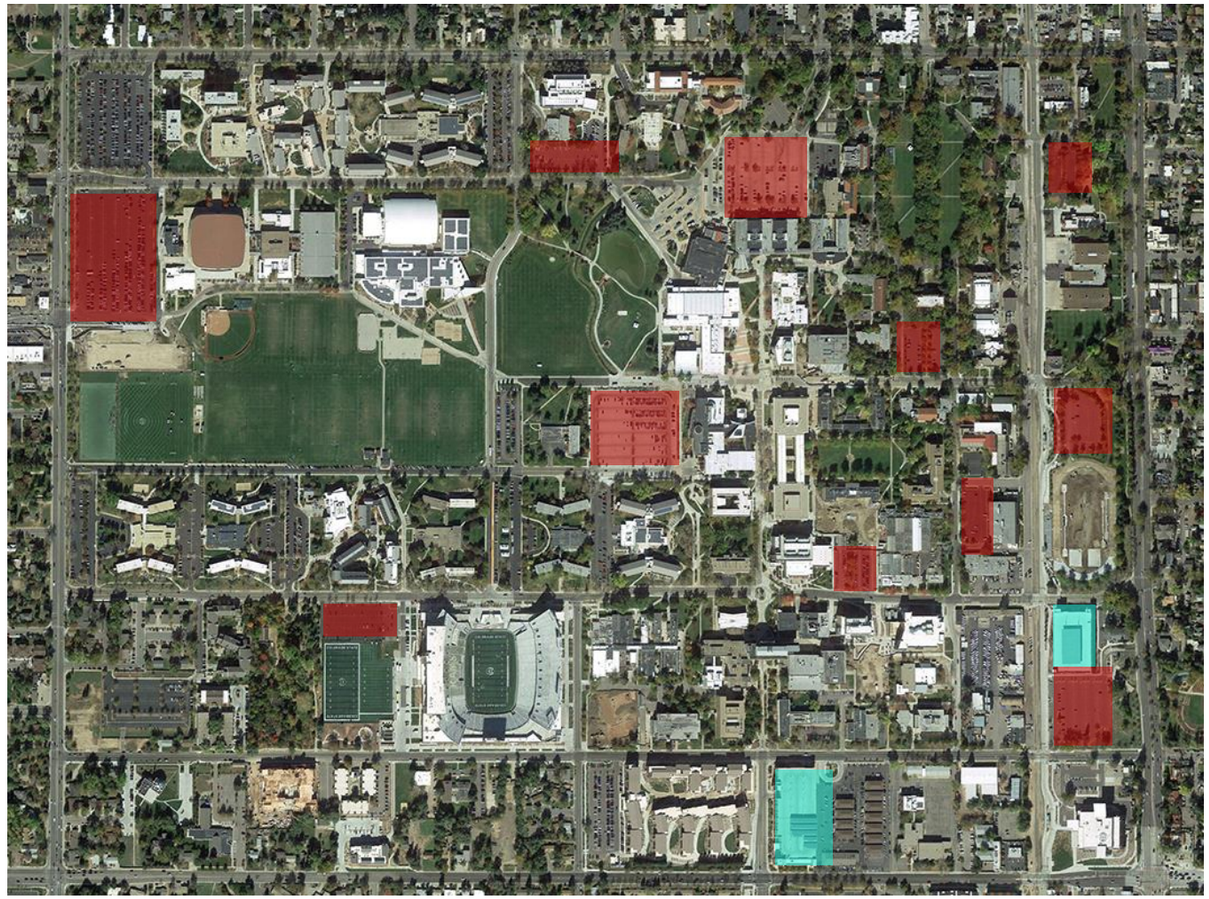
Infrastructure by System: Parking

Commuter/General Parking: Then and Now



Main Campus 1999

(Approx. 11,500 parking spaces on Main Campus)



Main Campus 2017

(Approx. 10,000 parking spaces on Main Campus)

Parking: Then and Now

“Painter” Parking Lot at
Pitkin and East Drive, 2015

Biology Building at
Pitkin and East Drive, 2017

Infrastructure by System: Parking

Parking then and now:

- Value of land changed – parking was plentiful, land was cheap, minimal traffic impacts surrounding campus
- Housing on west side of campus, academic core on east side
- Distributed pattern of people entering campus
- “24-hour campus” results in some areas of campus having parking close to academic core (and pedestrians and bikes)

What are the consequences to these changes?

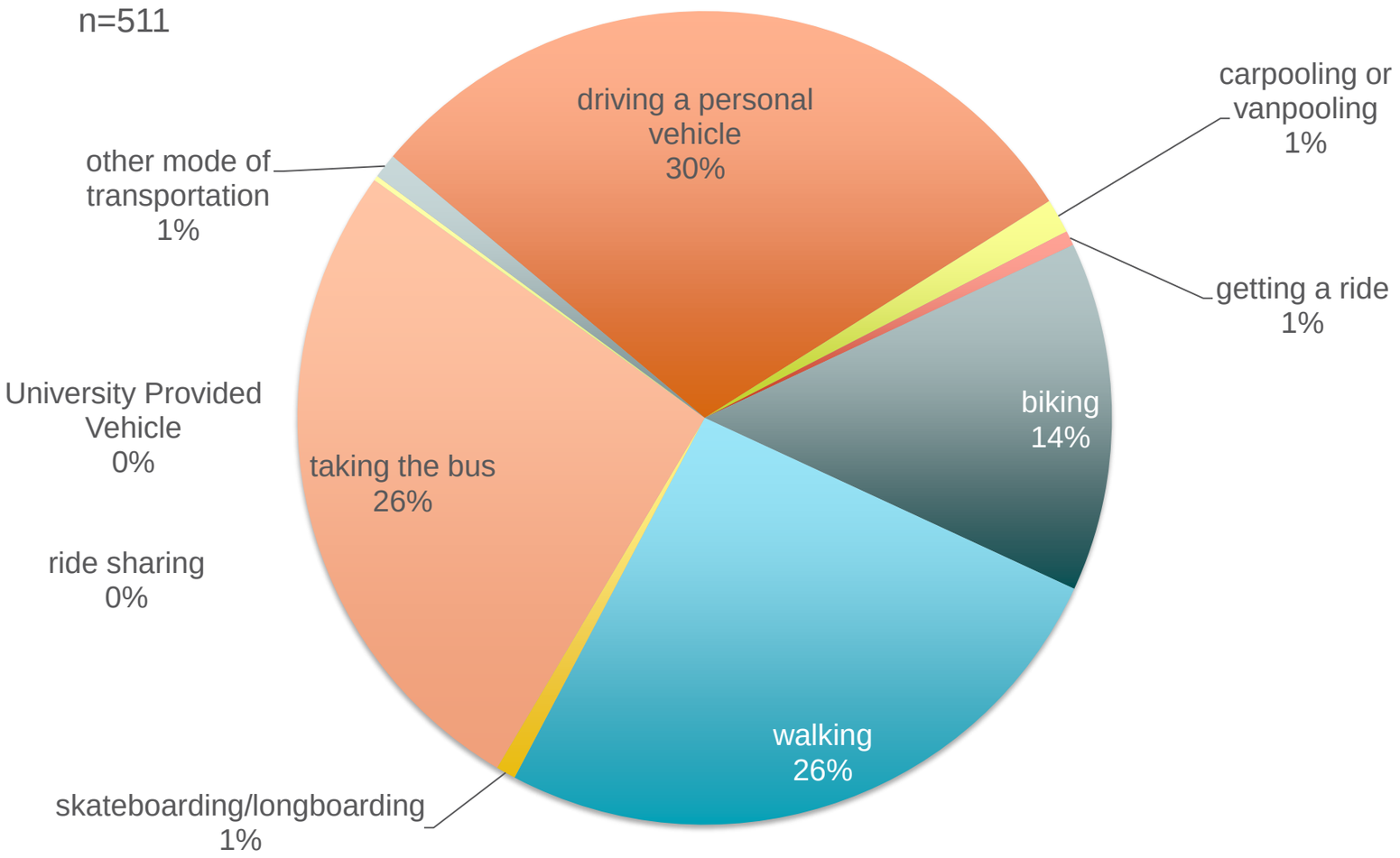
Infrastructure by System: Parking

Over the last 10 years:

- Parking inventory on campus has stayed relatively flat
- Campus population has increased by 4,000 people
- Surrounding neighborhood parking has substantially been reduced
- Yet, overall campus parking utilization has remained at 75%

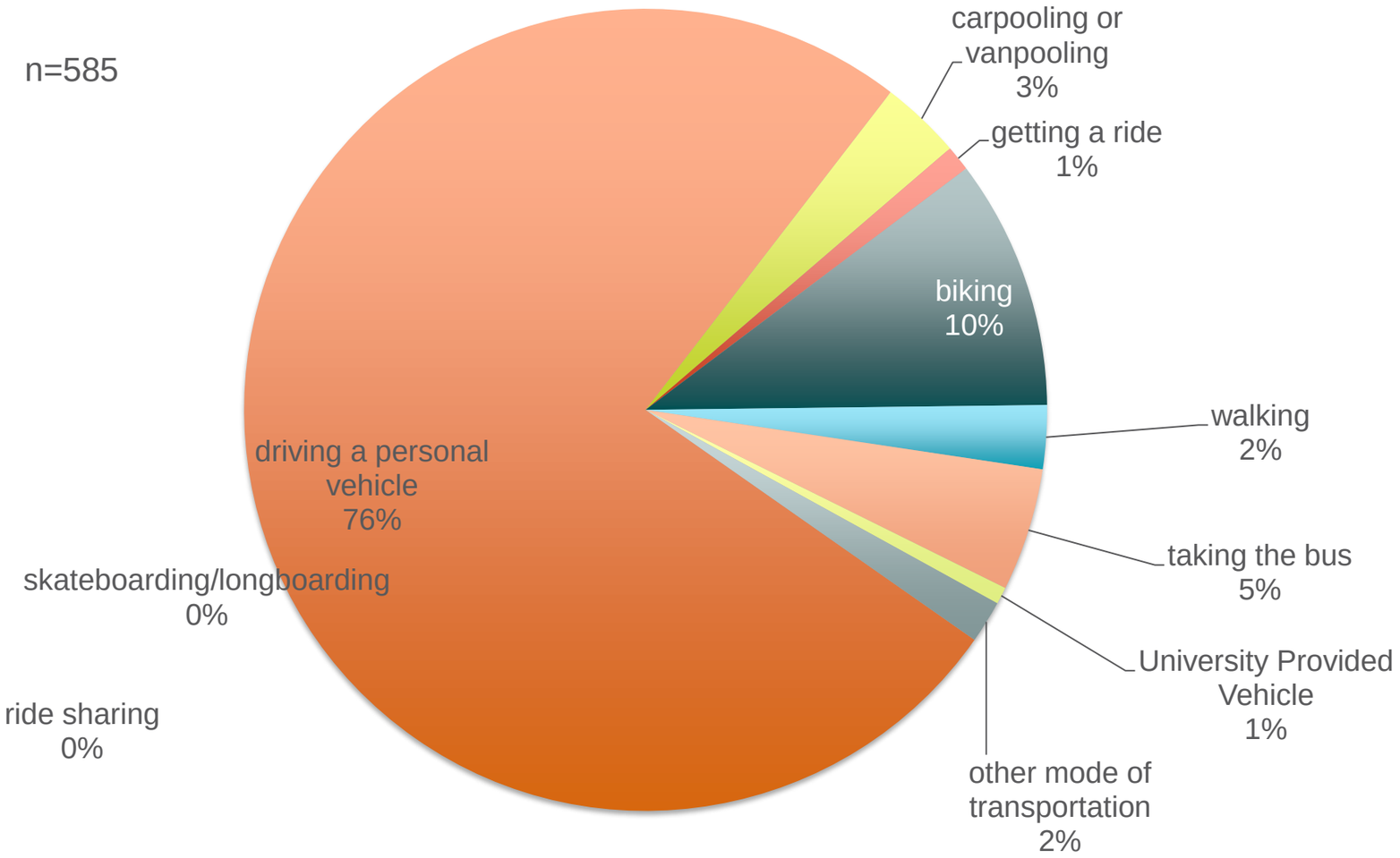
2018-2019 Mode of Transportation Survey

Students: PRIMARY MODE



2018-2019 Mode of Transportation Survey

Administrative Professionals: PRIMARY MODE



Infrastructure by System: Parking

Current planning concerns:

- Transit Center
  - *At capacity*
  - *Plan for additional transit center?*
- Service parking for state vehicles
  - *Often in conflict with a vehicle-free campus core*
- Permit parking on campus
  - *Compared to some peer institutions, we have more parking inventory*
  - *Adequate parking but not necessarily where many people desire to park (close to the core)*
- Bike parking / E-scooter parking
  - *Bike parking deliberately located close to destinations in the campus core*
- Ride share temporary parking (kiss-and-go)
  - *Infrastructure for this doesn't exist and this activity will increase*
- Continuation of parking in the campus core results in ongoing congestion (Library parking lot)
  - *Results in ongoing safety conflicts between modes of transportation*

Infrastructure by System: Streets

Streets: Then and Now

Main Campus 1999

Main Campus 2017

Streets: Then and Now

Center Avenue at Lake Street,
looking north, 2005

Center Avenue at Lake Street,
looking north, 2019

Infrastructure by System: Streets

Streets then and now:

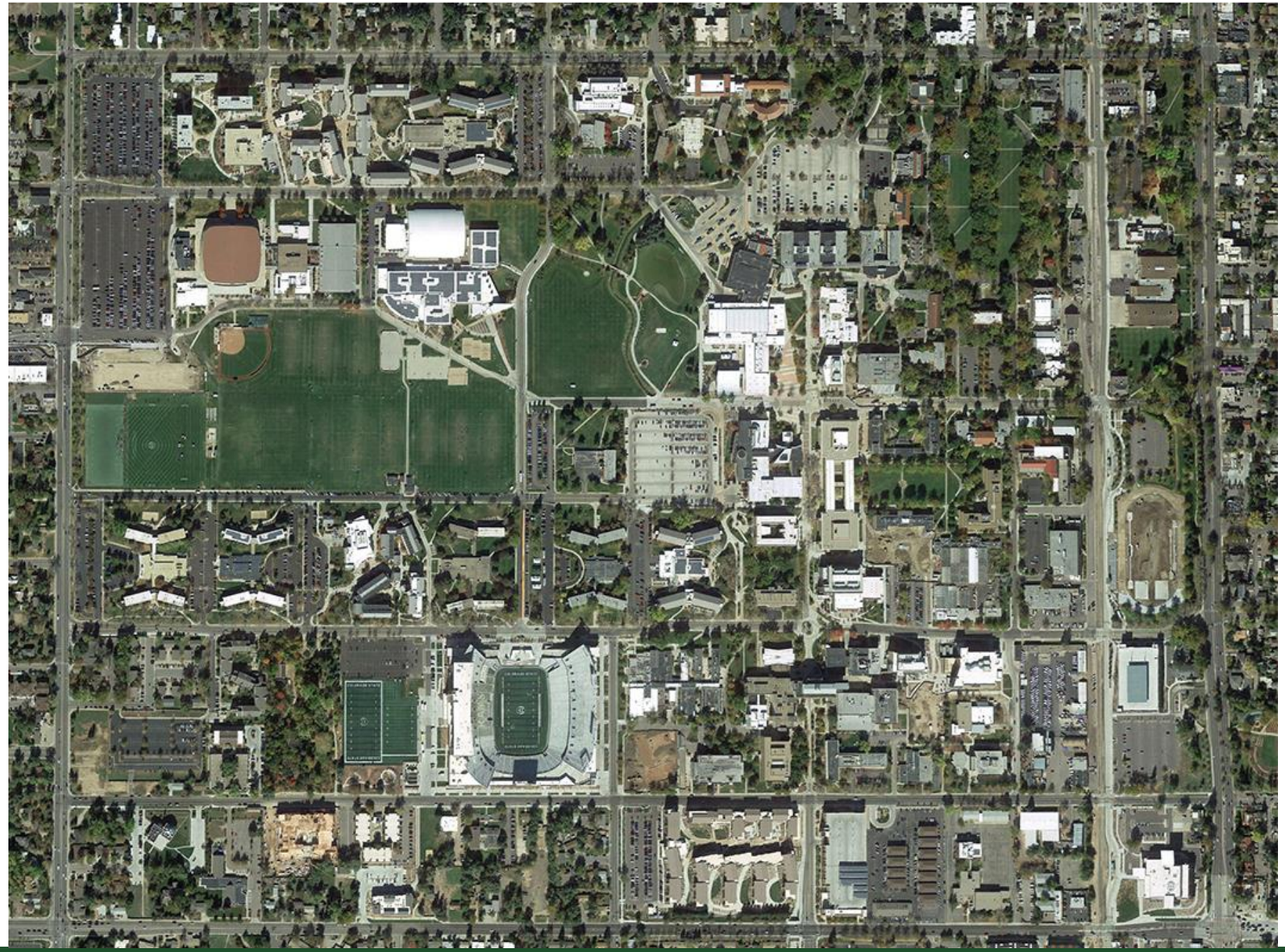
- Campus pattern was a gridded street network in the 1970s
- Through-vehicle circulation has been eliminated through the core of campus
- These street have been repurposed for multi-modal use.
- Example: Plum Street then and now:
  - *Plum was built to accommodate a total <u>on-campus population</u> of 12,000 on-campus students, serving almost exclusively vehicles.*
  - *Plum now serves five transit routes, was built before Laurel Village, and almost 6,000 resident students alone live in the northwest part of campus utilizing Plum to access the academic core*
- Prior to 15 years ago, people were almost required to access campus by vehicle. Today, pedestrian use and transit and bicycle ridership has increased dramatically.
- Maintenance of streets has fallen behind as intensity of use has increased

Infrastructure by System: Streets

Current planning concerns:

- Future of existing streets:
  - *Transformation of Hughes Way (west of Meridian)*
  - *Meridian Avenue between Plum and Hughes*
  - *University Avenue north of Shepardson*
  - *University Avenue west of LSC/Library*
- Need for curb space for rideshare / autonomous vehicles / “kiss ‘n go”
- Additional mid-block crossings
- Current streets aren’t built for transit
- Intersection design

Campus Today



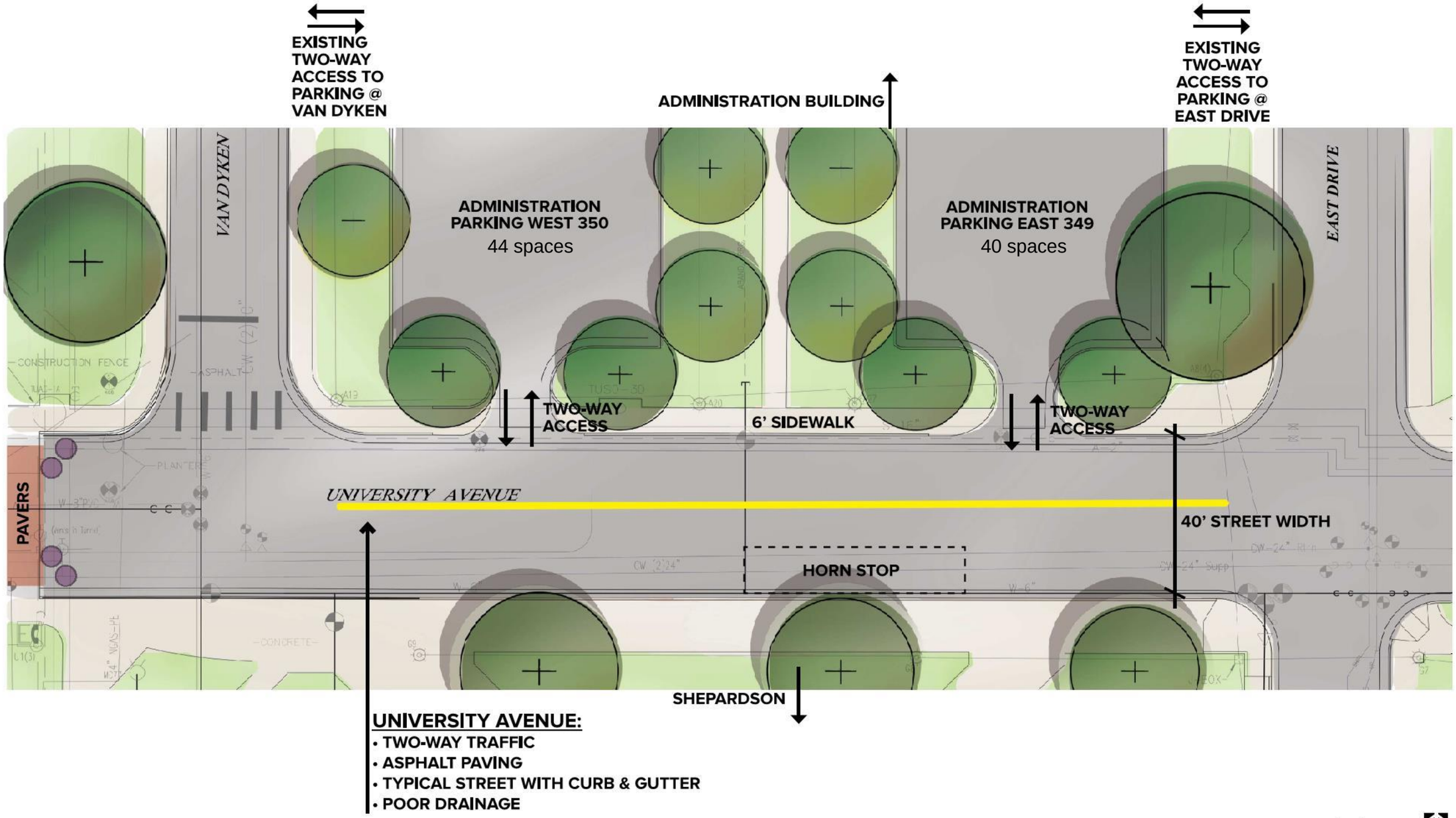
University Avenue Streetscape Improvements at the Shepardson Building

Request to Approve

University Avenue Existing Conditions

Existing View West

Existing View East



August 2019

University Avenue - Streetscape Improvements
Existing Condition

Colorado State University
FACILITIES MANAGEMENT

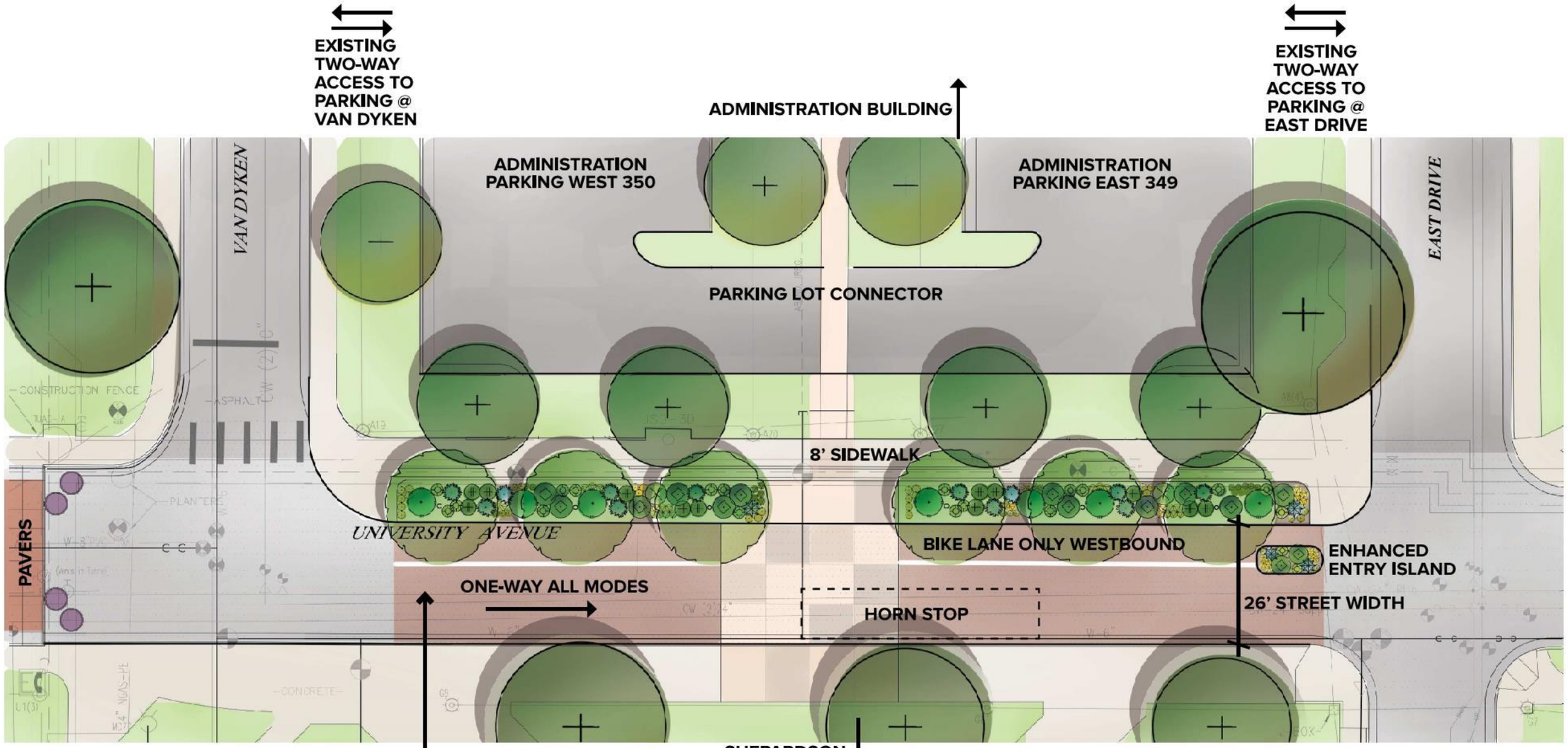
University Avenue - Character Precedent

Campus Gateway Streetscape Improvements

Eliminate Curb

Landscape enhancements along street with trees

Colored Paving



UNIVERSITY AVENUE:

- STREET NARROWS - ONE-WAY TRAFFIC (EASTBOUND ONLY)
- BIKE LANE ONLY WESTBOUND - 8' WIDE
- CONCRETE PAVING TO ACCOMMODATE BUS MOVEMENT, COLOR TO MATCH EX. PAVERS
- FLUSH STREET, NO CURB ON SOUTH SIDE, NORTH SIDE WOULD HAVE CURB FOR WATER FLOW
- LANDSCAPE ENHANCEMENTS TO MATCH THOSE AT NATURAL RESOURCES
- PARKING LOT ACCESS LIMITED TO NORTHERN EXISTING ENTRY/ EXIT POINTS

0' 5' 10' 20' NORTH

August 2019

University Avenue - Streetscape Improvements
Proposed Site Plan

Colorado State University
FACILITIES MANAGEMENT

EXISTING CONDITION

UNIVERSITY AVENUE IMPROVEMENTS:

- STREET NARROWS - ONE-WAY TRAFFIC (EASTBOUND ONLY)
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PROPOSED IMPROVEMENTS

Schedule:

Construction Documents – Fall '19

Construction - Late Spring '20

<u>Motion Needed:</u>

Approve project to advance to construction documents?

Next Meeting:
October 9, 2019

Infrastructure by System: Streets

Campus planning assumptions have different opportunities costs

- We can create more access (with more parking in center of campus) but this causes more conflicts with pedestrians, bicycles and transit
- Closing streets has an opportunity cost
- Streets can be redeveloped:
  - *Convert Meridian Avenue and west side of University Avenue into "complete streets" (emphasis on transit, bikeways, and pedestrians with little to no vehicle traffic)*
  - *Separate modes completely (Braiden Bikeway was formerly a vehicular road in 2009)*

What are the consequences to these changes?