UCCS
Anschutz Engineering Center

DESIGN REVIEW BOARD | PRE-DESIGN

COLORADO SPRINGS, CO | 2021.09.14

AGENDA

INTRODUCTIONS

PROJECT VISION & GOALS

- College of Engineering & Applied Science
- Anschutz Engineering Center

REVIEW OF MASTER PLAN

- Overall campus
- Core campus

SITE OPTIONS REVIEW

- Site Options
- Site analysis
- Topography
- Views
- Landscape
- Community Survey Results

CAMPUS CONTEXT

PROGRAM

- Anticipated program & goals
- Kit of parts

NEXT STEPS

UCCS College of Engineering & Applied Science

VISION

The College of Engineering & Applied Science aspires to **improve health, welfare, and prosperity** through technical learning, research, professional practice, and invention.

MISSION

In partnership with the community and our alumni, the mission of the College of Engineering & Applied Science is to: Inspire a passion in our students for **life-long learning**; and graduating engineers and scientists who are **knowledgeable and competitive in the global marketplace** throughout their careers.

KEY STRATEGIC GOALS

Illuminate: While sustaining academic quality and integrity, increase, at a responsible rate, the number of students in EAS programs who are passionate about life-long learning and who are knowledgeable and competitive in the global marketplace throughout their careers.

Investigate: Provide adequate support and incentives to increase, at a reasonable rate, **recognized and relevant research** that has both **local and global impact**.

Innovate: Develop practices, policies and incentives to support a reasonable increase in activities leading to **economic and technology development** that improves **health, welfare, and prosperity** through engineering.

Anschutz Engineering Center - Project Summary

DESCRIPTION

The Anschutz Engineering Center will be an important stepping stone in the long term expansion of the engineering programs at UCCS. To meet the needs of the local economy, the college must grow, and new/larger facilities are needed to educate a growing student population. This building will offer additional classrooms, student labs & workshops, faculty research space, offices, and other amenities that are needed to add capacity to Electrical, Mechanical, Computer Science, and the proposed Aerospace Engineering programs.

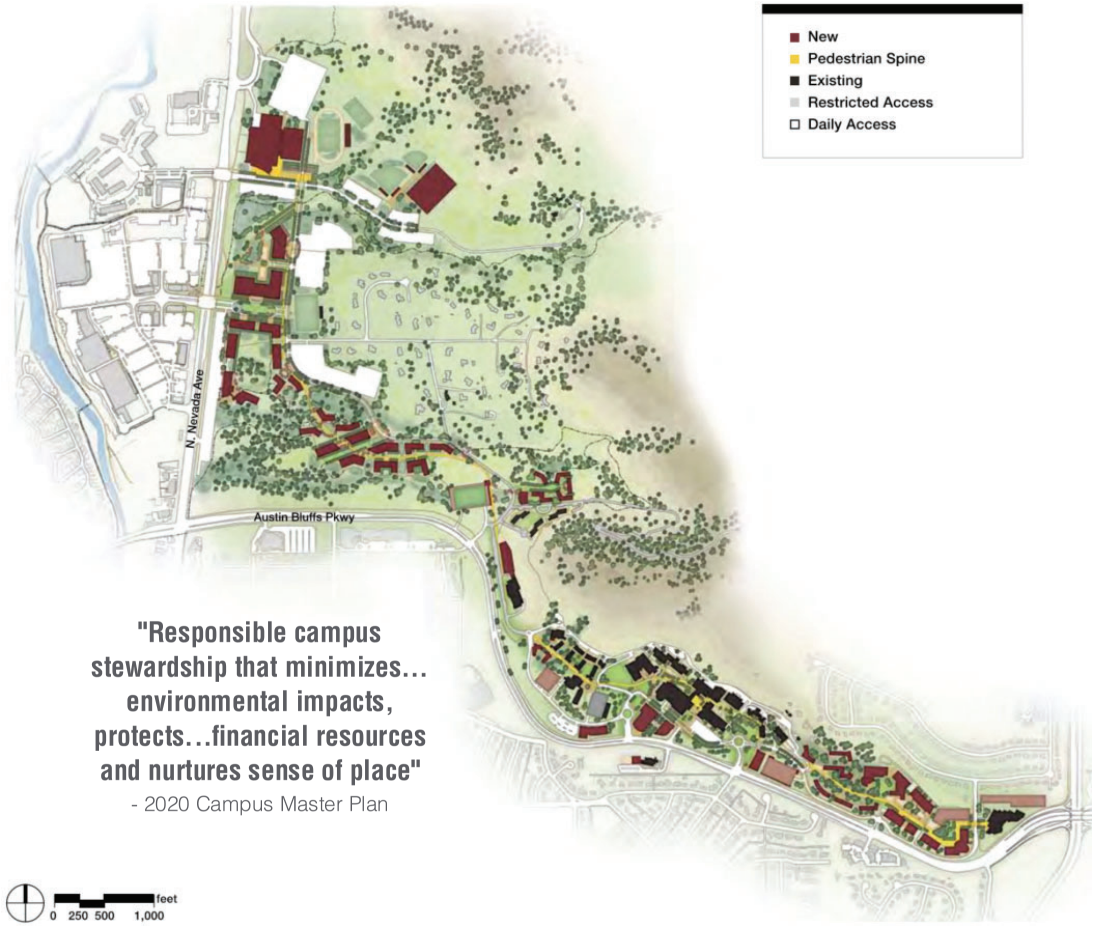
PROJECT GOALS

- Grow facilities to provide top notch education for an increasing student population & accommodation of new programs in the College of Engineering & Applied Science
- Create a beautiful new building that is visible from campus spine
- Energy conservation & sustainable practices are well integrated into the design
- Maintain sensitivity to cultural concerns & the natural environment
- Be a positive contribution to the UCCS campus environment

GIVENS (things we can't change)

- Building size: approx. 25,000 SF (program is set)
- Project budget: $16 M
- Must preserve the Tree of Peace
- New building must be near existing EAS building for shared use
- New building must be a stand alone building
- Must use one of the 2 site options presented
- Construction: Spring 2022 - Summer 2023, opening Fall 2023

NOTE: The current Campus Master Plan expired in 2020. A new Campus Master Plan is being developed.



"Responsible campus stewardship that minimizes… environmental impacts, protects…financial resources and nurtures sense of place"

- 2020 Campus Master Plan

CAMPUS MASTERPLAN

- Campus organized around a spine that connects several districts
- Each district has a mix of uses and nodes of activity that define its unique character
- Buildings organized in clusters along the spine
- Concentration of new development on East and North campus areas
- Expand shuttle route to access all parts of campus & facilitate handicap accessible routes from shuttle stops to every building
- Extend pedestrian spine, keep separated from automobile traffic, high quality pathway to make longer walks feel shorter
- Bolster recreational trails system as an amenity and alternative transportation system
- Expand & diversify open space network while preserving native landscape & arroyos to establish a unique sense of place & preserve views of the bluffs
- Up-size utilities to meet future development needs
- Consider economic, environmental, and social sustainability

CORE CAMPUS

- Mix of academic, administrative, athletic, and residential facilities within easy walking distance, linked by pedestrian spine
- Preserve & enhance the living/learning environment by relocating athletic and visual/ performing arts facilities to North campus
- Add academic facilities and housing where capacity exists
- Allow daily traffic access
- Maintain mix of structured and surface parking, add parking garages as financing is available
- Increase space for student union & conferencing in the Gallogly Events Center with relocation of athletics
- Add faculty office & administrative space
- Expand Child and Family Development Center
- ***Current master plan does not include long term plans for expansion of College of Engineering and Applied Science***

PROJECT SITE OPTIONS | OPPORTUNITIES & CONSTRAINTS

SITE OPTIONS

OTHER SITES CONSIDERED

3 | WEST OPTION

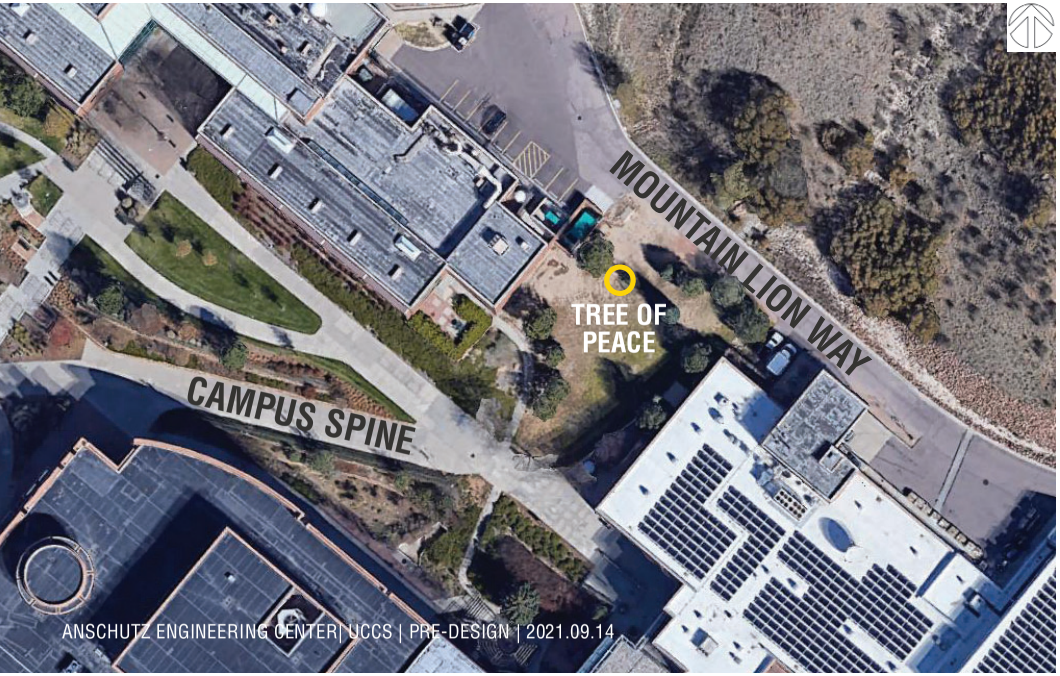
- Difficult to fit a building in, when considering how close the adjacent drive aisle is to the corner of a new building
- Donor signage would be blocked by the bridge
- Lose ADA parking spaces

4 | NORTH OPTION

- Would feel like an afterthought and would not bring prominence to the gift from the donor
- Additional work would be needed in EAS to provide a corridor leading to the new addition
- Lose a decent amount of existing parking

5 | SOUTH OPTION

- Difficult to fit floor plate between the existing building and campus spine
- Access to high bay labs would be difficult to create and would require vehicles to be driven on the spine
- Filling in the entrance would block light and views from inside EAS and from faculty offices.



TREE OF PEACE

HISTORY & SIGNIFICANCE

- Planted in 2013 to solidify the relationship between the Native American community and the University campus and students
- Represents a strong link to cultural continuity and peaceful, supportive, on-going relationships.

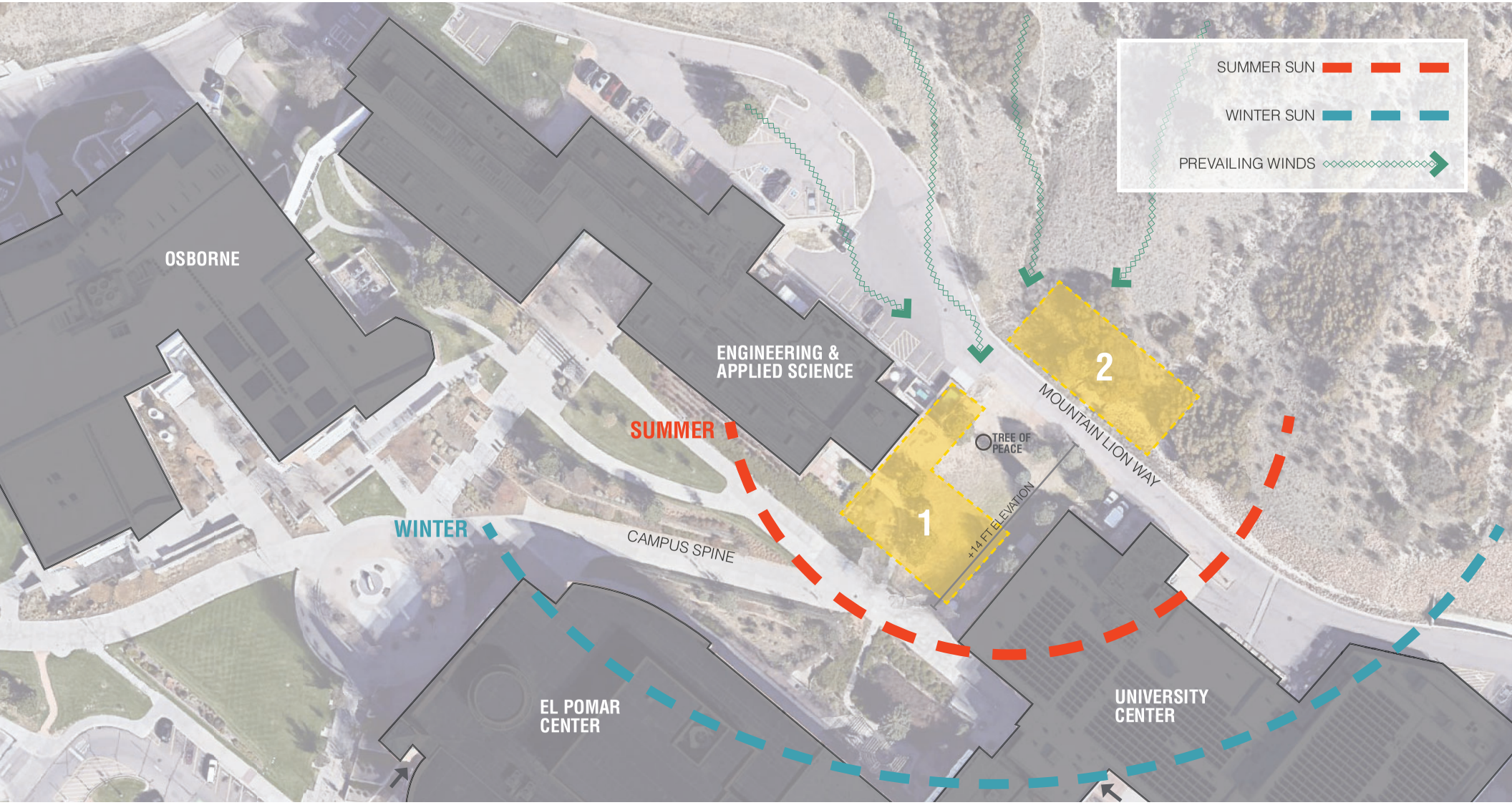
DESIGN CONSIDERATIONS

- Allow 24 hour access to the Tree of Peace & adjacent space for cultural gatherings / events
- Must not be disturbed during construction
- Needs adequate access to daylight and space to continue to grow & thrive

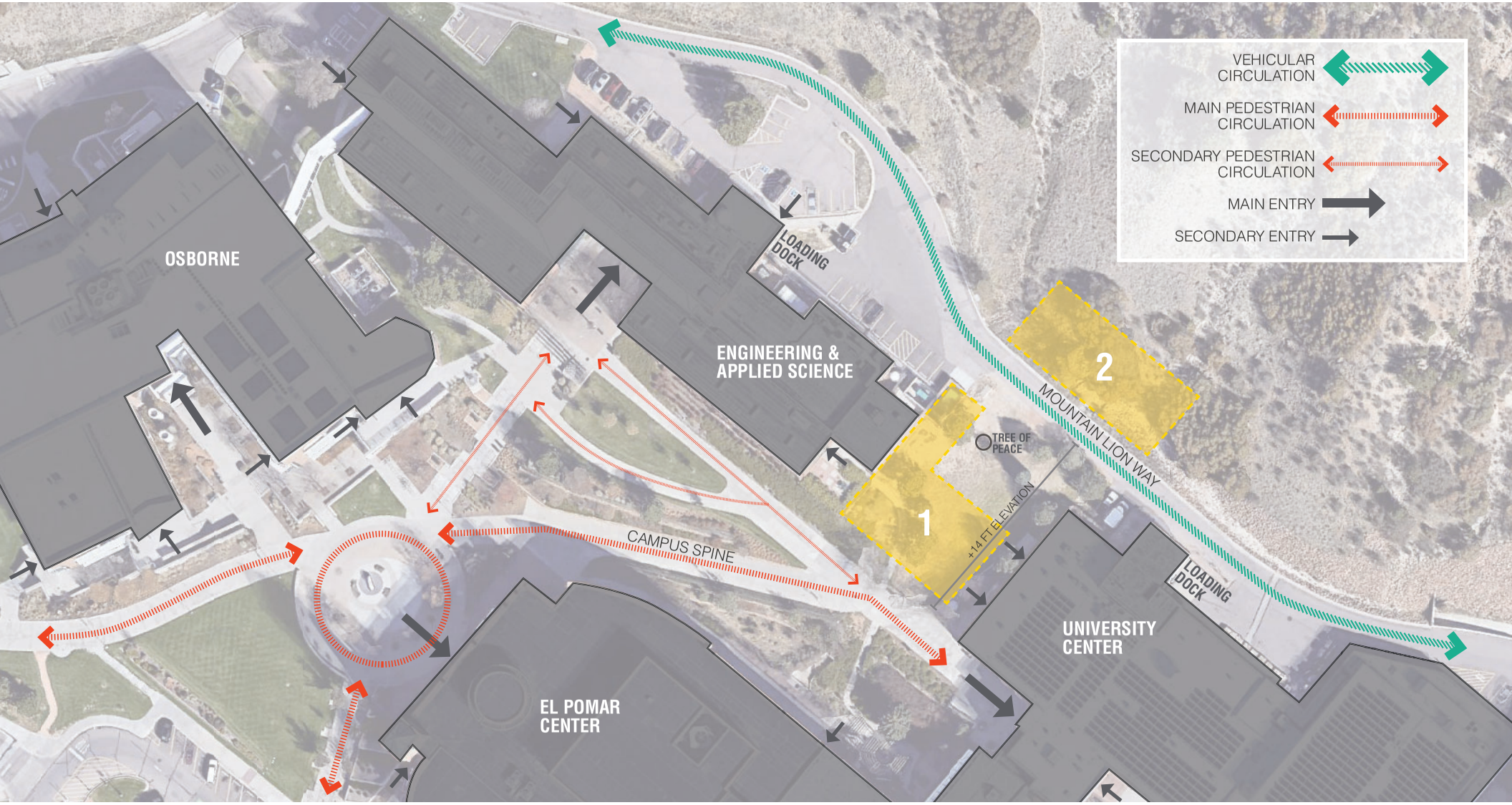
"The Tree will be a place where students and the community can reflect on their daily lives and enjoy its beauty and shade." - UCCS Green Action Fund

Visit the UCCS website for more information:
https://gaf.uccs.edu/projects/projects-funded/tree-of-peace

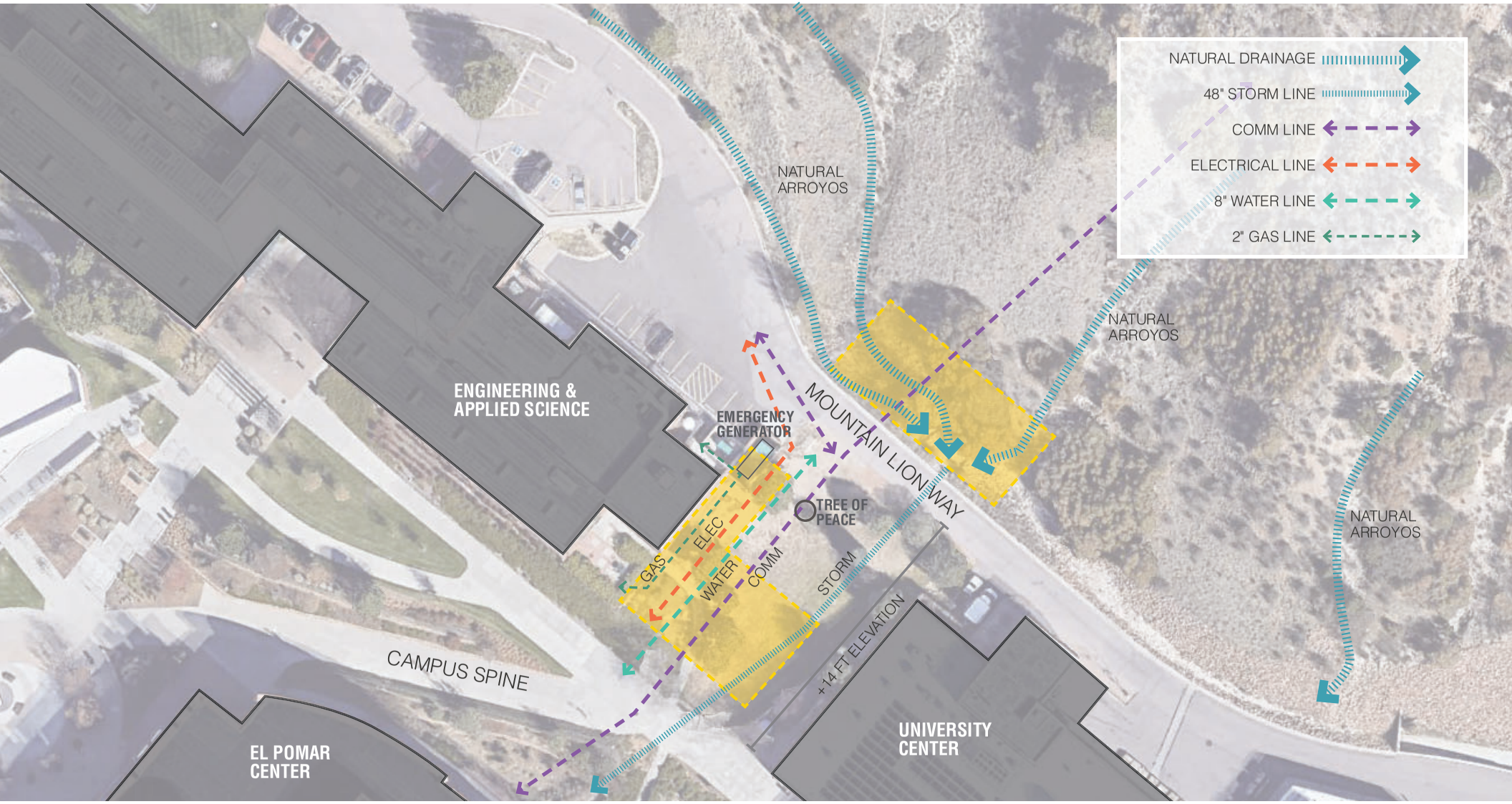
ENVIRONMENTAL FACTORS



CIRCULATION



UTILITIES & DRAINAGE



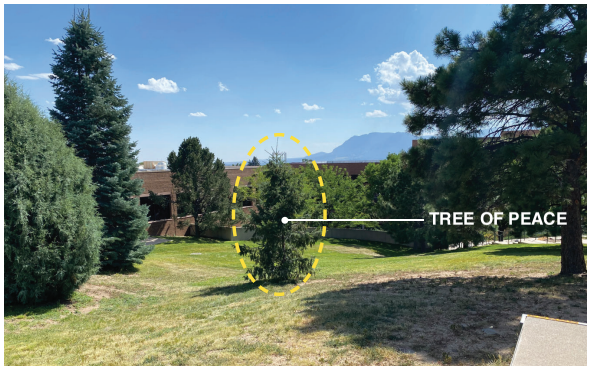
TOPOGRAPHY


A
A
1
2
MOUNTAIN LION WAY
CAMPUS SPINE
EL POMAR CENTER
SITE OPTION 1
SITE OPTION 2
PEDESTRIAN SPINE
MOUNTAIN LION WAY
+14' ELEVATION

VIEWS TO SITE

SITE 1: "THE GAP"

1 | VIEW FROM MOUNTAIN LION WAY



5 | VIEW FROM MOUNTAIN LION WAY

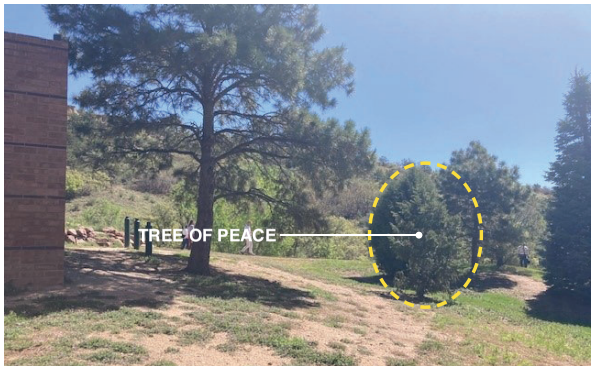
2 | VIEW FROM PEDESTRIAN SPINE

3 | VIEW FROM BOTTOM OF HILL

4 | VIEW FROM UNIVERSITY CENTER

VIEWS FROM SITE

SITE 1: "THE GAP"



1 | VIEW FROM MOUNTAIN LION WAY

5 | VIEW FROM NE CORNER

2 | VIEW FROM SW CORNER

3 | VIEW FROM CENTER OF SITE

4 | VIEW FROM SE CORNER

VIEWS TO SITE

SITE 2: MOUNTAIN LION WAY

1 | VIEW FROM NE EAS LOOKING NORTH

5 | VIEW FROM ML WAY LOOKING NORTHWEST

2 | VIEW FROM NE EAS LOOKING EAST

3 | VIEW FROM ML WAY LOOKING NORTH

4 | VIEW FROM ML WAY LOOKING NORTHEAST

VIEWS FROM SITE

SITE 2: MOUNTAIN LION WAY

1 | VIEW FROM ML WAY LOOKING WEST

2 | VIEW FROM ML WAY LOOKING SOUTHWEST

3 | VIEW FROM ML WAY LOOKING SOUTH

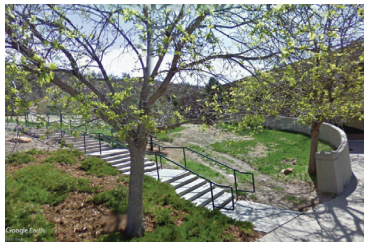
4 | VIEW FROM ML WAY LOOKING SOUTHEAST

EXISTING VEGETATION

NATURAL LANDSCAPE (North of Mountain Lion Way)
consisting of Rock Outcrops and Natural Drainage Courses. Plant species include scrub oak, native grasses and shrubs, pines, and cottonwood trees along the drainage.


TREE OF PEACE: Douglas Fir

FORMAL LANDSCAPING (between and along existing buildings & campus spine) consisting of turf lawn and mulched planting beds. Plant species include junipers, pines, ash, and other shrubs.

EXISTING VEGETATION

POTENTIAL TREES FOR REMOVAL
(DEPENDANT ON BUILDING LOCATION AND SITE IMPROVEMENT REQUIREMENTS)

TREE TO BE REMOVED

TREE TO REMAIN AND BE PROTECTED IN PLACE

TREE OF PEACE: PRESERVE IN PLACE

SITE 1 | THE GAP

ADVANTAGES

- Strong **connection to main campus** spine & easy access
- **Fills the gap** between the existing buildings
- Does not disturb the **natural bluffs** north of Mountain Lion Way
- Opportunity to create **usable outdoor space**
- **Close proximity** to the existing EAS building

DISADVANTAGES

- Limits **sunlight, visibility & access** to Tree of Peace
- Limits **daylight** to University Center conference rooms & main dining room
- Will have to work around **underground utilities** & potentially relocate emergency generator
- May impact **outdoor dining area** at corner of University Center
- Greater **complexity to preserve Tree of Peace** during construction

SITE 2 | MOUNTAIN LION WAY

ADVANTAGES

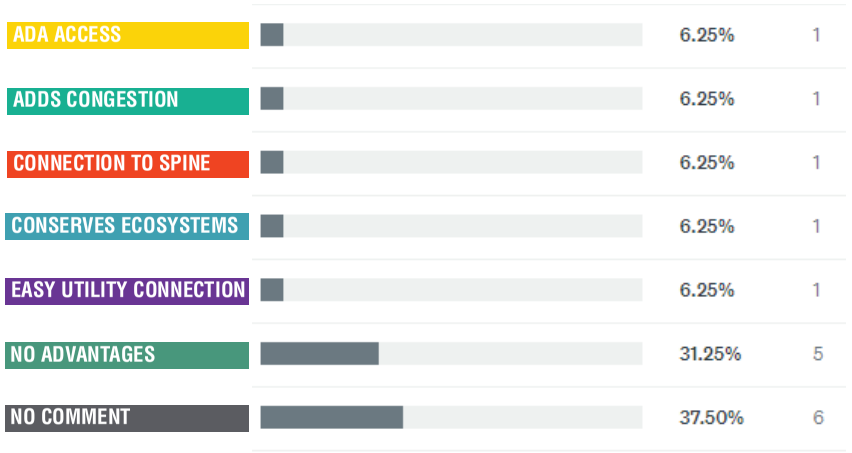
- Less impact to campus during construction
- Does not disturb the **Tree of Peace**,
- Maintains visibility & daylight to Tree of Peace & University Center conference rooms and main dining room
- Better potential to integrate **outdoor student work space**

DISADVANTAGES

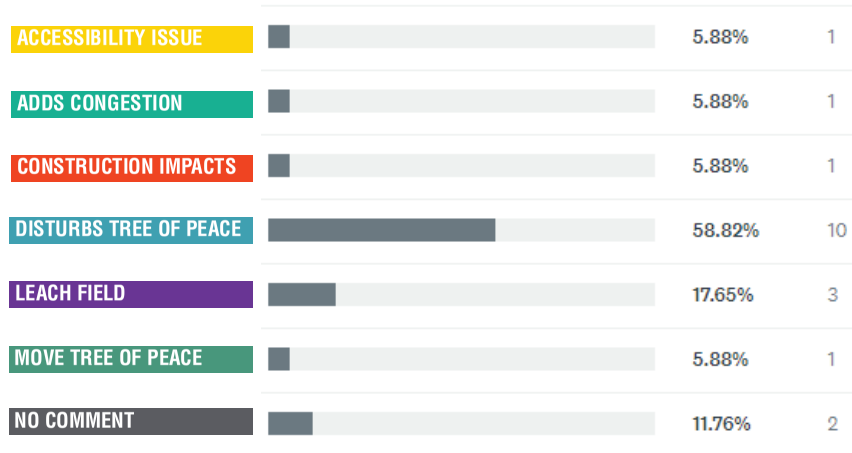
- **Less visible** from the campus spine
- Disturbs the **bluffs & natural drainage** patterns
- May **interrupt traffic** on Mountain Lion Way
- **Circuitous access** to EAS and other existing buildings
- May need to utilize routes through other buildings to achieve **ADA access**
- Would **increase pedestrian traffic** along Mountain Lion Way where there is no sidewalk/pedestrian route currently

SITE 1 - "THE GAP"

Other advantages:

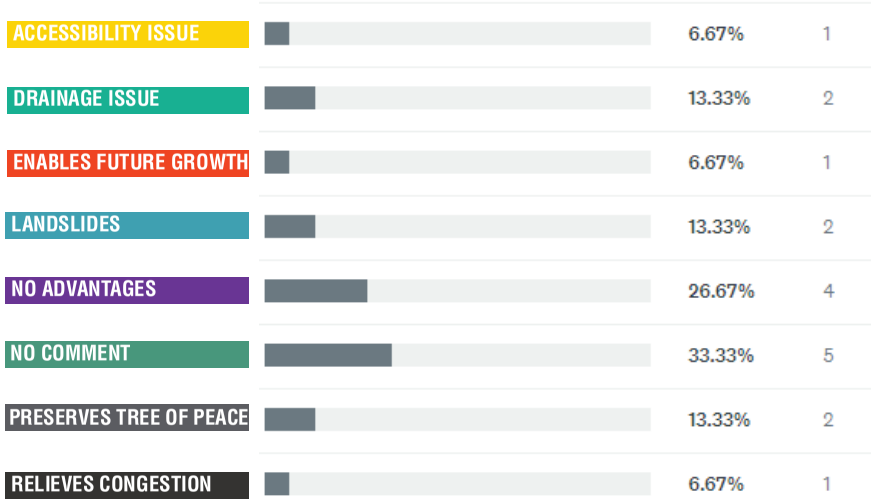


Other disadvantages:



SITE 2 - "MOUNTAIN LION WAY"

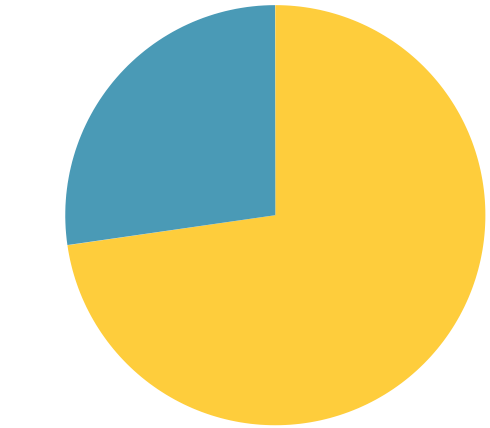
Other advantages:



Other disadvantages:

COMMUNITY SURVEY

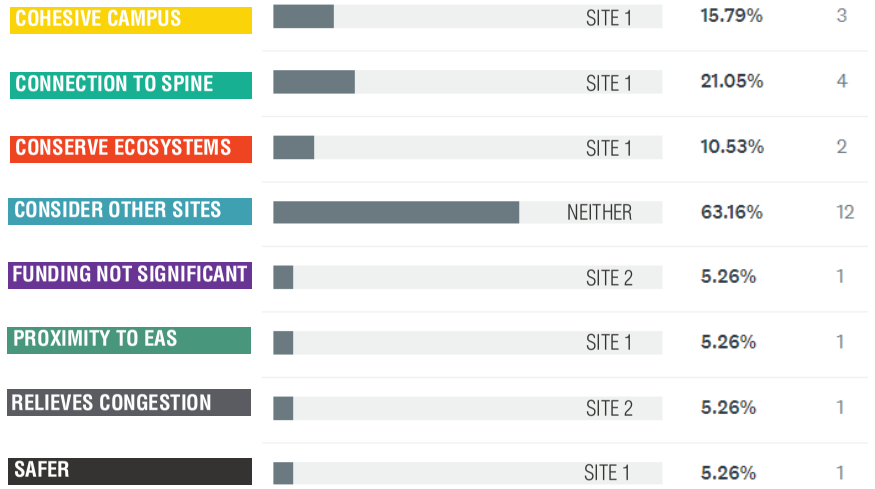
Of the site options presented, which do you think best meets the goals of the project?



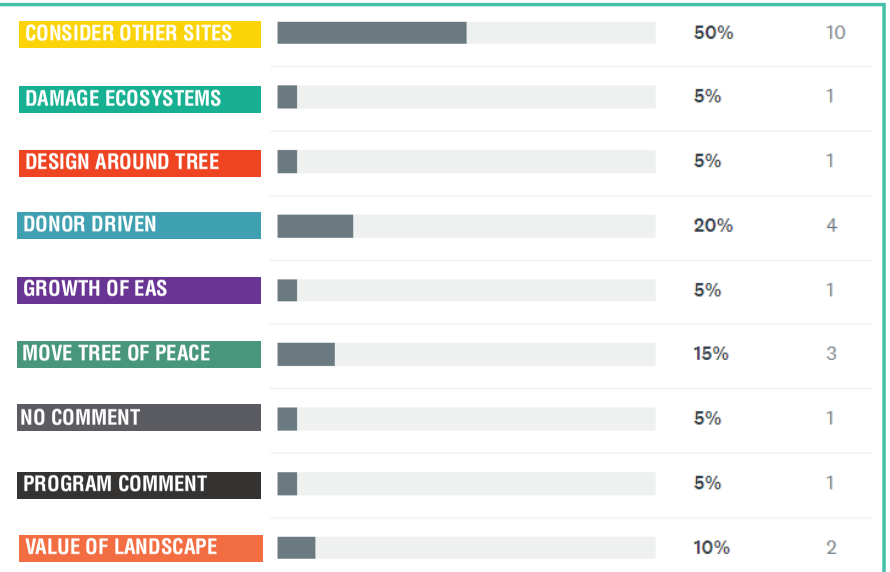
Site 1 - "The Gap" Site 2 - "Mountain Lion Way"

ANSWER CHOICES	RESPONSES	
Site 1 - "The Gap"	72.73%	8
Site 2 - "Mountain Lion Way"	27.27%	3
TOTAL		11

Why did you choose this site?



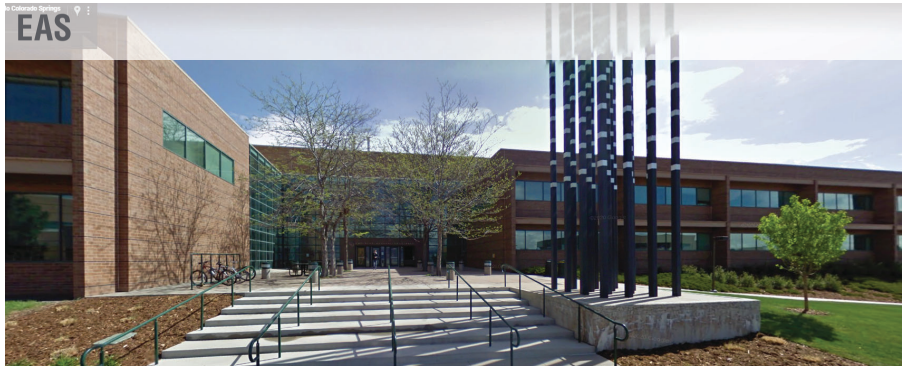
What else should we consider?



CAMPUS CONTEXT

OSBORNE

EAS



UNIVERSITY CENTER

CAMPUS CONTEXT

EL POMAR CENTER

UNIVERSITY CENTER

GALLOGLY EVENTS CENTER

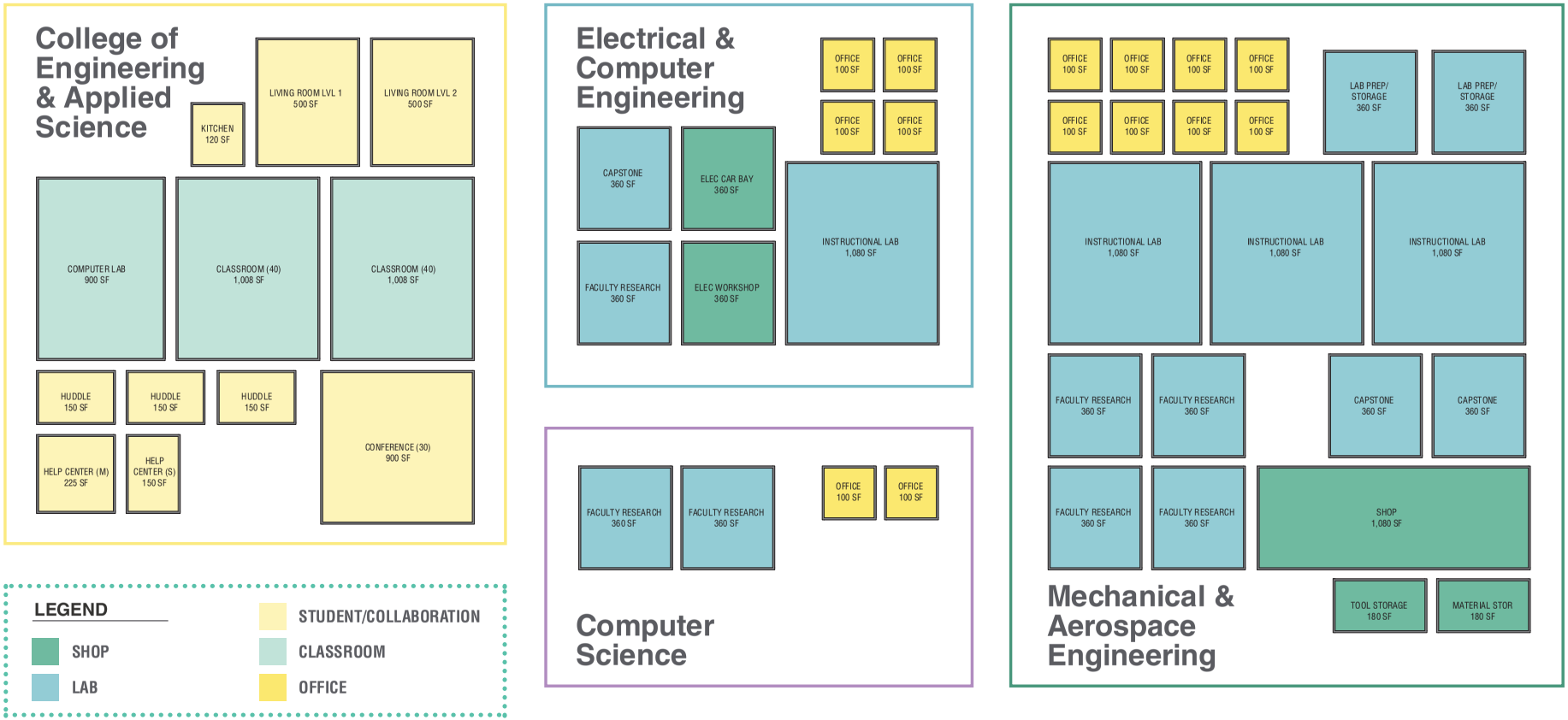
College of Engineering & Applied Science Goals:

- Add capacity to existing facilities (Engineering Building and Osborne Center)
- Enable growth of student population (1700 to 2500 by 2026)
- Expand engineering teaching and research facilities base
- Student collaboration
- Stand up new Aerospace Engineering program
- Reduce existing crowding and grow facilities and programs in Electrical and Mechanical engineering as well as Computer Science

Program provided by UCCS:

Department	Space	Count
MAE	Offices	8
MAE	Instructional Labs (16 student capacity per lab)	3
MAE	Instructional Lab Prep or Grad	2
MAE	Capstone Space	2
MAE	Faculty Research Space	4
MAE	Shop (CNC tooling + instructional)	1
MAE	Shop Prep Space / Tool Storage	1
MAE	Material Storage	1
ECE	Offices	4
ECE	Instructional Lab (Power 16 student capacity)	1
ECE	Electric Car Bay/Battery research	1
ECE	Capstone Space	1
ECE	ECE Workshop	1
ECE	Faculty Research Lab	2
CS	Offices	2
CS	Faculty Research Space	2
EAS	Traditional Classrooms (40 students each)	2
EAS	Computer Lab (32 students)	1
EAS	Help Center (Medium)	1
EAS	Help Center (Small)	1
EAS	Kitchen	1
EAS	Student Huddle/Interview Rms	3
EAS	Conference Room (30 people)	1
EAS	Student Living Room/collaboration (LVL 1)	1
EAS	Student Living Room/collaboration (LVL 2)	1

PROGRAM KIT OF PARTS



NEXT STEPS

FINALIZE SITE SELECTION

- Collaborative charette w/UCCS stakeholders

ADJUST & FINALIZE PROGRAM

BEGIN SCHEMATIC DESIGN

CONCEPT DESIGN DRB MEETING

- Date TBD

CORE CAMPUS