

# Evergreen Valley College General Education Building PRE-DESIGN AND CONCEPT DESIGN REPORT

FEBRUARY 12, 2021



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Feature lake adjacent to General Education Building Campus. Photo Credit: Perkins Eastman

Evergreen Valley College's (EVC) new General Education Building is an expression of the College's Vision 2030 Facilities Master Plan and the College's Educational Master Plan. Responding to needs articulated in the Facilities Master Plan, the General Education Building supports future growth by providing a range of learning environments, offices, and interaction spaces. Located on the banks of the central campus lake, the General Education Building will serve as a 24-hour hub with high levels of anticipated use throughout the day. Conceived with efficient function and sustainable practices in mind, the building will integrate into the campus and the broader San Jose landscape with a targeted opening date in Fall 2024.

A portion of the General Educational Building will feature labs designed to serve the specific needs of EVC's Engineering Program. These dedicated spaces will feature infrastructure that supports the unique requirements of the department in both the short term and long term.

The primary function of the building will be to provide education spaces for all programs on the campus that do not require specialized equipment or labs; the goal is for a broad range of classes and disciplines to make use of the spaces provided. To achieve multi-modal use of the spaces, flat classrooms of both 35 seats and 55 seats will utilize movable furniture, zoned lighting controls, and plentiful writable surfaces on a minimum of two to three walls. Two 55 seat lecture halls will provide an alternative environment with tiered seating. Additionally, technology aligning with the district's latest standards will support dynamic lecture and demonstrations as well as distance learning and hybrid online/in person programs.

Learn Labs able to accommodate hands-on exercises with 48 students will complement the portfolio of multi-modal classrooms by providing additional configurations and resources. As a result, the building as a whole will offer a diversity

of classroom configurations and sizes to meet many different campus needs.

Hoteling space in the building will consist of a mix of enclosed work environments and touch-down spaces along with a large conference room.

Study and interaction space will be hosted on a spectrum of "cave to café" spaces. Quieter, heads-down "cave" spaces will be located on higher levels, away from centers of activity, while higher capacity "café" spaces that support more collaboration will be located closer to the lake. Augmented by infrastructure for a coffee cart and blending with outdoor spaces, this "café" type environment may also be used for events and will serve as a gathering place for students, faculty, and staff. As a 24-hour hub, safety in the General Education Building will be prioritized by avoiding designs that create dark corners or dead ends in the building layout.

The program articulated in this document was informed by Faculty and Staff members who served on a Steering Committee and participated in interviews with the Design-Build and Bond Teams. (For a list of participants, see page 2.)

Recognizing the sustainability principles of the College as expressed in the Facilities Master Plan, the goal for the General Educational Building is to achieve a LEED Platinum standard, with LEED Silver as the minimum standard. Sustainable design principles are a priority and will be applied to achieve a healthy and efficient building.

# **1 SITE ANALYSIS**

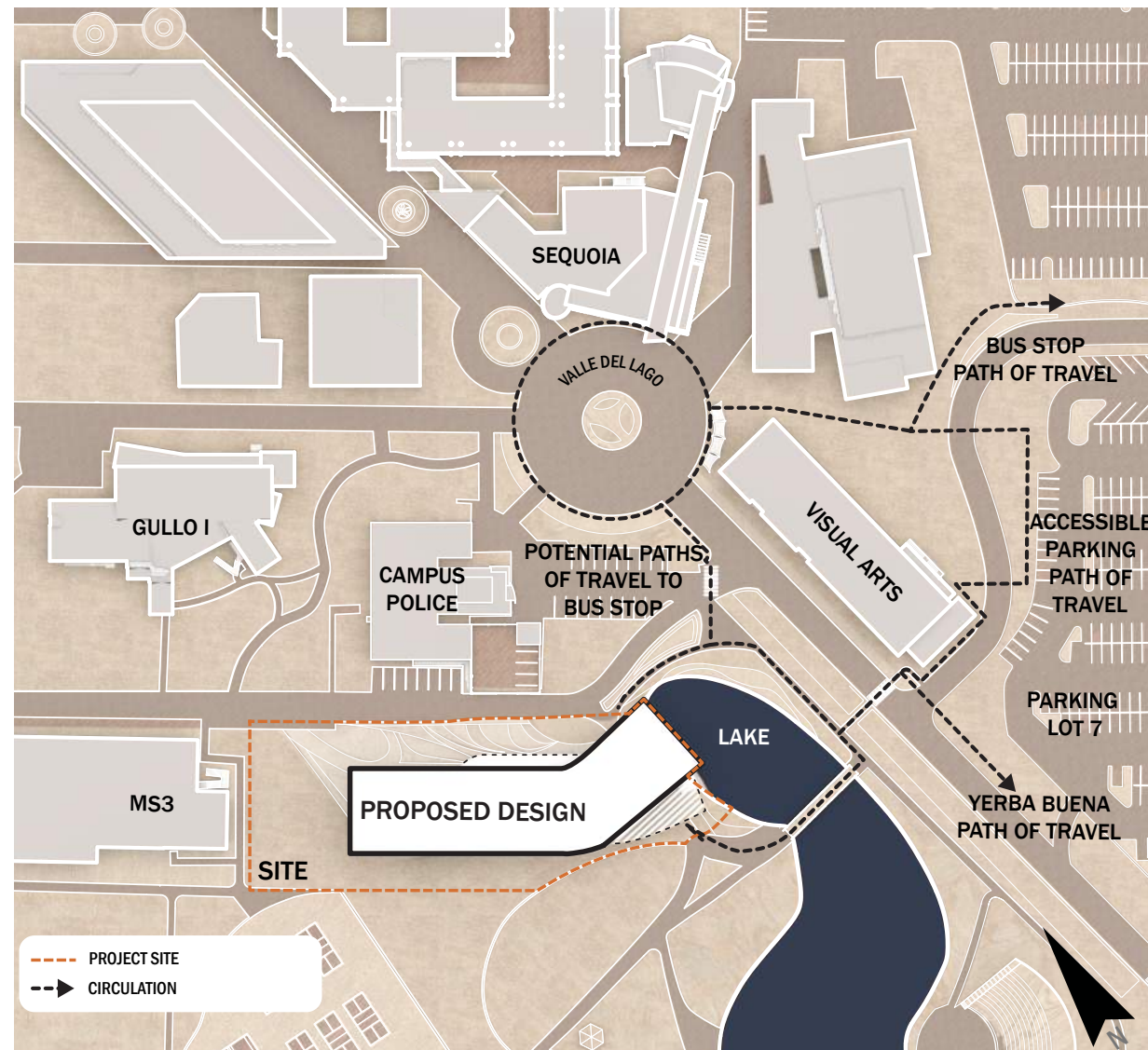
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**1.1 EXISTING CONDITIONS**

**1.2 CIVIL**

**1.3 LANDSCAPE**

**1.4 MECHANICAL, ELECTRICAL,  
PLUMBING AND LOW VOLTAGE**



**EXISTING CONDITIONS**

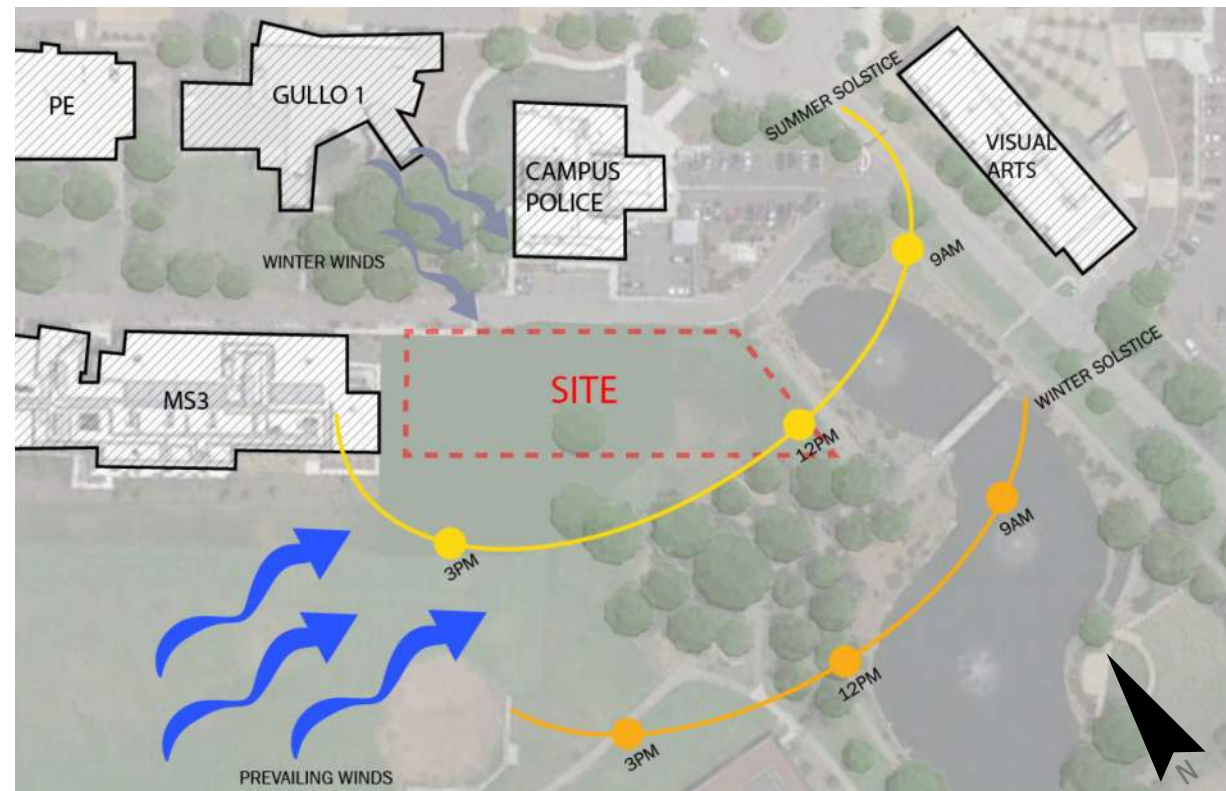
Evergreen Valley College’s new General Education Building project site is located on the southeast corner of campus. To the east of the project site is a feature lake, which provides a tranquil amenity to the campus, and will serve as a focal point for the new project. East of the lake is an existing parking lot which will primarily serve the General Education Building. South of the project site is “Founder’s Grove,” another amenity which will remain and become a secondary focal point for the new project. South of the project site is a vacant site which will soon be renovated to new sports fields for the campus, including pickle ball and futsal. West of the project site is the MS3 building, which is primarily a math and sciences classroom building. North of the project site is a sloping pathway serving both pedestrians and vehicles.

The new General Education Building is intended to be three floors, with primary entries clearly marked on the first floor for easy wayfinding. Flexibility will be a key feature, as the building will need to adapt to the future of higher education and technology, while also serving the needs of multiple disciplines. The building and site design must promote safety and security at all times, as the building itself will not have a dedicated manager, but students are anticipated to occupy the site throughout the day and evening.

The General Education Building project will help to clearly define and separate vehicular and pedestrian traffic while mitigating the slope down towards the west. North of this pathway is the campus’s Central Plant and Campus Police building, with the rear of the building facing the project site.

*Note: images used are for concept only and not to be construed for final condition.  
Image Credit: Perkins Eastman*

## EXISTING CONDITIONS 1.1



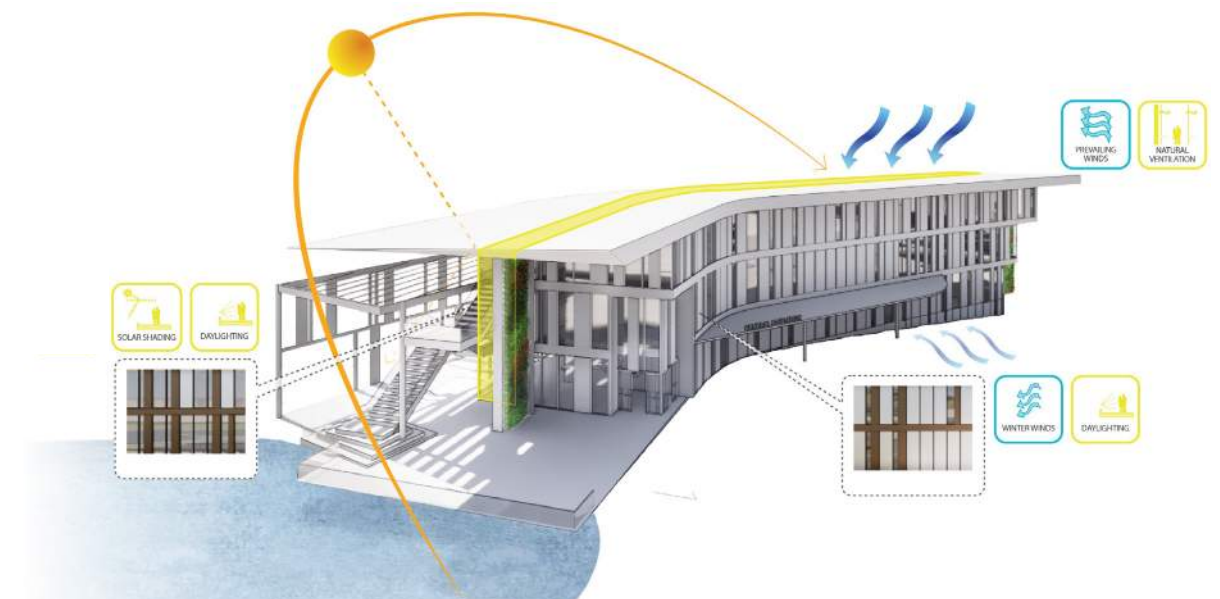
Prevailing winds and solar exposure. Image Credit: Perkins Eastman

### CLIMATE

Sited in San Jose's warm Mediterranean climate, the building will work with sun and prevailing winds to maximize comfort. Shading elements will help to mitigate the heating effects of direct sunlight and building configuration will help to leverage

prevailing winds to create comfortable indoor and outdoor spaces. The building will be designed with the target of achieving a LEED Platinum standard, and will also incorporate principles of inclusive design both inside and out.

## EXISTING CONDITIONS 1.1

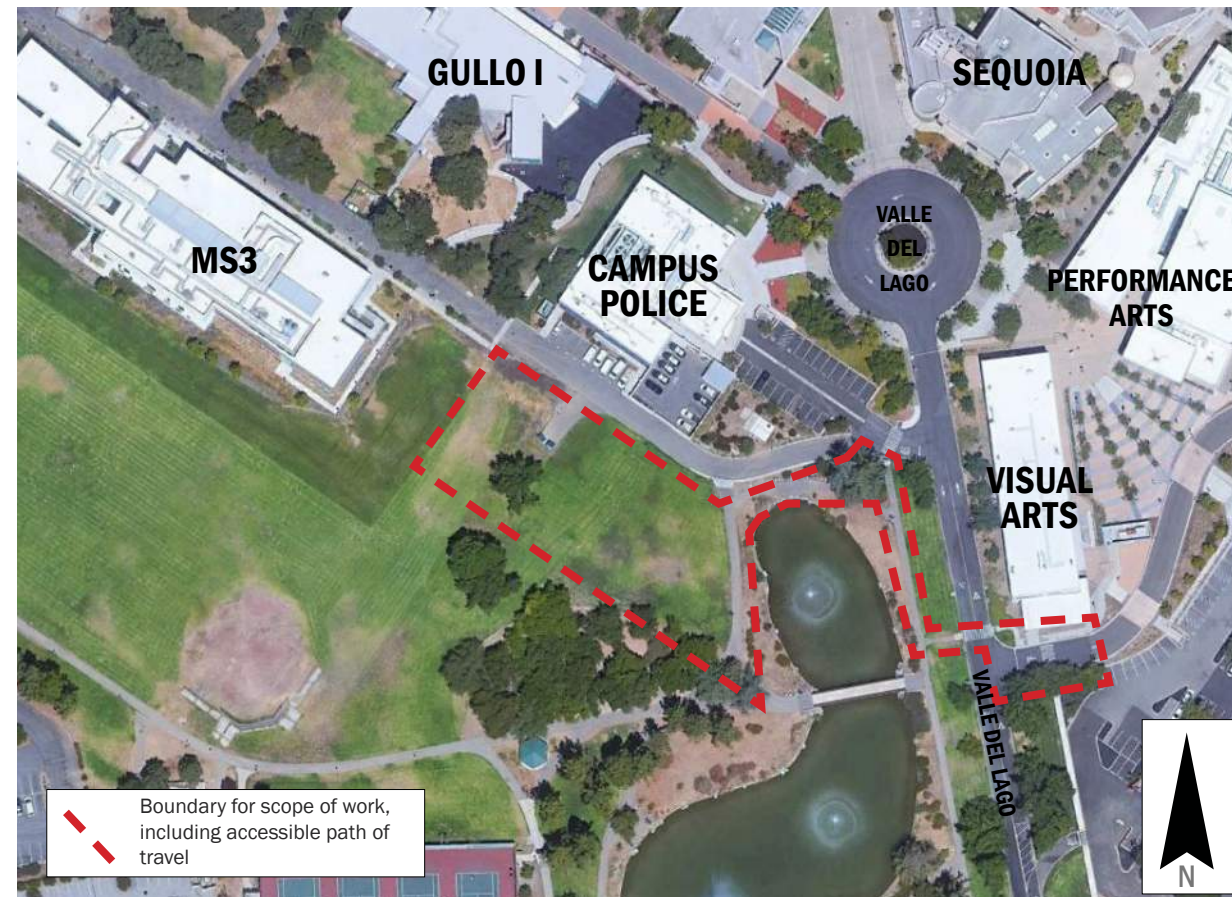


Thermal comfort and energy efficiency concepts. Image Credit: Perkins Eastman

### SITE TOPOGRAPHY

The high point of the project site is on the east end, adjacent to the lake. The building will utilize the slope of the site in its layout by locating tiered lecture halls at the low point of the project site. Ramps and circulation patterns across the site will achieve universal accessibility for individuals with all levels of mobility.

Note: images used are for concept only and not to be construed for final condition.



Existing General Education Building site. Image Credit: Perkins Eastman

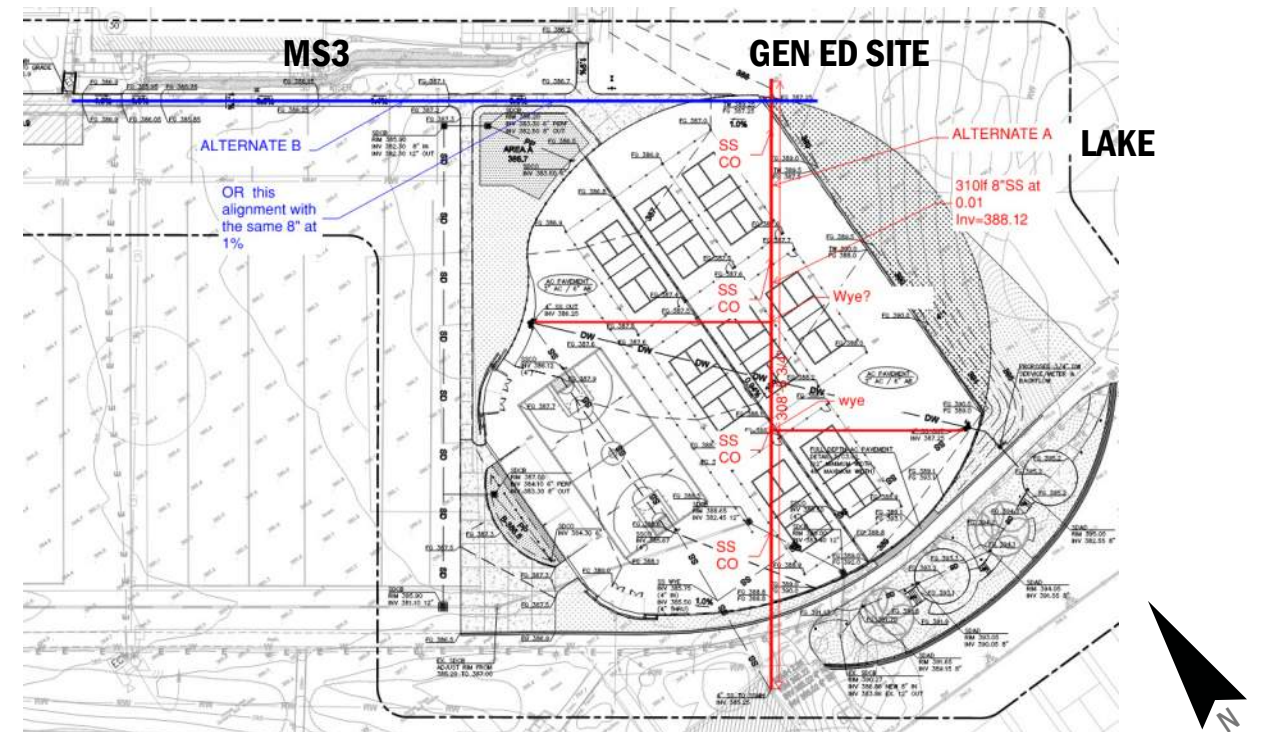
**PEDESTRIAN CIRCULATION AND DSA ACCESSIBILITY**

The project is adjacent to the lake and the Campus Police building as well as the MS3 building, however, it is not adjacent to any specific accessible parking. As seen on the site plan on page 8, the accessible parking, public bus stop and drop off will be within Parking Lot 7 to the east and the accessible path of travel to Yerba Buena Road will be via a pathway along Valle De Lago. The drop off, bus stop, and accessible stalls are being improved by the North Fire Lanes project and should not require additional upgrades. The path of travel

to the campus and along Valle De Lago is being improved as part of a small site project permitted through DSA by Aedis.

**BICYCLE PARKING**

Bicycle parking and bike lockers required by Cal Green will be either integrated into the campus nearby the project or will be required to be part of the project. Other projects on campus are currently utilizing the Student Success Center Entry Road and Parking Lot project as the location of the bike lockers and racks, but maximum Cal Green distances need to be evaluated for this project.



Utility connection options. Image Credit: Siegfried Engineering

**UTILITIES**

There are a multitude of existing utility services (e.g. underground electrical, utility water, storm drain, telecommunications, fire alarm, sanitary sewer, domestic water, recycled water, gas, and chilled and hot water) that are available to serve the project. The overall impact to the utility systems will be minimal, the following improvements are anticipated:

- The storm system will be largely modified to route drainage more effectively away from the building and to water quality and bio-retention areas.
- Chilled and hot water will run to the Central Plant (same building as Campus Police) that is directly north of the site.
- Fire and domestic water will be serviced off of the existing facilities in the fire

lane on the north edge of the project. Fire hydrants and fire sprinkler will be routed around the west and east ends of the building as necessary to provide proper coverage.

- Sanitary sewer is a challenge as the nearest mains are due west on the south side of the MS3 building (Alternate B) and southwest of the project site at the tennis court restroom (Alternate A). There are two viable connection points. See the image above for alternates A and B. With the finished floor of the General Education Building currently designed to be 403.30 and the loading on the 6" sewer main south of MS3, the preferred infrastructure connection point will be located at the tennis court restroom where the Sports

**UTILITIES (CONTINUED)**

Complex project is currently planning to connect. That 6" sewer line connects directly to Yerba Buena Road and has very limited loading from campus facilities.

**FIRE ACCESS**

Access to the project site for Fire Department equipment will be provided by the existing fire lane on the north side of the project, however, hose pulls and fire truck coverage to the south side of the building will need to be carefully evaluated.

**GRADING AND GEOTECHNICAL**

The building will be set approximately one foot above the lake-high-water level as set by the lake fill controls. Site soils will be imported or exported as necessary to balance the site and there is no intent to stockpile soils on the site or adjacent sites. Site soils are mostly sandy clay and are not terribly expansive, thus no significant ground improvements for the site work are anticipated. Groundwater is not in play as it was not encountered per the Cleary Consultants, Inc. geotechnical report dated December 2020. Site soils will be prepared in accordance with Section A of the geotechnical report including stripping, scarifying and re-compacting.

**RAINWATER MANAGEMENT**

The civil site design goal is to meet the District set criteria which is based upon achieving LEED rainwater management credits as well as CalGreen requirements. Furthermore, the project anticipates being able to meet sustainability requirements for capturing and treating the storm water by implementing the following site design features:

1. Reduction of impervious area to reduce runoff
2. Implementation of bio-retention areas to attenuate storm flow for CalGreen and LEED credits.

**LANDSCAPE PRINCIPLES**

Several principles will guide the landscape design throughout the design process. Landscape design will provide effective screening, a range of growth habits and plant types, and a palette of varying sizes for a natural setting. However, the planting will be sparse and minimal as directed by the District. The design will take special care to offer clear visibility at all high security areas and avoid all underground utilities. Drought-tolerant and native planting palettes will minimize maintenance requirements. All existing high water use and high maintenance turf lawn areas will be removed as needed and replaced with drought-tolerant ground covers and mulched areas. Care will be taken to preserve existing root areas and around the canopies of existing major trees, in particular adjacent to Founder's Grove located to the South of the project site. The landscape design and site demolition will take into consideration the existing landscape irrigation systems shown in the as-builts provided by the District, and appropriately cap and relocate as necessary.

**OVERALL PLANTING CONCEPT**

An overall naturalized style is proposed to complement the existing landscape. Planting will be added as necessary to provide effective screening for the new facility. For a cohesive design, plant material that are found growing together in nature or require the same growing conditions will be used. Naturally low branching trees and medium sized evergreens will be placed to provide necessary screening. There will be horticulturally consistent planting installed on the site with the intention to echo the existing natural landscape. This will be reinforced with purposeful random, non-linear placement of plants creating a natural setting. Placement of the plant groupings will respect the security and visibility requirements of the facility.

**NEW PLANTING INSTALLATION**

Plant material chosen will provide a consistent 'natural' look rather than a more formal, linear layout. Complimentary plant groupings similar to what is found in nature will be installed. Predominately drought-tolerant, local, and non-local California native species will be used. These may be supplemented with regionally climate-appropriate, drought-tolerant, non-invasive, naturalized plants wherever necessary. The plant palette will contain planting selections that have been proven to survive on the property as well as being deer resistant.

Plant selection and species will give priority to height limits to avoid creating unsafe pockets. Plant selection will be dictated by hydrozone and sun orientation locations within the project site. Groupings of compatible plants with similar water needs, soil characteristics, microclimate and sun exposure will be selected and installed to provide an optimal setting for successful establishment and long-term vigor. Aesthetic considerations for all areas include seasonal color/variation in plant sizes, growth habits and texture. Soil type and texture will be analyzed and applied to the plant selection criteria. Soil amendments may be required but should not be over-utilized. Soils testing will be done for compaction and water infiltration rate in addition to texture and typical chemistry. Plants selected will thrive in existing soil with minimal long-term care involving additional fertilizer or amendments.



## LANDSCAPE 1.3

### GENERAL IRRIGATION DESIGN PRINCIPLES:

The new irrigation system will be connected to the existing recycled water irrigation system and permitted through the south bay water authority and the state as other campus projects have done. If necessary, a new irrigation tap off the recycled water mainline will be created at the northeast portion of the lake at the edge of the project site. All new work will be controlled by a new cloud-based irrigation controller system to match other District facilities. If required, a new controller will likely be located at the well site so that it is proximal to the irrigation back flow. The irrigation equipment will be appropriate for site and plant materials and relatively secure.

The newly planted drought-tolerant plants will need limited irrigation for the first few years of establishment. The new irrigation system will be laid out so that existing plants are not over-watered which could lead to their decline and loss. The irrigation system will be designed to establish a deep, strong root system that will eventually sustain the plants without supplemental water, under normal conditions. The irrigation system will be designed such that it can be easily modified by maintenance personnel so that during a severe drought, water is made available only to the most valued plants.

The proposed irrigation will meet water efficiency standards. The existing irrigation system will remain and connections will be made. Existing valves to be abandoned or removed along with their control wiring will be reused wherever possible. Overhead spray systems will be used per District requirements. Temporary irrigation during construction will be indicated on the project improvement plans to ensure the overall health of the existing plant material that is to remain.



Irrigation examples. Photo credit: Siegfried Engineering

Photo Credit: Siegfried

## MECHANICAL, ELECTRICAL, PLUMBING, AND LOW VOLTAGE 1.4

### MECHANICAL

Mechanical site connections will be provided by the Civil engineer within five feet from the building. Mechanical heating and cooling will be derived from a nearby central plant for chilled water (CHW) and heating hot water (HHW). The connections will be made into the underground prefabricated piping sized at eight inches CHW and six inches HHW piping between the Central Plant and the Visual Arts building. Tie in points shall be fully analyzed prior to connection to confirm capacities can be met for both the new GE Building and existing Visual/Performing Arts Buildings. The new systems will not include equipment which utilizes natural gas. The approximate requirements for underground CHW prefabricated pipe size are four inches and HHW prefabricated pipe size are two-and-a-half inches over to the new General Education building.

### PLUMBING

Plumbing connections will be provided by the Civil engineer within five feet from the building. Plumbing connections will consist of sanitary sewer, domestic water and fire water. The new domestic water heating systems will not include equipment which utilizes natural gas; therefore, natural gas is not required to be brought to the building.

The approximate requirements for plumbing utility building connections are the following:

- Sanitary Sewer is most likely a four inch service is sufficient, with a maximum of inches depending on number of fixtures. Per 2019 California Plumbing Code (CPC), a four inch service can support 216 drainage fixture units (DFUs) and a six inch service can support 720 DFUs.
- Domestic Water -> Depending on the incoming pressure, total number of fixtures and furthest fixture distance, we

- estimate a two to two-and-a-half inch new water service be installed. Per 2019 CPC, a two inch service can support up to 250 water supply fixture units (WSFUs) and a two-and-a-half inch service can support 440 WSFUs.
- Fire Water will use six inch service.

### ELECTRICAL

Electrical Power to the General Education building will be derived from the existing 21KV Switchgear located inside of the Central Plant building. There are two six-inch spare conduits from the 21KV Switchgear routed outside to existing Electrical Manhole EMH-15 and EMH-16.

Two six-inch conduits will be extended from EMH-16 to the new General Education building. Two 21KV feeders, FDR6 and FDR7 from the 21KV Switchgear at the Central Plant will be providing power to the General Education building via 21KV Primary Selector Switch to enable the campus to select power from either FDR6 or FDR7. New Medium Voltage conductors extended will be two sets of 25KV Shielded Power Cable Type MV-105 with 133% Insulation Level.

Electrical Questions / Needs:

- Provide demand load metering (peak load) for Feeder FDR6, FDR7, and main incoming 21KV Feeder at the Central Plant Main 21KV Switchgear.
- Provide information on the existing PV system assignment that have been claimed or allocated for other projects / buildings.

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## MECHANICAL, ELECTRICAL, PLUMBING, AND LOW VOLTAGE 1.4

### ELECTRICAL (CONTINUED)

The District owns a PV Farm and the power from the farm is being distributed to a few different buildings on campus. The design team will be utilizing the solar farm to achieve LEED accreditation.

- One point – on-site solar covers 1% of our annual energy cost.  
One percent of 2,433,600 KWH/Year = 24,336 KWH/Year which equivalent to 16.2 KW/Year of PV System
- Two points – on-site solar covers five percent of our annual energy cost.  
Five percent of 2,433,600 KWH/Year = 121,680 KWH/Year which equivalent to 81.1 KW/Year of PV System
- Three points – on-site solar covers 10% of our annual energy cost.  
10% of 2,433,600 KWH/Year = 243,360 KWH/Year which equivalent to 162.2 KW/Year of PV System

The number is based on the 20W/SF load to the building.

### LOW VOLTAGE

There is an existing 48 strand single mode fiber labeled (48-OS2, 73-120, SC-ST2-SCC) that is fusion splice terminated in the BDF room of Math/Science. 24 Strands (97-120) of the 48 Strands could be utilized to provide 24 strands of single mode to the Future General Education Building (FGE) that would be labeled (24 OS2, 97-120, SC-ST2-FGE). The new cable would be fusion spliced directly to strands 97-120 of the existing 48 strand cable in a new fusion splice case at PB42 north east of the Math/Science building.

There is an existing precast concrete communication pull box #42 northeast of the Math/Science building that should be used to provide fiber optic connectivity to the General Education building. Two new 4-inch conduits should route from the General Education building BDF to the east end of the existing PB-42.

The existing LC-UPC single mode pigtails and associated coupler panels located in the existing fiber optic termination panel in the Math Science BDF can be reused to terminate a new 24 strand single mode fiber optic cable that would be routed from PB42 to the BDF in the Future Student Services Building.

The existing 48 strand cable between the Math/Science BDF and the trunk consolidation splice at ST2 in the east utility tunnel should be relabeled (48-OS2, 73-96, SC-ST2-SCC, 97-120, SC-ST2-GE). The relabeling would occur in PB41, PB42, PB43, ST2, ST1 and in the Math Science BDF and Main Electrical room where the existing fiber unrated OSP cable is fusion spliced to a plenum rated cable to route through the Math/Science building cable trays to get to the BDF room.

## 2 PROGRAM NEEDS

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- 2.1 SCHEDULE OF ENGAGEMENTS
- 2.2 INTERVIEW PRIMER
- 2.3 SUMMARY OF ENGINEERING WALK-THROUGH
- 2.4 SUMMARY OF USER GROUP INTERVIEW #1
- 2.5 SUMMARY OF USER GROUP INTERVIEW #2
- 2.6 SUMMARY OF USER GROUP INTERVIEW #3

## SCHEDULE OF ENGAGEMENTS 2.1

To ensure that the design meets the needs of the intended users, the project team conducted a series of engagements with the Steering Committee to obtain first hand information on how the various spaces in the building will be used. This information built upon discussions during the selection interviews that helped shape the concept of the building. The input from these engagements helped to ensure that the building is configured and equipped to provide maximum utility.

The engagements described below gave the Design-Build and Bond Teams a chance to receive input from the full range of departments that will be using the new building and build an understanding of the pedagogies, methods, and technology used by each group. Special attention was paid to Engineering program which will have dedicated lab space in the building. In addition to input on the learning environments at the core of the building's program, feedback was also received regarding the social and interaction spaces.

### SELECTION INTERVIEWS (JULY 16-AUG 21, 2020. NOTE: THIS WAS A COLLEGE/DISTRICT SELECTION PROCESS.)

The Steering Committee responded to a proposed design concept and asked questions about the team, the process, and the future of educational design.

- The members of the Steering Committee are listed on page 2.

### ENGINEERING WALK-THROUGH (OCT 23, 2020)

Using photos of the spaces used by the Engineering Department prior to the COVID shutdown, the team received a virtual tour to share the various rooms and equipment used by the program.

- Abdie Tabrizi - Engineering Faculty

### USER INTERVIEW #1 (OCT 23, 2020)

Representatives of EVC's leadership articulated goals for the educational programs in the building and Dean Herrera described the range of class programs and activities performed by the Math, Science, and Engineering programs.

- Andrea Alexander - Vice President of Administrative Services
- Dean Antoinette Herrera - Dean of Math, Science and Engineering
- Matais Pouncil - Vice President of Academic Affairs

### USER INTERVIEW #2 (OCT 26, 2020)

Faculty and staff provided information on the program offerings and space needs of SSHAPE and Business and Development classes. Information was also relayed regarding pending updates to IT Standards.

- Andrea Alexander - Vice President of Administrative Services
- Bianca Lopez - Senior Administrator of SSHAPE
- Dr. Maniphone Dickerson - Dean of Business and Workforce Development
- Eugenio Canoy - CTSS and Safety and Facilities

### USER INTERVIEW #3 (NOV 12, 2020)

Faculty and leadership shared information regarding classroom needs for History, Political Science, and other SSHAPE programs, as well as needs for the overall use of the building.

- Eric Narveson - History Faculty
- Brad Carothers - Dean of SSHAPE

## INTERVIEW PRIMER 2.2

Prior to each interview, the following primer was distributed to participants. This framework was used to structure each engagement.



### EVC GENERAL EDUCATION BUILDING

Evergreen Valley College is designing a new general education building to support teaching and learning. This building will provide classrooms, lecture classrooms, and instructional labs, as well as study and interaction spaces. The architecture firm Perkins Eastman has been engaged to lead this process.

### HOW THE INTERVIEW WILL WORK

Stakeholder interviews are a core component of the planning process. The interviews are an opportunity for the consultant team to listen, ask questions, and explore ideas of how your department or area of expertise teaches – and to hear your thoughts on your daily and future space needs. No formal preparation is necessary; however, if you have materials that help explain your specialty space needs, such as strategic plans or best practice examples, then please bring them to share during the interview.

### QUESTIONS TO CONSIDER BEFORE THE STAKEHOLDER INTERVIEW

#### Existing EVC Classroom Needs

- What teaching methods are used by your department? (e.g. lectures, seminars, labs, small group learning, etc...)
- What is working well and not working well in your existing spaces on campus?
- How have your space needs changed over the last five years?
- What kinds of spaces do you need to be successful?
- What kinds of special equipment or infrastructure are unique to your department's classes in this building?
- How is distance or hybrid learning currently integrated into your department's educational programs?
- How attractive is the overall campus experience as a place to live/work/play?

#### Future Space Needs

- How do you see educational trends impacting your future space needs?
- How do you expect your department's offerings to change over the next five to ten years?
- What opportunities are there for new, or expanded, interdisciplinary research? Are there new synergies that should be considered?
- How might evolving partnerships impact future space needs?
- How will the next generation's attitude toward collaboration and interaction space impact future facilities?
- How will future distance learning and hybrid learning models affect your department?

#### Goal Setting

- How could a new General Education building enhance recruitment and retention efforts?
- Are there examples of best practices at other locations that inspire you?
- What are your top 3 EVC learning environment enhancement priorities?



### ENGINEERING VIRTUAL WALK-THROUGH

#### PARTICIPANTS:

Abdie Tabrizi - Engineering Faculty

#### KEY TAKEAWAYS

- Engineering's dedicated space has requirements distinct from general purpose classrooms.
- Further definition of Engineering program needs are required.

#### WHAT WE HEARD

The Engineering program utilizes general purpose classrooms that are shared with other programs and dedicated labs which are not shared.

- The Engineering Materials lab has heavy duty equipment including torsion and compression tests and chemical storage.
- The Circuits lab has specialized electronic equipment permanently mounted to desks and access to laptop computers associated with each set of equipment. Extensive power supply from plentiful outlets is required for this room.

- The General Engineering Lab/Robotics lab has 3D printers and specialized equipment for a variety of teaching modules. There is extensive storage space in this lab to keep equipment out of the way when not in use. An associated adjacent prep room is used by faculty to ready materials for class.
- There are large pieces of equipment associated with some engineering spaces and some of these spaces require compressed air and/or ventilation.
- Faculty and staff must supervise the preparation of materials associated with classwork throughout the year.
- A survey lab is used to prepare, store and learn how to use surveying equipment.
- For safety and security, Engineering's specialized equipment must be locked and secured to prevent unauthorized access.

### USER GROUP INTERVIEW #1

#### PARTICIPANTS:

Andrea Alexander - Vice President of Administrative Services  
Antoinette Herrera - Dean of Math, Science and Engineering  
Matais Pouncil - Vice President of Academic Affairs

#### KEY TAKEAWAYS

- Learning environments must support a broad range of teaching modes.
- Places for interaction outside of classrooms is important.
- Reconfigurable lighting and furniture is desired.

#### WHAT WE HEARD

- The range of subjects taught in Math, Science and Engineering Divisions includes:
  - Mathematics
  - Biology
  - Physics
  - Astronomy
- Most programs have a lecture/section format with 56 students in lecture and 28 in laboratory classes.
- 90% of classes are delivered as online/hybrid; during COVID the programs are 100% online.
- Teaching styles are very dynamic, ranging from stadium style lectures to demonstrations and small group activities.
- Drop down projection screens should not interfere with writable surface access.
- Document cameras are very popular, used by 95% of faculty.
- Acoustic isolation is important.

- EVC has a student population where individuals want to gather and converse before and after lectures. They need space to write on.
- Space for students to engage faculty near classrooms is desired, such as nooks with seating off of hallways.
- Any space to showcase work would be a benefit.
- Outdoor spaces for both learning and gathering are desired.
- The building should provide well illuminated exterior spaces with benches and seating for students that are waiting to be picked up late at night.
- Need for many outlets throughout building in classrooms and gathering areas.
- Needs for flexible classroom configurations:
  - Be able to illuminate the different zones within room.
  - Would like to have more flexibility with lighting zones, such as one in the middle, one on each side, and multiple control panels rather than just at the front.
  - Sufficient space for movable and stackable or nesting desks and chairs.
  - The ease of setting up the different configurations is important.

### USER GROUP INTERVIEW #2

#### PARTICIPANTS:

Andrea Alexander - Vice President of Administrative Services  
Bianca Lopez - Senior Administrator of SSHAPE  
Maniphone Dickerson - Dean of Business and Workforce Development  
Eugenio Canoy - CTSS and Safety and Facilities

#### KEY TAKEAWAYS

- Classrooms must support interactive and collaborative modes of learning.
- Updated technology standards should be applied in the General Education Building.
- Flexible configurations and customizable lighting will support a broad range of uses.

#### WHAT WE HEARD

- Classes that will use this building will be active, with demonstrations and equipment used during lectures.
- Having writable surfaces on all walls is desired, especially for economics and accounting.
- Every faculty member does not just sit or stand at podium, though some do.
- Participants in this interview believe Social Science, Humanities, Arts and Physical Education are likely to be the heaviest user of the new building and these programs require classrooms with a capacity of at least 55.
- Storage adjacent to classrooms is desired.
- No credenzas, technology should be built into wall insofar as is possible.
- New technology standards are to be released shortly (number of projectors, audio-visual needs, and microphones)
- Movable furniture (like that found in Cedro) is considered ideal.

- Movable furniture will help support partnerships with outside entities by enabling rooms to host a broad range of activities organized by guests.
- There will be online classes in the future, but there will always be in-person courses, especially for labs. However, classrooms must support online learning modes.
- Except for night courses, most students are in-and-out. There will be a lot of pedestrian flow into and out of the building.
- Clubs and departmental meetings make use of classrooms when available.
- The building will need spaces that can accommodate and leverage new technologies.
- Consider leveraging technology for wayfinding and information sharing in lobbies/hallways.
- The ability to create zones of different lighting inside classrooms and ability to control how much outside light enters the room is important.
- Windows with views are desired, but the design must balance that with the ability to keep the room comfortable and not get too hot. Shades or other window treatments will be important in providing comfort control.
- Labs must support interactive and collaborative modes of learning.

### USER GROUP INTERVIEW #3

#### PARTICIPANTS:

Eric Narveson - History Faculty  
Brad Carothers - Dean of SSHAPE

#### KEY TAKEAWAYS

- There is a strong demand for 55 seat classrooms.
- Creating amenities to make spaces more welcoming and comfortable would help keep the building more active.
- Plentiful writable surfaces and projection surfaces would help make classrooms more effective.

#### WHAT WE HEARD

- Standard needs for History (which are linked with Political Science) are for lecture classes that sometimes break into small groups. Seminars are rare and labs are not used for this department.
- The typical class size is 55 students.
- Some tiered classrooms are used, but for faculty that like to break into small groups, a flat floor with movable furniture is ideal.
- Projectors on multiple walls are preferred.
- Plentiful writable surfaces are desired on multiple walls.
- Movable furniture is ideal.
- Many outlets for laptop charging will support small group learning.
- Low windows could lead to distractions.
- Whiteboard “paint” does not work. Classrooms need high quality whiteboards.

- Flexible tables would allow clustering for small group work and separation for examination.
- A camera in each classroom to support remote learnings would be helpful.
- There have been issues regarding a shortage of 55 seat classrooms.
- Language Arts and Communications classes would use 35 seat classrooms.
- The College would like to head in the direction of students spending more time on campus. Making the campus fun and friendly would encourage them to stay longer.
- It would be nice to have a more informal way to speaking with students other than only having an office be the only option.
- Study groups use Starbucks as a meeting place. Provide a similar type of space in the building to encourage meeting on campus. If designed as an outdoor space, weather protection and providing sufficient outlets need to be considered.
- An information kiosk or place to answer questions could be helpful.
- The building should take advantage of the views of the hills in the area.
- Having enough large classrooms and a variety of classroom types is desired.
- Ability to control temperature and sound would be nice.

## **3 SPACE TYPES**

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**3.1 PROGRAM MATRIX**

**3.2 LECTURE HALLS**

**3.3 CLASSROOMS**

**3.4 LEARN LABS**

**3.5 ENGINEERING LAB**

**3.6 OFFICE SPACE**

**3.7 PUBLIC SPACE**

**3.8 LACTATION ROOM**

**3.9 INCLUSIVE RESTROOMS**

# PROGRAM MATRIX 3.1

# PROGRAM MATRIX 3.1

## PROGRAM MATRIX

The program matrix shows the range of spaces included in the General Education Building design. Whenever possible, spaces align with the San Jose Community College District's design standards, though some spaces have been modified from the standards to meet project requirements.

Areas for building support (such as restrooms) and building utilities are included in the grossing factor listed below the program spaces, and approximately 15,000 square feet of outdoor spaces are not included in this table, which include patios, space under shade canopies, and accessible walkways.

Definitions:

FICM: National Center for Educational Statistics Facilities Inventory and Classification Manual (<https://nces.ed.gov/pubs2006/ficm/>)

Seat Count: Number of Seats in room

Station Size: Square feet per seat

ASF: Assignable Square Feet (usable area of room)

FICM	Space Type	Seat Count	Station Size	Room ASF	# Room	Total Seats	Total ASF	Notes
100	<b>Classrooms</b>							
	55 Seat Lecture Hall	55	23	1,265	2	110	2,530	Slight modifications from district standards to align with project requirements and maximize space efficiency.
	55 Seat Flexible Classroom	55	22	1,210	4	220	4,840	Aligns with district standards but adjusted to 55 seats per project requirements.
	35 Seat Flexible Classroom	35	22	770	11	385	8,470	Aligns with district standards but adjusted to 35 seats per project requirements.
	<i>Classrooms ASF Total</i>						15,840	
200	<b>Labs</b>							
	Learn Lab	48	32	1,536	2	96	3,072	Intended to align with district standards but final requirements pending Engineering program details Requirements pending
	Engineering Lab			2,000	1		2,000	
	<i>Labs ASF Total</i>						5,072	
300	<b>Offices</b>							
	Standard Office	1	99	99	5		495	Aligns with district standards.
	Workstations	20	48	960	1		960	Aligns with district standards.
	Large Conference Room	12-15	25	350	1		350	Aligns with district standards.
	<i>Office ASF Total</i>						1,805	
400	<b>Public Spaces</b>							
	Distributed Seating at Café Tables	15	25	375	1		375	Seating types to be defined in schematic design.
	High Top Seats	15	25	375	1		375	
	Booth Seats	15	25	375	1		375	
	Soft Seats	15	25	375	1		375	
	<i>Study ASF Total</i>						1,500	
	<b>Support</b>							
700	Building Central Storage			140	1		140	
XXX	Lactation Room			107	1		107	
	<i>Central Support ASF Total</i>						247	

Assumptions:

Inclusive restrooms
Universal design objectives
Includes 15,000 square feet of finished outdoor area, including walkways and gathering areas.

**Sub-total Building Program ASF 24,464**

Programming Contingency (N/A)

**Total ASF with Contingency 24,464**

ASF to GSF Factor 1.58

**Total GSF 38,653**

Note: Distribution of space types may shift in course of design efforts.

### LECTURE CONCEPT

The concept for the new tiered lecture space is to serve as instructional spaces and double as spaces for assembly in support of non-instructional purposes. The tiered floor system will accommodate sight lines of its users.

The lecture room configuration largely aligns with District Standards, but because the capacity specified for the General Education Building is smaller than the district's standards, three changes have been made:

1. The plan uses one center aisle instead of two side aisles.
2. Rows of seats are straight rather than angling in at the edges.
3. Seats are movable and tables in the front row are movable. (Tables in other rows are fixed.)

These changes result in a more efficient use of space and better accommodate small group work functions.

Doors at the front and back of the room provide access for individuals with limited mobility, and placement of the rear door will enable individuals arriving late to enter without disrupting the class.

Additional design elements include:

- Extensive writable surfaces
- Access to natural light
- Lighting controls for quality screen viewing
- Acoustic isolation
- Configuration that accommodates limited small group work



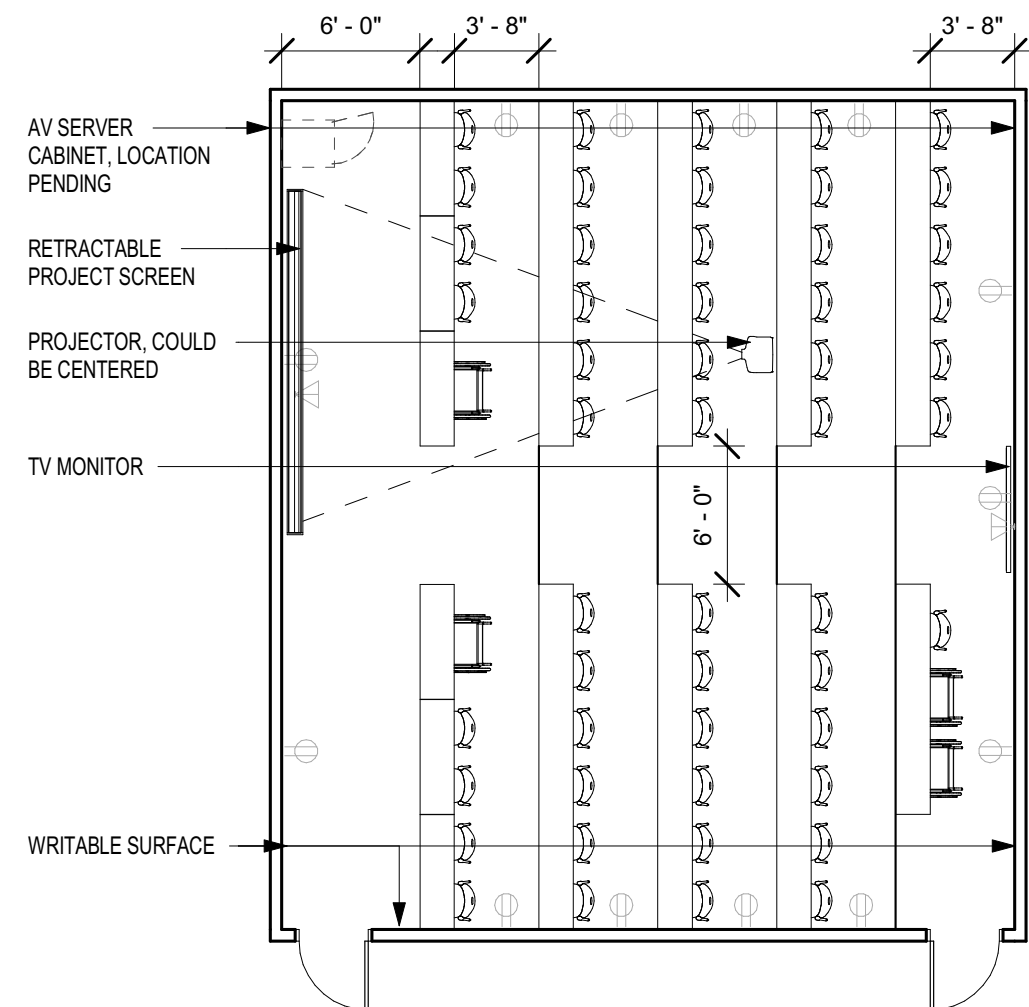
Photo Credit: Perkins Eastman



Photo Credit: <https://www.bbc.com/news/business-38058477>

ROOM AREA: 1,265 SF

- Quantity: two
- 55 seat capacity
- Acoustic ceiling tiles
- Resilient flooring
- Tiered seating with bench style tables and movable chairs
- Writable surface panels on teaching walls
- One projector in front, one flat screen monitor in back
- Tables with integrated electrical outlets
- Sufficient space for wheelchair access in front and rear rows
- Smart lighting controls



Note: Room dimensions subject to change through the design process.



**FLEXIBLE CLASSROOM CONCEPT**

The concept for the classrooms is to maximize flexibility to serve a broad range of needs and activities in the College. To facilitate this, classrooms of all sizes will support multi-modal classroom configurations through:

- Wheeled flip-flop nesting desks
- Wheeled nesting chairs
- Writable surfaces panels on walls
- Access to natural light
- Lighting controls for quality screen viewing
- Acoustic isolation



Seminar configuration



Lecture configuration



Group work configuration

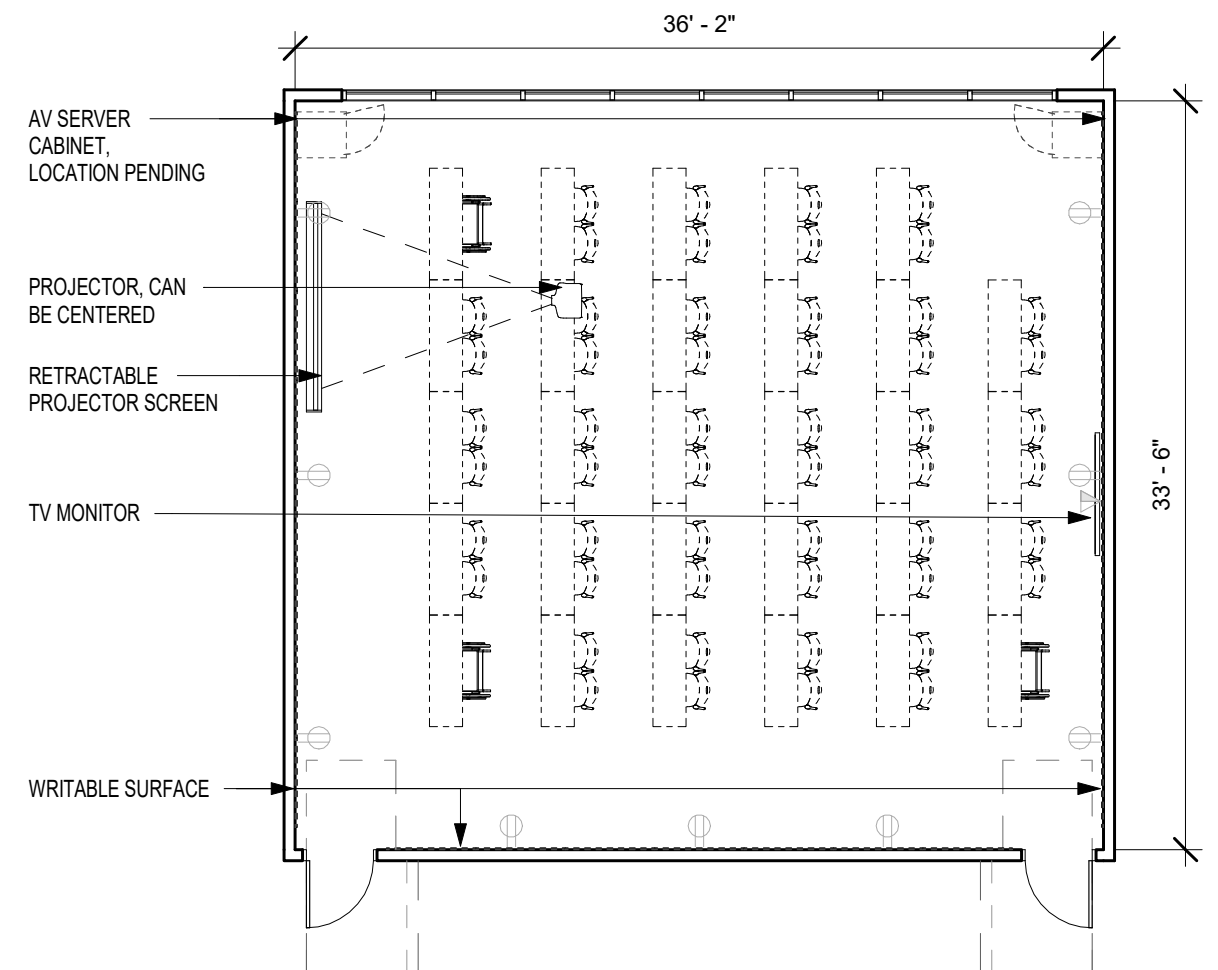
Photo Credit: Perkins Eastman

**55 SEAT CLASSROOM**

ROOM AREA: 1,210 SF

- Quantity: four
- 55 seat capacity
- Acoustic ceiling tiles
- Resilient flooring
- Flexible seating
- Wheeled flip-flop nesting desks and wheeled nesting chairs
- Writable surface panels on two to three walls

- One projector in front, one flat screen monitor in back
- Smart lighting controls
- \*Teacher workstation pending faculty and IT input
- \*Floor outlets pending direction per revised standard



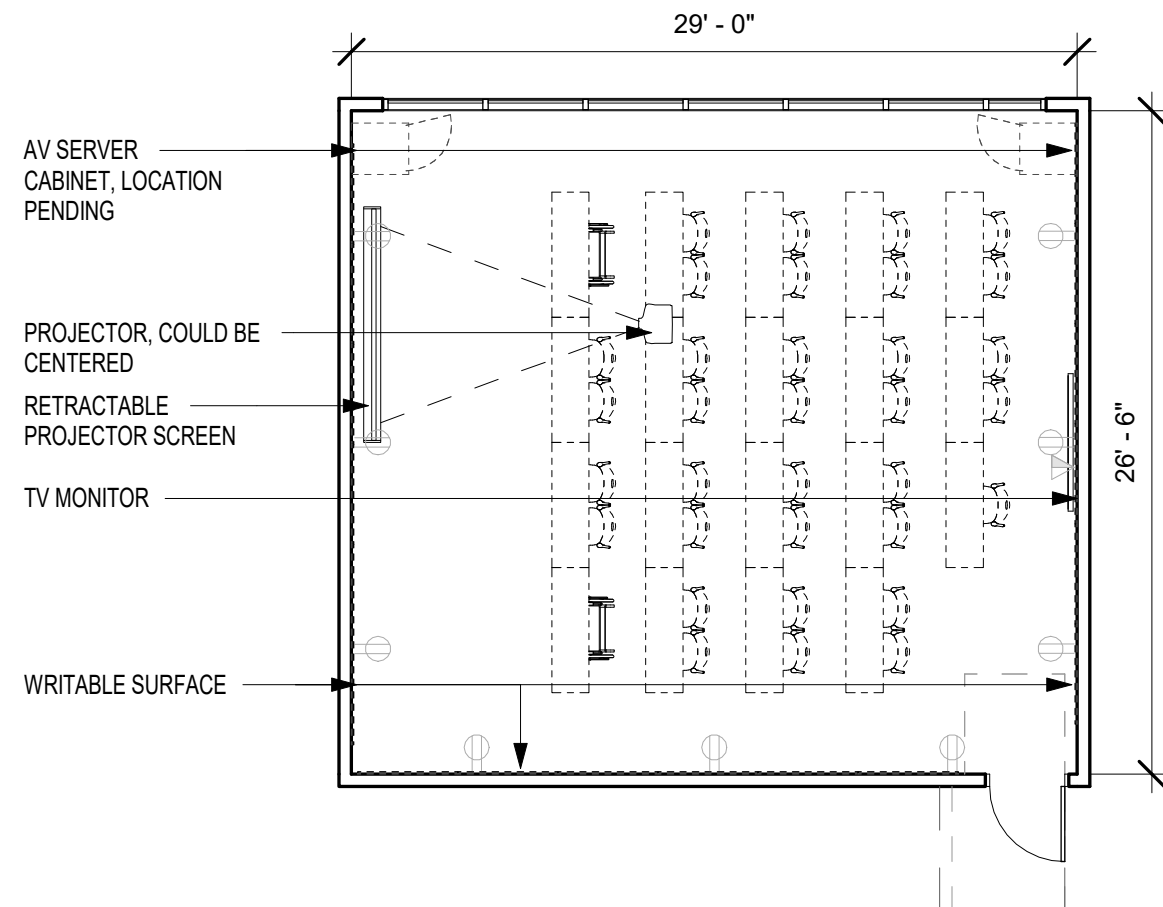
Note: Room dimensions subject to change through the design process.

**35 SEAT CLASSROOM**

ROOM AREA: 770 SF

- Quantity: 11
- 35 seat capacity
- Acoustic ceiling tiles
- Resilient flooring
- Flexible seating
- Wheeled flip-flop nesting desks and wheeled nesting chairs
- Writable surface panels on two to three walls
- One projector in front, one flat screen monitor in back

- Smart lighting controls
- \*Teacher workstation pending faculty and IT input
- \*Floor outlets pending direction per revised standard



Note: Room dimensions subject to change through the design process.

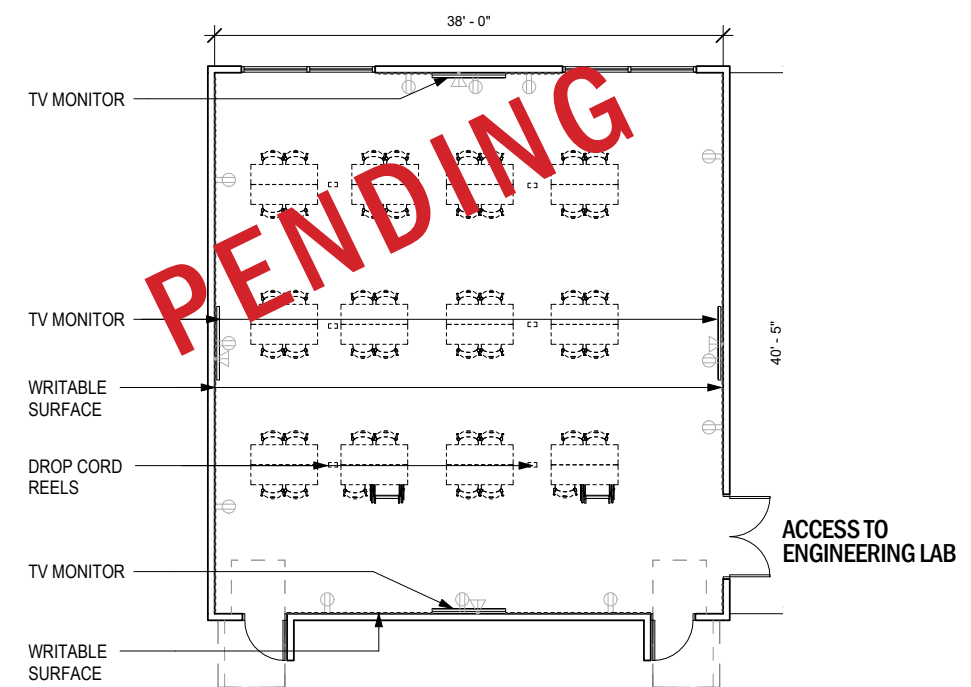
**LEARN LAB CONCEPT**

Along with the Engineering Lab, the Learn Labs will be dedicated for use by the Engineering Program, and will feature design elements that distinguish these spaces from the shared general education spaces in the rest of the building. Those design elements will also be featured in the hallway to promote wayfinding.

The concept for the Learn Labs is to maximize flexibility to serve the full range of needs and activities articulated during engagement and to provide additional resources needed for Engineering use. To facilitate this, Learn Labs will support multi-modal classroom configurations through:

- Lighting controls for quality screen viewing
- Acoustic isolation
- ROOM AREA: 1,536 SF
- Quantity: two
- Flexible seating
- Wheeled flip-flop nesting desks and wheeled nesting chairs
- Writable surface panels on all four walls
- One projector in front, one flat screen monitor in back
- Adjacent to engineering lab
- Sealed concrete floors

- Wheeled flip-flop nesting desks
- Wheeled nesting chairs
- Writable surface panels on walls
- Access to natural light



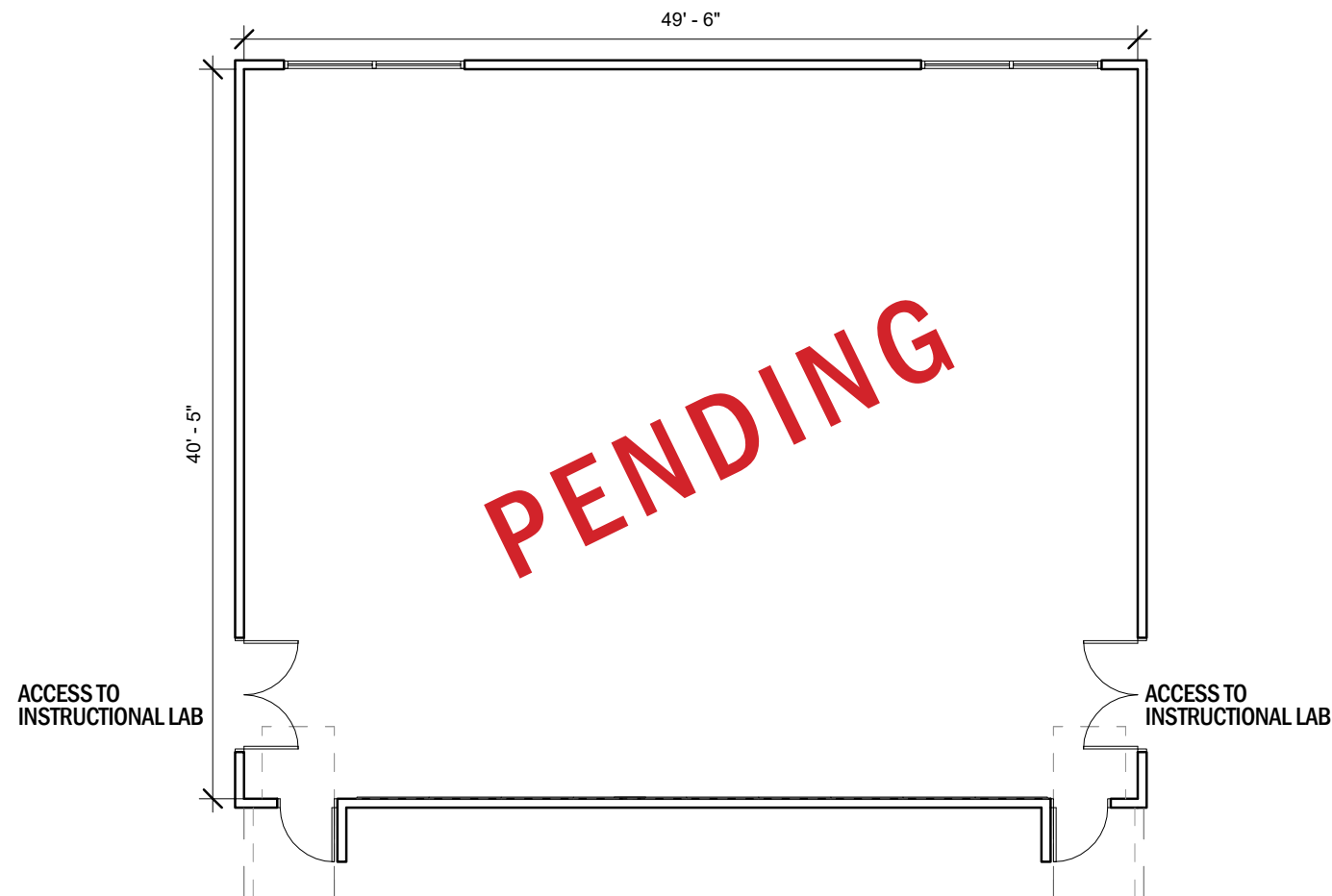
Note: Room dimensions subject to change through the design process.

**ENGINEERING LAB**

Along with the Learn Labs, the Engineering Lab will be dedicated for use by the Engineering Program, and will feature design elements that distinguish these spaces from the shared general education spaces in the rest of the building. Those design elements will also be featured in the hallway to promote wayfinding.

ROOM AREA: 2,000 SF

- Quantity: 1
- Drop Cord Reels
- Adjacent to Instruction Labs
- Sealed, concrete floors

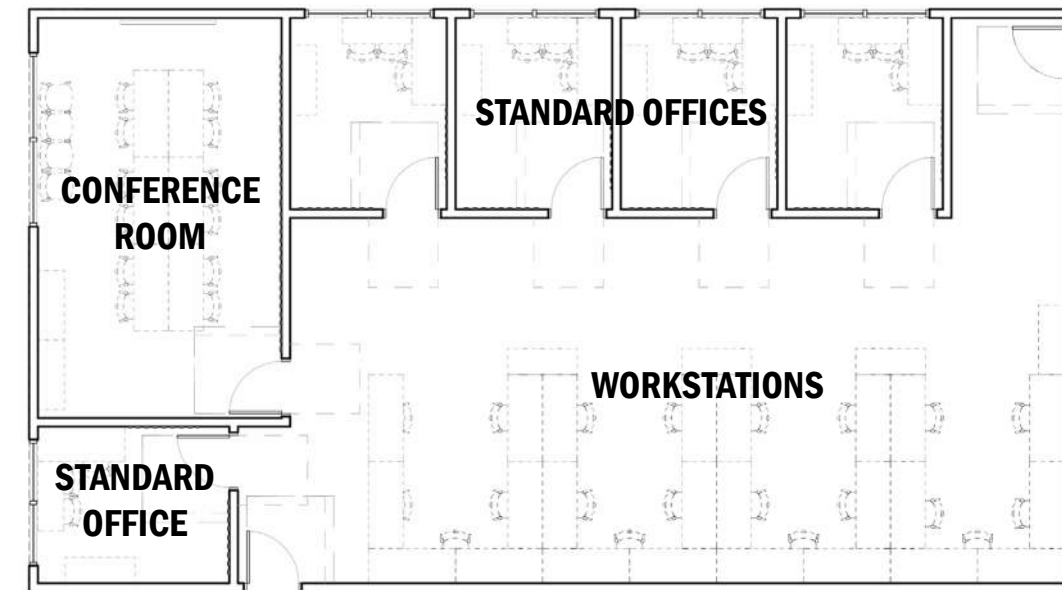


Note: Room dimensions subject to change through the design process.

**OFFICE CONCEPT**

The concept for the office suite is to maximize daylighting and ergonomics to aid users' productivity and overall sense of well-being. The suite allows for users to create a flexible work environment for individual tasks, social interactions, and collaborations. The office suite includes individual office spaces, conference room, and touchdown workstations.

Several suite configurations are being explored, with one potential configuration shown below. A more defined floor plan of the entire set of spaces will be shared in Schematic Design.

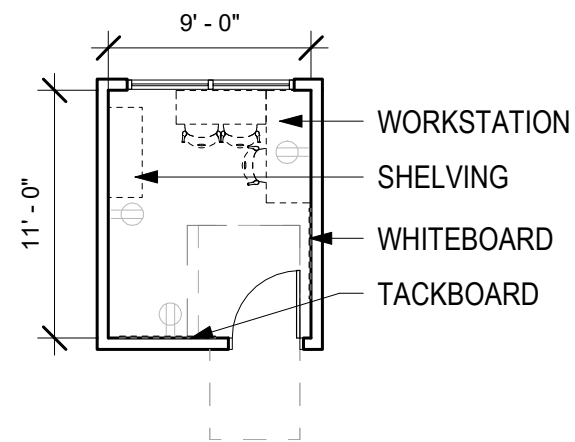


Note: Configuration and dimensions subject to change through the design process.

**STANDARD OFFICE**

ROOM AREA: 99 SF

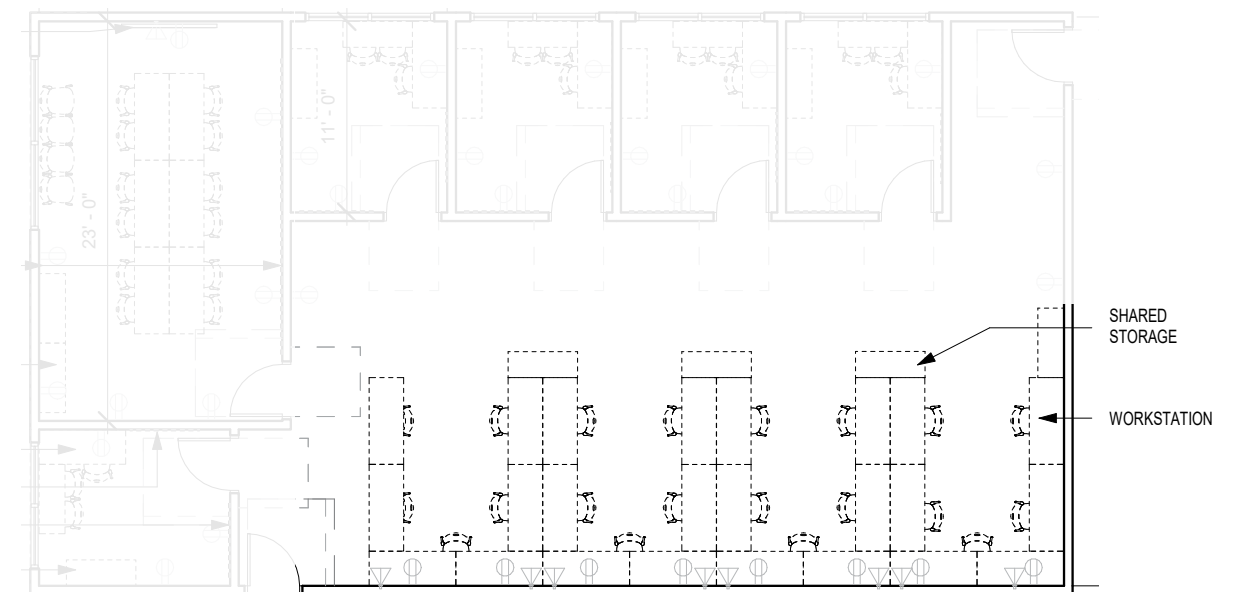
- Quantity: five
- Workstation with storage
- Acoustic ceiling tiles
- Whiteboard
- Tackboard
- Carpet flooring



**WORKSTATIONS**

ROOM AREA: 960 SF; 48 SF per workstation

- Quantity: 20
- Integrated with office suite
- Workstation furniture to have integrated electrical outlets
- Acoustic ceiling tiles
- Carpet flooring
- Space to include storage lockers
- Space to include flat panel TV screen



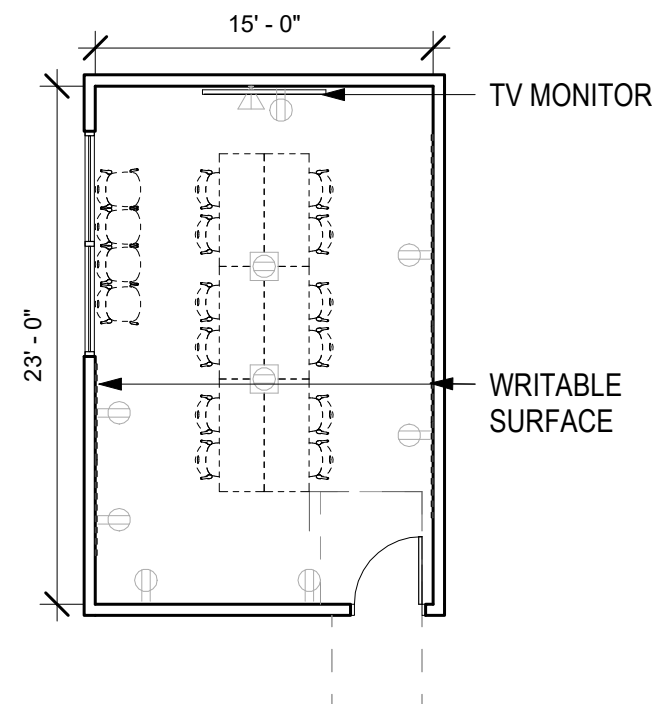
*Note: Room dimensions and configuration subject to change through the design process.*

## OFFICE SPACE 3.6

### LARGE CONFERENCE ROOM

ROOM AREA: 350 SF

- Quantity: One
- Acoustic ceiling tiles
- Carpet flooring
- Large conference table seating for 12-15 people
- Writable surface on available walls
- One TV monitor



Note: Room dimensions subject to change through the design process.

## PUBLIC SPACE 3.7

### STUDY INTERACTION CONCEPT

Public spaces in and around the General Education Building will provide a diversity of spaces to serve a broad range of needs. Quiet, heads-down “cave” spaces will be located on upper floors while louder, collaborative “café” spaces will be placed in gathering areas and near the lake. Ample opportunities will be provided for students and faculty to collaborate in public areas. All public areas will be open and highly visible to maximize safety and comfort.

TOTAL AREA: 1,500 SF

- Distributed seating
- High top seats
- Booth seats
- Soft seats



Image credit: Perkins Eastman



Conceptual renderings of study and interaction spaces. Image credit: Perkins Eastman

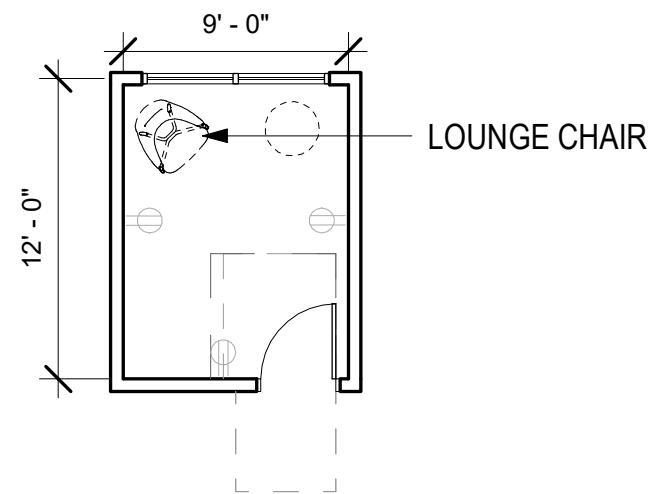
## LACTATION ROOM 3.8

### LACTATION ROOM

The lactation room is to be located adjacent to the inclusive restrooms on the building's third floor.

ROOM AREA: 107 SF

- Quantity: 1
- Lounge seating
- Acoustic ceiling tile
- Resilient flooring



*Note: Room dimensions subject to change through the design process.*

## INCLUSIVE RESTROOMS 3.9

TOTAL AREA: ~288 SF

Restrooms will be gender neutral using private, individual stalls and a communal washing area. This inclusive design aligns with EVC standards and provides safety and comfort for all building occupants.

Facilities will be provided on each floor providing up to 18 total stalls for the building. The design team will maximize the number of stalls located on the first floor.

- Tile flooring
- Moisture resistant ceiling tiles
- Accessible stalls, fixtures, and accessories
- Full height walls with standard doors
- Lighting and exhaust provided in each stall
- High visibility and ease of circulation
- No dead end spaces

## **4 CONCEPT DEVELOPMENT**

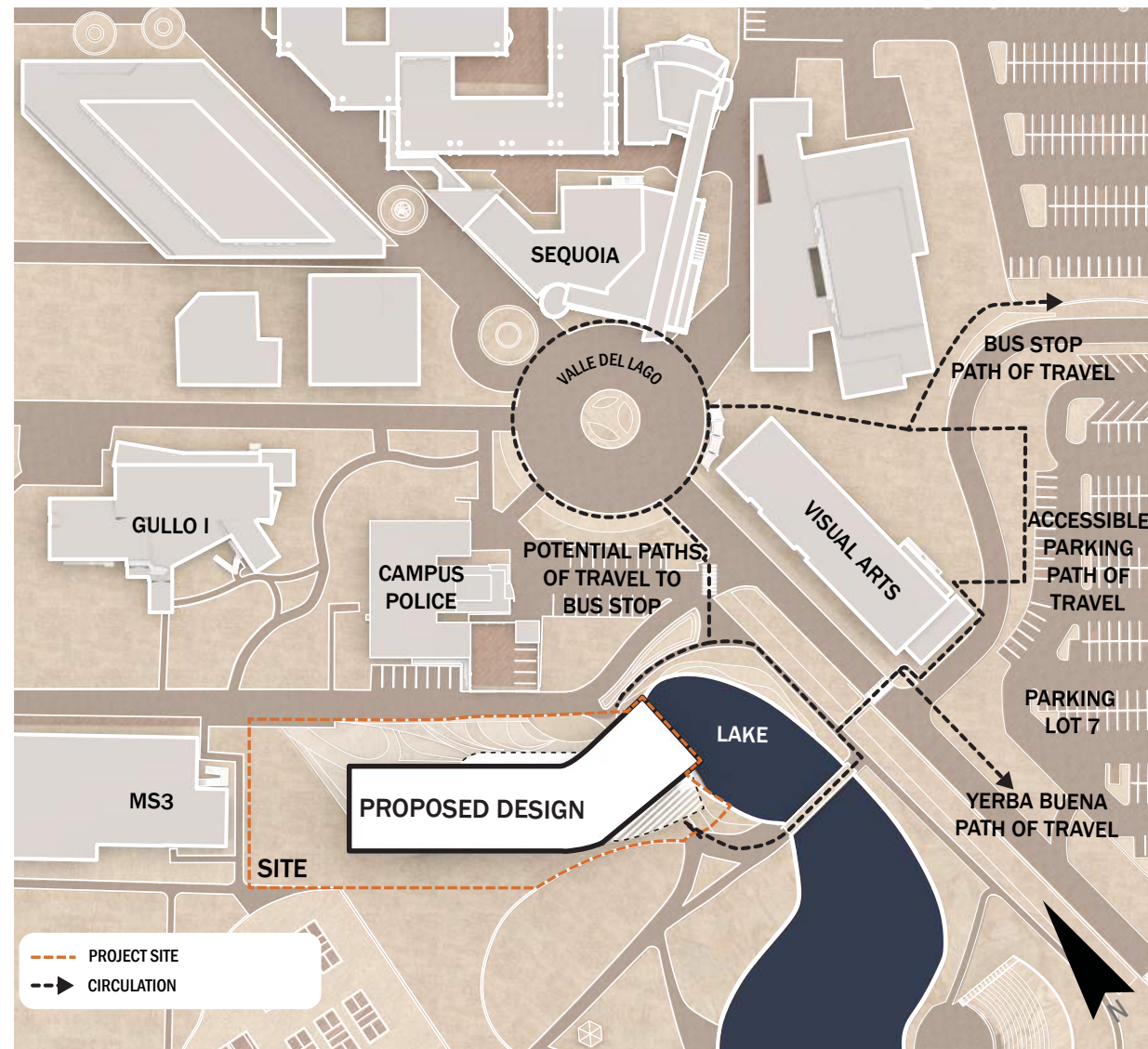
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**4.1 CONCEPTUAL ADJACENCY DIAGRAMS**

**4.2 CONCEPTUAL IMAGERY**

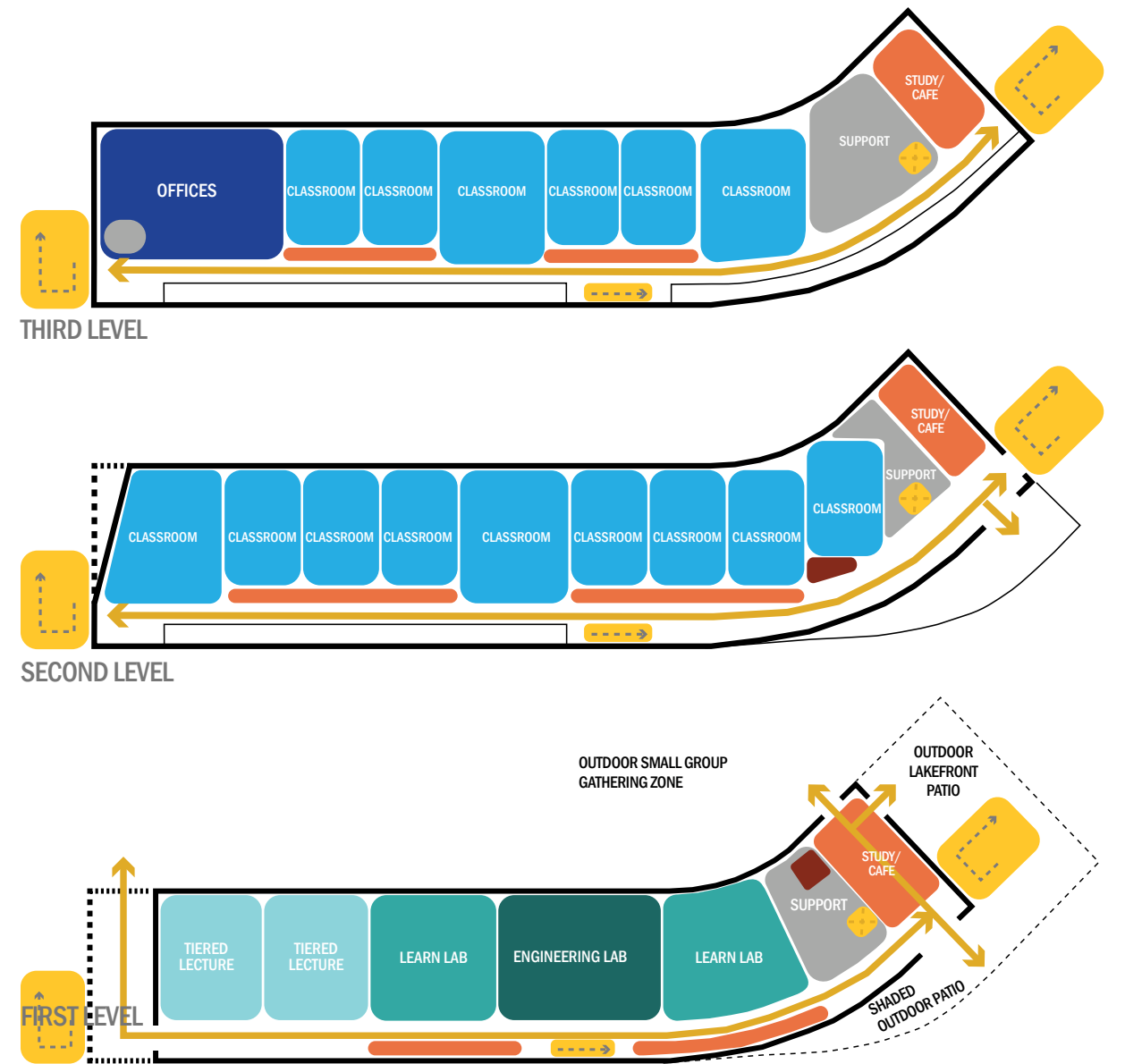
CONCEPTUAL ADJACENCY DIAGRAMS 4.1

CONCEPTUAL ADJACENCY DIAGRAMS 4.1



SITE PLAN

Note: images used are for concept only and not to be construed for final condition.  
Image credit: Perkins Eastman.

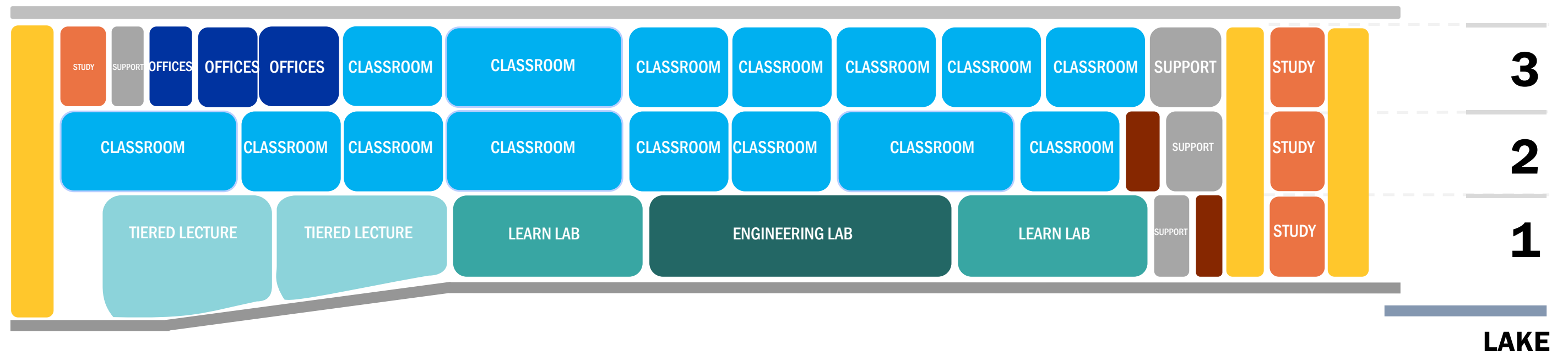


- CLASSROOMS
- TIERED LECTURE
- LEARN LAB
- ENGINEERING LAB
- OFFICES
- STUDY
- CIRCULATION
- SUPPORT
- STORAGE

Note: images used are for concept only and not to be construed for final condition.  
Image credit: Perkins Eastman.







Note: images used are for concept only and not to be construed for final condition.  
Image credit: Perkins Eastman.

- CLASSROOMS
- TIERED LECTURE
- LEARN LAB
- ENGINEERING LAB
- OFFICES
- STUDY
- CIRCULATION
- SUPPORT
- STORAGE

Aerial View from Lake



*Note: images used are for concept only and not to be construed for final condition. Image credit: Perkins Eastman*

Perspective view from Gullo I



*Note: images used are for concept only and not to be construed for final condition. Image credit: Perkins Eastman*

Perspective View from Lake



*Note: images used are for concept only and not to be construed for final condition. Image credit: Perkins Eastman*



Note: images used are for concept only and not to be construed for final condition. Image credit: Perkins Eastman

## **5 APPENDIX**

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- 5.1 SITE ACCESSIBILITY REPORT**
- 5.2 SITE AND GEOTECHNICAL REVIEW  
SUMMARY**
- 5.3 EXISTING DOCUMENTS PROVIDED TO  
DATE**
- 5.4 PROGRAMMING COST ESTIMATE**

**APPLICABLE CODES: 2019 TITLE 24, CHAPTER 11B, CALIFORNIA BUILDING CODE**  
**AUTHORITY HAVING JURISDICTION: DIVISION OF THE STATE ARCHITECT (DSA)**

Findings from a review of as-built documentation and an on-site review of the existing conditions are included in the summary below:

**PARKING**

The parking lot to the south-east of the project site is the closest parking area to the new General Education Building. The number of available accessible stalls and van accessible stalls appear to exceed the number required per CBC 2019 Table 11B-208.2. As such, parking improvements are not anticipated to be within the scope of this project. However, DSA may require a campus approach in regards to parking improvements. As such, this project may be required to accommodate for EV-ready parking requirements per CalGreen. Reviewing with DSA via the Formal Collaborative Process will allow for an open discussion to resolve the approach to EV parking specific to the General Education project.

Ensuring an accessible path of travel from the accessible parking to the General Education Building will be required, and improvement scope is summarized below.

**SIDEWALKS AND EXTERIOR WALKWAYS**

An accessible path of travel from the General Education Building to the nearest accessible parking stalls, as well as to the nearest public right-of-way, is required. An existing accessible path of travel has been provided under a separate project scope (North Fire Lane) and will be identified as the path of travel to a public right of way for the General Education project. However, improvements will be required to provide an accessible path of travel to the building entrance from the existing accessible parking area. In addition, a walkway to the north of the new General Education building connecting to the MS3 building pathways is to be incorporated as part of this project scope. Sloped walkways are to be incorporated with exterior site improvements to achieve universal design. These sloped walkways will connect with the MS3 building pathway. All new pathways will be required to meet the following requirements.

As a general rule, accessible paths shall coincide with the general circulation path. Most often, these paths take the form of sidewalks. The clear width of sidewalks and ramps shall be 48" minimum. When ramps have handrails, they may project 3½" at each side at the handrail height. When an accessible route makes a 180 degree turn, the depth of the turn shall be 48" minimum

Walkway paths shall be no steeper than 1:20 with cross paths no steeper than 1:48. Walkways become ramps when the slope is between 1:20 and 1:12. Ramps cannot be steeper than 1:12. Stair risers shall be between 4" and 7" high with stair treads shall be 11" deep minimum.

When changes in elevation are greater than 12" in the means of egress, provide a sloped surface less than 5% grade (1:20). When the changes in elevation are less than 6", provide handrails or changes in finishes with contrasting colors.

Accessible routes less than 60" clear width shall have passing spaces at intervals of 200' maximum, or at the intersection of a T-shaped crossing.

Walkways with a continuous gradient shall have resting areas (landing) 60" in length, at intervals of 400' maximum (30" maximum for a ramp). These resting area shall be the same width as the walkway. The slope of the resting area shall be max 1:48 in all directions.

Ramps landings shall have the following:

- Bottom landing for a ramp shall be 72" minimum in length
- Top landing for a ramp shall be 60" width by 60" length minimum

A 90 degree turn in a ramp shall have a landing of 60" width by 72" depth in the direction of downward slope. Slopes at landings shall be no steeper than 1:48. Finally, ramps shall be of slip-resistant material.

**SCOPE AS PART OF THIS PROJECT:**

Improvements to the sidewalk along the streets and adjacent to the lake as indicated in the figure. For exterior building spaces, the walkways and plazas shall follow the requirements noted in this document.

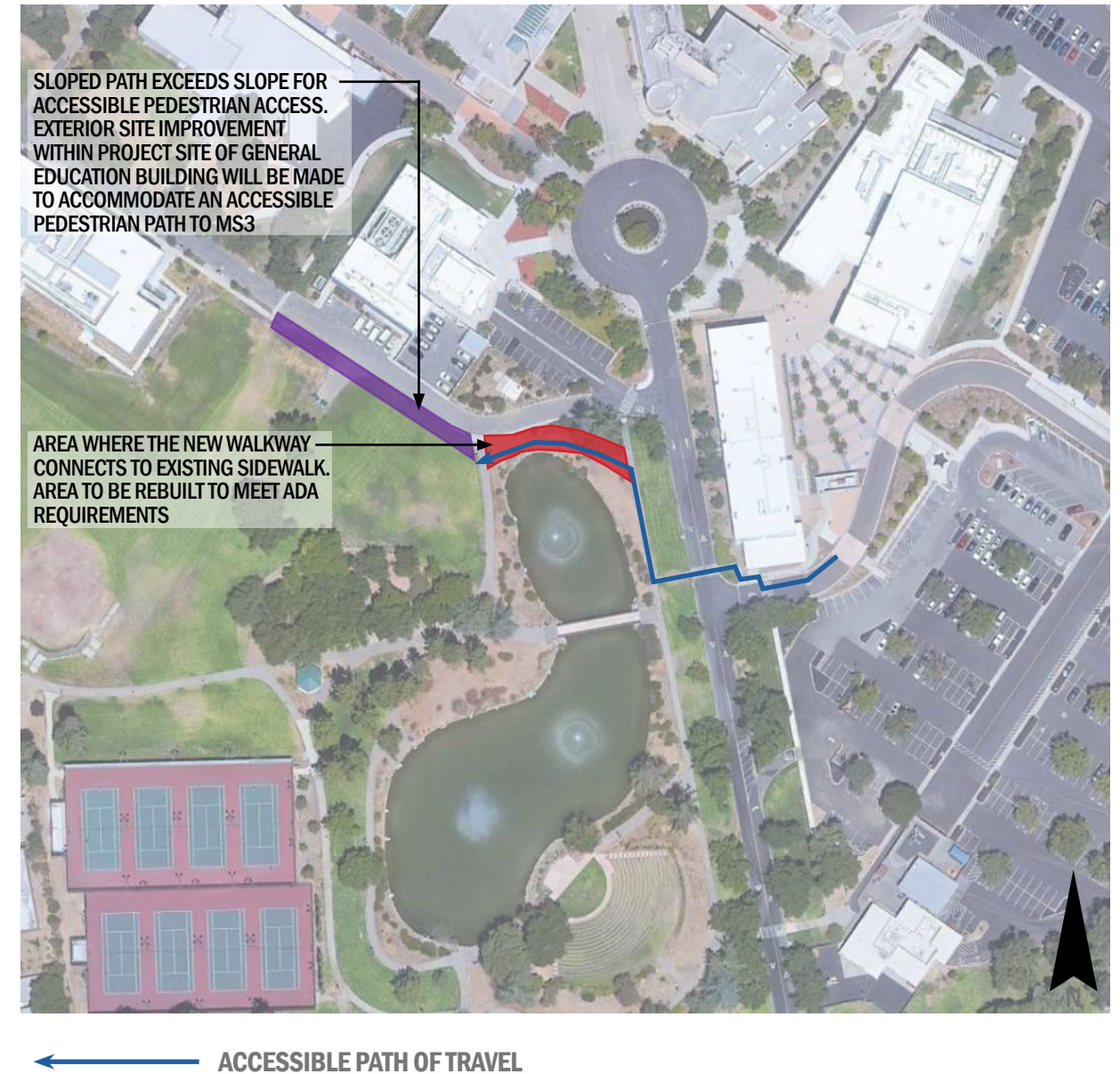


Image credit: Siegfried Engineering

## SITE AND GEOTECHNICAL REVIEW SUMMARY 5.2

### SITE CONDITIONS

The project site is located in an open irrigated grass field adjacent to the MS3 building and the lake. The site has a gentle slope and is mostly clear of any existing structures. There are no anticipated site challenges for the proposed building.

### GEOTECH REPORT SUMMARY

The following is a summary of key geotechnical findings and recommendations from the Geotechnical and Geologic Hazards Investigation by Clearly Consultants Inc, dated December 2020:

1. Fault Lines – The site does not have an active fault passing through it. The closest fault is the Evergreen fault which is 930 feet away from the site.
2. Undocumented Fill – There is approximately 3 feet of undocumented fill underlain by native subgrade. The undocumented fill is expected to be replaced with engineered fill. Site soil may be used as engineered fill if deemed acceptable to the geotechnical engineer.
3. Expansion – Soil is expected to have low to moderate expansion characteristics.
4. Corrosivity – Soil has low potential for corrosion. No special requirements are anticipated for the foundation design.
5. Groundwater – Groundwater was not found in any of the borings. No significant design impacts are anticipated.
6. Seismicity – The site is located in a high seismic region and proximity to active faults. Site specific ground motion govern over mapped values. Seismic design parameters will have an impact on the superstructure and foundation design.
7. Liquefaction – Liquefaction induced settlement is anticipated to be 3/4-inch max with 3/8-inch differential. This does not appear to have a major impact on design.
8. Settlement – Dry soil settlement is anticipated to be up to 3-inch maximum with 1-1/2-inch differential. Post construction settlement is anticipated to be 1-inch. This will have an impact on the design of the grade beams.

9. Slab on grade – Traditional 5 to 6-inch slab on grade is acceptable provided subgrade is improved per Geotech requirements.
10. Foundations – Shallow foundations such as grade beams and spread footings are acceptable. Foundations must be founded into native soil beneath the engineered fill layer. The outdoor ground floor patio should be supported on cast-in-place drilled pier foundations extending a minimum of 10 feet into native soil. This is likely due to its proximity to the existing lake.

This analysis suggests that the project site is suitable for the proposed building. The foundation system is anticipated to be comprised of spread footings and grade beams for the building structure and a combination of grade beams and drilled piers for the patio slab.

## EXISTING DOCUMENTS PROVIDED TO DATE 5.3

### ADA Path of Travel

- 2020 1019\_North Fire Lane POT
- 2020 1019\_Sports Complex POT
- 2020 1019\_West ADA POT
- 2020 1021\_ADA Campus Survey

### Campus Logos

- 2020 1026\_EVC Logo
- 2020 1026\_EVC\_Logos\_Final\_outlined

### Campus Maps and Plans

- Acacia
  - Construction Documents
  - Floor Plan Diagrams
- Campus-Wide
  - 2020 1009\_Campus Graphic Map
- Engineering Department
  - 2020 1130\_Engineering Equipment Inventory
- LEED Certifications
  - 2020 1104\_Auto Tech LEED Cert
  - 2020 1104\_Fitness Center LEED Cert
  - 2020 1104\_MS3 LEED Cert
  - 2020 1118\_MS3 LEED Project Details
  - 2020 1118\_MS3 LEED Scorecard\_Progress
  - 2020 1123\_Fitness Center LEED Scorecard\_Progress
- Sports Complex
  - 2020 1027\_Sports Complex Project Drawings
  - 2020 1027\_Sports Complex Project Manual
  - 2020 1027\_Sports Complex Site2.dwg
- 2020 1009\_Campus Graphic Map

### Central Plant Load Capacity

- 2020 1009\_Central Plant Load Study Draft

### Cost Estimate Examples

#### District Standards

- 2020 1009\_District Design Standards
- Inclusive Restrooms
- Landscape
  - 2020 1019\_90-10 Sod
  - 2020 1019\_Irrigation Specs
  - 2020 1019\_North Fire Lane Landscape CD
  - 2020 1019\_Rainbird PESB-R-PRS-D
  - 2020 1019\_Sports Complex Landscape CD
  - 2020 1019\_Sunburst Red Mulch
  - 2020 1019\_West ADA Landscape CD

### Security

- 2020 1019\_Physical Security Standards Final
- 2020 1019\_Physical Security Standards Typical Detail Book V1

### Existing Lake Dwgs

- 2020 1009\_Lake Reno DSA

### Fire Lane Access

- 2020 1009\_Campus Hydrant Map
- 2020 1009\_Fire Lanes

### Geotech Reports

- 2020 1009\_Geotech Engineering Report (South Campus)
- 2020 1009\_Geotech Hazards Report V1 (South Campus)
- 2020 1009\_Geotech Hazards Report V2 (South Campus)
- 2020 1009\_Geotech Seismic Hazard Report (South Campus)
- 2020 1027\_Geotech Investigation Sports Complex
- 2020 1104\_Geotech Proposed Fitness Center (Not Built)
- 2020 1111\_Geotech GenEd Prelim Rec
- 2020 1117\_Geotech GenEd Site Specific Design Criteria
- 2020 1216\_1355.5 Rep Evergreen Valley College, General Education Building

### PV Farm

- 2020 1019\_C2.0 GRADING PLAN.dwg

### Topo Surveys

- 2012 Campus-wide- Topo Survey A and B
- 2020 Campus-wide - 2020 1019\_50 Scale EVC All.dwg
- 2020 Sports Complex – T2.4 Topo Map. dwg (1) and (2)

### Utility Mapping

#### LEED Certifications (partially redundant)

- PV Assignment Letter by District
- 2020 1123\_Fitness Center LEED Scorecard
- 2020 1204\_Fitness Center LEED Scorecard
- 2020 1204\_Autotech July LEED Progress Report
- 2020 1204\_Autotech LEED NC 3.0 Credit Matrix
- 2020 1204\_Fitness Center LEED Checklists
- 2020 1204\_MS3 LEED Checklists



## **5.4 PROGRAMMING COST ESTIMATE**

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## Project Description

This project for Evergreen Valley College San Jose Campus will consist of a 3 story general education buildings made up of classrooms, labs, lecture halls, offices, an engineering space and associated landscape.

## Reference Documents

This estimate was produced from pre-design and concept design documents produced by Perkins Eastman dated 12/23/20 in conjunction with RFP documents produced by SJEVC and the bond team. The estimate also takes into consideration the soils report produced by Cleary Consultants, Inc. on December 9<sup>th</sup>.

## Basis of Pricing

- Pricing is based on local Prevailing Wage construction cost.
- This estimate based on standard industry practices.
- Overtime and other premium shifts have not been included in this estimate.
- Escalation at 4% per year until the beginning of construction has been included.
- Construction contingency has been included at 3% of the direct cost.
- Owner contingency is not included in the estimate.
- Pricing is based on construction commencing April 2022 and completing August 2023.

## General Education Building Assumptions and Qualifications:

1. We are assuming the site will balance and minimal export will be required.
2. It is assumed that a 6" concrete slab is acceptable.
3. We are currently assuming a structural steel brace frame building.
4. The exterior skin systems have been constructed based off of the following assumptions.
  - a. Skin System Budget – Overall sf = 30,752 sf
    - i. 40% - Storefront Glazing
    - ii. 30% - Sand Finish Plaster
    - iii. 30% - Fiber Cement Panel – Green Walls Removed.
5. Curtain wall glazing has not been included to avoid differed approvals and additional costs.
6. Budgets have been included for Shade Structures at the North and South East.
  - a. Shade Structure North - \$315,000
  - b. Shade Structure South - \$540,000
7. We are assuming single ply roofing.
8. No FFE has been included within this estimate.
9. Inclusive restrooms per the new district standards are included.

10. It has been assumed that 70% of the ceiling space will be 2x4 ACT. The remaining will be flat drywall with minimal soffits.
11. It has been assumed that carpet flooring is included at offices, sealed concrete at back of house spaces and engineering labs, tile at restrooms and sheet vinyl flooring at classrooms, common area, and other location.
12. It has been assumed that plumbing will not be required in any classrooms, lecture spaces or labs.
13. It is assumed that we will have sufficient water pressure for our building and will not be required to provide a fire pump or domestic water pump.
14. This project will not require natural gas and therefore has been excluded from this estimate.
15. The mechanical system is assumed to be a four-pipe system.
  - a. Hot and chilled water is assumed to be tied into south of the access road north of the project site.
16. Electrical and low voltage systems have been included.
  - a. The low voltage systems provided as budgets are as follows:
    - i. Code compliant Fire Alarm System
    - ii. Tel/Data
    - iii. Security / Access Control
    - iv. DAS - Dependent on local jurisdiction having authority.
    - v. Audio Visual (Distribution Only)
  - b. We have not included the following systems:
    - i. PA Systems
    - ii. Master Clock Systems
    - iii. Wireless Access Points "Equipment"
    - iv. Owner Provided Network Equipment such as Switches, Routers, Etc.

**Site Assumptions and Qualifications:**

1. The gross sf of the site has been assumed to be 37,000 sf and the net site is assumed to be 25,196 sf.
2. We have assumed low maintenance and minimal landscape per conversations with the campus.
3. We have assumed approximately 15,500 sf of natural gray flatwork.
4. Site walls are qualified as natural gray. No sack and patch or no specialty finish.
5. The scope for the ADA compliance work from our site to the closest parking is still to be determined and at this time is expected to be minimum.
6. No additional parking spaces will be required to support the new General Education Building.
7. No additional electric vehicle chargers have been included.



**Executive Summary**

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

**Pre-Design Estimate**

December 29, 2020

Brad Barker

Project Component	Area	Unit Cost	Subtotal	Total
Building Type Summary:				
General Education Classroom Building	38,654 sf	\$ 588.34 /sf	\$ 22,741,721	
Total Buildings				<b>22,741,721</b>
Site Work				
Site Prep	37,000 sf	24.46 /sf	905,004	
Sitework	25,196 sf	66.64 /sf	1,679,184	
Total Site Work				<b>2,584,188</b>
Subcontractor Default Insurance Escalation				In Above In Above
<b>Direct Construction Subtotal (Item 3)</b>			<b>\$ 25,325,909</b>	
Construction Contingency (Item 4)		3.00%		759,777
<b>Subtotal</b>			<b>\$ 26,085,686</b>	
GC's / GR's (Item 5)				2,071,301
Contractor's Fee (Item 6)				1,571,223
Builders Risk Insurance				By Owner
Phase II Design Documents Fees (Item 2)				2,026,829
Design Build P&P Bond (Item 8)		0.824%		244,960
<b>TOTAL</b>			<b>\$ 32,000,000</b>	



**CSI Breakdown**

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

**Pre-Design Estimate**

December 29, 2020

Brad Barker

CSI #	ITEM	General Education Classroom Building	Site Prep	Sitework	PROJECT TOTALS	COST/SF
017400	Site Maintenance	\$ 48,317	\$ -	\$ 362,826	\$ 411,144	10.64
022100	Surveying	-	41,527	-	41,527	1.07
030000	Concrete Work	1,117,837	-	-	1,117,837	28.92
032000	Reinforcing Steel	180,762	-	86,193	266,955	6.91
044300	Countertops	54,040	-	-	54,040	1.40
052000	Metal Decking	365,959	-	-	365,959	9.47
053000	Structural Steel	2,595,657	-	-	2,595,657	67.15
055000	Miscellaneous Metal	1,818,811	-	110,800	1,929,611	49.92
061000	Rough Carpentry	9,663	-	-	9,663	0.25
062000	Millwork	257,500	-	-	257,500	6.66
071200	Waterproofing	21,480	-	26,950	48,430	1.25
072000	Insulation	80,377	-	-	80,377	2.08
072700	Fireproofing	115,962	-	-	115,962	3.00
075000	Roofing	453,863	-	-	453,863	11.74
076000	Sheet Metal	94,923	-	-	94,923	2.46
079990	Caulking & Sealants	13,838	-	7,559	21,397	0.55
082000	Doors, Frames, and Hardware	280,600	-	-	280,600	7.26
083319	Elevator Smoke Doors	24,000	-	-	24,000	0.62
088000	Glass and Glazing	1,228,800	-	-	1,228,800	31.79
088300	Mirrors	14,400	-	-	14,400	0.37
091000	Lath and Plaster	421,232	-	-	421,232	10.90
092500	Drywall and Metal Stud Framing	2,226,649	-	-	2,226,649	57.60
093000	Ceramic Tile	283,200	-	-	283,200	7.33
096500	Carpet, VCT, and Rubber Base	236,537	-	-	236,537	6.12
098000	Acoustical Ceiling	340,433	-	-	340,433	8.81
099000	Painting/Concrete Sealer	191,278	-	10,000	201,278	5.21
100000	Misc. Specialties	171,083	-	-	171,083	4.43
101500	Toilet Partitions & Accessories	12,700	-	-	12,700	0.33
104000	Signage	42,751	-	-	42,751	1.11
105000	Fire Extinguishers	3,000	-	-	3,000	0.08
116623	Wall Protection	9,660	-	-	9,660	0.25
122000	Window Treatment	51,307	-	-	51,307	1.33
140000	Conveying Systems	225,000	-	-	225,000	5.82
210000	Fire Sprinkler	280,241	-	-	280,241	7.25
220000	Plumbing	620,337	-	-	620,337	16.05
230000	HVAC	2,899,041	120,000	-	3,019,041	78.10
260000	Electrical	1,778,078	111,000	75,588	1,964,666	50.83
265000	Lighting Fixtures	773,078	-	-	773,078	20.00
270000	Telecommunications and Data	289,904	-	-	289,904	7.50
274000	Audio Visual	77,308	-	-	77,308	2.00
280000	Security System / Access Control	154,616	-	-	154,616	4.00
283100	Fire Alarm	222,260	-	-	222,260	5.75
310000	Earthwork	160,900	242,991	-	403,891	10.45
321313	Site Concrete	-	-	751,275	751,275	19.44
321216	Asphalt Paving	-	-	7,125	7,125	0.18
328000	Landscape and Irrigation	-	-	123,352	123,352	3.19
330000	Site Utilities	-	326,150	-	326,150	8.44
	Subcontractor Default Insurance	253,802	10,100	18,740	282,642	7.31
	Escalation	1,337,748	53,236	98,776	1,489,759	38.54
<b>Direct Construction Subtotal (Item 3)</b>		<b>22,741,721</b>	<b>905,004</b>	<b>1,679,184</b>	<b>25,325,909</b>	<b>\$ 643.49</b>



**System Summary**

32156 EVC General Education  
 Evergreen Community College  
 San Jose  
 Perkins Eastman

**Pre-Design Estimate**

December 29, 2020  
 Brad Barker

	<b>General Education Classroom Building</b>	<b>Site Prep</b>	<b>Sitework</b>	<b>Total</b>
Gross Area	38,654	37,000	25,196	
1 Demolition	\$ -	\$ -	\$ -	\$ -
2 Sitework	-	610,668	1,486,080	2,096,749
3 Foundation	742,357	-	-	742,357
4 Substructure	190,919	-	-	190,919
5 Superstructure	4,040,769	-	-	4,040,769
6 Exterior Skin	4,334,691	-	-	4,334,691
7 Roofing	540,682	-	-	540,682
8 Interior Construction	3,980,892	-	-	3,980,892
9 Conveying Systems	225,000	-	-	225,000
10 Special Construction	-	-	-	-
11 Fire Protection	280,241	-	-	280,241
12 Plumbing	620,337	-	-	620,337
13 Mechanical	2,899,041	120,000	-	3,019,041
14 Electrical	3,295,243	111,000	75,588	3,481,831
Subcontractor Default Insurance	253,802	10,100	18,740	282,642
Escalation	1,337,748	53,236	98,776	1,489,759
<b>Subtotal</b>	<b>\$ 22,741,721</b>	<b>\$ 905,004</b>	<b>\$ 1,679,184</b>	<b>\$ 25,325,909</b>



## General Education Classroom Building

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

## Pre-Design Estimate

December 29, 2020

Brad Barker

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### Area Summary

Gross Area 38,654 sf

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1 Demolition	\$	-	\$	-
2 Sitework		-		-
3 Foundation		742,357		19.21
4 Substructure		190,919		4.94
5 Superstructure		4,040,769		104.54
6 Exterior Skin		4,334,691		112.14
7 Roofing		540,682		13.99
8 Interior Construction		3,980,892		102.99
9 Conveying Systems		225,000		5.82
10 Special Construction		-		-
11 Fire Protection		280,241		7.25
12 Plumbing		620,337		16.05
13 Mechanical		2,899,041		75.00
14 Electrical		3,295,243		85.25
Subcontractor Default Insurance		253,802		6.57
Escalation		1,337,748		34.61

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**Subtotal** \$ **22,741,721** \$ **588.34**



### General Education Classroom Building

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

Building Area

38,654 sf

Pre-Design Estimate

12/29/2020

Brad Barker

DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL	TOTAL
<b>03 FOUNDATIONS</b>					
<b>Earthwork</b>					
Export Spoils	603	cy	65.00	39,195	
Fine Grade	11,804	sf	0.25	2,951	
Overex and Recompact at Building Pads, (5' Beyond Footprint)	3,845	cy	20.00	76,891	
Import 12" of Gravel Under Slab	11,804	sf	3.25	38,363	
Move Ins	1	ea	3,500.00	3,500	
<b>SUBTOTAL: Earthwork</b>				<b>160,900</b>	
<b>Concrete</b>					
Grade Beam	35	cy	630.00	22,050	
Spread Footings - BRBF	388	cy	630.00	244,440	
Pad Footings	70	cy	630.00	44,100	
Continuous Footings	110	cy	630.00	69,300	
Steps in Continuous Footings	200	lf	500.00	100,000	
<b>SUBTOTAL: Concrete</b>				<b>479,890</b>	
<b>Reinforcing Steel</b>					
Rebar for Grade Beams (200#/cy)	7,000	lbs	1.05	7,350	
Rebar for Spread Footings at BRBF (160#/cy)	62,080	lbs	1.05	65,184	
Rebar for Pad Footings (120#/cy)	8,400	lbs	1.05	8,820	
Rebar for Continuous Footing (175#/cy)	19,250	lbs	1.05	20,213	
<b>SUBTOTAL: Reinforcing Steel</b>				<b>101,567</b>	
<b>SUBTOTAL: 03 - FOUNDATIONS</b>					<b>742,357</b>
<b>04 SUBSTRUCTURE</b>					
<b>Concrete</b>					
6" Thick Concrete Slab on Grade	11,804	sf	12.00	141,648	
Elevator Pit	1	ea	8,500.00	8,500	
Slab Steps 1'-6" Tall	65	lf	100.00	6,500	
<b>SUBTOTAL: Concrete</b>				<b>156,648</b>	
<b>Reinforcing Steel</b>					
Rebar for Slab on Grade (1.5#/sf)	17,706	lbs	1.05	18,591	
Rebar for Elevator Pit	1	ls	3,500.00	3,500	
<b>SUBTOTAL: Reinforcing Steel</b>				<b>22,091</b>	
<b>Waterproofing</b>					
Perimeter Drainage	605	sf	16.00	9,680	
Waterproofing at Elevator Pits	1	ea	2,500.00	2,500	
<b>SUBTOTAL: Waterproofing</b>				<b>12,180</b>	
<b>SUBTOTAL: 04 - SUBSTRUCTURE</b>					<b>190,919</b>
<b>05 SUPERSTRUCTURE</b>					
<b>Concrete</b>					





### General Education Classroom Building

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

Building Area

38,654 sf

Pre-Design Estimate

12/29/2020

Brad Barker

DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL	TOTAL
3-1/4" Ltwt Concrete at 2nd and 3rd Floor	26,850	sf	7.00	187,949	
3-1/4" Ltwt Concrete at Roof	24,500	sf	7.00	171,500	
3-1/4" Ltwt Concrete at Elevated Deck	930	sf	7.00	6,510	
Rigid Insulation at Tiered Lecture Halls	2,530	sf	15.00	37,950	
Concrete Fill at Metal Stairs	3	flt	4,000.00	12,000	
Precast Tread at Interior Courtyard Stairs	3	ea	7,500.00	22,500	
Precast Treads at Exterior Courtyard Stairs	3	ea	7,500.00	22,500	
Concrete Equipment Pads	500	sf	10.00	5,000	
6" Concrete Curb	605	lf	18.00	10,890	
Depressed Concrete Slab	1,500	sf	3.00	4,500	
<b>SUBTOTAL: Concrete</b>				<b>481,299</b>	
<b>Reinforcing Steel</b>					
Rebar for Ltwt Concrete (1#/sf)	52,280	lbs	1.05	54,894	
Rebar for Concrete Curb (1#/lf)	605	lbs	1.05	635	
Rebar for Concrete Equipment Pads (3#/sf)	1,500	lbs	1.05	1,575	
<b>SUBTOTAL: Reinforcing Steel</b>				<b>57,104</b>	
<b>Structural Steel</b>					
Structural Steel (14.5#/sf)	280	tns	6,000.00	1,681,444	
Misc. Steel Supports (2#/sf)	39	tns	6,000.00	231,923	
Brace Frame Budget (3.5#/sf)	68	tns	6,000.00	405,866	
Structural Steel at Exterior Deck (14.5#/sf)	6.74	tns	6,000.00	40,455	
Misc. Connections (10%)	39	tns	6,000.00	235,969	
<b>SUBTOTAL: Structural Steel</b>				<b>2,595,657</b>	
<b>Metal Decking</b>					
3" Metal Deck at Floors and Roof	51,350	sf	7.00	359,449	
3" Metal Deck at Exterior Deck	930	sf	7.00	6,510	
<b>SUBTOTAL: Metal Decking</b>				<b>365,959</b>	
<b>Miscellaneous Metals</b>					
Miscellaneous Metals	38,654	sf	0.65	25,125	
Metal Stairs	3	flt	30,000.00	90,000	
Interior Courtyard Stairs With Precast Treads	3	flt	50,000.00	150,000	
Exterior Courtyard Stairs With Precast Treads	3	flt	50,000.00	150,000	
<b>SUBTOTAL: Miscellaneous Metals</b>				<b>415,125</b>	
<b>Rough Carpentry</b>					
Misc. Rough Carpentry - Blocking, Sheathing, Wood Furring, etc.	38,654	sf	0.25	9,663	
<b>SUBTOTAL: Rough Carpentry</b>				<b>9,663</b>	
<b>Fireproofing</b>					
Fireproofing	38,654	sf	3.00	115,962	



### General Education Classroom Building

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

Building Area

38,654 sf

Pre-Design Estimate

12/29/2020

Brad Barker

DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL	TOTAL
<b>SUBTOTAL: Fireproofing</b>				<b>115,962</b>	
<b>SUBTOTAL: 05 - SUPERSTRUCTURE</b>					<b>4,040,769</b>
<b>06 EXTERIOR SKIN</b>					
<b>Metal Stud Framing</b>					
Exterior Metal Stud Framing	17,760	sf	12.50	222,000	
Exterior Metal Stud Framing at 2nd Skin	1,152	sf	12.50	14,400	
Exterior Metal Stud Soffit Framing	12,308	sf	13.50	166,159	
Exterior Metal Stud Soffit Framing at Decks	930	sf	13.50	12,555	
Metal Stud Framed Parapet Wall	1,260	sf	12.50	15,750	
Exterior Densglass	21,432	sf	3.75	80,370	
Exterior Densglass at Soffits	13,238	sf	3.75	49,643	
<b>SUBTOTAL: Metal Stud Framing</b>				<b>560,877</b>	
<b>Miscellaneous Metals</b>					
Miscellaneous Metals	30,752	ssf	0.65	19,989	
Budget for Specialty Metal Shade Structure North	2,100	sf	150.00	315,000	
Budget Specialty Metal Shade Structure South	3,600	sf	150.00	540,000	
Metal Screen Wall at Mechanical Equipment	1,500	sf	50.00	75,000	
Metal Fascia	2,000	sf	45.00	90,000	
<b>SUBTOTAL: Miscellaneous Metals</b>				<b>1,039,989</b>	
<b>Mineral Fiber Reinforced Cement Panels</b>					
Fiber Cement Siding Panels	5,920	sf	48.00	284,160	
Fiber Cement Siding Panels at High Soffit	9,928	sf	48.00	476,549	
Fiber Cement Panel in Place of Green Wall	2,960	sf	48.00	142,080	
<b>SUBTOTAL: Mineral Fiber Reinforced Cement Panels</b>				<b>902,789</b>	
<b>Sheet Metal</b>					
Sheet Metal and Flashing	30,752	ssf	2.00	61,504	
<b>SUBTOTAL: Sheet Metal</b>				<b>61,504</b>	
<b>Caulking and Sealants</b>					
Caulking and Sealants	30,752	ssf	0.45	13,838	
<b>SUBTOTAL: Caulking and Sealants</b>				<b>13,838</b>	
<b>Insulation</b>					
Thermal Insulation - R19	20,172	sf	1.25	25,215	
<b>SUBTOTAL: Insulation</b>				<b>25,215</b>	
<b>Waterproofing</b>					
Deck Coating at Exterior Walkway	930	sf	10.00	9,300	
<b>SUBTOTAL: Waterproofing</b>				<b>9,300</b>	
<b>Doors, Frames &amp; Hardware</b>					



### General Education Classroom Building

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

Building Area

38,654 sf

Pre-Design Estimate

12/29/2020

Brad Barker

DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL	TOTAL
Hollow Metal Door and Frame - Glass Infill Full Ht	4	ea	2,500.00	10,000	
Finish Hardware for Storefront Doors	14	leafs	600.00	8,400	
Finish Hardware	4	leafs	500.00	2,000	
<b>SUBTOTAL: Doors, Frames &amp; Hardware</b>				<b>20,400</b>	
<b>Glass &amp; Glazing</b>					
Storefront Glazing	11,840	sf	95.00	1,124,800	
Aluminum Storefront Doors - Doubles	7	pr	8,000.00	56,000	
Glass Guard at Deck	120	lf	400.00	48,000	
<b>SUBTOTAL: Glass &amp; Glazing</b>				<b>1,228,800</b>	
<b>Lath and Plaster</b>					
Sand Finish Plaster at Exterior Walls	8,880	sf	18.00	159,840	
Sand Finish Plaster at 2nd Skin System	1,152	sf	18.00	20,736	
Sand Finish Plaster at Soffits	2,380	sf	19.00	45,220	
Sand Finish Plaster at Deck	930	sf	19.00	17,670	
Rigid Insulation 3" at Soffits	3,310	sf	4.00	13,240	
Rigid Insulation 2" at Walls	20,172	sf	3.00	60,516	
Weather Barrier	34,670	sf	3.00	104,010	
<b>SUBTOTAL: Lath and Plaster</b>				<b>421,232</b>	
<b>Painting</b>					
Paint Exterior Walls	10,032	sf	1.10	11,035	
Anti-Graffiti Coating at Ground Level	5,445	sf	2.25	12,251	
Paint Plaster Soffits	3,310	sf	1.20	3,972	
Paint Door Frames & Doors	4	ea	200.00	800	
<b>SUBTOTAL: Painting</b>				<b>28,058</b>	
<b>Signage</b>					
Code Required Signage	30,752	ssf	0.25	7,688	
Building Identifications Signage	1	ls	15,000.00	15,000	
<b>SUBTOTAL: Signage</b>				<b>22,688</b>	
<b>SUBTOTAL: 06 - EXTERIOR SKIN</b>					<b>4,334,691</b>
<b>07 ROOFING</b>					
<b>Insulation</b>					
Rigid Insulation	24,500	sf	5.00	122,500	
<b>SUBTOTAL: Insulation</b>				<b>122,500</b>	
<b>Miscellaneous Metals</b>					
Roof Access Ladder / Stair	1	ea	2,500.00	2,500	
Roof Access Hatch	1	ea	900.00	900	
Roof Davit Budget	20	ea	2,500.00	50,000	
<b>SUBTOTAL: Miscellaneous Metals</b>				<b>53,400</b>	
<b>Sheet Metal</b>					



## General Education Classroom Building

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

Building Area

38,654 sf

Pre-Design Estimate

12/29/2020

Brad Barker

DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL	TOTAL
Miscellaneous Sheet Metal - Reglets, Flashing, etc.	24,500	sf	0.35	8,575	
Metal Coping	1,242	sf	20.00	24,844	
<b>SUBTOTAL: Sheet Metal</b>				<b>33,419</b>	
<b>Roofing</b>					
Single Ply Membrane Roofing, 60 Mil PVC	24,500	sf	12.00	294,000	
Single Ply at Vertical Surfaces	2,009	sf	12.50	25,113	
Roof Protection Walk Pads	1,225	sf	10.00	12,250	
<b>SUBTOTAL: Roofing</b>				<b>331,363</b>	
<b>SUBTOTAL: 07 - ROOFING</b>					<b>540,682</b>
<b>08 INTERIOR CONSTRUCTION</b>					
<b>Miscellaneous Metals</b>					
Railings at Interior Walkways	500	lf	400.00	200,000	
Rails at Stairs	100	lf	400.00	40,000	
Hand Rails at Stairs	100	lf	200.00	20,000	
Hand Rails at lecture Halls	100	lf	200.00	20,000	
Short Rail Under Stairs / Structure	50	lf	125.00	6,250	
Counter Supports at Bathroom and Common Areas	472	sf	10.00	4,720	
Misc. Metals at Interior (Edge Trims / Angles and Misc. Backing)	38,654	sf	0.50	19,327	
<b>SUBTOTAL: Miscellaneous Metals</b>				<b>310,297</b>	
<b>Millwork</b>					
Budget for Misc. Millwork	200	lf	400.00	80,000	
Budget for fixed Desk at Lecture halls	300	lf	300.00	90,000	
Shelving at Engineering	100	lf	150.00	15,000	
Misc. Lower Cabinets	100	lf	350.00	35,000	
Misc. Upper Cabinets	100	lf	375.00	37,500	
<b>SUBTOTAL: Millwork</b>				<b>257,500</b>	
<b>Countertops</b>					
Budget for Misc. Counters	400	sf	70.00	28,000	
Solid Surface Countertops Restrooms	72	sf	70.00	5,040	
Countertops at Misc Cabinets	300	sf	70.00	21,000	
<b>SUBTOTAL: Countertops</b>				<b>54,040</b>	
<b>Insulation</b>					
Ceiling Insulation, 3-1/2" Batt	11,596	sf	0.85	9,857	
Wall Insulation	60,407	sf	0.75	45,305	
<b>SUBTOTAL: Insulation</b>				<b>55,162</b>	
<b>Doors, Frames &amp; Hardware</b>					
Hollow Metal Door and Frame - Single	24	ea	1,800.00	43,200	
SC Wood Door and HM Frame	82	ea	2,000.00	164,000	



### General Education Classroom Building

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

Building Area

38,654 sf

Pre-Design Estimate

12/29/2020

Brad Barker

DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL	TOTAL
Finish Hardware	106	leafs	500.00	53,000	
<b>SUBTOTAL: Doors, Frames &amp; Hardware</b>				<b>260,200</b>	
<b>Overhead Doors</b>					
Smoke Guard Doors at Elevators	3	ea	8,000.00	24,000	
<b>SUBTOTAL: Overhead Doors</b>				<b>24,000</b>	
<b>Mirrors</b>					
Mirror at Bathrooms	72	ea	200.00	14,400	
<b>SUBTOTAL: Mirrors</b>				<b>14,400</b>	
<b>Drywall</b>					
Metal Studs - Interior Walls	60,407	sf	8.50	513,462	
Metal Stud Framing at Ceiling	11,596	sf	14.75	171,043	
Metal Stud Framing Soffits	7,731	sf	9.50	73,442	
Drywall - Interior Walls	120,815	sf	5.50	664,480	
5/8" Drywall at Perimeter Walls	17,760	sf	5.50	97,680	
5/8" Drywall at Ceiling	11,596	sf	5.25	60,880	
5/8" Gypsum Backer Board	9,600	sf	4.00	38,400	
5/8" Drywall at Soffits	7,731	sf	6.00	46,385	
<b>SUBTOTAL: Drywall</b>				<b>1,665,772</b>	
<b>Ceramic Tile</b>					
Ceramic Tile at Bathroom Walls 6"x6" Daltile Thin Set - 8' tall	9,600	sf	25.00	240,000	
Porcelain Tile Flooring 12"x12" Daltile Mortar Set	1,800	sf	24.00	43,200	
<b>SUBTOTAL: Ceramic Tile</b>				<b>283,200</b>	
<b>Acoustical Ceilings</b>					
2' x 4' Lay-In Ceiling in Suspended T-Bar System - Armstrong Ceilings 9/16" Optima Square Tegular EVC Fine Fissured	27,058	sf	7.50	202,933	
Budget for Wood Paneling Accents	2,750	sf	50.00	137,500	
<b>SUBTOTAL: Acoustical Ceilings</b>				<b>340,433</b>	
<b>Carpet</b>					
Budget For Carpet Tile at Offices Tile, Shaw, Contract, Lees - 24"x24"	1,795	sf	5.50	9,873	
<b>SUBTOTAL: Carpet</b>				<b>9,873</b>	
<b>Resilient Flooring</b>					
Budget for Floor Finishes Armstrong, Gerflor, or equal Sheet Vinyl or Vinyl Tile Flooring	32,266	sf	6.50	209,730	
Resilient Base 4" Tall 1/8" Thick	5,645	lf	3.00	16,935	
<b>SUBTOTAL: Resilient Flooring</b>				<b>226,665</b>	



### General Education Classroom Building

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

Building Area

38,654 sf

Pre-Design Estimate

12/29/2020

Brad Barker

DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL	TOTAL
<b>Concrete Finish</b>					
Sealed Concrete	2,792	sf	5.00	13,960	
<b>SUBTOTAL: Concrete Finish</b>				<b>13,960</b>	
<b>Painting</b>					
Painting of Drywall Walls	120,815	sf	0.90	108,733	
Painting of Soffits / Ceilings	19,327	sf	1.00	19,327	
Painting of Doors and Frames	106	ea	200.00	21,200	
<b>SUBTOTAL: Painting</b>				<b>149,260</b>	
<b>Specialties</b>					
Vinyl Covered Tack Board Panels - Claridge	7,930	sf	4.50	35,683	
Natural Cork Tackboards					
Markerboards (4' x 12') - Claridge LCS-II Low	83	ea	800.00	66,400	
Gloss - w/ Aluminum					
Ceiling Mounts for Projectors	23	ea	750.00	17,250	
Projection Screens	23	ea	1,500.00	34,500	
Monitor Wall Mounts	23	ea	750.00	17,250	
<b>SUBTOTAL: Specialties</b>				<b>171,083</b>	
<b>Toilet Partitions &amp; Accessories</b>					
36" Grab Bar	17	ea	150.00	2,550	
42" Grab Bar	17	ea	175.00	2,975	
Soap Dispenser	9	ea	50.00	450	
Paper Towel Dispenser	17	ea	150.00	2,550	
Waste Receptacles	17	ea	100.00	1,700	
Toilet Paper/Seat Tissue Dispenser	17	ea	75.00	1,275	
Changing Tables	3	ea	400.00	1,200	
<b>SUBTOTAL: Toilet Partitions &amp; Accessories</b>				<b>12,700</b>	
<b>Wall &amp; Corner Guards</b>					
FRP at Janitors Closets	840	sf	11.50	9,660	
<b>SUBTOTAL: Wall &amp; Corner Guards</b>				<b>9,660</b>	
<b>Signage</b>					
Code Required Signage	38,654	sf	0.25	9,663	
Room Signage	52	ea	200.00	10,400	
<b>SUBTOTAL: Signage</b>				<b>20,063</b>	
<b>Fire Extinguishers</b>					
Semi-Recessed Mounted Fire Extinguishers	12	ea	250.00	3,000	
<b>SUBTOTAL: Fire Extinguishers</b>				<b>3,000</b>	
<b>Window Treatment</b>					
Manual Mecho Shades	7,893	sf	6.50	51,307	
<b>SUBTOTAL: Window Treatment</b>				<b>51,307</b>	
<b>Site Maintenance</b>					
Progressive Cleanup - Building Interiors	38,654	sf	0.50	19,327	



**General Education Classroom Building**

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

Building Area

38,654 sf

**Pre-Design Estimate**

12/29/2020

Brad Barker

DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL	TOTAL
Final Cleanup - Building Interiors	38,654	sf	0.75	28,990	
<b>SUBTOTAL: Site Maintenance</b>				<b>48,317</b>	
<b>SUBTOTAL: 08 - INTERIOR CONSTRUCTION</b>					<b>3,980,892</b>
<b>09 CONVEYING EQUIPMENT</b>					
<b>Conveying Equipment</b>					
Passenger Elevator, 3500lb	3	stp	70,000.00	210,000	
Cab Budget, Passenger	1	ea	15,000.00	15,000	
<b>SUBTOTAL: Conveying Equipment</b>				<b>225,000</b>	
<b>SUBTOTAL: 09 - CONVEYING EQUIPMENT</b>					<b>225,000</b>
<b>11 FIRE PROTECTION</b>					
<b>Fire Sprinklers</b>					
Automatic Fire Sprinkler System	38,654	sf	7.25	280,241	
<b>SUBTOTAL: Fire Sprinklers</b>				<b>280,241</b>	
<b>SUBTOTAL: 11 - FIRE PROTECTION</b>					<b>280,241</b>
<b>12 PLUMBING</b>					
<b>Plumbing System</b>					
Equipment	38,654	sf	5.75	222,260	
Fixtures w/ Related Fittings, Piping & Connections	40	ea	3,000.00	120,000	
Cold & Hot Water Piping	40	ea	2,000.00	80,000	
Waste & Vent Piping	40	ea	4,000.00	160,000	
Drain Piping					
Condensate Drain Piping	38,654	sf	0.50	19,327	
RD & OD	15	ea	1,250.00	18,750	
<b>SUBTOTAL: Plumbing System</b>				<b>620,337</b>	
<b>SUBTOTAL: 12 - PLUMBING</b>					<b>620,337</b>
<b>13 MECHANICAL</b>					
<b>HVAC System</b>					
4-Pipe Equipment (Terminals, Pumps, Tanks, Dedicated outside Air Units, ETC.)	38,654	sf	36.00	1,391,540	
Ductwork and Piping Distribution	38,654	sf	23.50	908,366	
Fire Wrap for Fume Hood Exhaust Duct in Shaft				Included	
Insulated Heating Hot Water and Refrigerant Piping				Included	
Budget for Smoke-Fire Dampers				Included	
Registers/Diffusers	38,654	sf	10.00	386,539	
HVAC Controls, DDC	38,654	sf	4.00	154,616	
Cranes and Rigging for HVAC Equipment				Included	
Test, Balance, Commissioning	38,654	sf	1.50	57,981	
<b>SUBTOTAL: HVAC System</b>				<b>2,899,041</b>	



**General Education Classroom Building**

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

Building Area

38,654 sf

**Pre-Design Estimate**

12/29/2020

Brad Barker

DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL	TOTAL
<b>SUBTOTAL: 13 - MECHANICAL</b>					<b>2,899,041</b>
<b>14 ELECTRICAL</b>					
<b>Equipment</b>					
Power and Distribution					
Main Switchboard, Panel Boards, Feeders, Emergency Generator.	38,654	sf	26.00	1,005,001	
Equipment Connections	38,654	sf	5.00	193,269	
Power Distribution, - Receptacle	38,654	sf	10.00	386,539	
Temporary Power	38,654	sf	1.00	38,654	
Budget for Bracing	38,654	sf	4.00	154,616	
<b>SUBTOTAL: Equipment</b>				<b>1,778,078</b>	
<b>Lighting Fixtures</b>					
Lighting Fixtures, Controls and Devices	38,654	sf	20.00	773,078	
<b>SUBTOTAL: Lighting Fixtures</b>				<b>773,078</b>	
<b>Telecom and Data</b>					
Telecom Distribution	38,654	sf	1.50	57,981	
Telecom System	38,654	sf	2.50	96,635	
Distributed Antenna System (DAS)	38,654	sf	3.50	135,289	
<b>SUBTOTAL: Telecom and Data</b>				<b>289,904</b>	
<b>Audio Visual</b>					
Audio Visual Distribution	38,654	sf	2.00	77,308	
<b>SUBTOTAL: Audio Visual</b>				<b>77,308</b>	
<b>Security System / Access Control</b>					
Security / Access Control Distribution	38,654	sf	1.00	38,654	
Security / Access Control System	38,654	sf	3.00	115,962	
<b>SUBTOTAL: Security System / Access Control</b>				<b>154,616</b>	
<b>Fire Alarm</b>					
Fire Alarm Conduit	38,654	sf	1.75	67,644	
Fire Alarm System	38,654	sf	4.00	154,616	
<b>SUBTOTAL: Fire Alarm</b>				<b>222,260</b>	
<b>SUBTOTAL: 14 - ELECTRICAL</b>					<b>3,295,243</b>
Subcontractor Default Insurance	1.20%	%	21,150,171		<b>253,802</b>
Escalation	6.25%	%	21,403,973		<b>1,337,748</b>
<b>SUBTOTAL</b>					<b>22,741,721</b>





**Site Prep**

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

**Pre-Design Estimate**

December 29, 2020

Brad Barker

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Area Summary

Site Prep 37,000 sf

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1 Demolition	\$	-	\$	-
2 Sitework		610,668		16.50
3 Foundation		-		-
4 Substructure		-		-
5 Superstructure		-		-
6 Exterior Skin		-		-
7 Roofing		-		-
8 Interior Construction		-		-
9 Conveying Systems		-		-
10 Special Construction		-		-
11 Fire Protection		-		-
12 Plumbing		-		-
13 Mechanical		120,000		3.24
14 Electrical		111,000		3.00
Subcontractor Default Insurance		10,100		0.27
Escalation		53,236		1.44
<b>Subtotal</b>	<b>\$</b>	<b>905,004</b>	<b>\$</b>	<b>24.46</b>

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**Site Prep**

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

Site Area

37,000 sf

**Pre-Design Estimate**

December 29, 2020

Brad Barker

DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL	TOTAL
<b>02 SITEWORK</b>					
<b>Surveying</b>					
Surveying of Buildings	38,654	sf	0.50	19,327	
Surveying of Site Incl. Utilities	37,000	sf	0.60	22,200	
<b>SUBTOTAL: Surveying</b>				<b>41,527</b>	
<b>Earthwork</b>					
O/Ex and Recompact 5' Outside Foundation Footprints 5' Deep				w/ Building	
Clear and Grub site	37,000	sf	2.00	74,000	
Remove Existing Tree	1	ea	700.00	700	
Remove Existing Hardscape	2,000	sf	2.00	4,000	
O/Ex and Recompact 1' at Hardscape Areas	574.07	cy	6.00	3,444	
Fine Grade for Building Slab				w/ Bldg	
Balance Site	37,000	sf	1.80	66,600	
Water Costs for Dust Control at Grading	6	mo	2,500.00	15,000	
Additional Move-in	1	ea	3,500.00	3,500	
Erosion Control	25,747	lf	1.00	25,747	
SWPPP / BMP	1	ls	25,000.00	25,000	
Additional Earthwork Budget	1	ls	25,000.00	25,000	
<b>SUBTOTAL: Earthwork</b>				<b>242,991</b>	
<b>Site Utilities</b>					
Storm Drain					
Storm Drain Piping 3"	50	lf	62.00	3,100	
Storm Drain Piping 4"	50	lf	65.00	3,250	
Storm Drain Piping 6"	50	lf	70.00	3,500	
Storm Drain Piping 12"	600	lf	85.00	51,000	
Storm Drain POC	6	ea	1,500.00	9,000	
Storm Drain POC to Existing	1	ea	2,000.00	2,000	
Storm Drain Cleanout	2	ea	500.00	1,000	
Storm Drain Inlet	10	ea	1,500.00	15,000	
Trench Drain	50	lf	250.00	12,500	
Manhole	3	ea	8,000.00	24,000	
Existing Storm Drain laterals, to be cut and adjusted as needed	2	ea	2,000.00	4,000	
Domestic Water					
Domestic Water Piping	200	lf	200.00	40,000	
Domestic Water Meter	1	ea	800.00	800	
Domestic Water POC to Existing	1	ea	3,000.00	3,000	
Fire Water					
Fire Water 4-8"	200	lf	200.00	40,000	
Fire Hydrant	1	ea	2,500.00	2,500	
Fire Water POC	2	ea	2,000.00	4,000	
Fire Sprinkler Back Flow Preventer and FDC	1	ea	3,500.00	3,500	
Sanitary Sewer					



**Site Prep**

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

Site Area

37,000 sf

**Pre-Design Estimate**

December 29, 2020

Brad Barker

DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL	TOTAL
Sanitary Sewer 6"	200	lf	200.00	40,000	
Sanitary Sewer Cleanouts	4	ea	500.00	2,000	
Domestic Sewer POC	1	ea	2,000.00	2,000	
Domestic Sewer POC Main	1	ea	2,000.00	2,000	
Manhole	1	ea	8,000.00	8,000	
Additional Site Utilities Budget	1	ls	50,000.00	50,000	
<b>SUBTOTAL: Site Utilities</b>				<b>326,150</b>	
<b>SUBTOTAL: 02 - SITEWORK</b>					<b>610,668</b>
<b>12 MECHANICAL</b>					
<b>Mechanical System</b>					
Budget for Chilled Water Supply and Return	300	lf	200.00	60,000	
Budget for Hot Water Supply and Return	300	lf	200.00	60,000	
<b>SUBTOTAL: Mechanical System</b>				<b>120,000</b>	
<b>SUBTOTAL: 12 - MECHANICAL</b>					<b>120,000</b>
<b>14 ELECTRICAL</b>					
Budget for Site Electrical	37,000	sf	3.00	111,000	
<b>SUBTOTAL: ELECTRICAL</b>				<b>111,000</b>	
<b>SUBTOTAL: 14 - ELECTRICAL</b>					<b>111,000</b>
Subcontractor Default Insurance	1.20%	%	841,668		<b>10,100</b>
Escalation	6.25%	%	851,768		<b>53,236</b>
<b>SUBTOTAL</b>					<b>905,004</b>



**Sitework**

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

**Pre-Design Estimate**

December 29, 2020

Brad Barker

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Area Summary

Sitework 25,196 sf

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1 Demolition	\$	-	\$	-
2 Sitework		1,486,080		58.98
3 Foundation		-		-
4 Substructure		-		-
5 Superstructure		-		-
6 Exterior Skin		-		-
7 Roofing		-		-
8 Interior Construction		-		-
9 Conveying Systems		-		-
10 Special Construction		-		-
11 Fire Protection		-		-
12 Plumbing		-		-
13 Mechanical		-		-
14 Electrical		75,588		3.00
Subcontractor Default Insurance		18,740		0.74
Escalation		98,776		3.92

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**Subtotal** \$ **1,679,184** \$ **66.64**



**Sitework**

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

Site Area

25,196 sf

**Pre-Design Estimate**

December 29, 2020

Brad Barker

DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL	TOTAL
<b>02 SITEWORK</b>					
<b>Reinforcing Steel</b>					
Rebar at Concrete Continuous Footings (100#/CY)	21,389	lbs	1.05	22,458	
Rebar at Concrete Paving (1.5#/sf)	18,750	lbs	1.05	19,688	
Rebar at Concrete Paving at Pads (1#/sf)	400	lbs	1.05	420	
Rebar at Concrete Walls (8#/sf)	30,800	lbs	1.05	32,340	
Rebar at Concrete Ramps (3#/sf)	9,000	lbs	1.05	9,450	
Rebar at Concrete Stairs (15#/lf)	1,500	lbs	1.05	1,575	
<b>SUBTOTAL: Reinforcing Steel</b>				<b>86,193</b>	
<b>Miscellaneous Metals</b>					
Site Rail Budget	250	lf	400.00	100,000	
Bike Racks - Wabash Valley BI100 36"	6	ea	300.00	1,800	
Bike Loop					
Skate Deterrent, 2' OC	360	ea.	25.00	9,000	
<b>SUBTOTAL: Miscellaneous Metals</b>				<b>110,800</b>	
<b>Waterproofing</b>					
Waterproofing at Site Walls	3,850	sf	7.00	26,950	
<b>SUBTOTAL: Waterproofing</b>				<b>26,950</b>	
<b>Caulking and Sealants</b>					
Caulking and Sealants	25,196	sf	0.30	7,559	
<b>SUBTOTAL: Caulking and Sealants</b>				<b>7,559</b>	
<b>Painting</b>					
Site Painting, Budget	1	ls	10,000.00	10,000	
<b>SUBTOTAL: Painting</b>				<b>10,000</b>	
<b>AC Paving</b>					
Budget AC Paving - Traffic Rated 3" over 5" of CAB - Replacing Existing	1,500	sf	4.75	7,125	
<b>SUBTOTAL: AC Paving</b>				<b>7,125</b>	
<b>Site Concrete</b>					
Concrete Footings for Site Walls	214	cy	630.00	134,750	
4" Thick PCC Concrete over 6" Base	12,500	sf	9.75	121,875	
Concrete For Pads	400	sf	9.00	3,600	
Concrete Wall, 8" Assumed Avg. 5' tall	3,850	sf	65.00	250,250	
6" Concrete Curb and Gutter	250	lf	20.00	5,000	
Concrete Ramp	3,000	sf	18.00	54,000	
Concrete Stairs	100	lf	100.00	10,000	
Concrete Bollard	6	ea	800.00	4,800	
Budget Precast Plank at Lake including reinforcing and Foundations connections	1,200	sf	110.00	132,000	
Budget for Additional Work ADA	1	ls	25,000.00	25,000	



**Sitework**

32156 EVC General Education

Evergreen Community College

San Jose

Perkins Eastman

Site Area

25,196 sf

**Pre-Design Estimate**

December 29, 2020

Brad Barker

DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL	TOTAL
Misc Patch and Repair	1	ls	10,000.00	10,000	
<b>SUBTOTAL: Site Concrete</b>				<b>751,275</b>	
<b>Landscaping</b>					
Turf Planting Area	3,000	sf	3.00	9,000	
Budget for Misc. Planting / DG	6,696	sf	9.00	60,264	
Irrigation	9,696	sf	3.00	29,088	
Irrigation Reroute Work Budget	500	lf	12.00	6,000	
90-Day Maintenance	3	mo	3,000.00	9,000	
Budget to Replace Landscape at Laydown	1	ls	10,000.00	10,000	
<b>SUBTOTAL: Landscaping</b>				<b>123,352</b>	
<b>Site Maintenance</b>					
Skilled Jobsite Labor	16	mo	16,958.00	271,328	
Dumpster Service, 5x/mth	16	mo	5,010.00	80,160	
Final Cleanup - Site	25,196	sf	0.45	11,338	
<b>SUBTOTAL: Site Maintenance</b>				<b>362,826</b>	
<b>SUBTOTAL: 02 - SITEWORK</b>					<b>1,486,080</b>
<b>14 ELECTRICAL</b>					
Misc. Site Lighting Budget	25,196	sf	3.00	75,588	
<b>SUBTOTAL: ELECTRICAL</b>				<b>75,588</b>	
<b>SUBTOTAL: 14 - ELECTRICAL</b>					<b>75,588</b>
Subcontractor Default Insurance	1.20%	%	1,561,668		<b>18,740</b>
Escalation	6.25%	%	1,580,408		<b>98,776</b>
<b>SUBTOTAL</b>					<b>1,679,184</b>