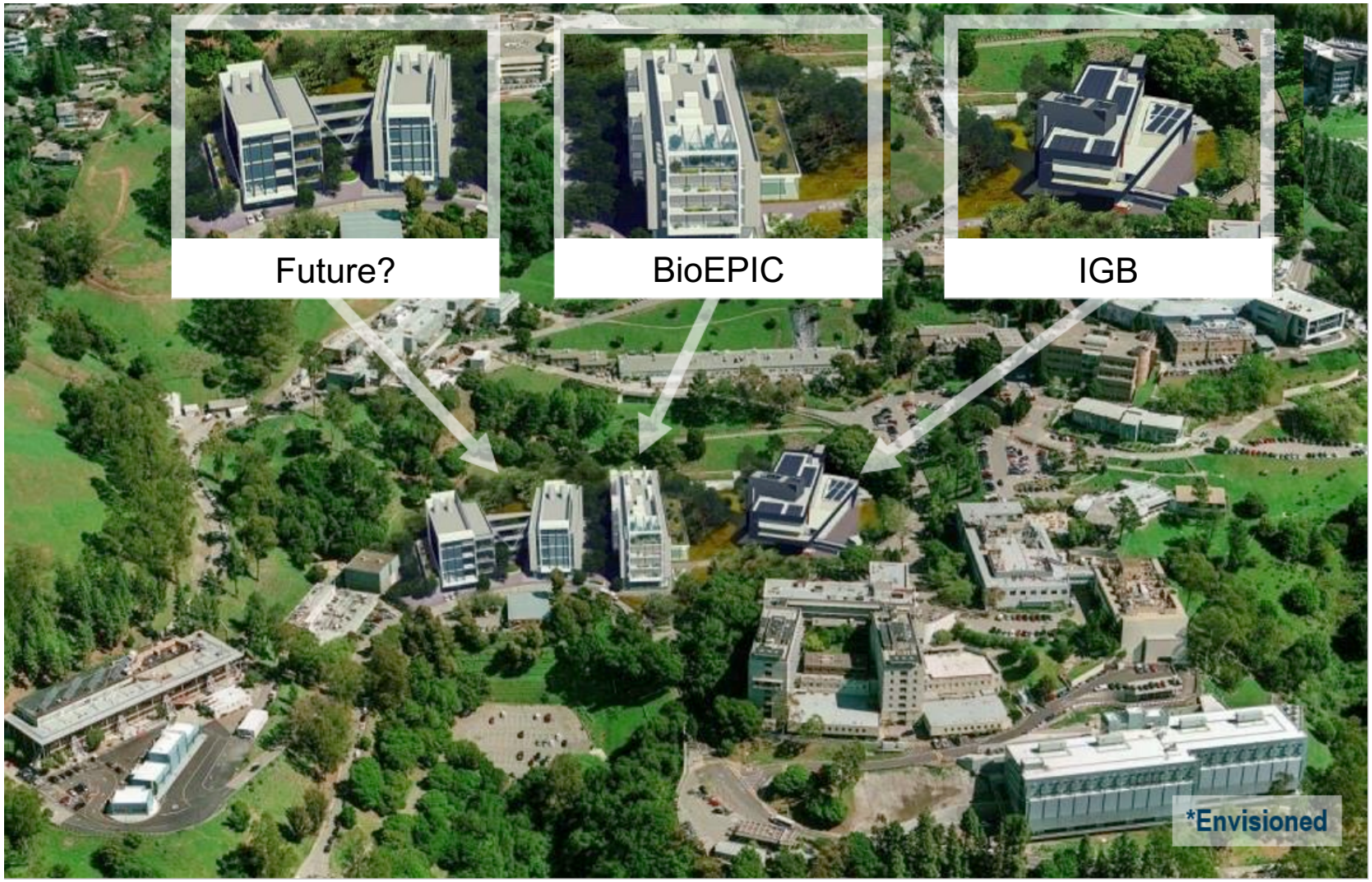
BioEPIC Project
LBNL Community Advisory Group

September 9, 2019

Richard Stanton, Project Director & Gwynne Bankert, Project Manager

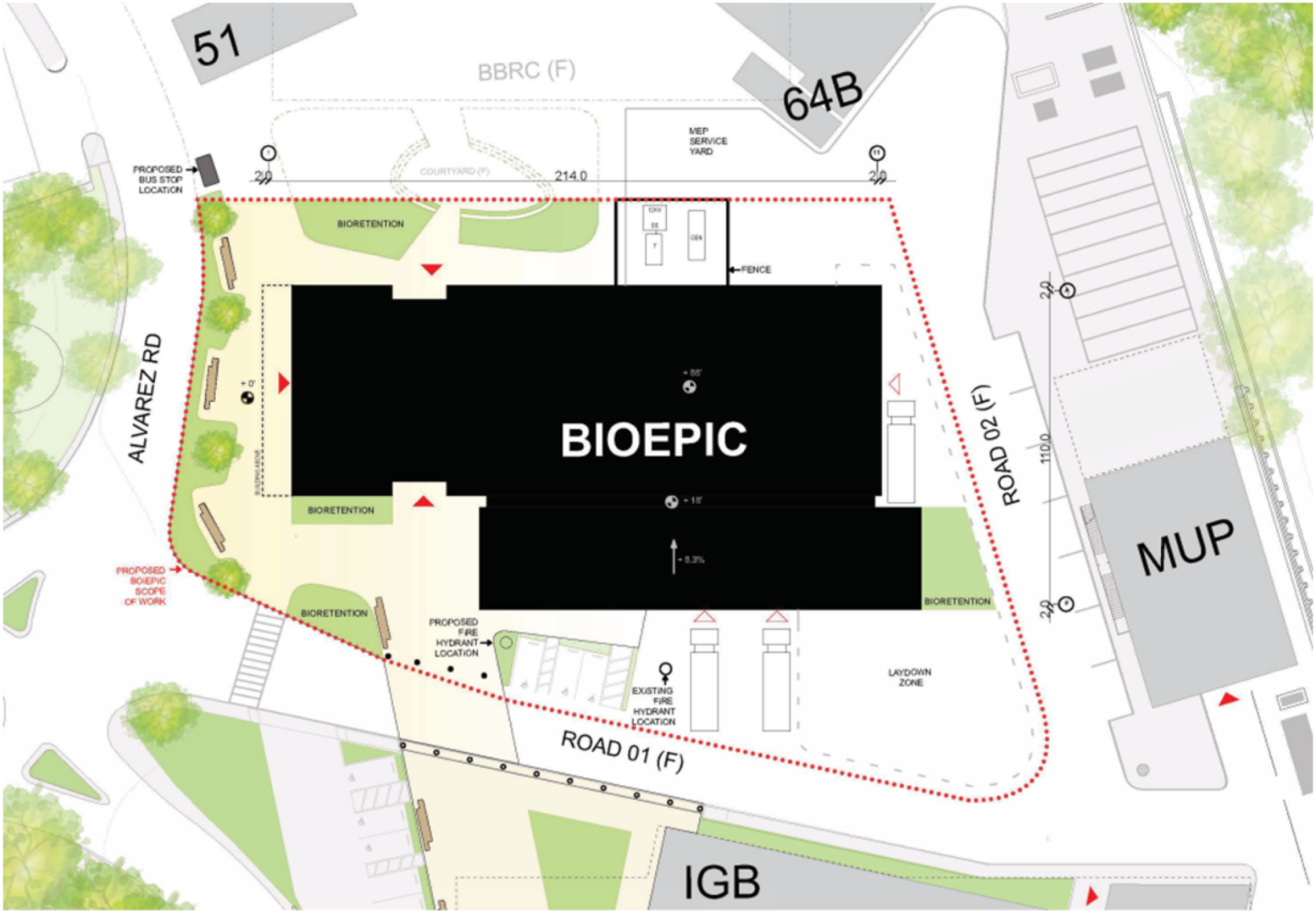
Bayview Site Vision



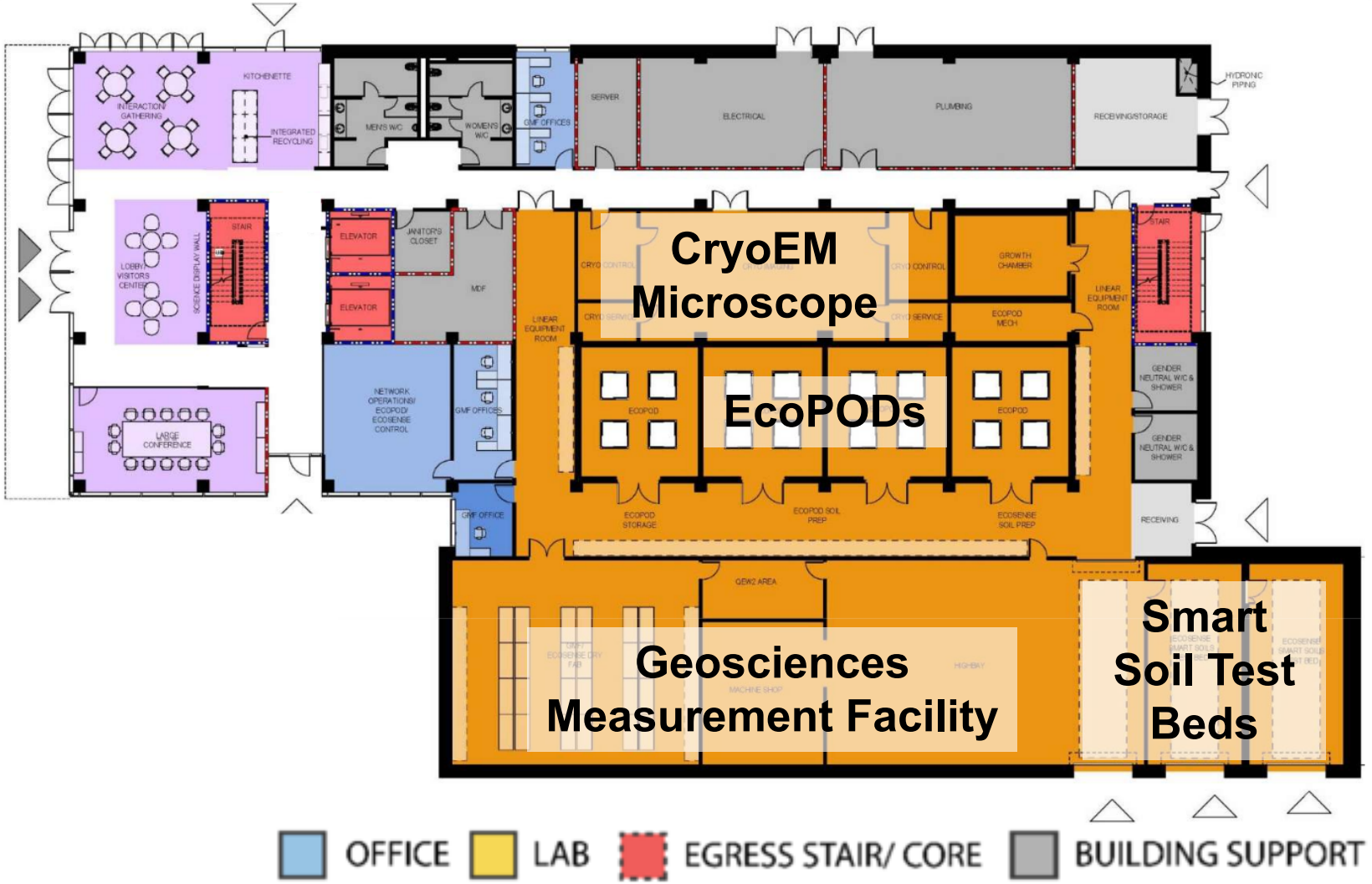
BioEPIC – Scope

- Construct a new 72,000 gsf laboratory and office building at the Bayview site
- Planned for 210 occupants, approximately 100 move from off-site
- Forecast completion: May 2023
- Total estimated cost $140M
- Will house a combination of Biosciences and Earth & Environmental Sciences

BioEPIC Site Plan



1st Floor Plan



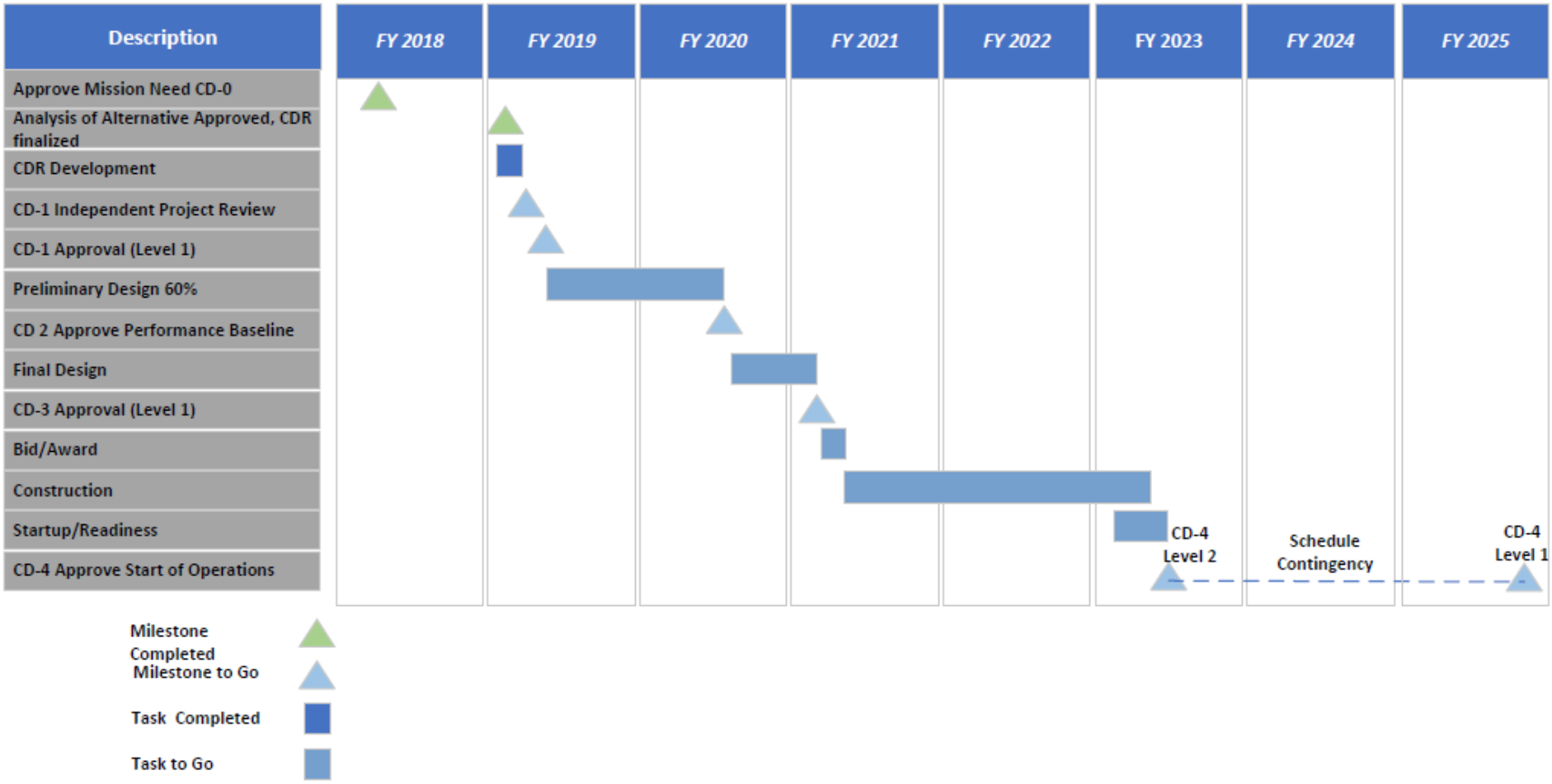
Upper Floor Plan

North Facing Section

Accomplishments & Upcoming Activities

- DOE approval of Critical Decision-1 (approve alternative selection and cost range) received on May 9, 2019
- Design kick-off meeting occurred on June 4
- LBNL internal stakeholder and User meetings held in July & August
- Draft 30% design package received in August
- Reconciling design scope with cost estimate
- 9/9 Community Advisory Group meeting
  - Solicit input on building and landscape design
  - UC Regents design approval November meeting

Summary Schedule



Sustainability Approach

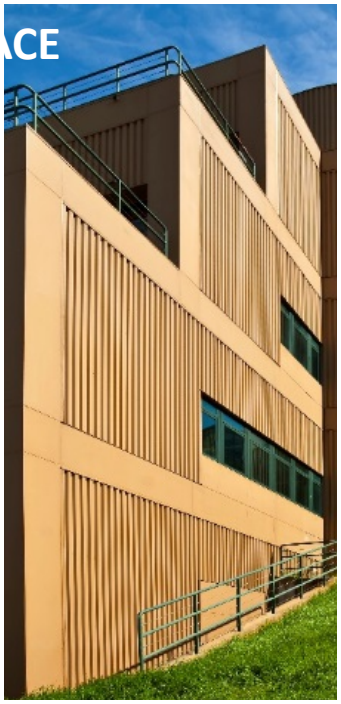
- Establish whole building energy performance target
  - Aggressive but practical
  - Encourage integrated design
  - Modeling of as-operated energy performance
- 30% better than current ASHRAE 90.1 standard
- LEED Gold
- Water use reductions, 30% fixture savings, zero extended landscape watering
- All electric heating for low climate impact
- Medium temperature chilled water plant

Next Steps

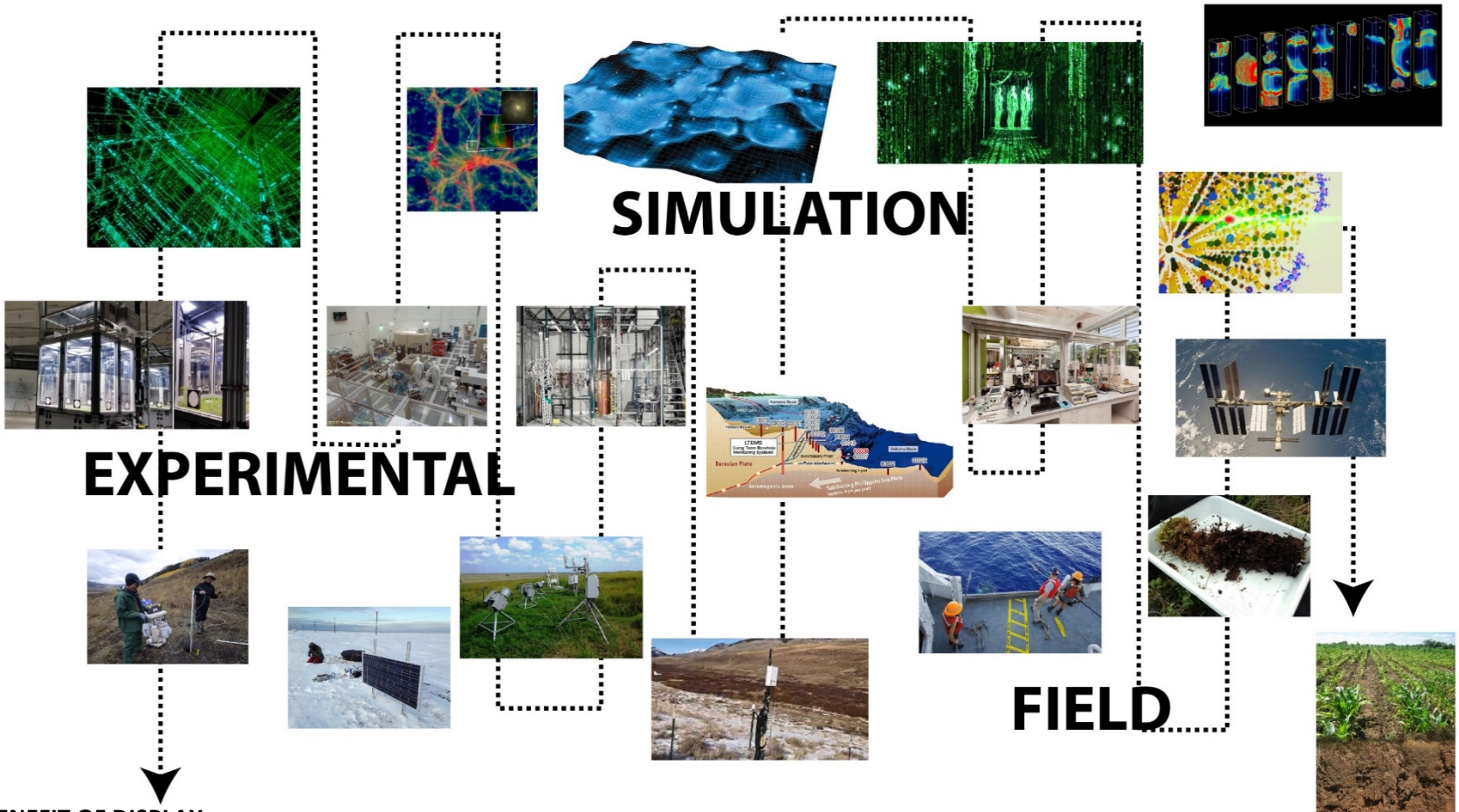
Action	Date	Responsible
Continue Stakeholder and User Meetings	September 2019	Gwynne Bankert
Reconcile design scope with cost estimate	September 2019	Gwynne Bankert
Final 30% Design Submittal	October 2019	SmithGroup
UC Regents Design & CEQA Review	November 2019	Gwynne Bankert
60% Design Submittal	February 2020	SmithGroup

Design – Campus Context

Campus Context



Design Inspiration: Science on Display



BENEFIT OF DISPLAY:
Systems thinking is the process of understanding how things influence one another within a whole. Visualizing all process can benefit for science discovery.

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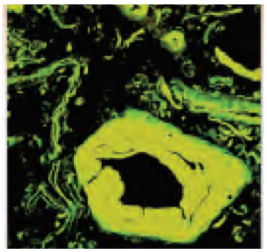
Scientific Inspiration

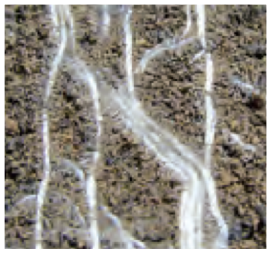
BIOEPIC: BIOLOGICAL SYSTEMS + EARTH & ENVIRONMENTAL SYSTEMS + MICROBIAL TO EARTH SYSTEMS

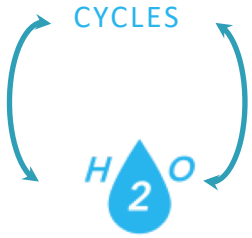
SOIL-MICROBE-PLANT INTERACTIONS

MOLECULAR DYNAMICS

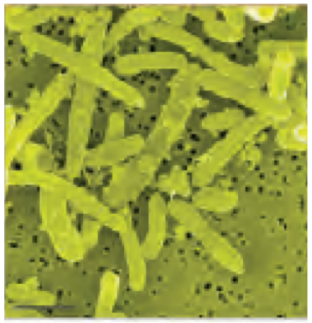


LIFE + WATER





CELLULAR



LIVING ORGANISMS

ECO SYSTEM

EARTH

SOIL

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Biophilic Design = Healthy Environment

INCORPORATE NATURAL MATERIALS, NATURAL LIGHT, VEGETATION, NATURE VIEWS & OTHER EXPERIENCES OF THE NATURAL WORLD INTO THE MODERN BUILT ENVIRONMENT

DIRECT EXPERIENCE OF NATURE
- Light
- Air
- Water
- Plants
- Animals
- Natural Landscapes and Ecosystems
- Weather

INDIRECT EXPERIENCE OF NATURE
- Images of Nature
- Natural Materials
- Natural Colors
- Mobility and Wayfinding
- Cultural and Ecological Attachment to Place
- Simulating Natural Light and Air
- Naturalistic Shapes and Forms
- Evoking Nature
- Information Richness
- Age, Change, and the Patina of Time
- Natural Geometries
- Biomimicry

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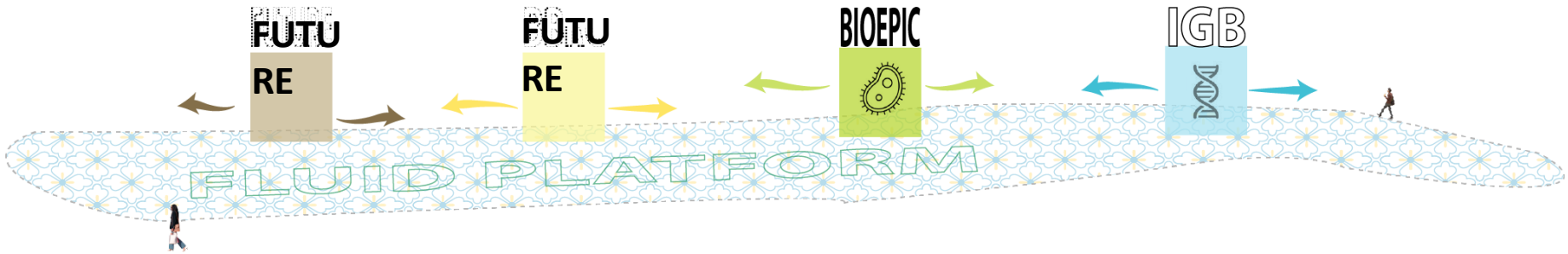
Building identity Inspired by Science Within



BUILDING is . . .

IDENTITY

EXPRESSING SCIENCE
Way Finding in New Community

Contrasting BUT Harmonizing

All same

vs.

Identified + Harmonized

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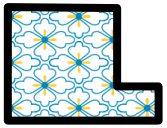
Prefabrication & Modular Planning

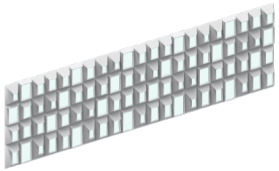
GFRC/METAL/CURTAINWALL/PRECAST

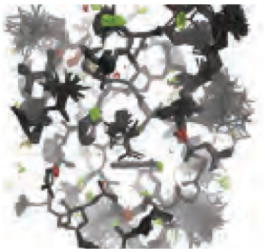
SCIENCE + ARCHITECTURE EXPRESSION : CELLULAR IN SCIENCE = MODULE IN ARCHITECTURE

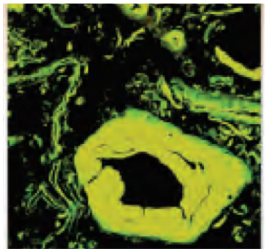
PLANNING MODULE

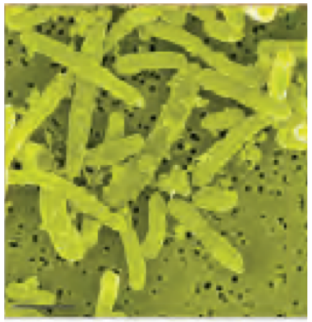


ORGANIC GESTURE









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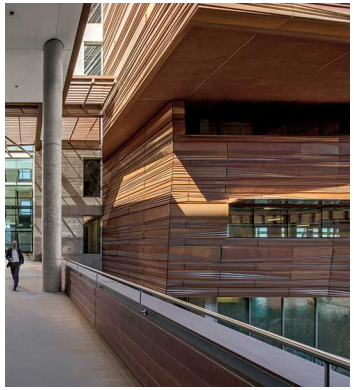
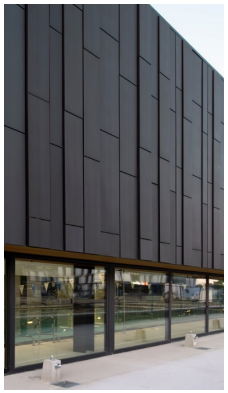
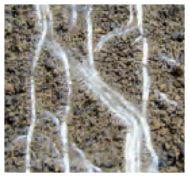
Organic & Natural Materials: Texture & Warmth

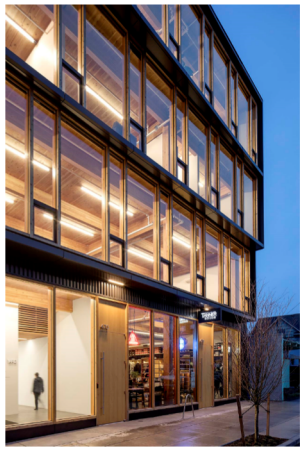
STRATUM / STRATA

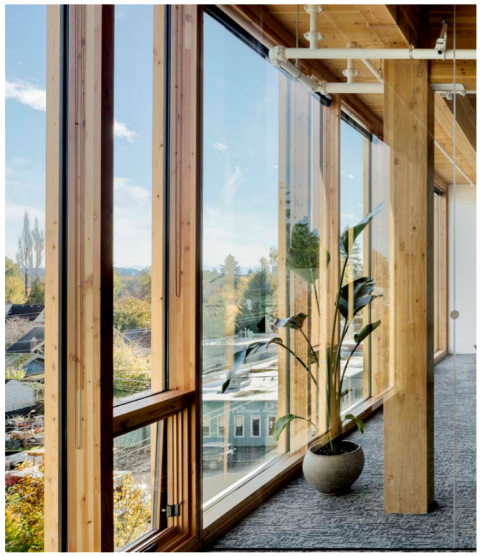






WOOD/WARMTH





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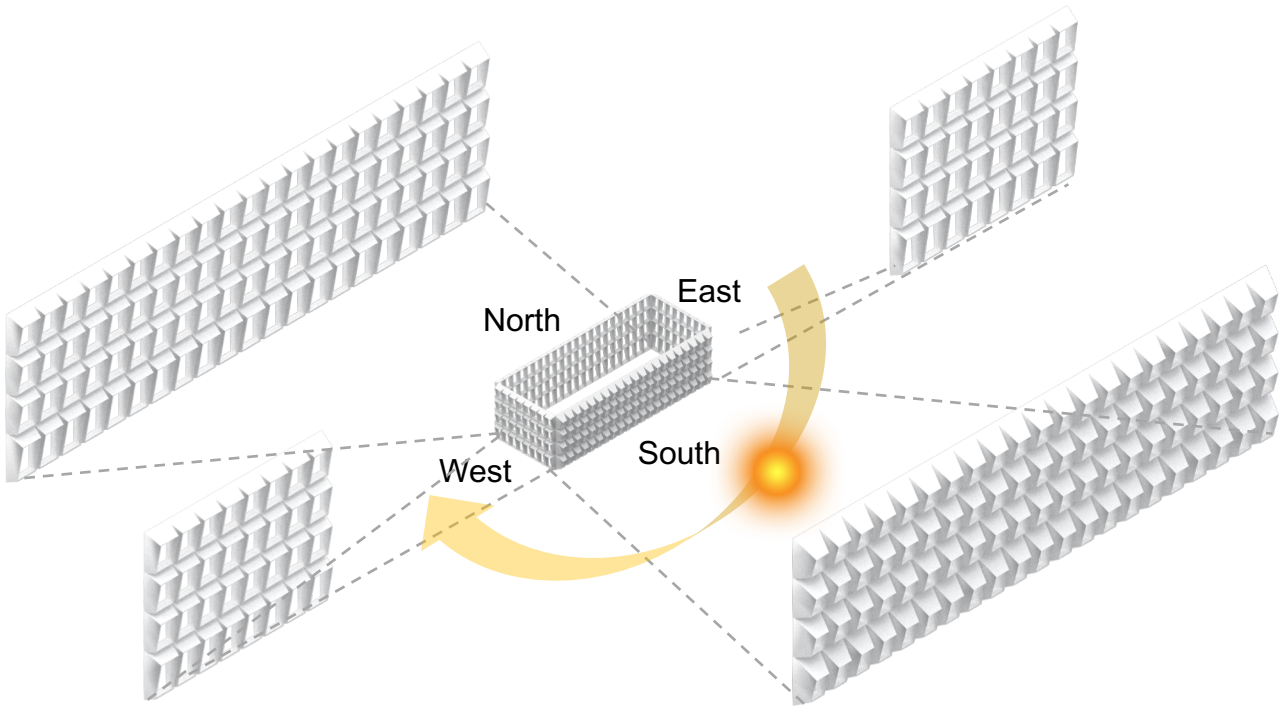
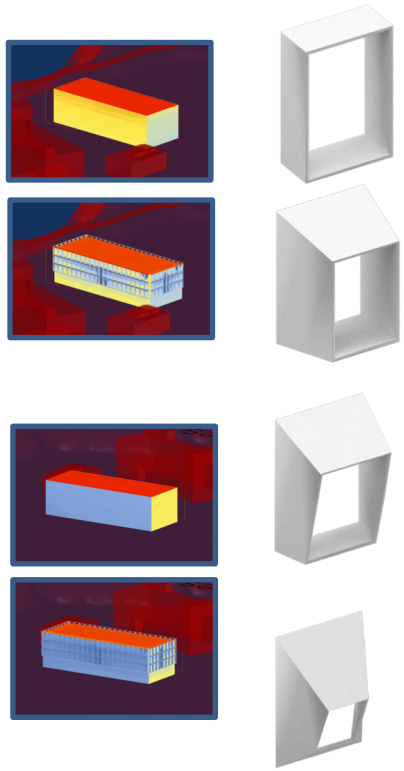
Integrated Sustainable Design

EACH BUILDING FAÇADE ADJUSTED TO ADDRESS SPECIFIC SOLAR NEEDS





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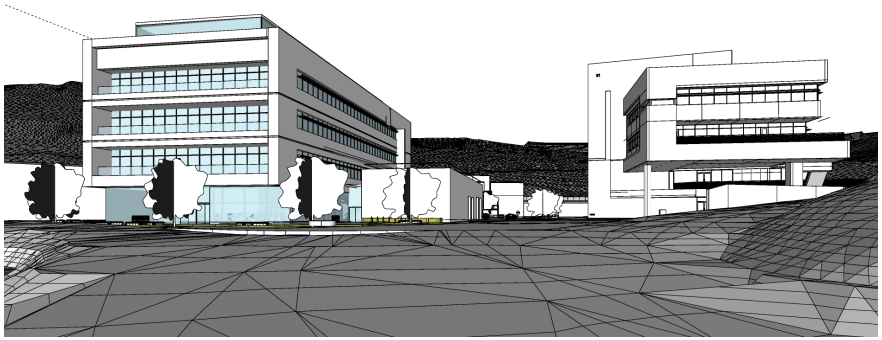
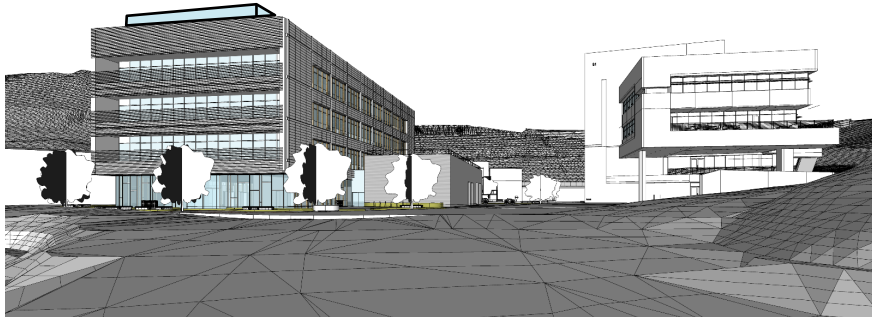
Exterior Expression

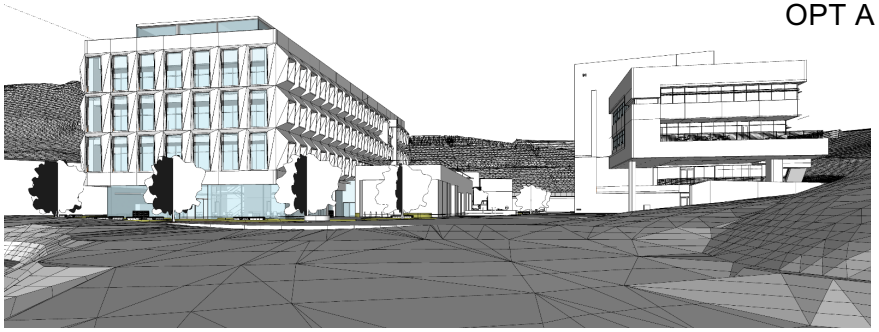
MATERIAL OPTIONS UNDER STUDY



OPT A



OPT C



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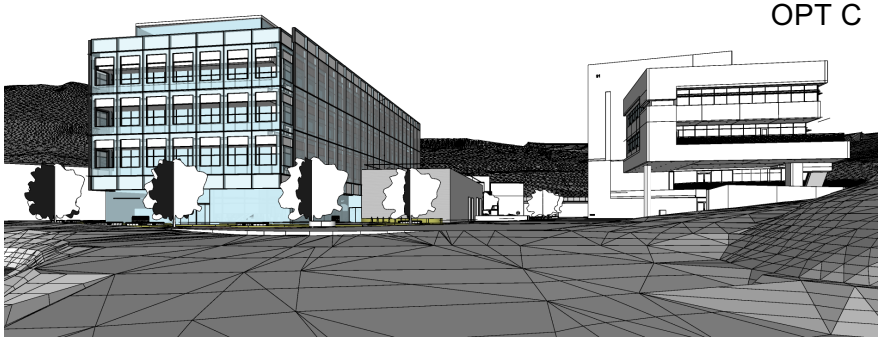

OPT D

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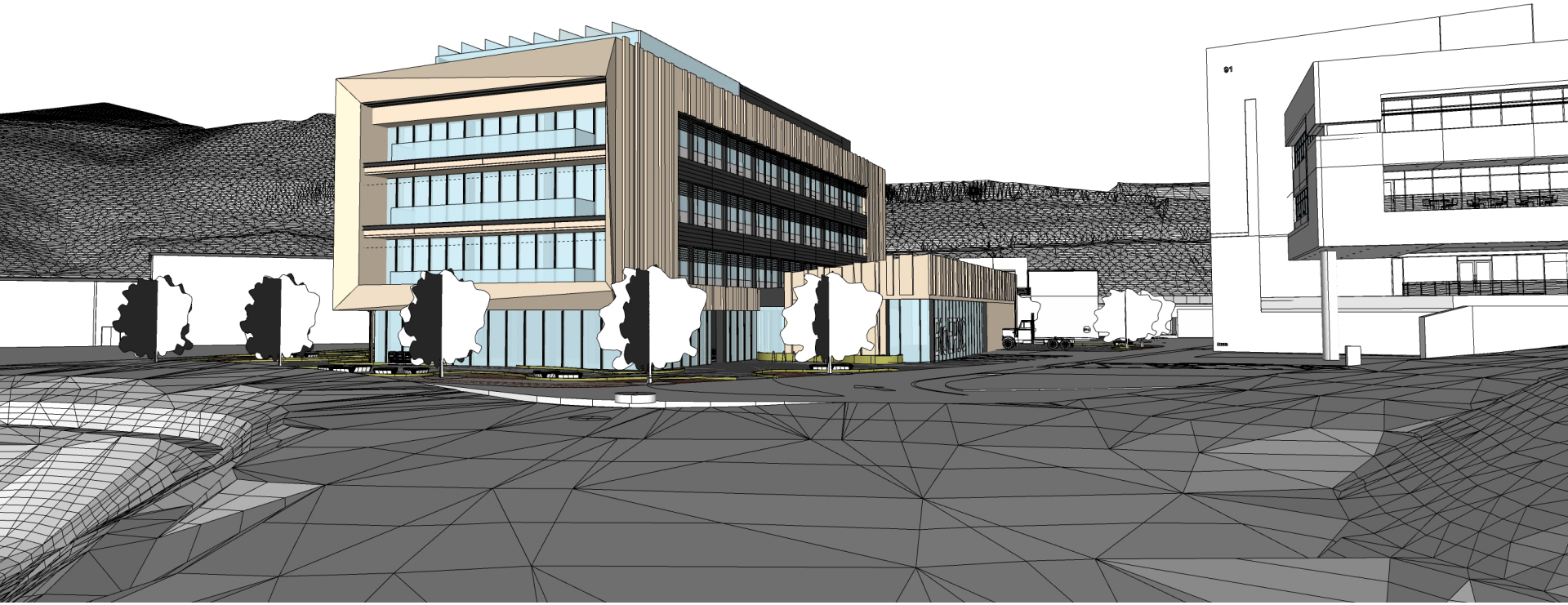
Exterior Expression

METAL PANEL OPTION



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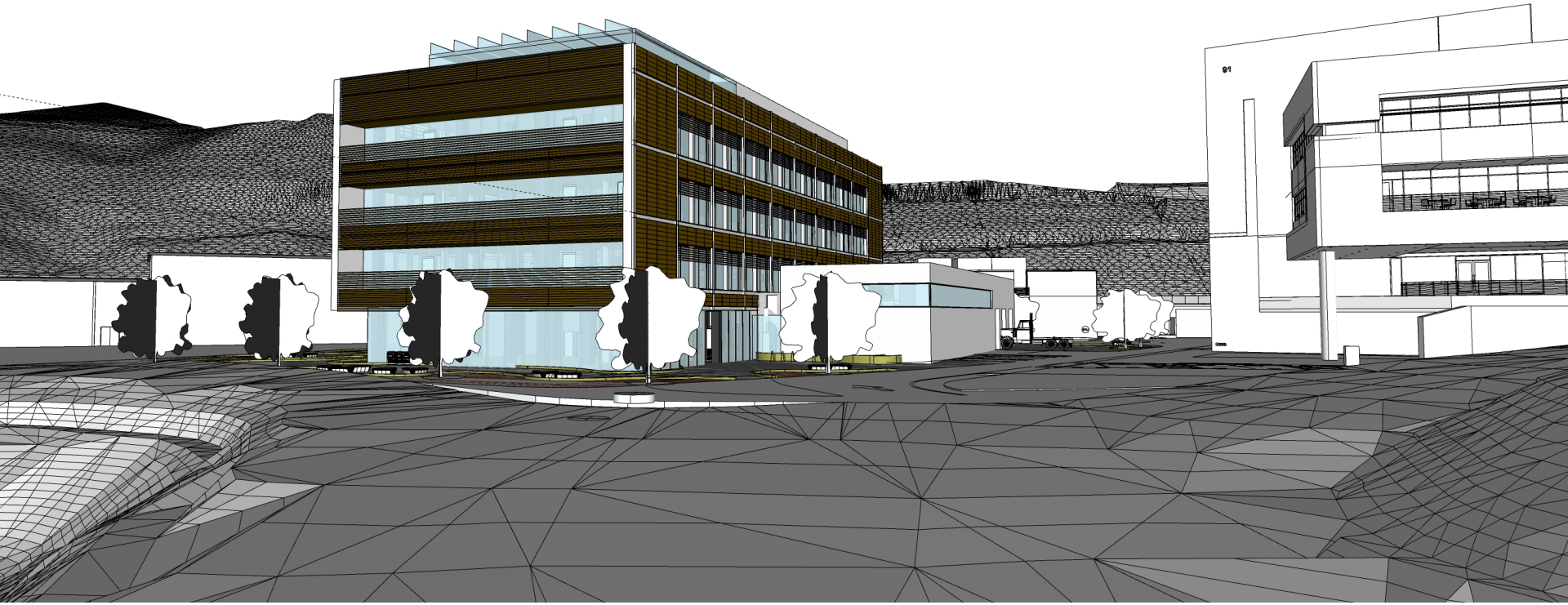
Exterior Expression

TERRA-COTTA RAINSCREEN OPTION



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Exterior Expression

GFRC OPTION

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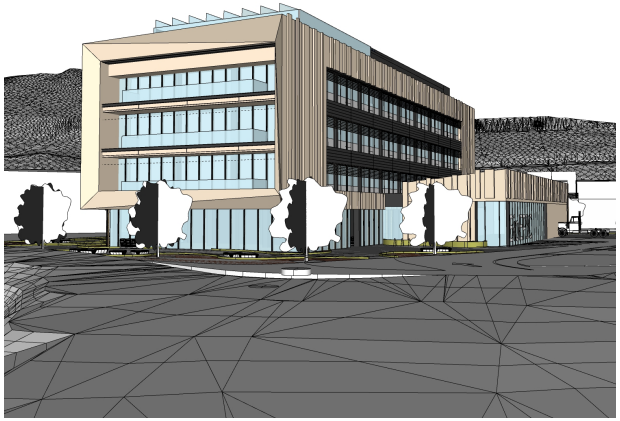
Exterior Expression

ALL OPTIONS



OPTION 1

METAL PANEL

OPTION 2

TERRA-COTTA

OPTION 3

GFRC

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Level 1 Plan

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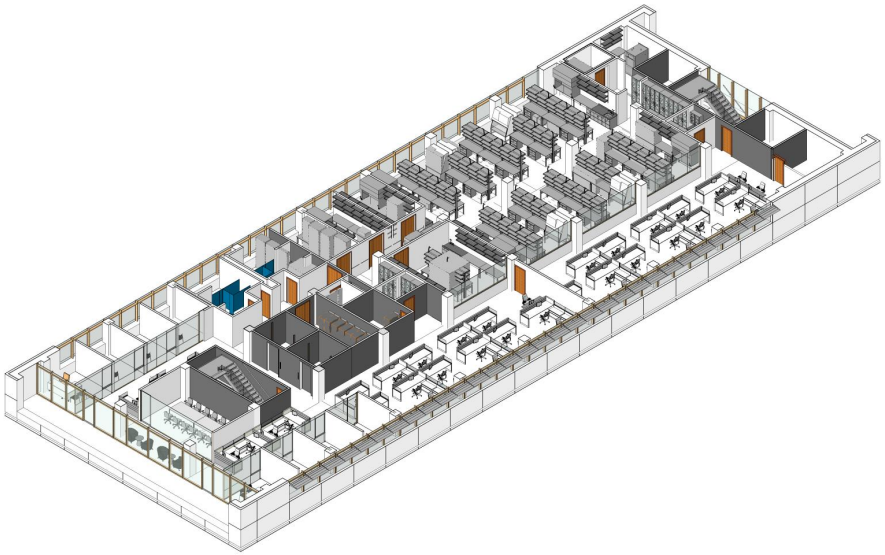
Typical Floor Plan



AXON

WEST

SOUTH

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Level 2 Plan

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Level 3 Plan

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Level 4 Plan

Legend

BLDG SUPPORT	OPEN LAB	PRIVATE OFFICE
SHARED SERVICE	LAB SUPPORT	OPEN OFFICE
VERT. CIRC.	COLLABORATION	CIRCULATION

0' 8' 16' 32' 64'

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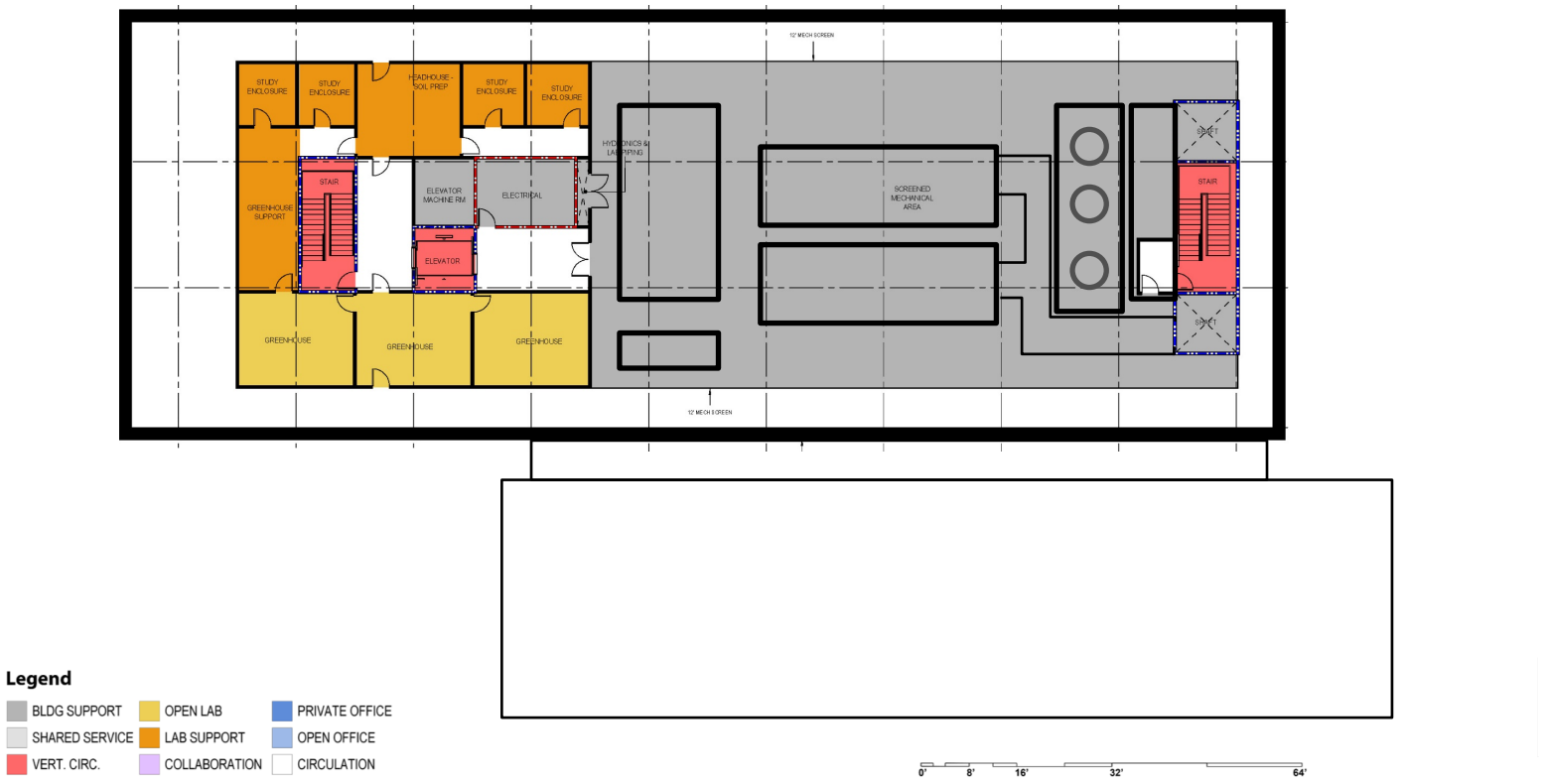
Roof Plan



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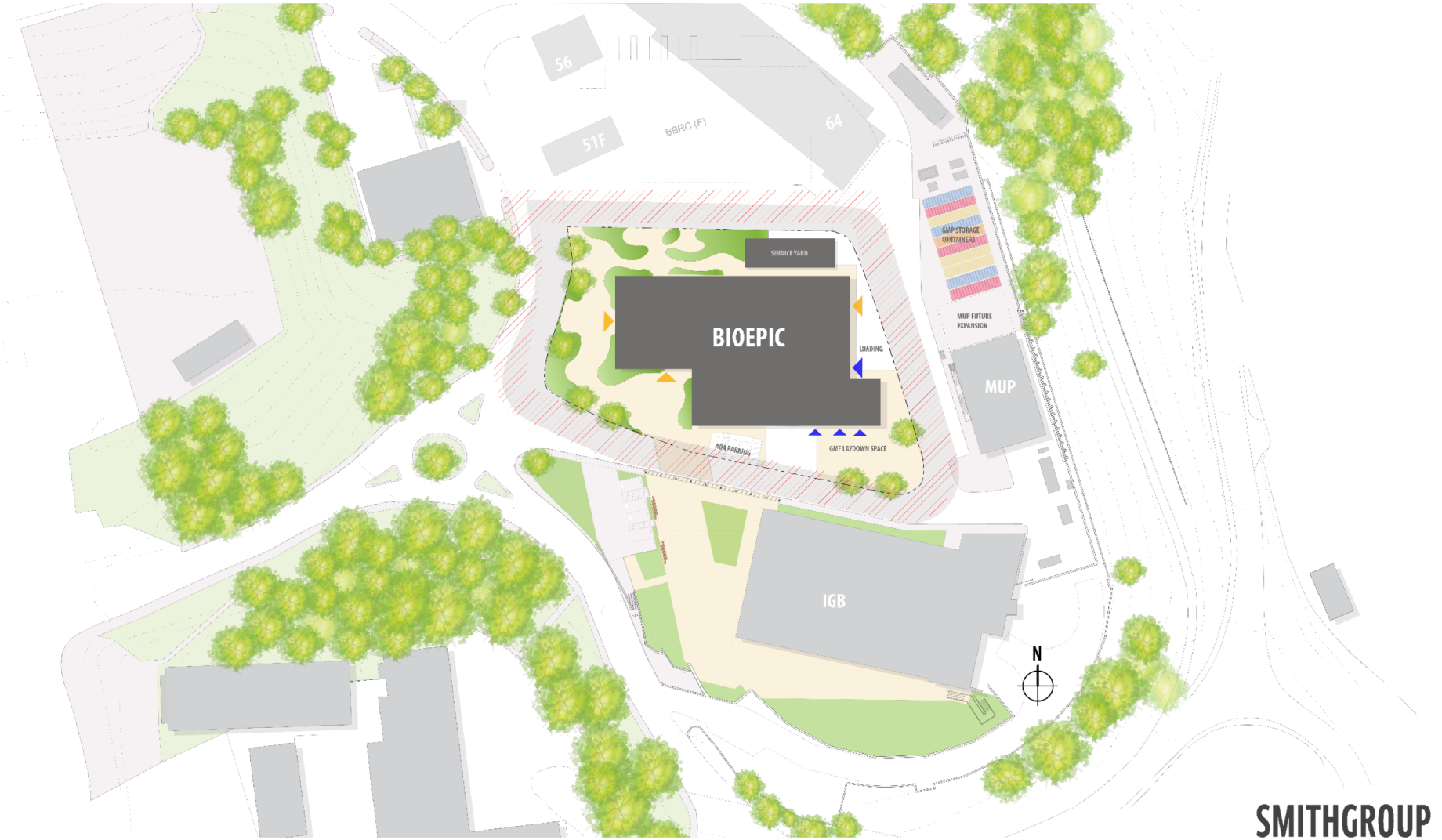
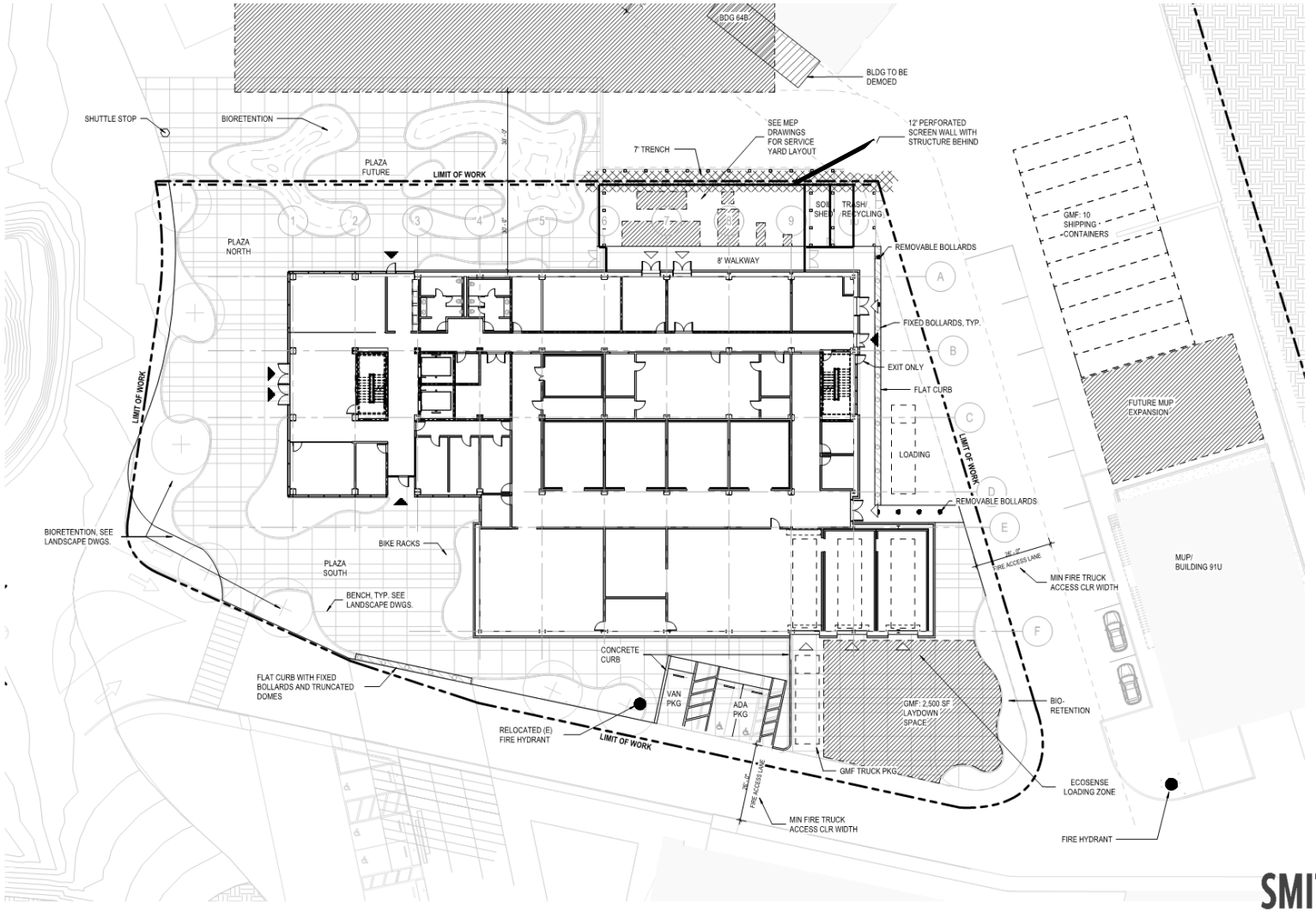
Site Plan


56
51F
BBRC (F)
64
SERVICE YARD
BIOEPIC
LOADING
GMP STORAGE CONTAINERS
MUP FUTURE EXPANSION
MUP
ADA PARKING
GMF LAYDOWN SPACE
IGB
N
SMITHGROUP

Site Plan



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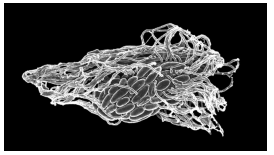
Current Landscape Design

Concept



Wayfinding/Safety

Stormwater Strategy – Bioswales / Drought Tolerant

Site Amenities

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QUESTIONS?
BioEPIC
LBNL GB