RUSD STEM HIGH SCHOOL

Building for the Future

A state of the art public STEM high school on the premises of a world class public research university, University of California, Riverside

Ruhnau Clarke Architects

Design Presentation

September 2018

WHY STEM

FOUNDATIONAL TENETS

1. **Quality**
   Provide high level of STEM teaching and learning.

2. **Equity**
   Ensure equitable Access and Success for ALL students at the Riverside STEM High School.

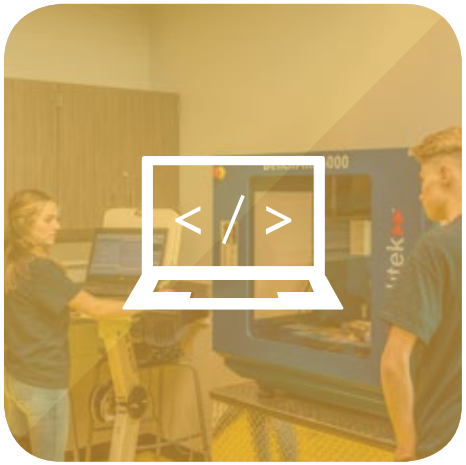
3. **Experience**
   Offer a variety of interdisciplinary STEM areas of study with capstone projects and industry certification.

4. **Partnerships**
   Create a STEM Partnership Forum to facilitate robust partnerships with higher education, business and industry.

5. **STEM Ambassadors**
   Ensure all students graduate with strong STEM knowledge, develop into socially responsible citizens and cultivate a joy of learning.

BENEFITS OF A STEM HIGH SCHOOL

STEM PATHWAYS



Computer Science

Environmental/Agricultural Science

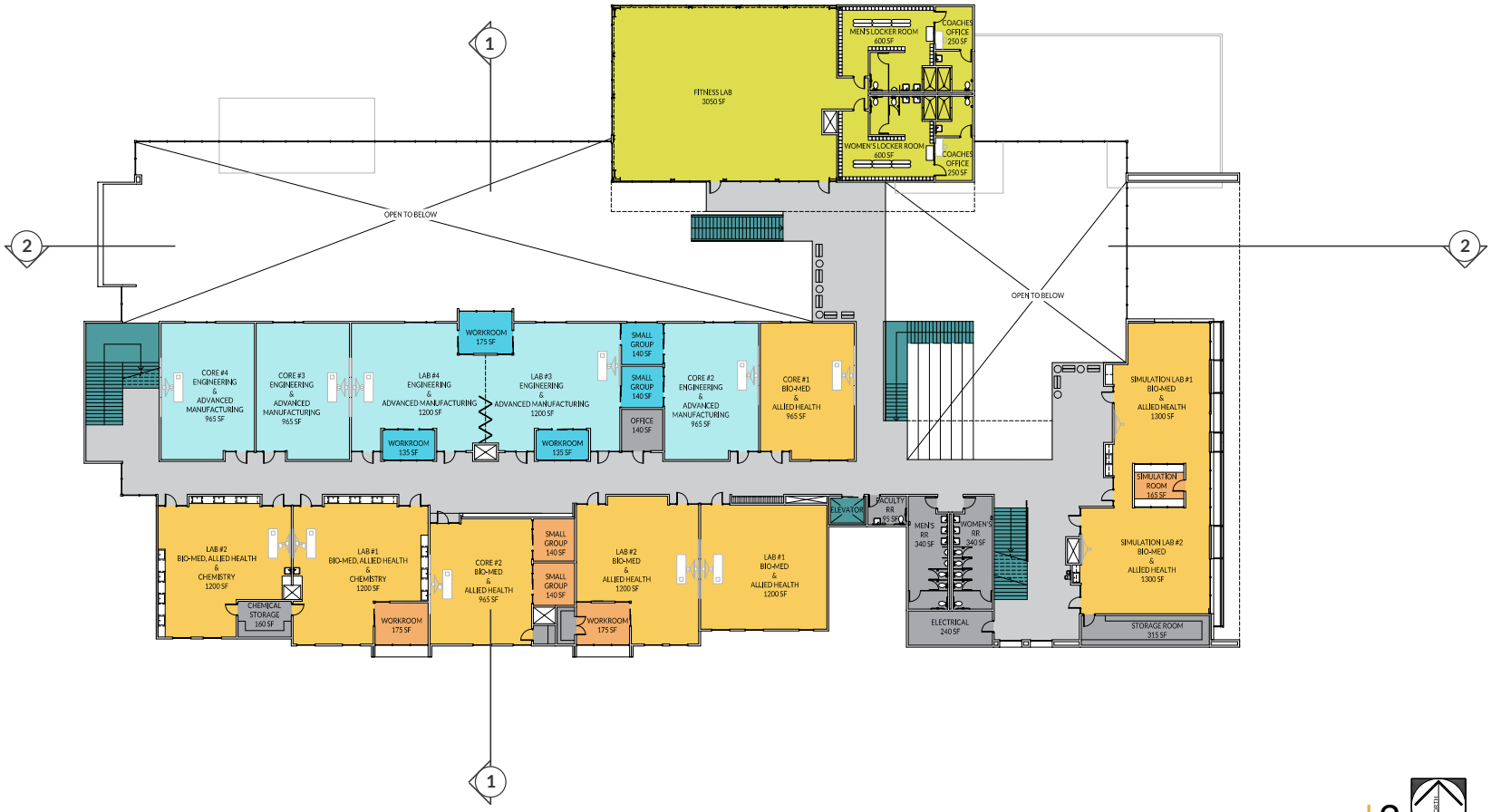
Bio-Medical/Allied Health

Engineering & Advanced Manufacturing

CONCEPTUAL FLOOR PLAN:
1ST FLOOR

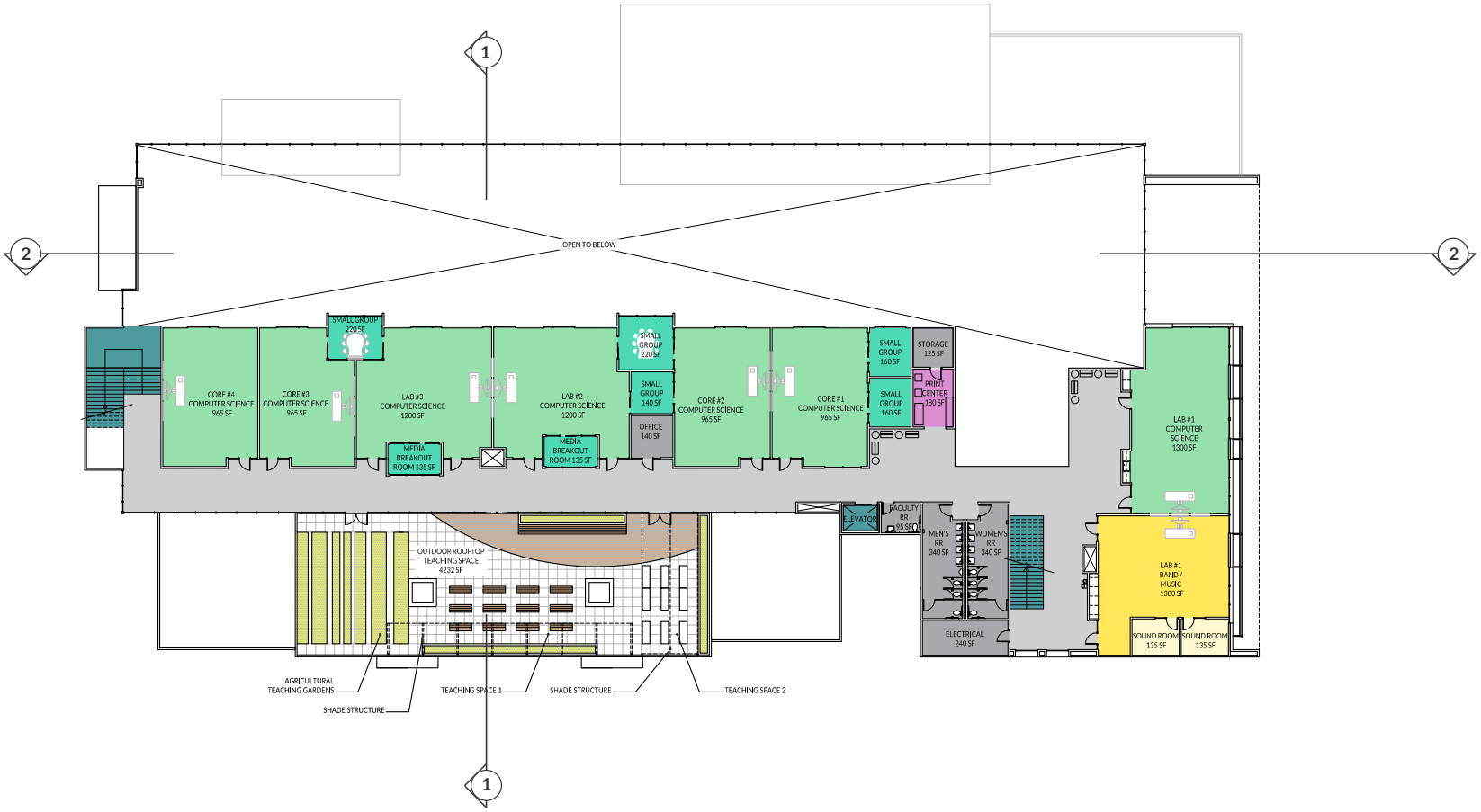
GROUND FLOOR | 1

CONCEPTUAL FLOOR PLAN:
2ND FLOOR



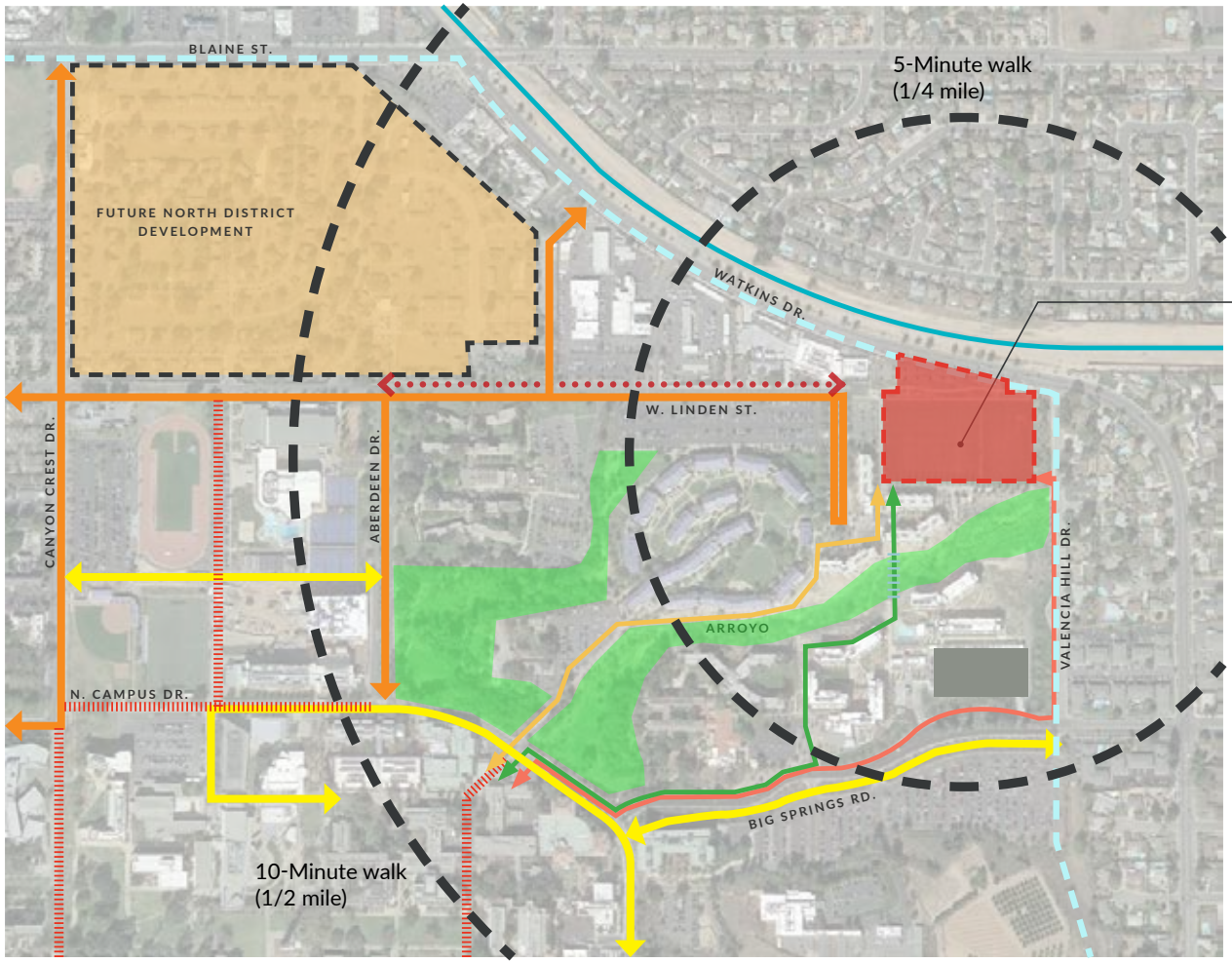
SECOND FLOOR | 2

CONCEPTUAL FLOOR PLAN:
3RD FLOOR



THIRD FLOOR | 3

CONTEXT DIAGRAM



STEM HIGH SCHOOL SITE

LEGEND

- SCIENCE LAB CONNECTION 1
- SCIENCE LAB CONNECTION 2
- SCIENCE LAB CONNECTION 3
- FUTURE PEDESTRIAN & BICYCLE ONLY STREET
- VEHICULAR STREET
- LIMITED ACCESS STREET
- MAJOR PEDESTRIAN/BICYCLE WAY
- PEDESTRIAN/BICYCLE BRIDGE
- PARKING STRUCTURE
- CAMPUS BOUNDARY
- PROJECT BOUNDARY

RUHNAU CLARKE

CONTEXT:
SITE IMAGES

WATKINS DR. LOOKING EAST | 1

WATKINS DR. LOOKING WEST | 2

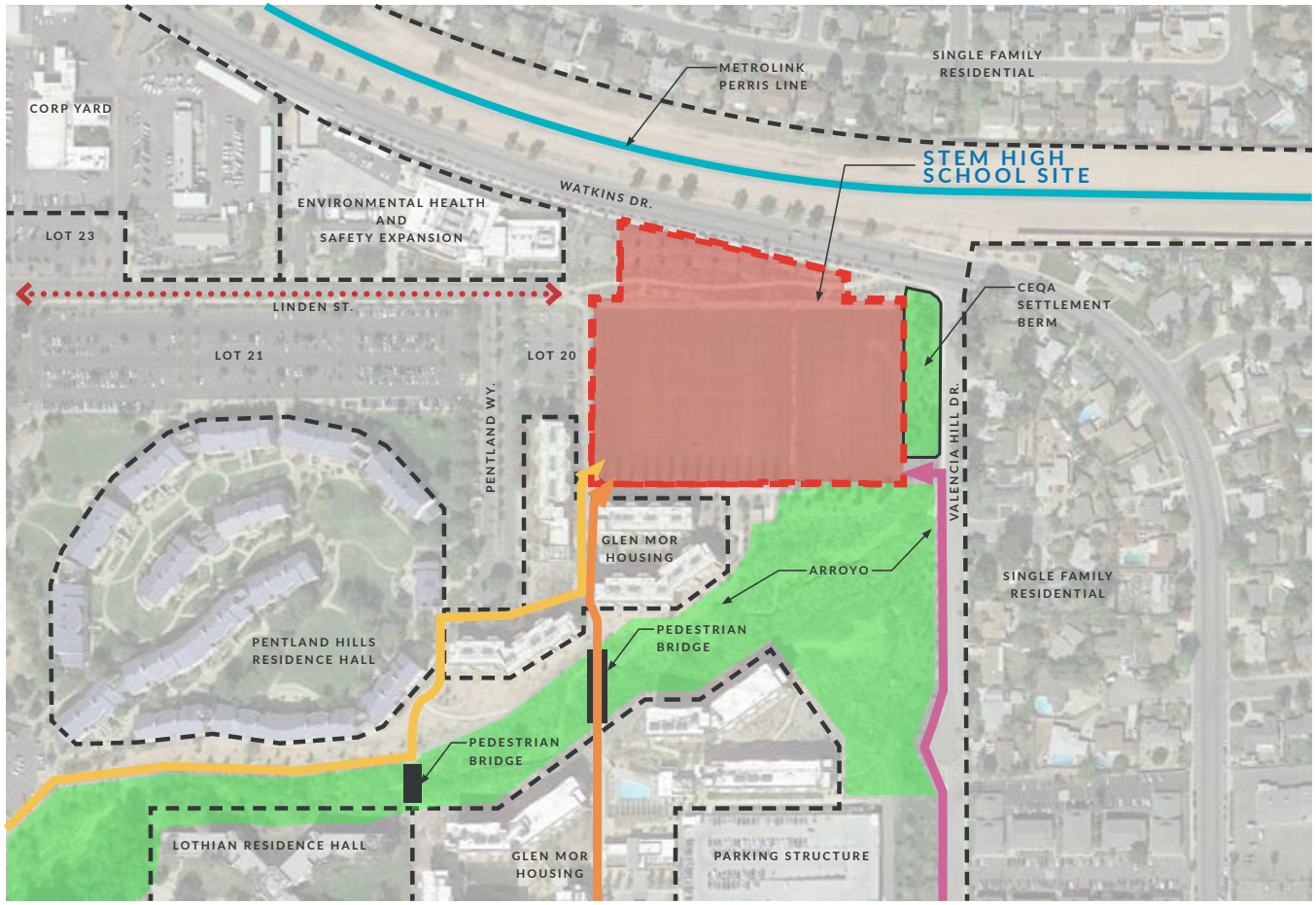
CORP YARD | 3

CORP YARD | 4

GLEN MOR HOUSING | 5

GLEN MOR HOUSING | 6

CONTEXT:
SITE PLAN



LEGEND

- SCIENCE LAB CONNECTION 1
- SCIENCE LAB CONNECTION 2
- SCIENCE LAB CONNECTION 3
- FUTURE PEDESTRIAN & BICYCLE ONLY STREET
- PROJECT BOUNDARY

CONTEXT:
STREET TREE DIAGRAM

LINDEN ST. PALM TREE LINED AXIS | 1

VALENCIA HILL DR. CEQA BERM | 2

Existing naturalized berm with Canary Island Pines

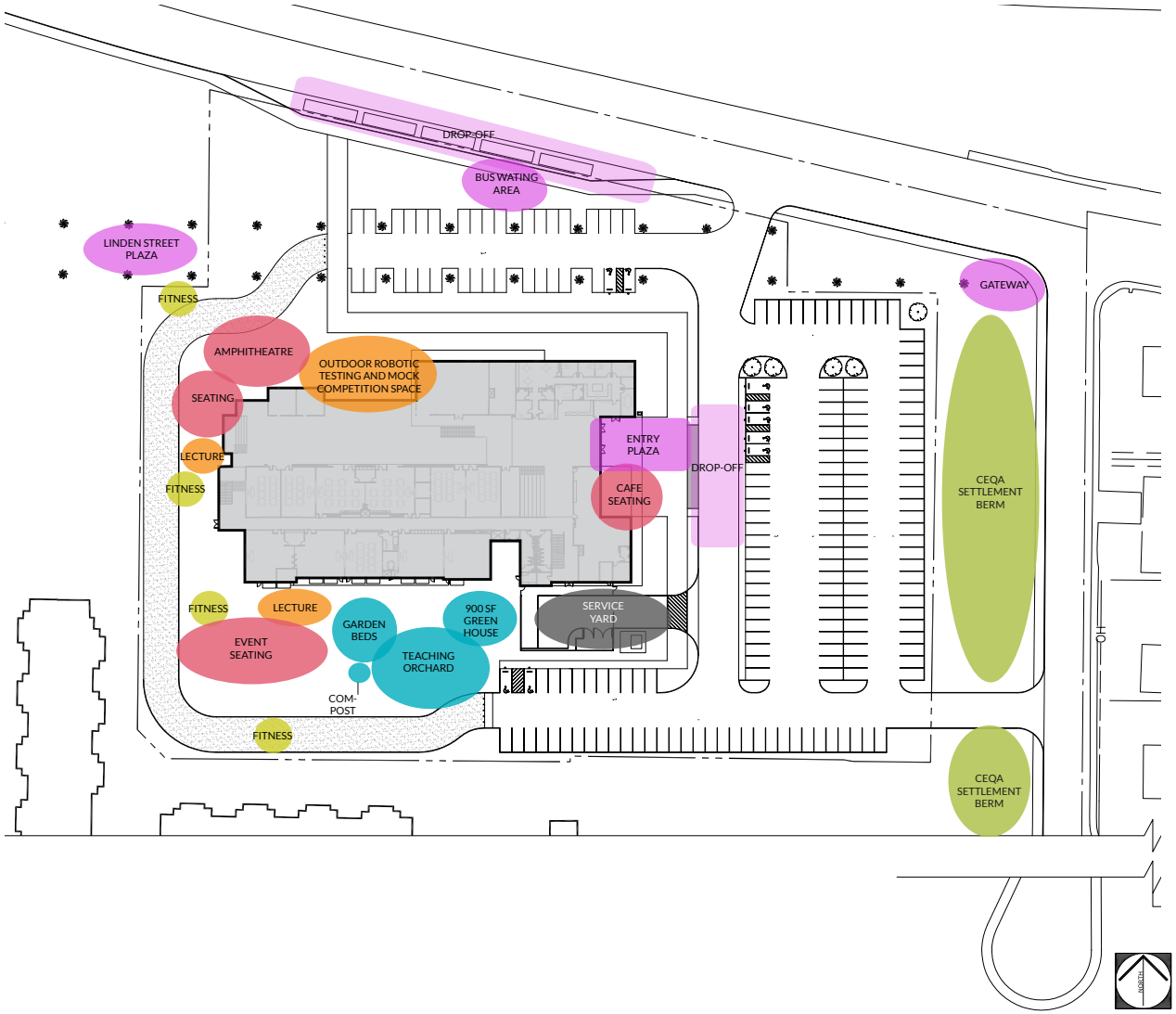
Continuation of native and naturalized trees

UCR ARROYO | 3

SITE
PROGRAM

LEGEND

- ENTRY & ARRIVAL
- STEM COMMUNAL SPACE
- LECTURE / EDUCATION SPACE
- RECREATION / FITNESS
- AGRICULTURAL PROGRAM
- CEQA



LANDSCAPE
INSPIRATIONAL IMAGES

GREEN HOUSE AND PLANTERS

OUTDOOR ASSEMBLY SEATING

RAISED GARDEN BEDS

TEACHING ORCHARD

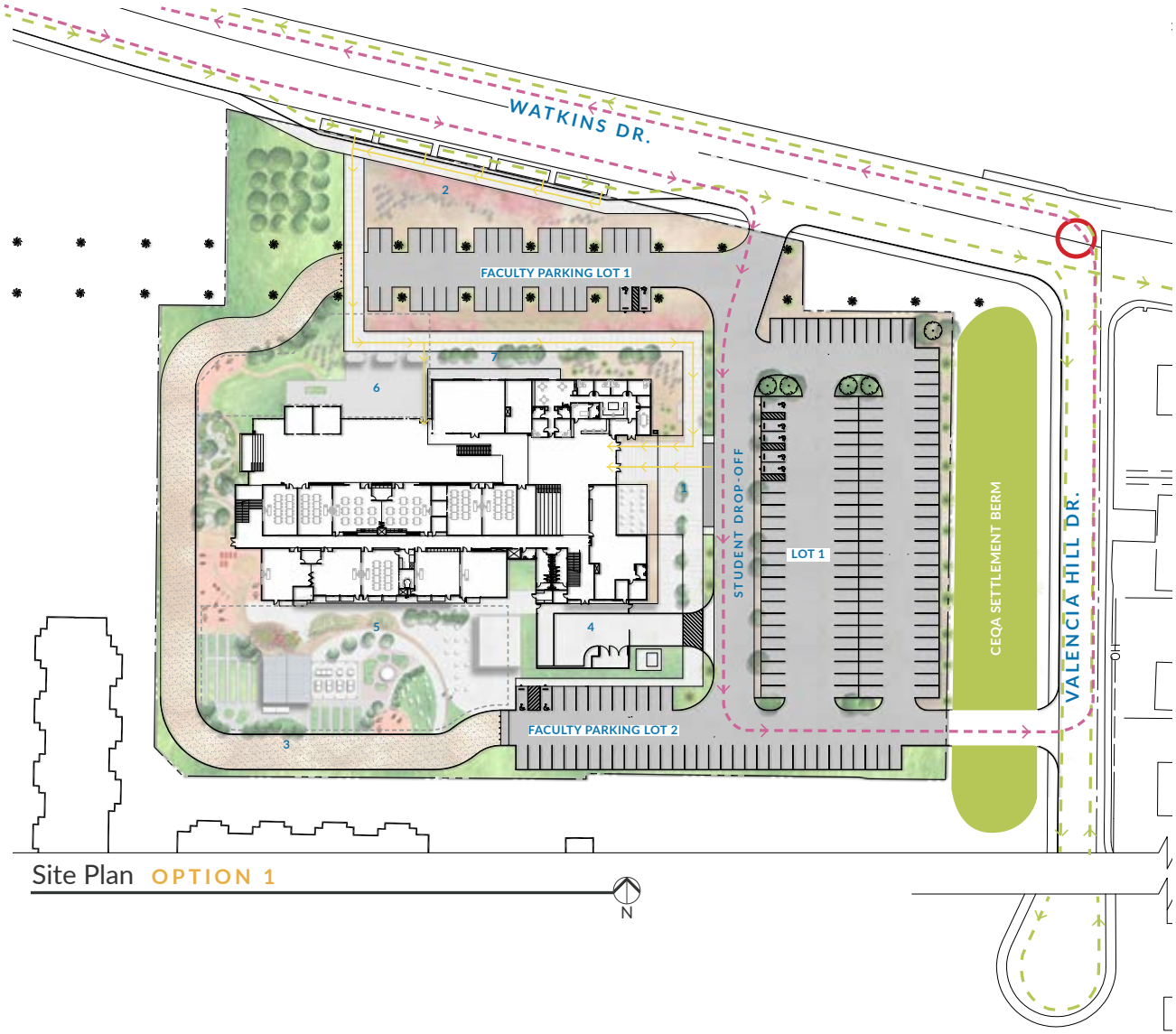
EVENT AND SCHOOL GATHERING SPACE

FITNESS & RECREATION

ENGINEERING TESTING & ROBOTICS

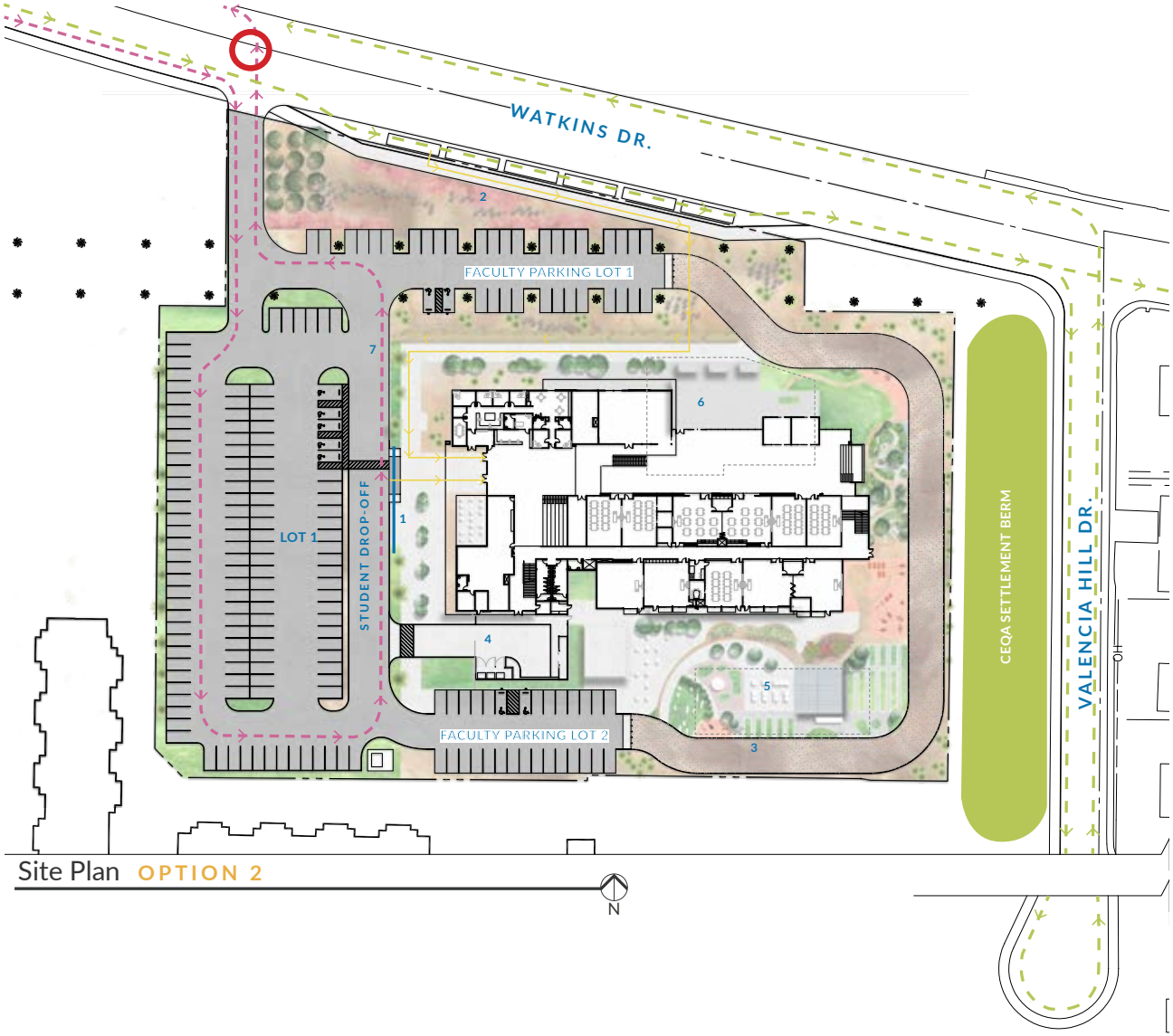
INDOOR/OUTDOOR CLASSROOM

SITE PLAN
OPTION 1



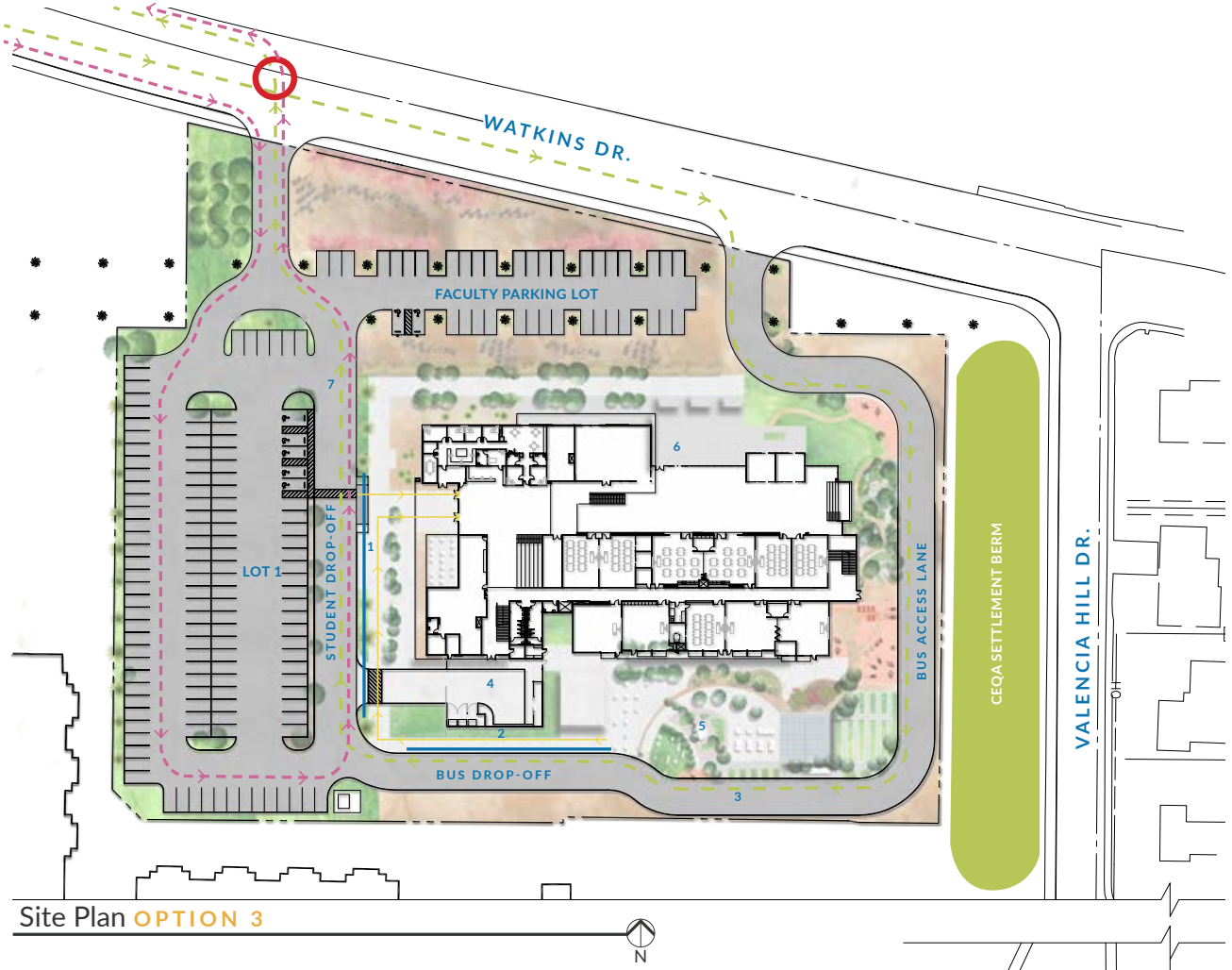
Site Plan OPTION 1

SITE PLAN
OPTION 2



Site Plan OPTION 2

SITE PLAN
OPTION 3



Site Plan OPTION 3

CONCEPT 1
BOX SPRINGS MOUNTAINS

▲ Natural mountain terrain, vegetation and trails.

▲ Lush natural landscape in organic arrangements contrasted by clean lined hardscape.

▲ Landscaped mounds alongside hardscape encouraged interaction with the outdoor environment.

▲ Hard seating nestled into the landscape.

▲ Teaching spaces (amphitheater) carved out and incorporated into the landscape.

CONCEPT 2
ARROYO

▲ Natural arroyo landscape.

▲ Boulders integrated into natural arroyo.

▲ Site drainage meanders throughout the site, interacting with paths and outdoor teaching spaces.

▲ Drainage clearly expressed and integrated into circulation paths to offer teaching opportunities.

LANDSCAPE
PLANTING FRAMEWORK

Entry garden with soft desert textures and colorful accents.

Arroyo creek beds with varied grasses, native shrubs and boulders.

Topographic landforms with textural buffer planting.

Educational fruit and vegetable garden.

LANDSCAPE
TREE FRAMEWORK

Platanus Racemosa

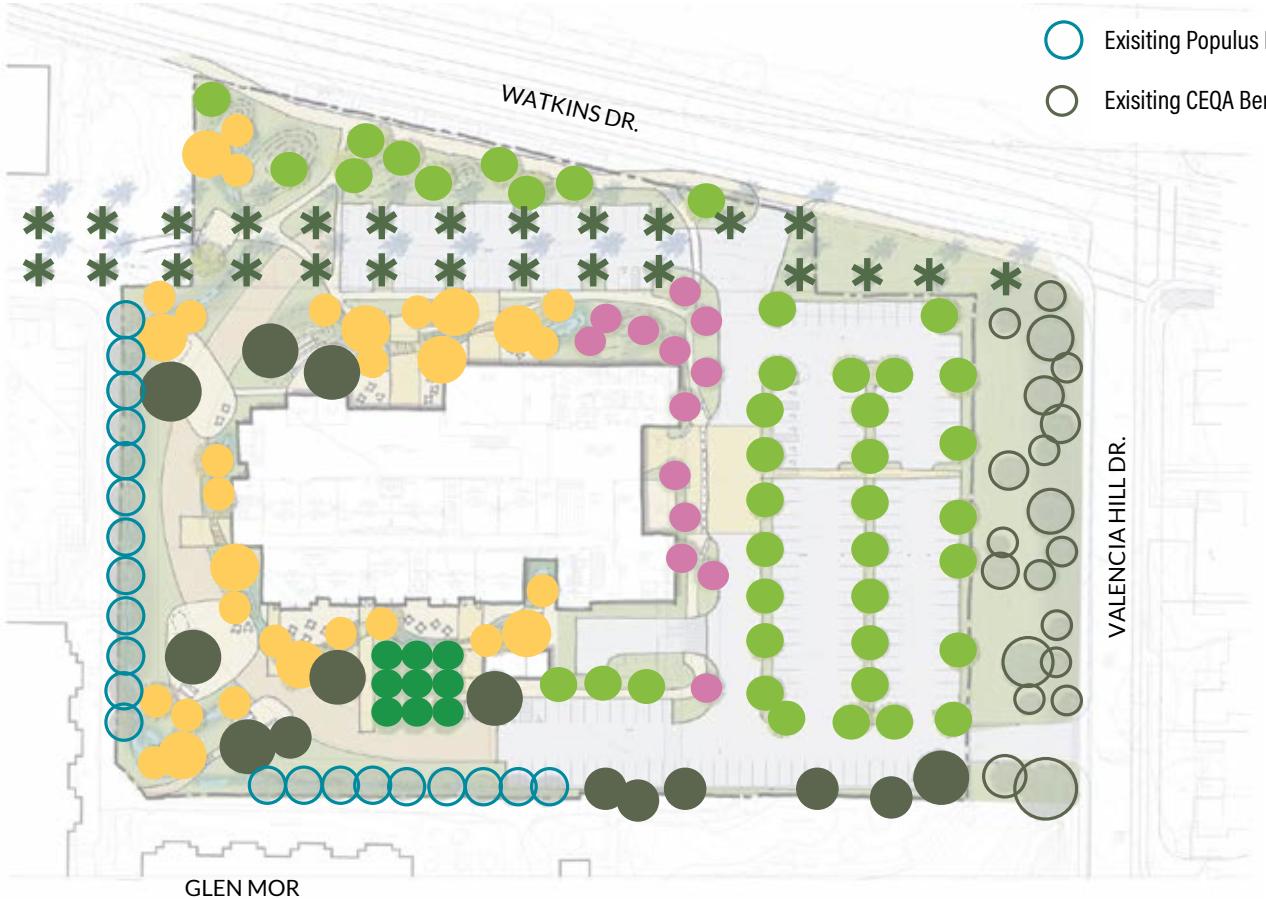
Quercus Agrifolia

Parkinsonia Aculeata

Tipuana Tipu

Citrud Sinensis

Washingtonia Robusta Hybrid (Existing)



LANDSCAPE
TREE SELECTION

Parkinsonia Aculeata

Acacia Podalyriifolia

Citrus Sinensis

Washingtonia Robusta (Hybrid)

Arbutus Marina

Quercus Agrifolia

Tipuana Tipu

Platanus Racemosa

LANDSCAPE
UNDER STORY PLANTING

ENTRY GARDEN

Muhlenbergia Dubia

Aloe

Agave 'Blue Glow'

Yucca Filamentosa

Anigozanthos 'Bush Sunset'

Senecio Serpens

ARROYO

Carex Divulsa

Chondropetalum Tectorum

Dietes Bicolor

Lantana 'Gold'

Muhlenbergia Linheimerii

LANDFORMS & BUFFER

Baccharis Pilularis 'Twin Peaks'

Festuca Mairei

Salvia Pozo 'Blue'

Rosmarinus Officinalis 'Tuscan Blue'

Rhamnus Umbulata 'Minor'

SITE COMPARISON

Current

Light Pollution

Future

Direct light and glare spill from lights will be contained on the site.

Noise

Limited noise impacts from outdoor activities except for limited hours of the day on North and South side of the building.

Nighttime noise should be virtually eliminated.

Traffic

Through traffic will bypass school because of school zone speed limits.

Signalized intersection will make for safer traffic movements in and around school zone.

CONCEPTUAL RENDERING
EXTERIOR

RUHNAU CLARKE ARCHITECTS

CONCEPTUAL RENDERING
MAIN ENTRANCE

CONCEPTUAL RENDERING
EXTERIOR

CONCEPTUAL RENDERING
INTERIOR