



San Francisco  
**Water  
Power  
Sewer**

Services of the San Francisco  
Public Utilities Commission

**SEWER  
SYSTEM**

IMPROVEMENT PROGRAM  
Grey. Green. Clean.

# SEP BIOSOLIDS

## CDR PHASE 2

DEC 2017

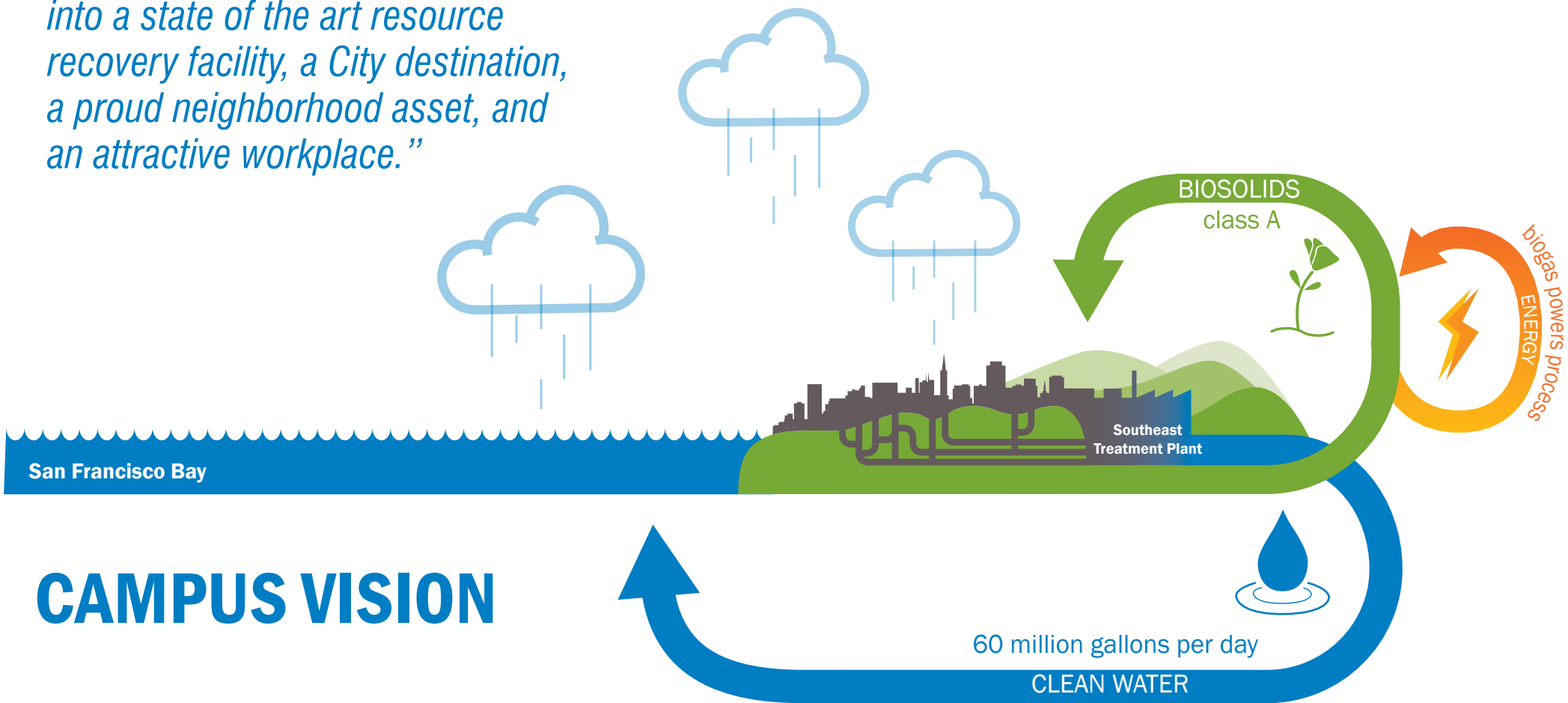


mwa architects

SAN FRANCISCO  
**PUBLIC  
WORKS**



*“To transform San Francisco’s largest wastewater treatment plant into a state of the art resource recovery facility, a City destination, a proud neighborhood asset, and an attractive workplace.”*

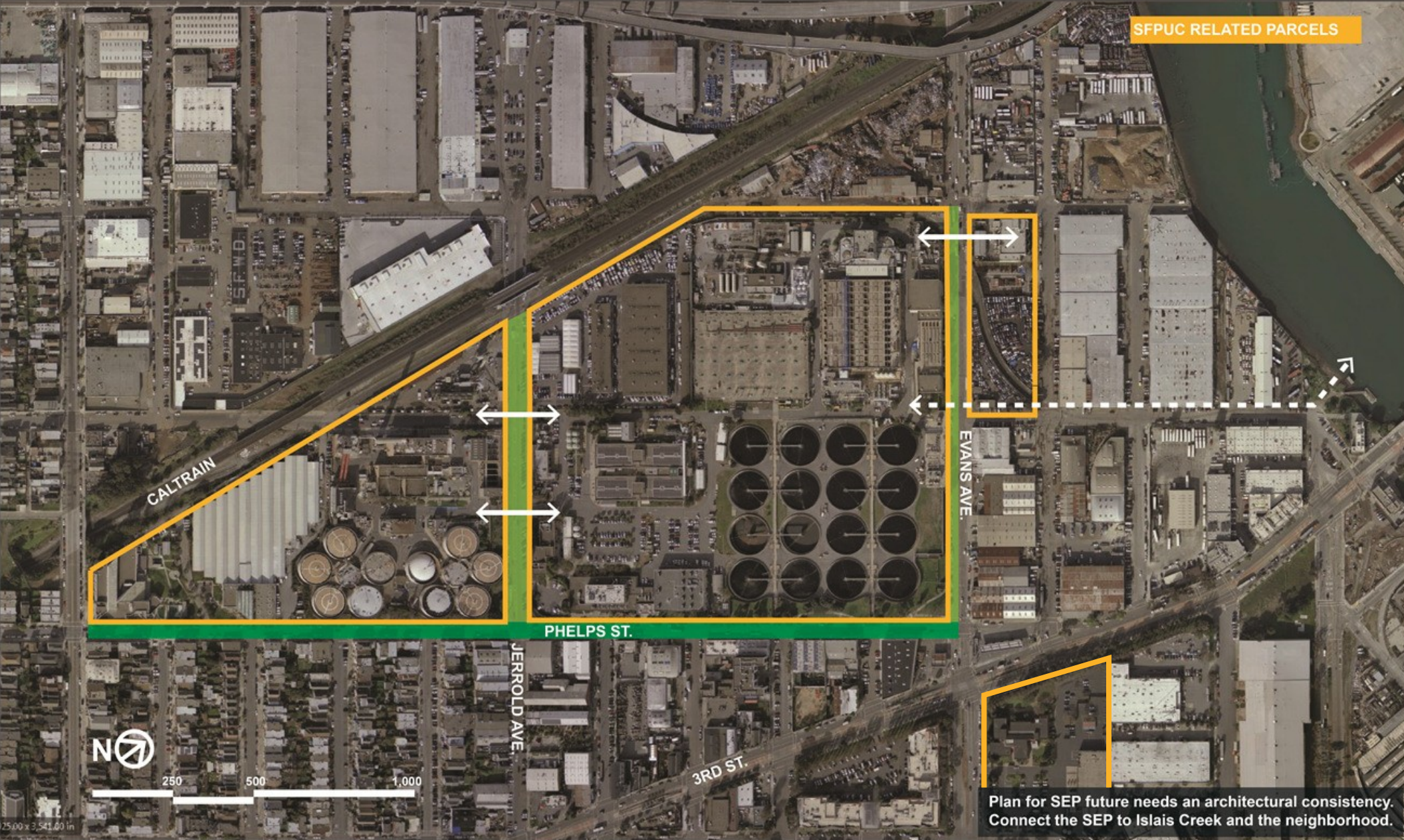


**CAMPUS VISION**



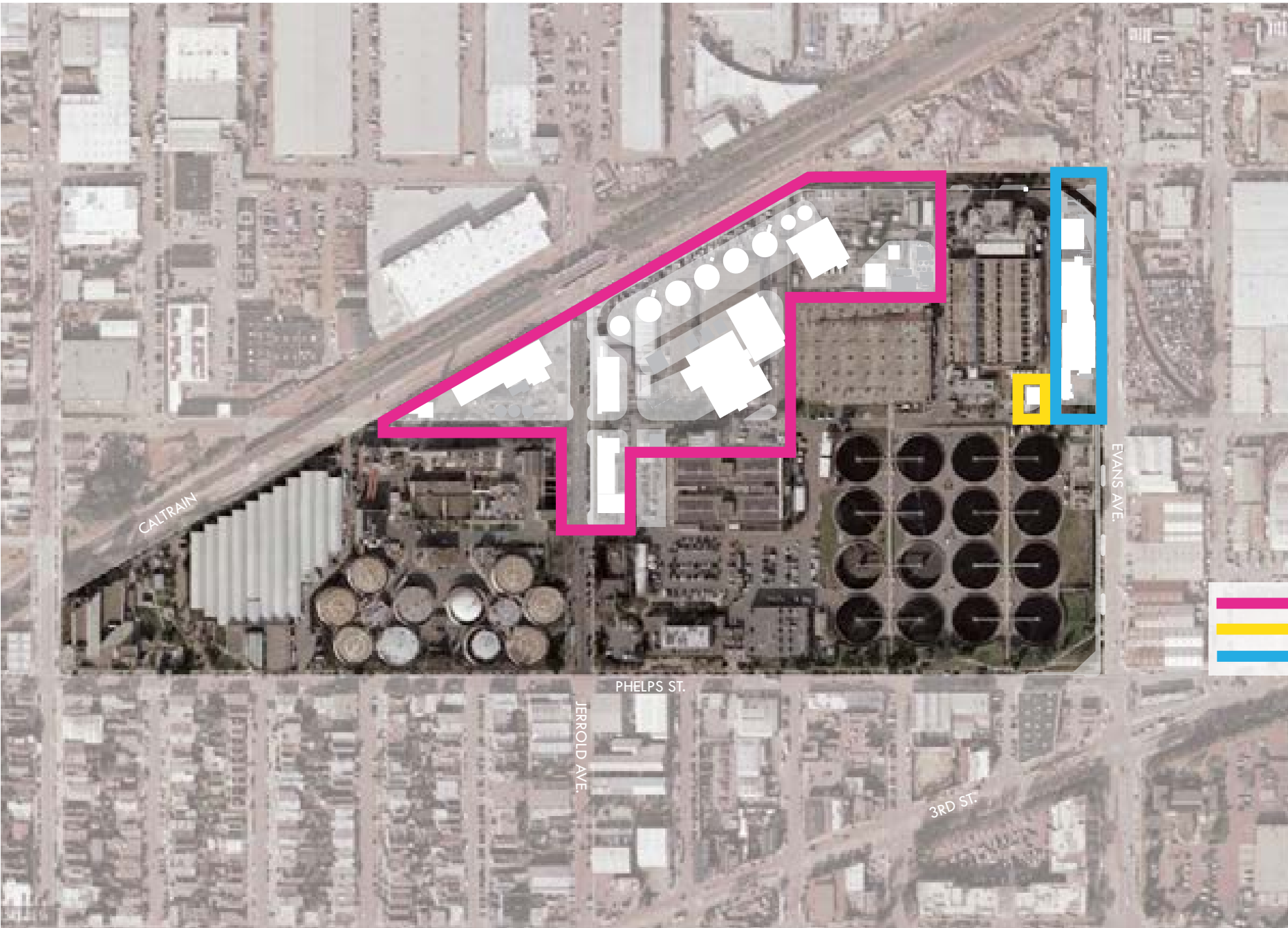
# CAMPUS PLAN

## CONSOLIDATE AND CONNECT





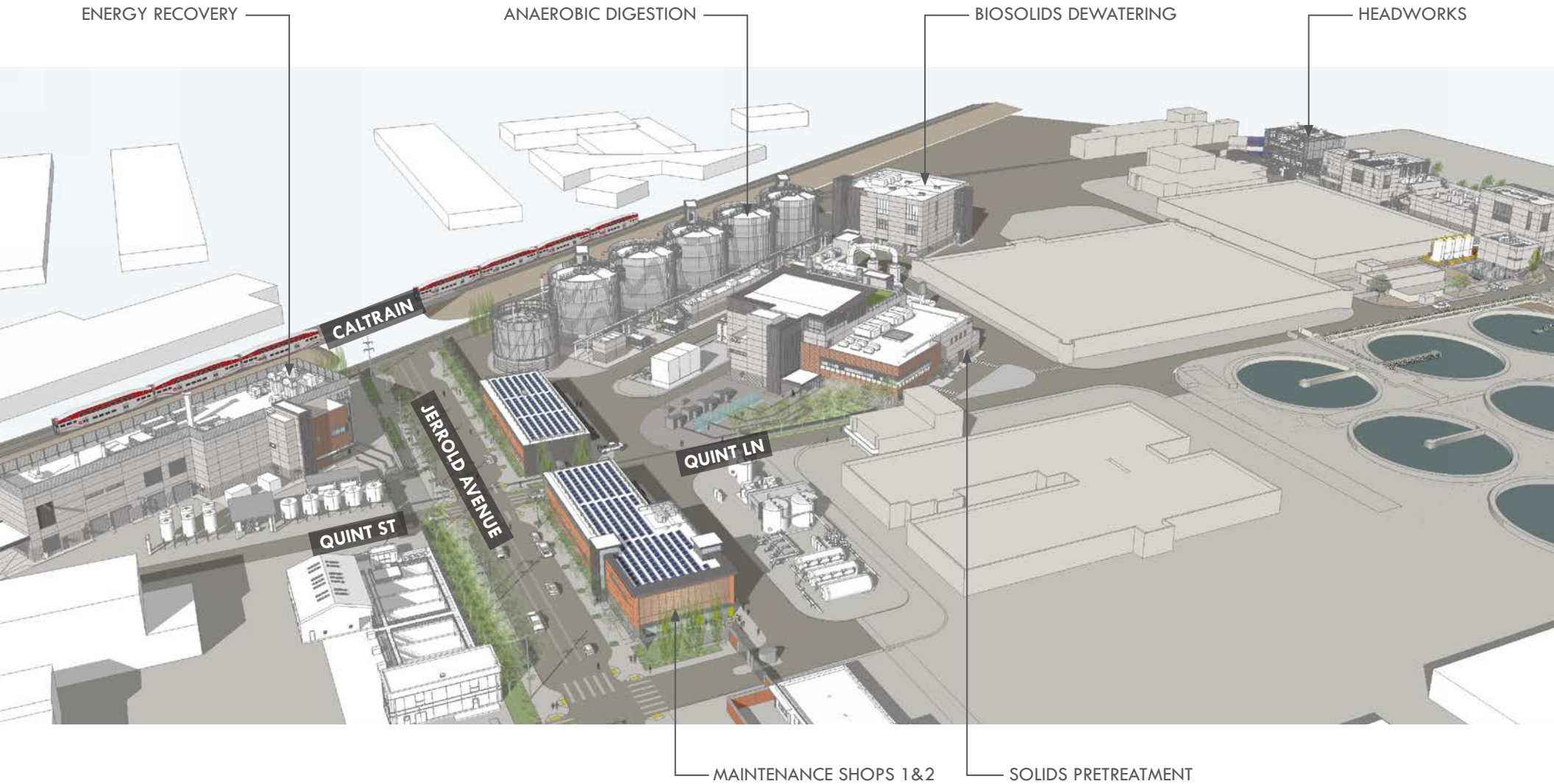
# MAJOR SOUTHEAST PROJECTS





# BIOSOLIDS PHASE 1

## CAMPUS AERIAL VIEW FROM EAST





# BIOSOLIDS PHASE 1

CAMPUS AERIAL VIEW FROM WEST - INDUSTRIAL NEIGHBORHOOD

BIOSOLIDS DEWATERING

SOLIDS PRETREATMENT

MAINTENANCE SHOPS 1&2

ENERGY RECOVERY



ANAEROBIC DIGESTION



# BIOSOLIDS PHASE 1

## CAMPUS AERIAL VIEW FROM EAST

ENERGY RECOVERY

ANAEROBIC DIGESTION

SOLIDS PRETREATMENT



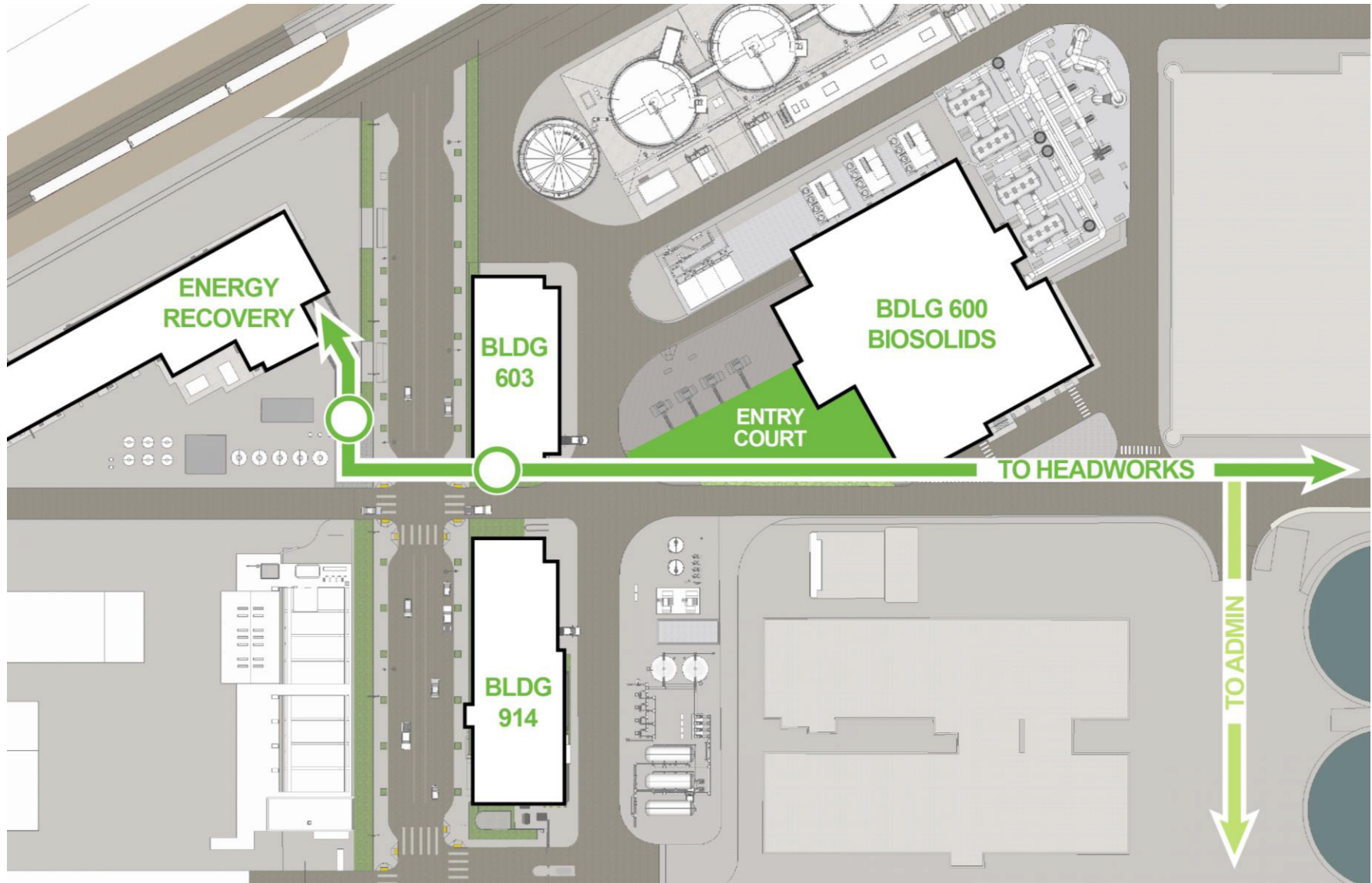
MAINTENANCE SHOPS 1&2



# ENTRY COURT



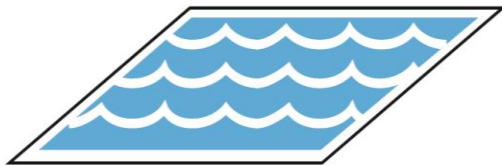
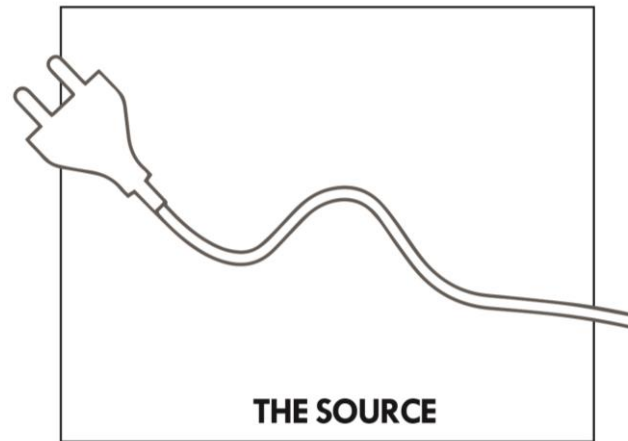
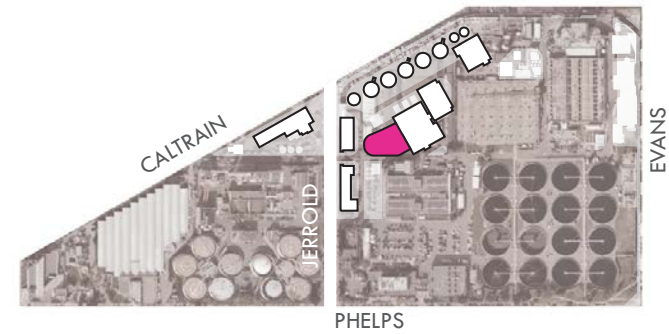
# PUBLIC TOUR ROUTE





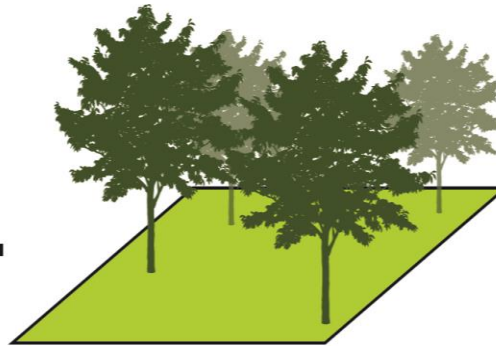
# BLDG 600 ENTRY COURT

## CONCEPT + PROGRAM



**WATER FEATURE**

+



**GREEN OASIS**

+

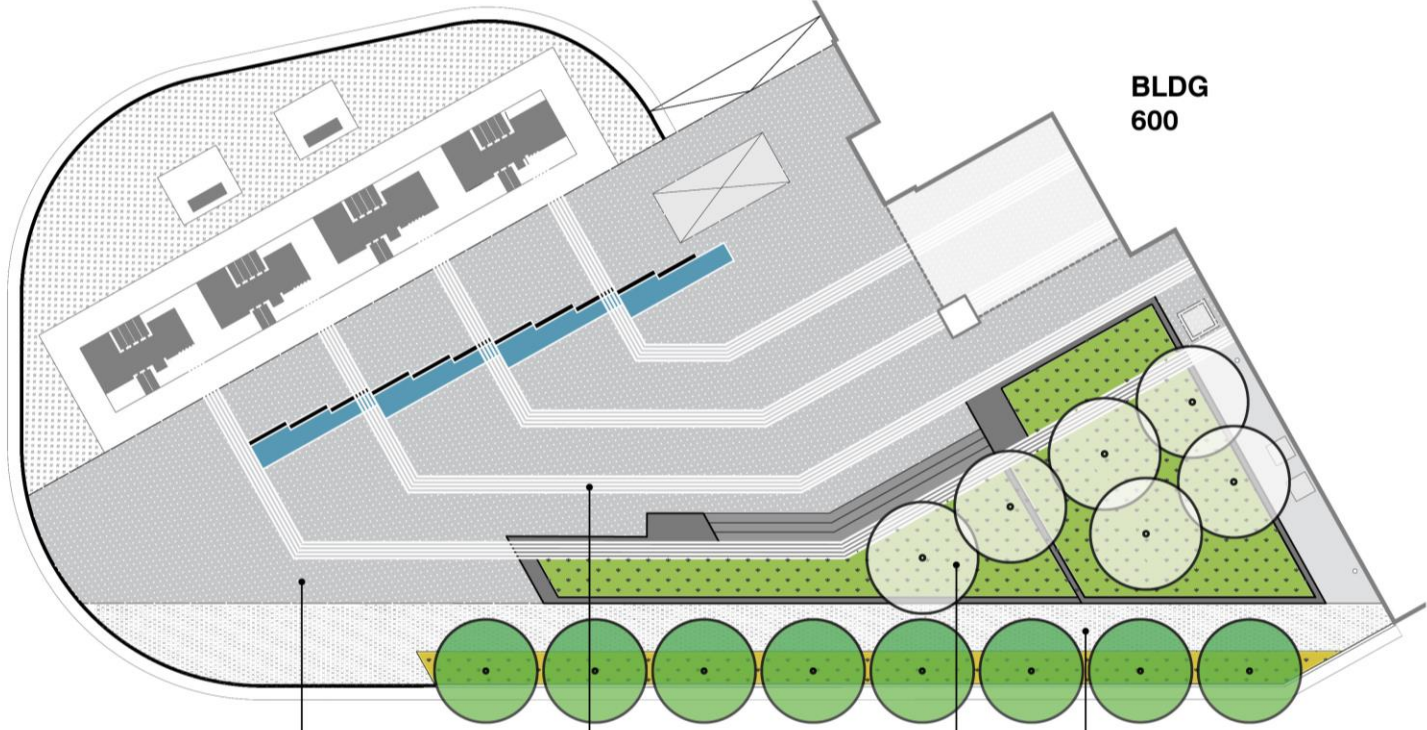
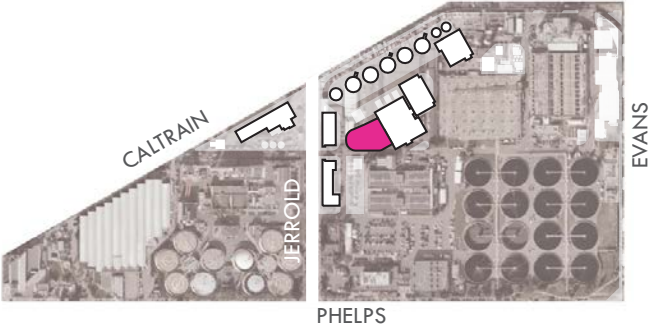


**GATHERING SPACE**

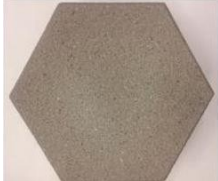


# BLDG 600 ENTRY COURT

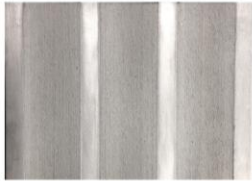
## HARDSCAPE MATERIALS



PAVING FIELD



METAL BAND



RAISED PLANTER



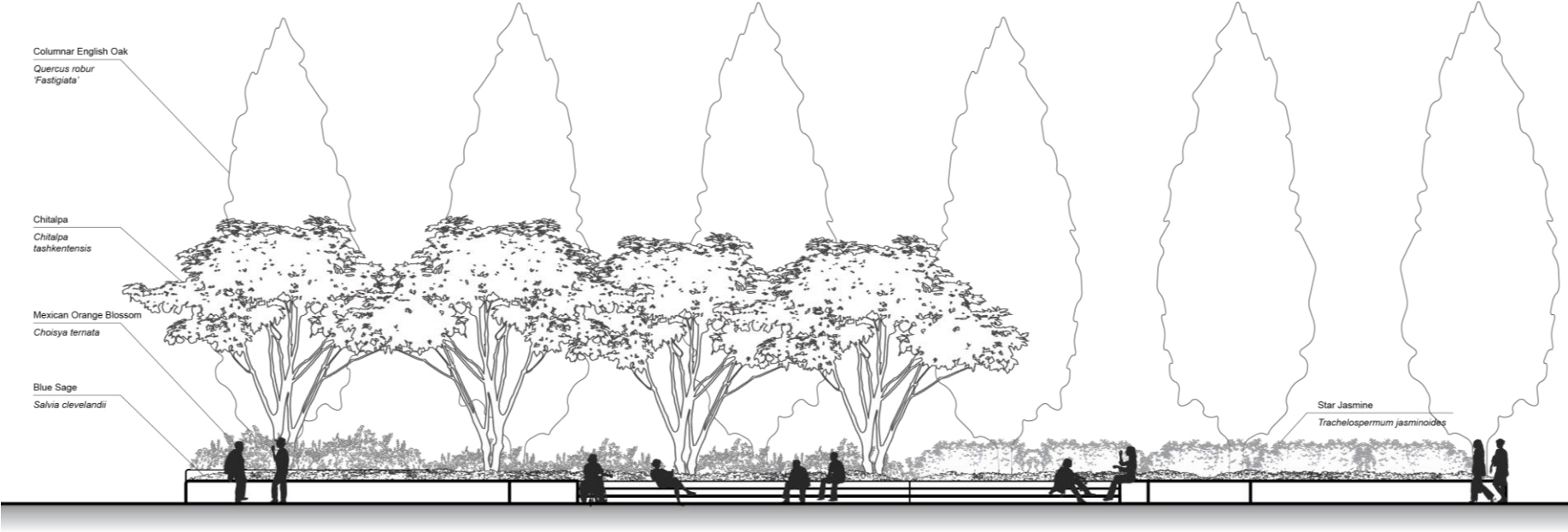
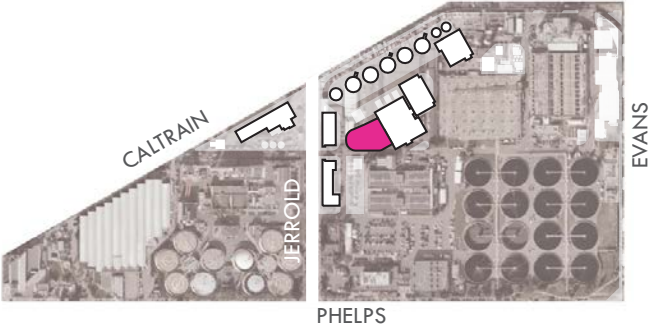
TOUR ROUTE SIDEWALK





# BUILDING 600 ENTRY COURT

## PLAZA - PLANTING ELEVATION

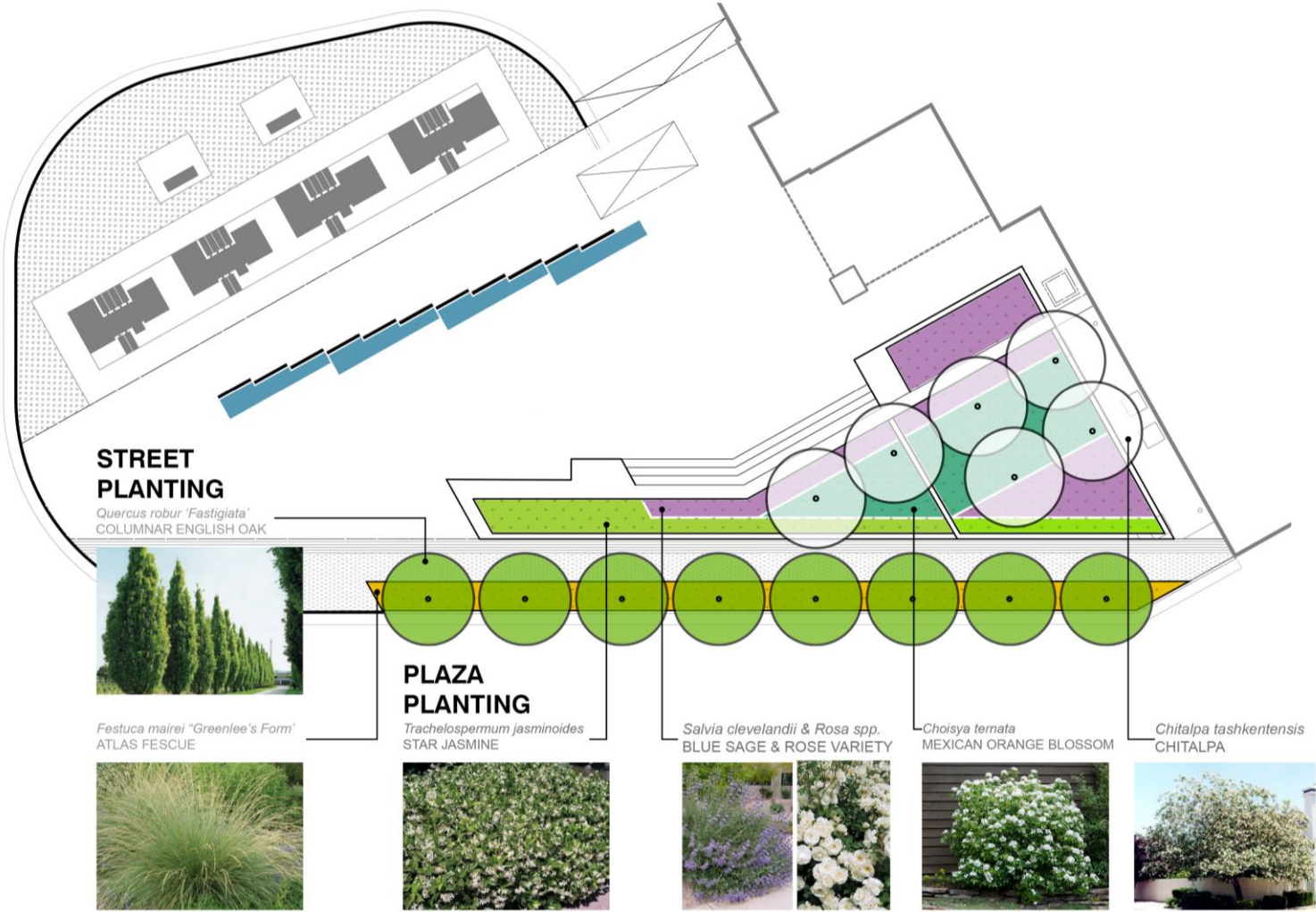
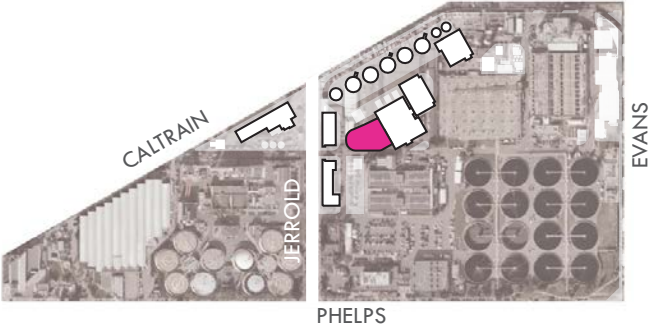


ELEVATION LOOKING SOUTH



# BLDG 600 ENTRY COURT

## PLANTING PALETTE





# RESPONSE TO CDR FEEDBACK

## BUILDING 600 ENTRY COURT



Water Jets Concept



Water Trough Concept



# RESPONSE TO CDR FEEDBACK

BUILDING 600 ENTRY COURT



## ***Fountain Comments from CDR Phase I:***

- 'Curtain' concept is more compelling than 'Trough' concept
- Jets & Rain Curtains are common – team is encouraged to explore additional water feature options.

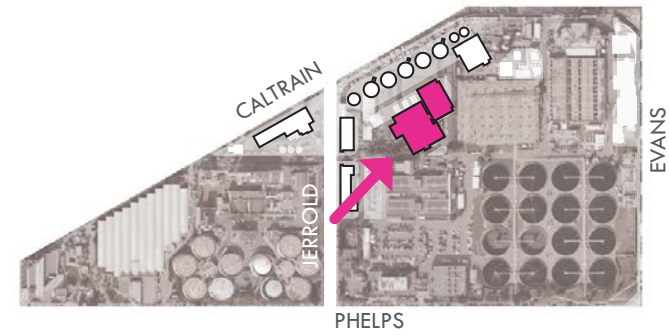
## ***Fountain Phase II Response:***

- Fluidity Design Consultants were brought on the team as a subconsultant.
- PUC Management directed the team to pursue a 'glass panel' water feature option.
  - Provides visual screening of electric transformers
  - Functions as sculptural element when water is turned off.
  - Frames the plaza space and successfully guides visitors towards Bldg 600 entry



# BUILDING 600 ENTRY COURT

## APPROACH - WATER FOUNTAIN





# CAMPUS ELEMENTS



# BIOSOLIDS PHASE 1

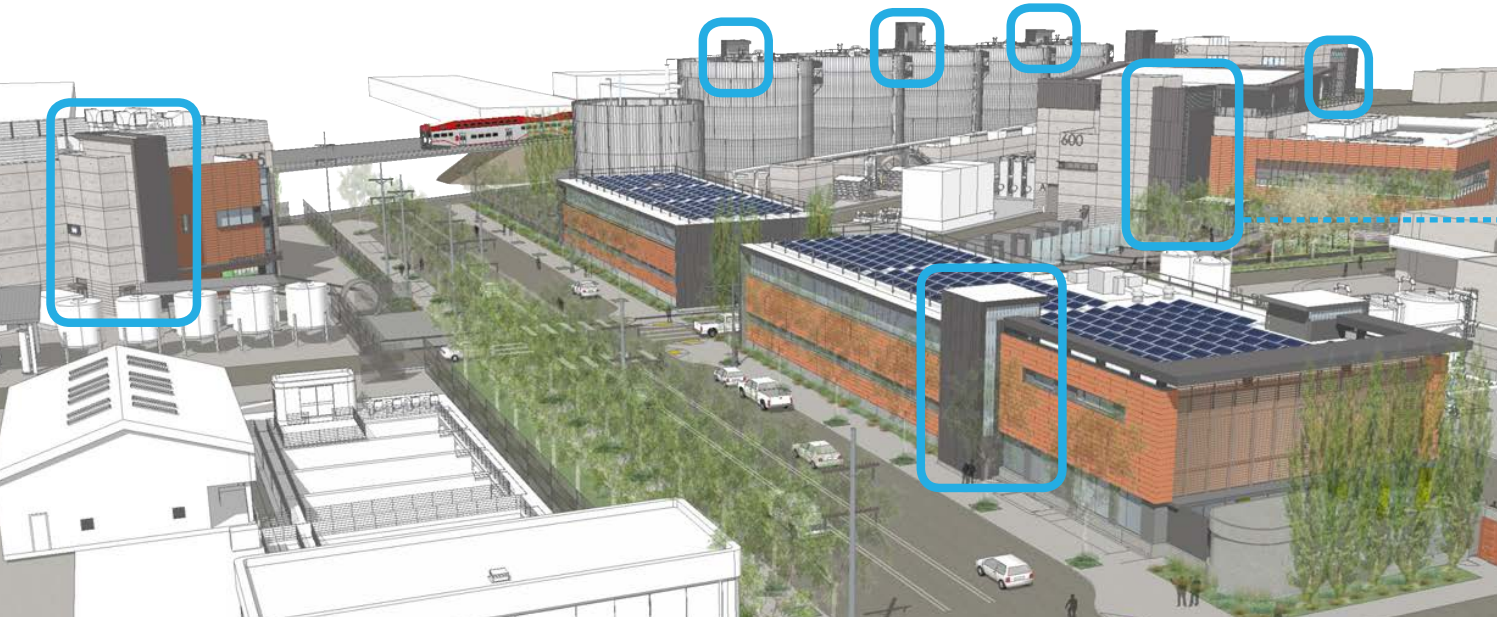
## CAMPUS AERIAL VIEW FROM EAST





# CAMPUS DESIGN ELEMENTS AND MATERIALS

## STAIR TOWERS



CHANNEL GLASS  
BENDHEIM 504 ROUGH CAST, AZUR COATING



CONCRETE

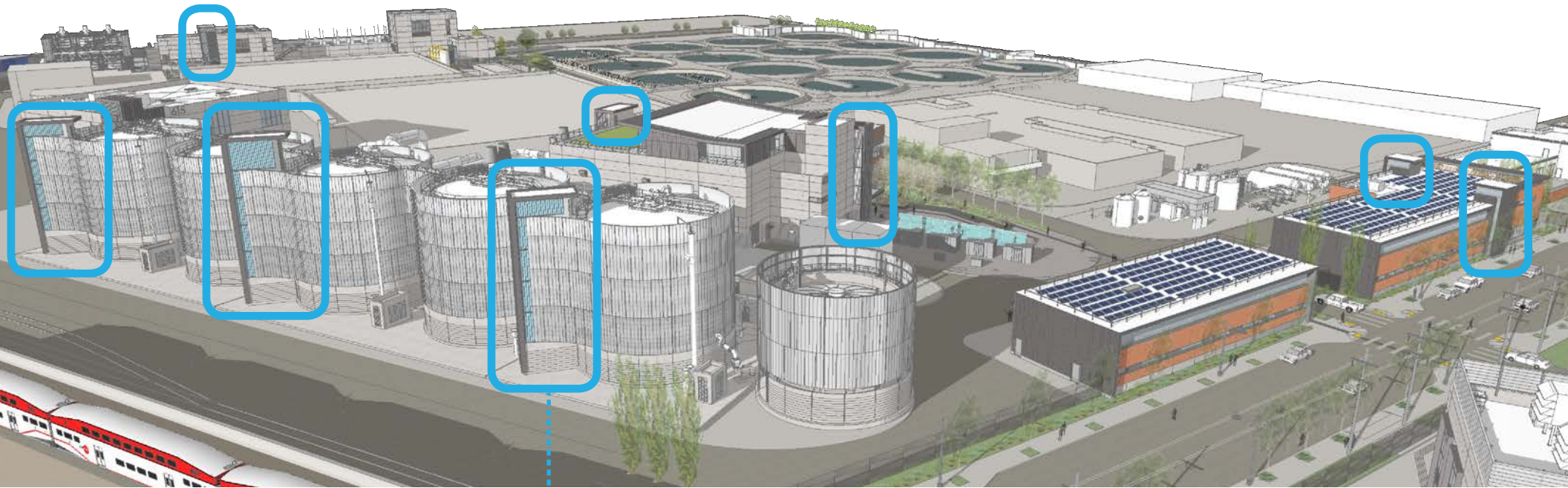


ZINC PANELS  
IMETCO UNITED ZINC ONYX BLACK



# CAMPUS DESIGN ELEMENTS AND MATERIALS

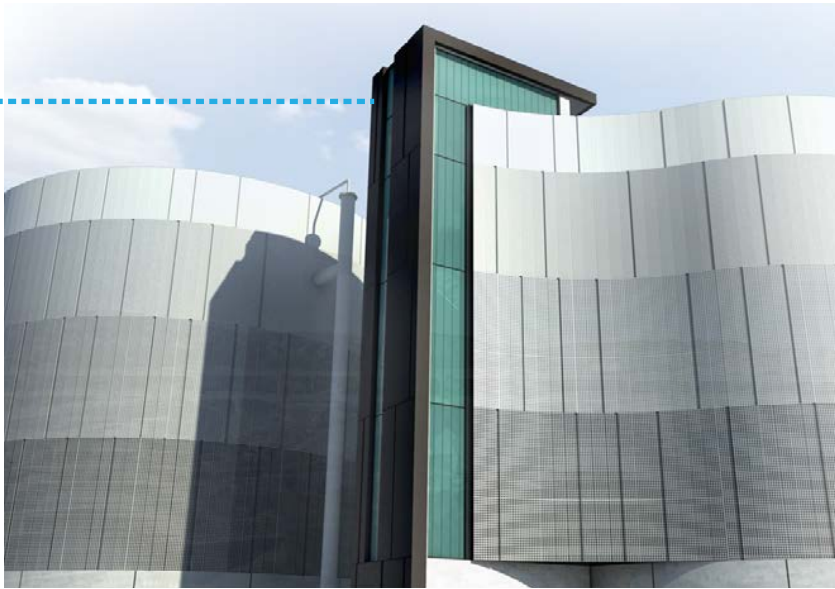
## STAIR TOWERS



CHANNEL GLASS  
BENDHEIM 504 ROUGH CAST, AZUR COATING

CONCRETE

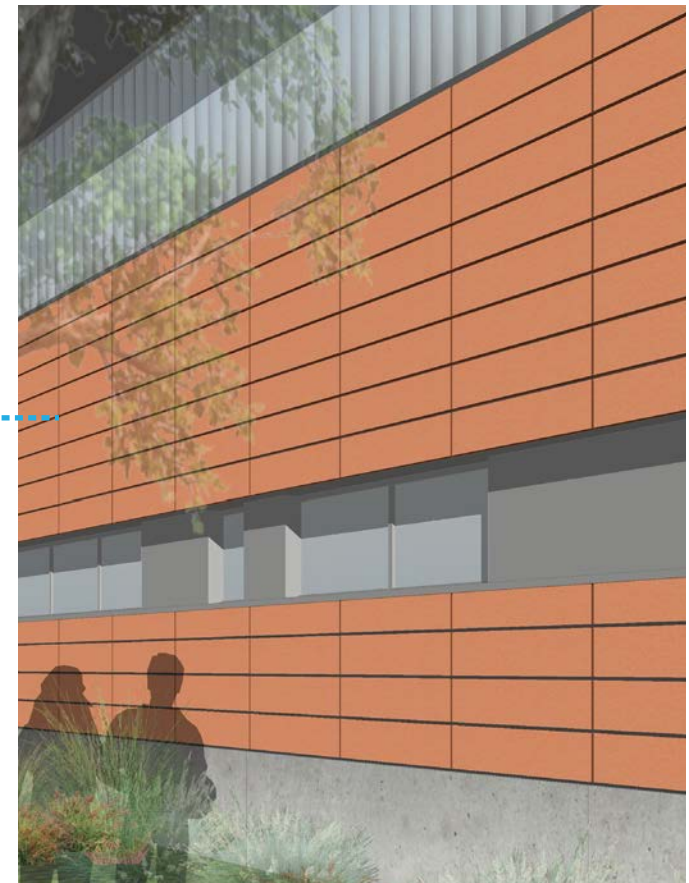
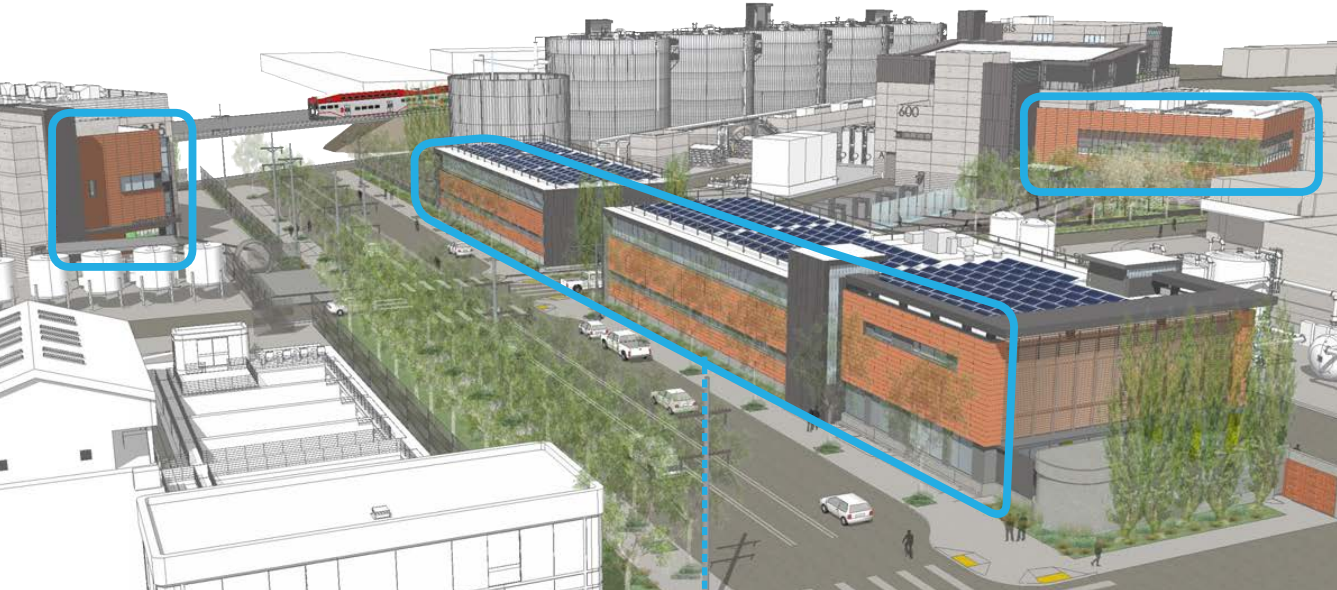
ZINC PANELS  
IMETCO UNITED ZINC ONYX BLACK





# CAMPUS DESIGN ELEMENTS AND MATERIALS

## TERRACOTTA PANELS AND SUNSHADES



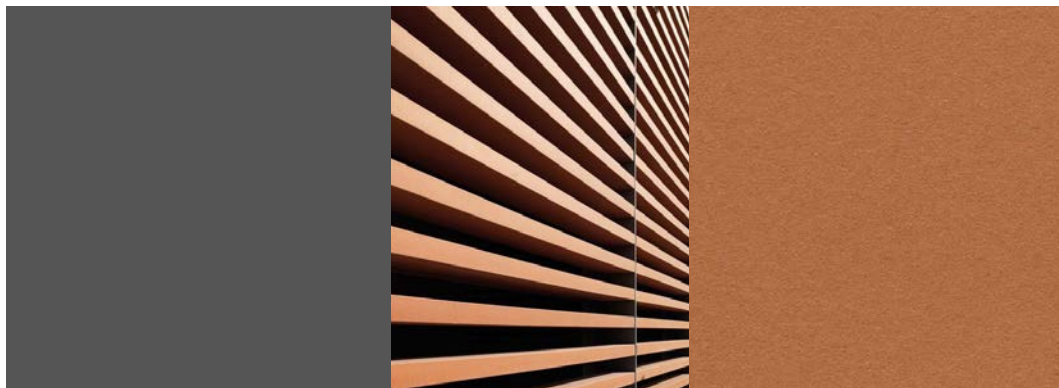
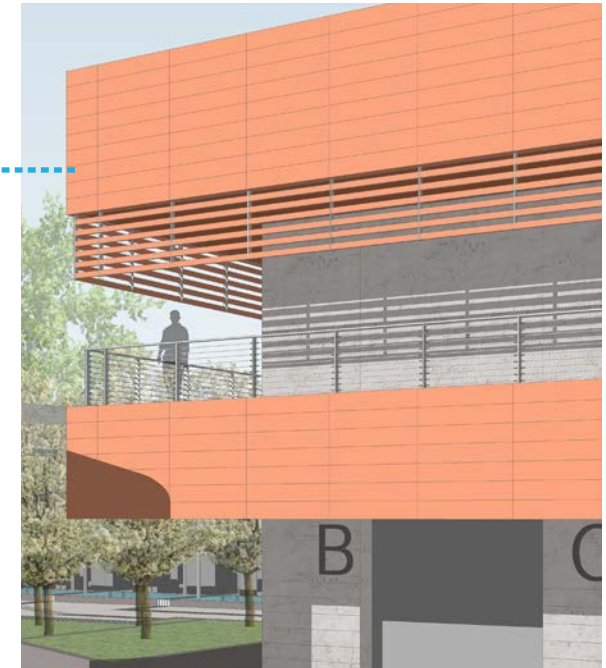
1'x5' PANELS AND 2"x2" VIZORS

TERRACOTTA  
NEACERA BRICK RED 2036



# CAMPUS DESIGN ELEMENTS AND MATERIALS

## TERRACOTTA PANELS AND SUNSHADES



METAL SUPPORTS  
THE GARLAND COMPANY PEWTER

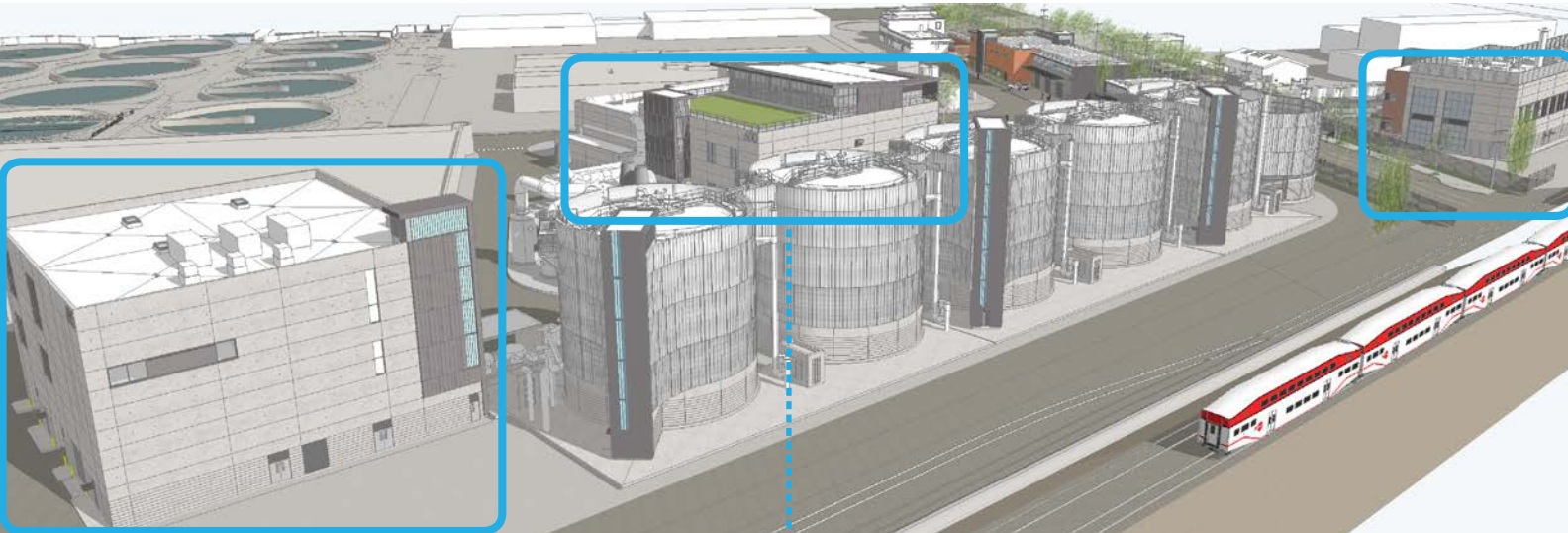
2"x2" QUAD "VIZORS"

TERRACOTTA  
NEACERA BRICK RED 2036



# CAMPUS DESIGN ELEMENTS AND MATERIALS

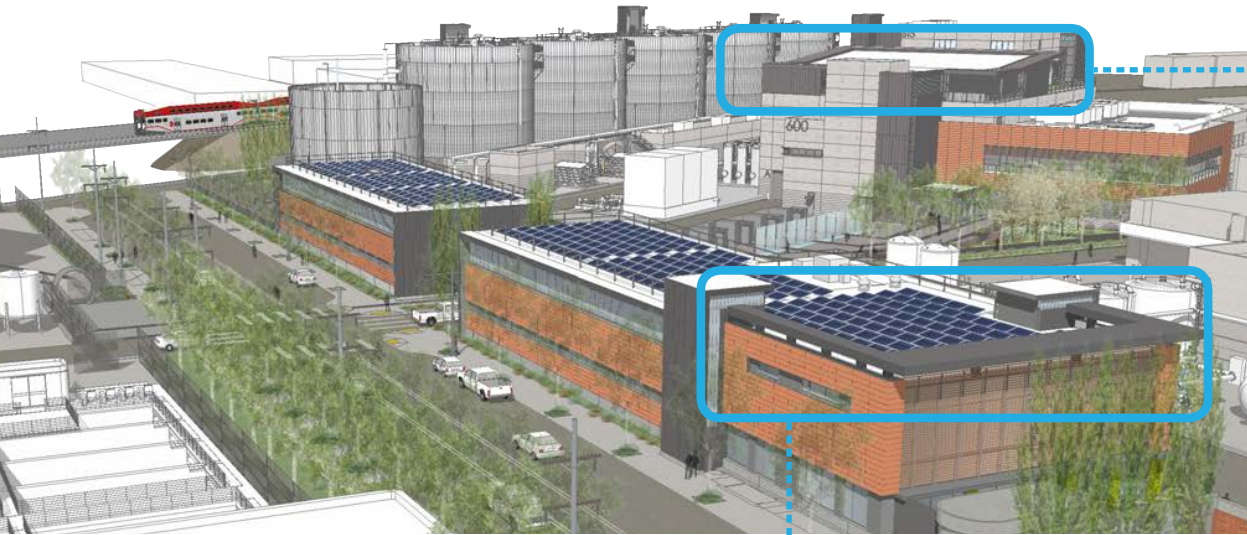
## CONCRETE REVEAL PATTERNS





# CAMPUS DESIGN ELEMENTS AND MATERIALS

## ROOFS



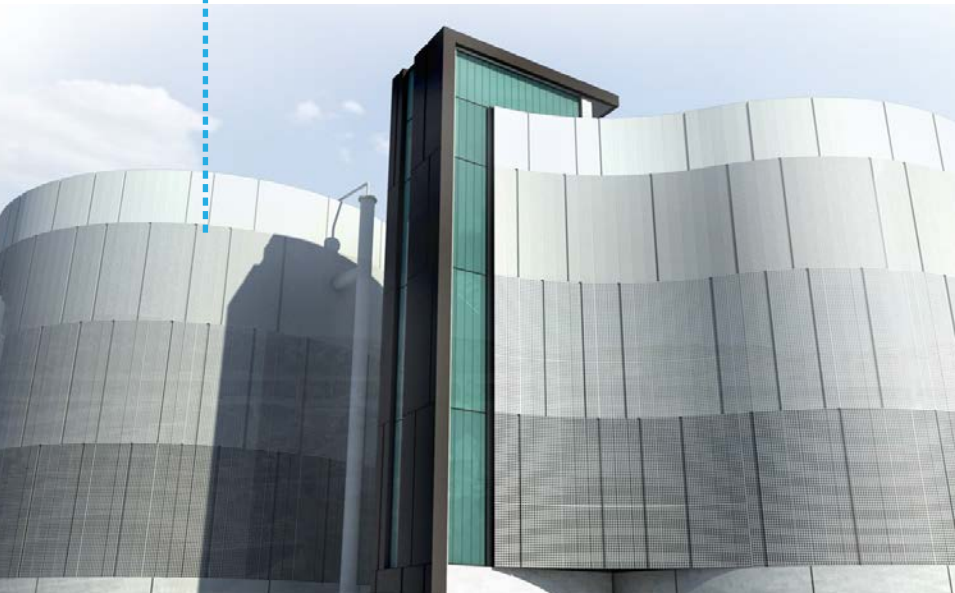
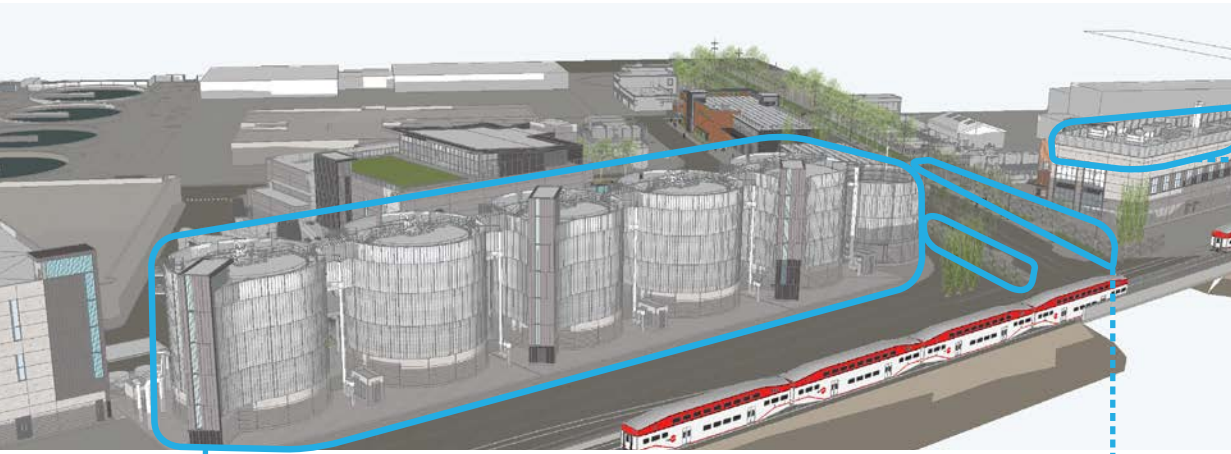
ZINC COMPOSITE PANELS  
IMETCO UNITED ZINC ONYX BLACK





# CAMPUS DESIGN ELEMENTS AND MATERIALS

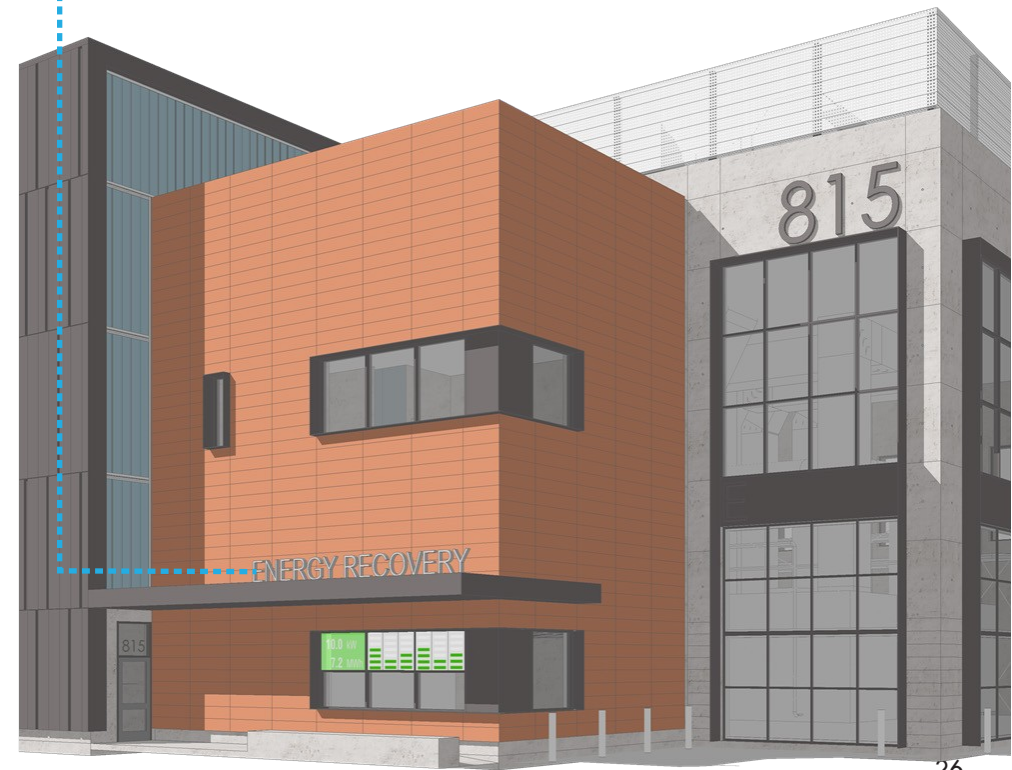
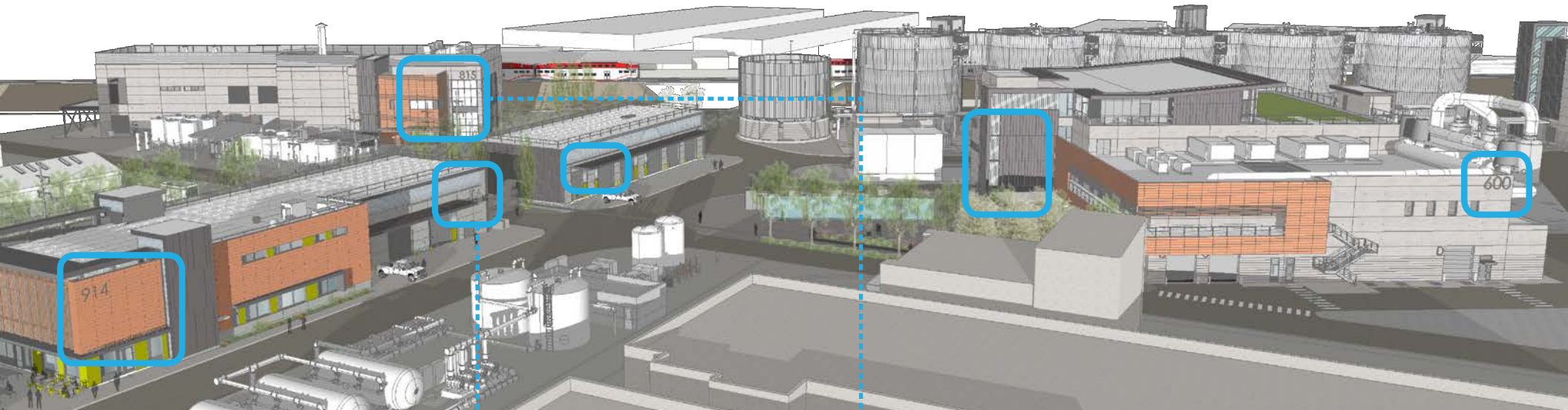
## PERFORATED METAL





# CAMPUS DESIGN ELEMENTS AND MATERIALS

## SIGNAGE



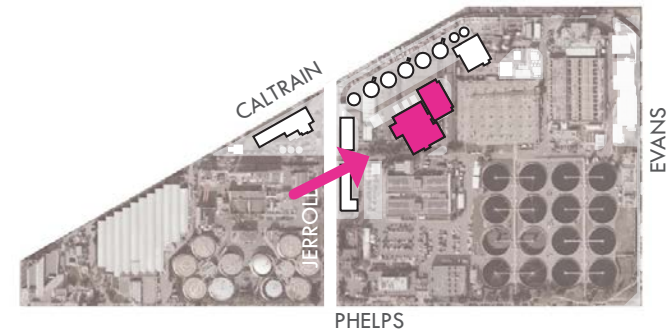


# PROCESS BUILDINGS



# SOLIDS PRETREATMENT

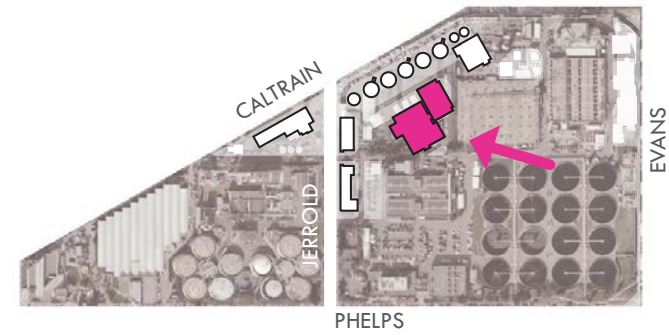
## PERSPECTIVE VIEW





# SOLIDS PRETREATMENT

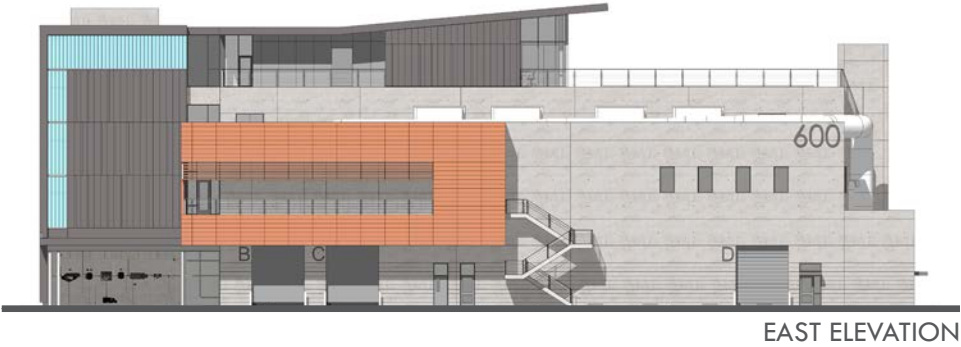
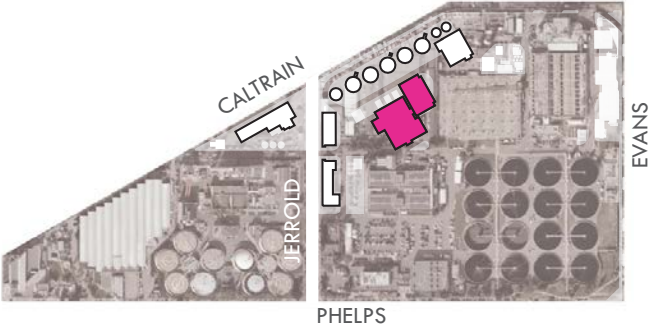
## PERSPECTIVE VIEW



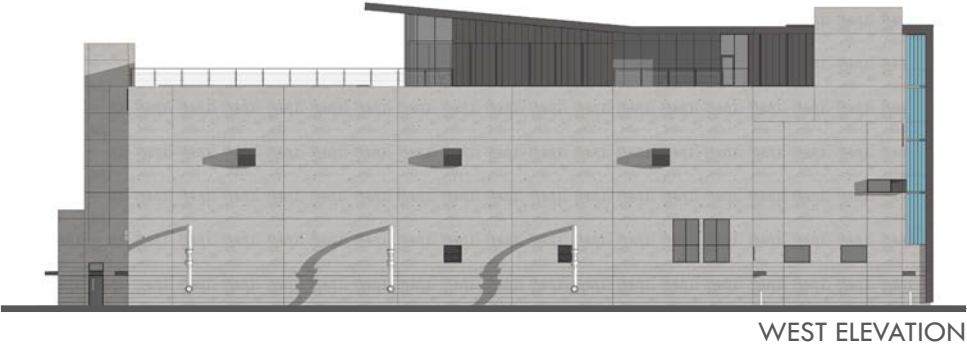


# SOLIDS PRETREATMENT

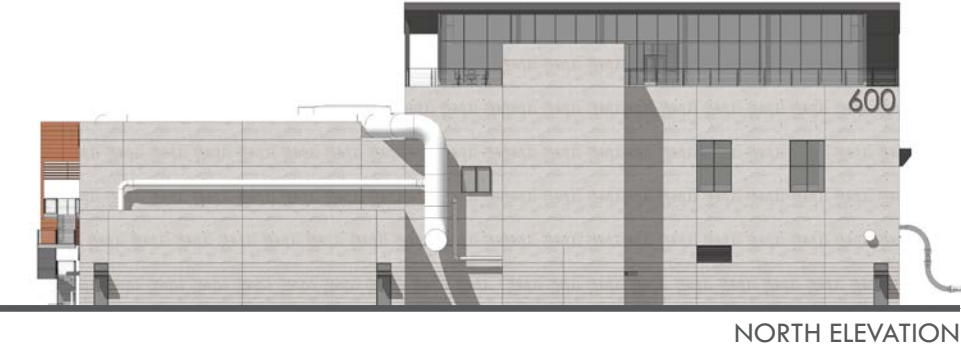
## EXTERIOR ELEVATIONS



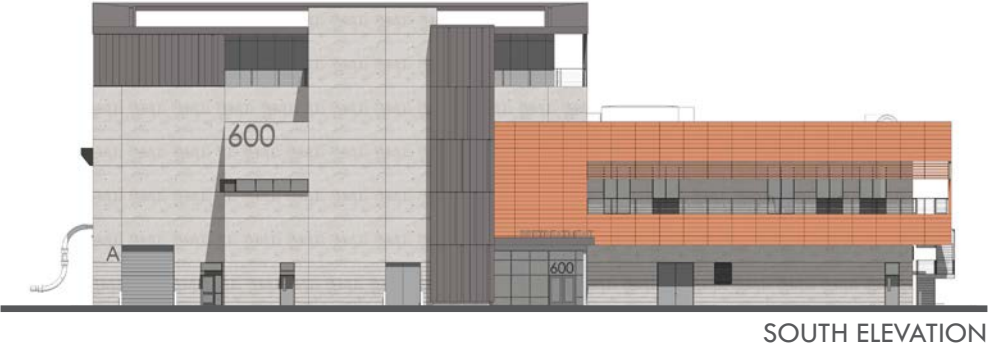
EAST ELEVATION



WEST ELEVATION



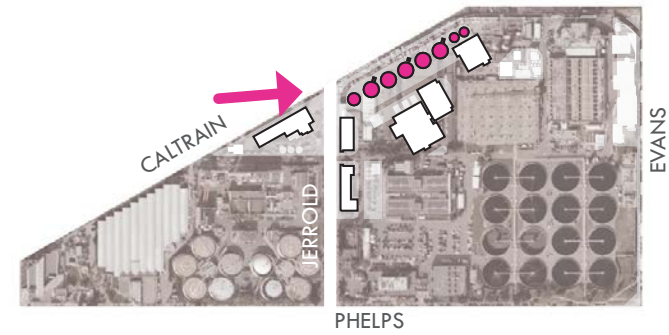
NORTH ELEVATION



SOUTH ELEVATION

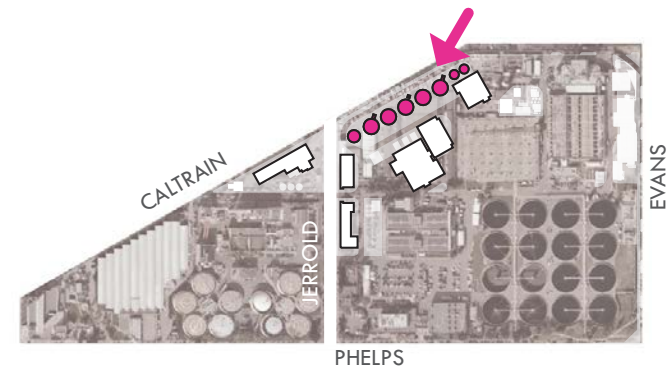


# ANAEROBIC DIGESTION





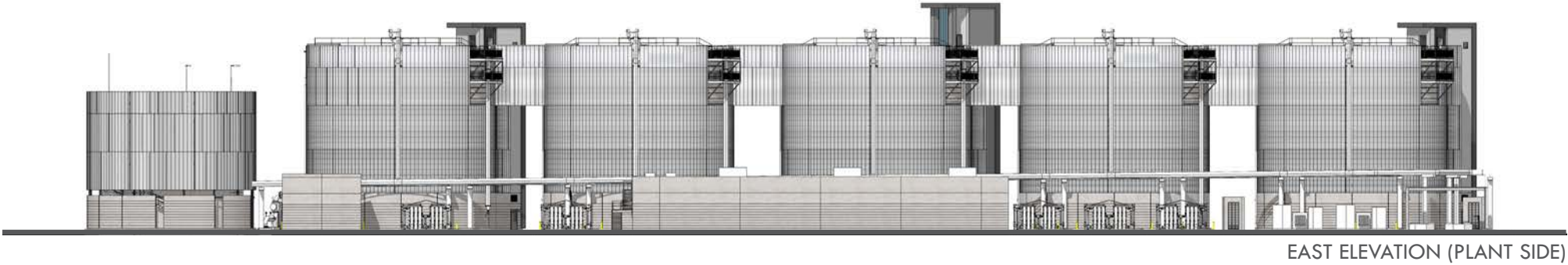
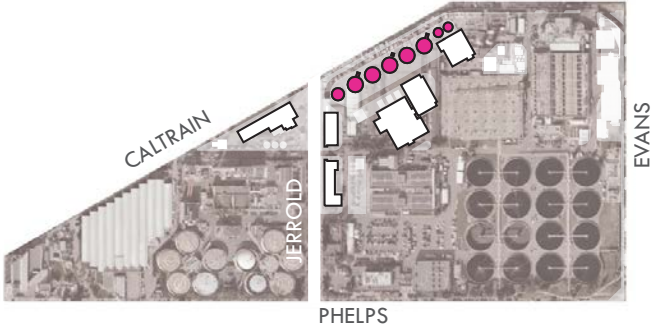
# ANAEROBIC DIGESTION



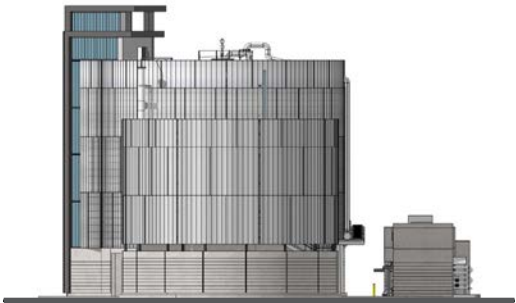


# ANAEROBIC DIGESTION

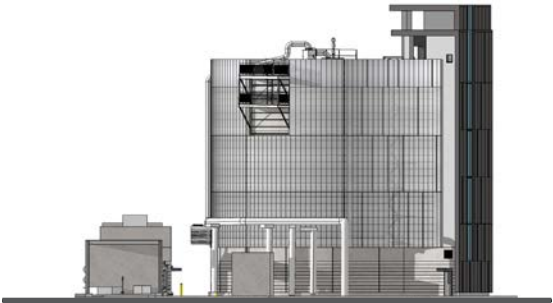
## EXTERIOR ELEVATIONS



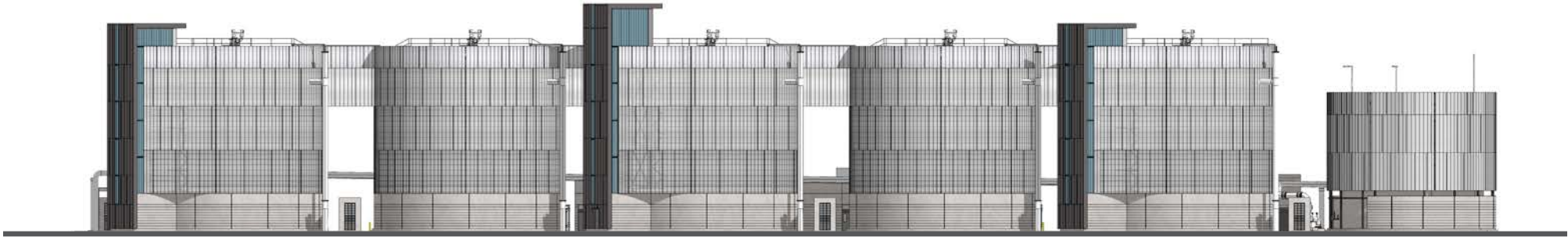
EAST ELEVATION (PLANT SIDE)



SOUTH ELEVATION



NORTH ELEVATION

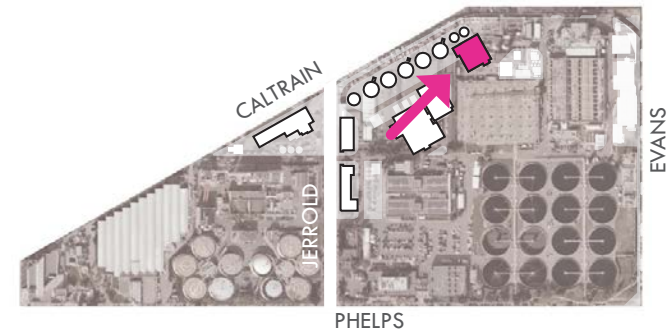


WEST ELEVATION (CALTRAIN SIDE)



# DEWATERING

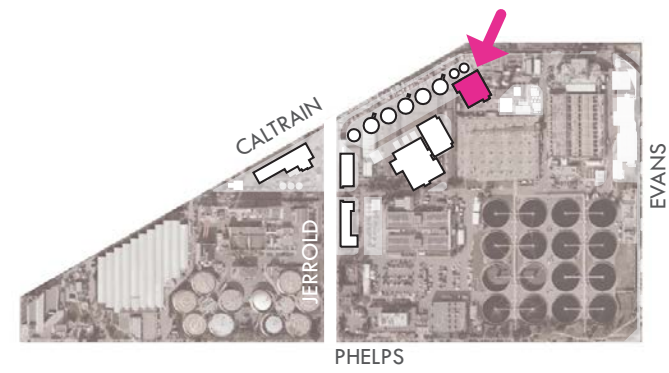
## PERSPECTIVE VIEW





# DEWATERING

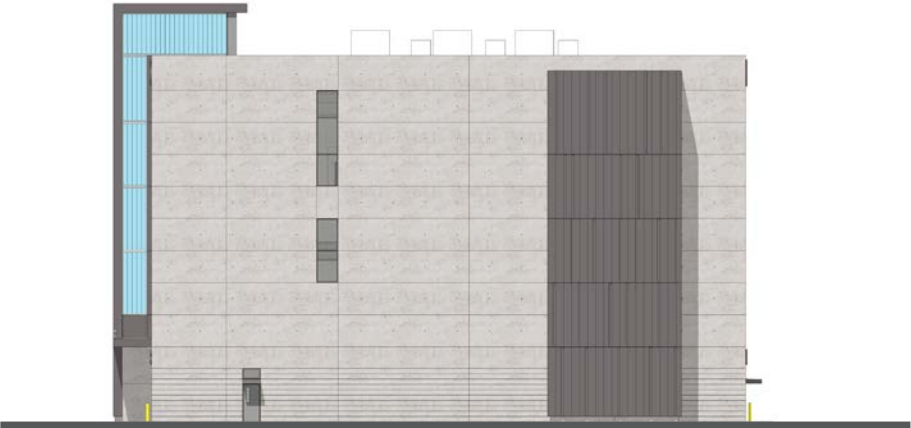
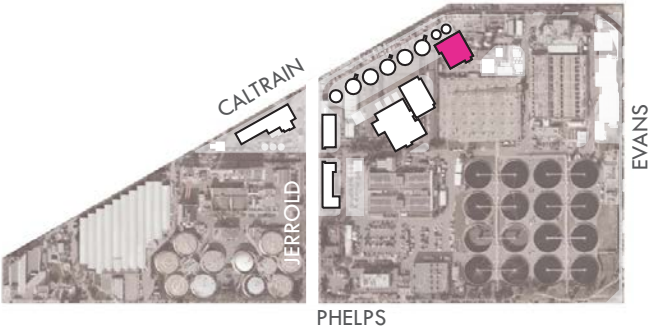
## PERSPECTIVE VIEW



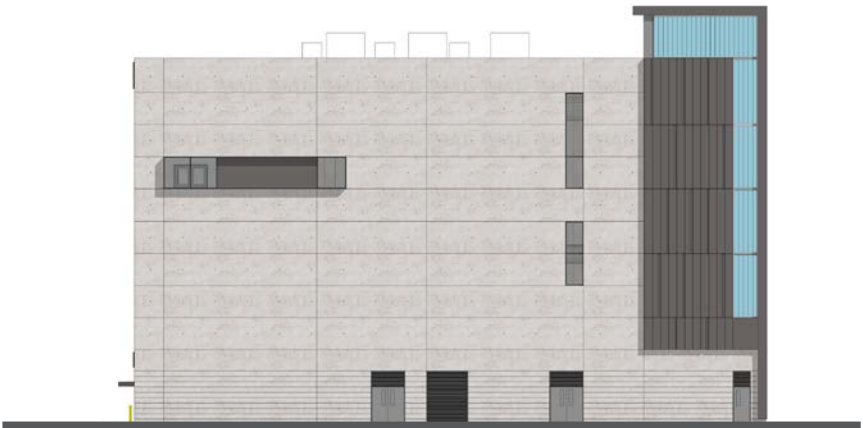


# DEWATERING

EXTERIOR ELEVATIONS



EAST ELEVATION



WEST ELEVATION



NORTH ELEVATION

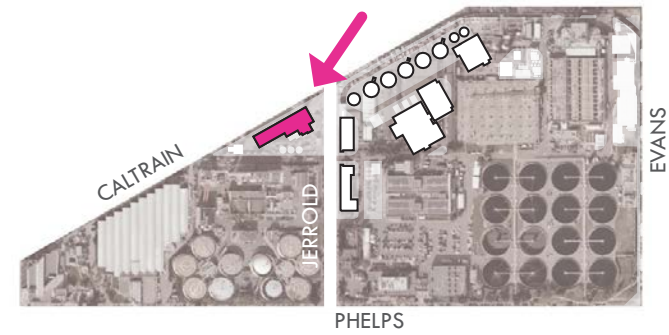


SOUTH ELEVATION



# ENERGY RECOVERY

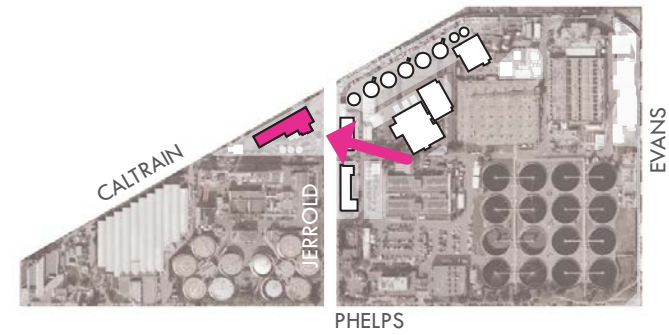
## PERSPECTIVE VIEW





# ENERGY RECOVERY

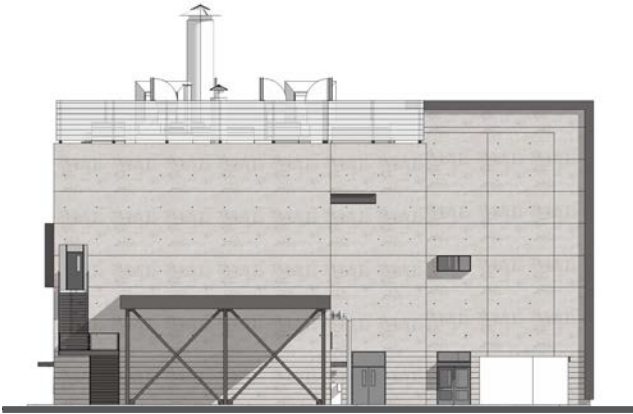
PERSPECTIVE VIEW





# ENERGY RECOVERY

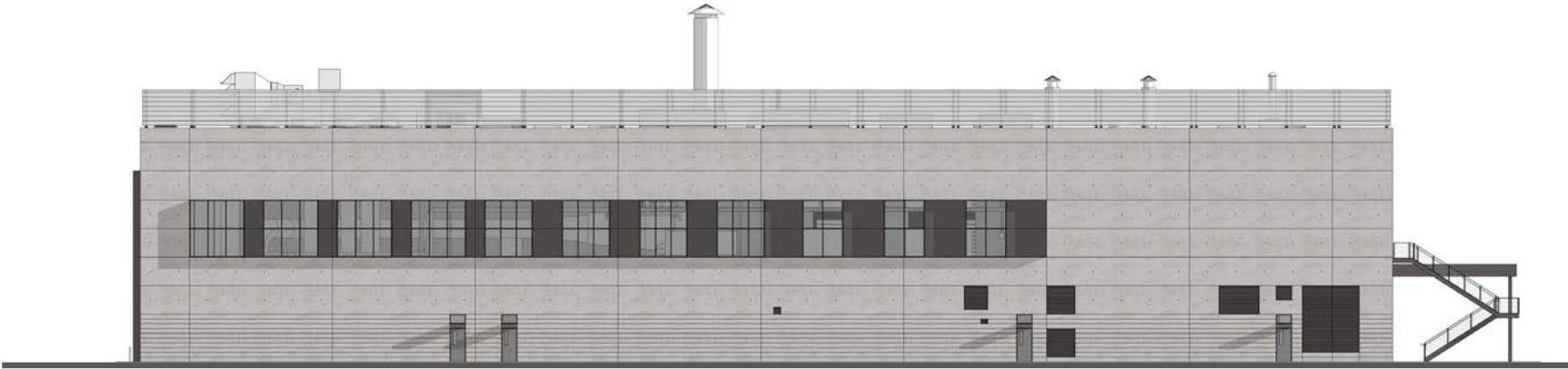
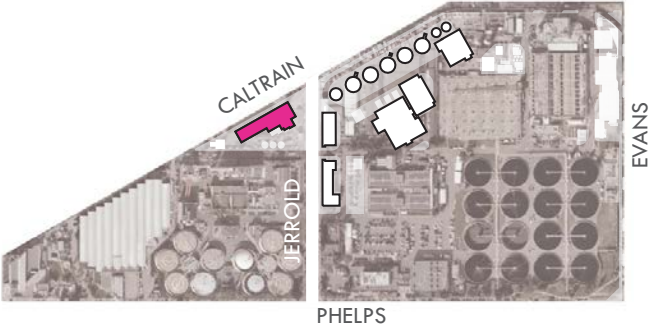
## EXTERIOR ELEVATIONS



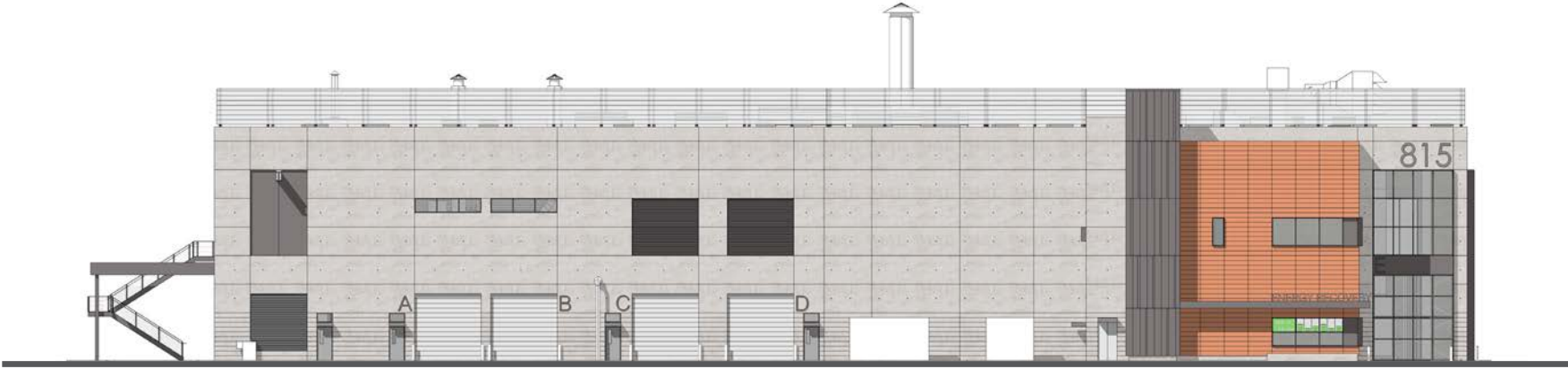
SOUTH ELEVATION



NORTH ELEVATION



WEST ELEVATION (CALTRAIN SIDE)



EAST ELEVATION (PLANT SIDE)

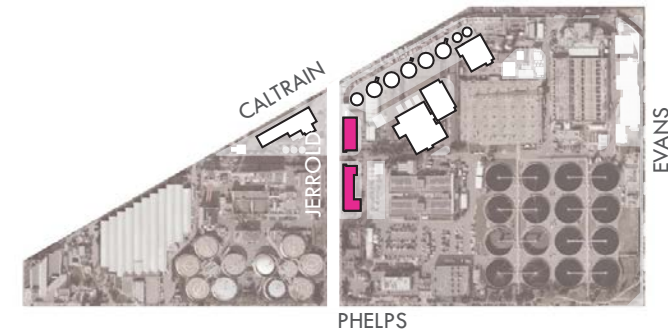


# **NON-PROCESS BUILDINGS**



# RESPONSE TO CDR FEEDBACK

## MAINTENANCE BUILDINGS



### Comments from CDR Phase 1:

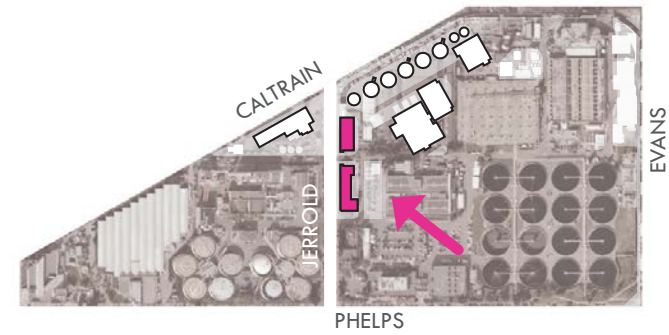
- Scheme A is preferred over Scheme B
- Add more relief at the zinc overhang at the shops
- Remove terra cotta on the plant-side of both buildings
- Provide further explanation of cleaning / maintenance of buildings
- Coordinate consistent color palette with rest of campus

### CDR Phase 2 Response:

- Scheme A has been developed
- Increased depth of zinc shroud at shops
- Replaced terra cotta with fiber cement panels on the plant-side of both buildings
- Previously described cleaning methods will be used; powerwash sunshade and windows behind
- Environmental graphics and color palettes are being developed holistically campus-wide

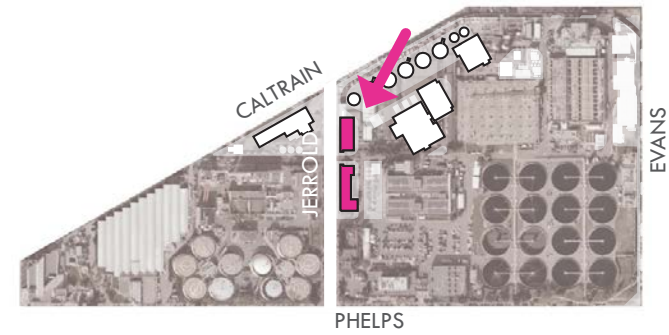


# MAINTENANCE SHOPS



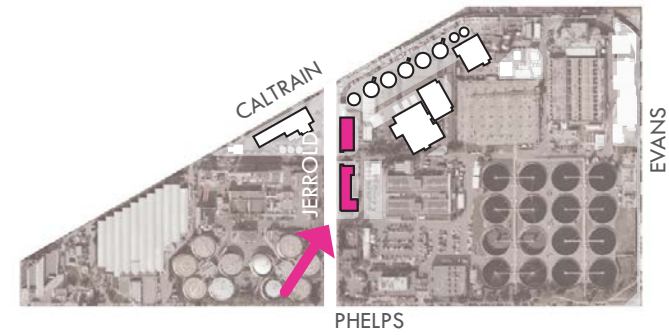


# MAINTENANCE SHOPS



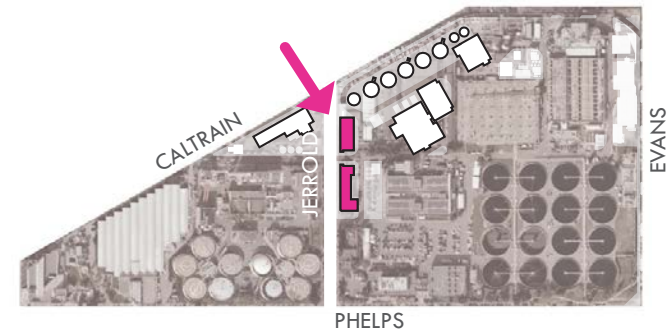


# MAINTENANCE SHOPS





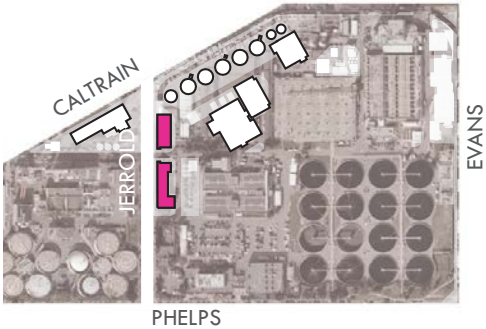
# MAINTENANCE SHOPS





# MAINTENANCE SHOPS

## BUILDING 914 - EXTERIOR ELEVATIONS



NORTHWEST ELEVATION



SOUTHEAST ELEVATION



NORTHEAST ELEVATION (PLANT SIDE)

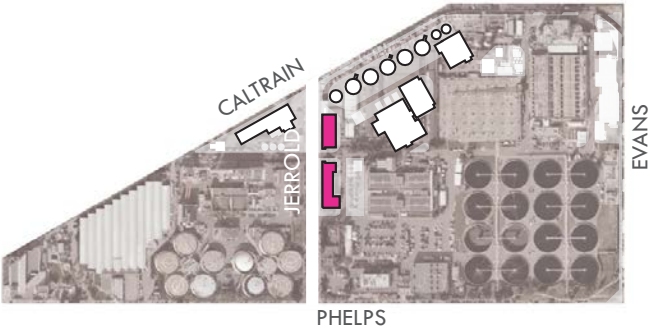


SOUTHWEST ELEVATION (JERROLD AVE SIDE)

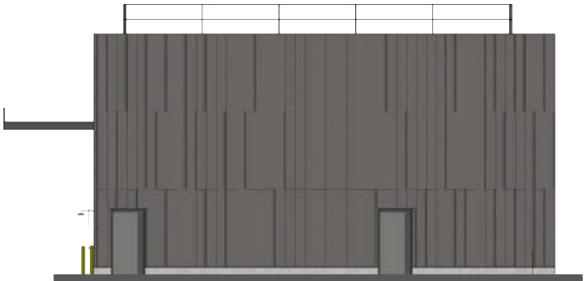


# MAINTENANCE SHOPS

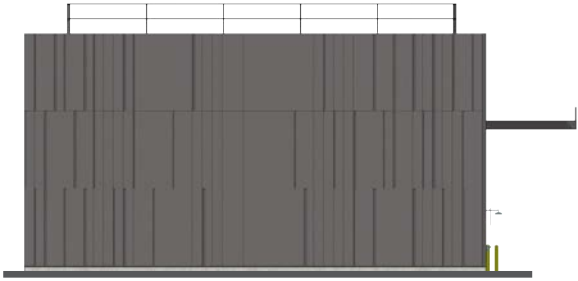
## BUILDING 603 - EXTERIOR ELEVATIONS



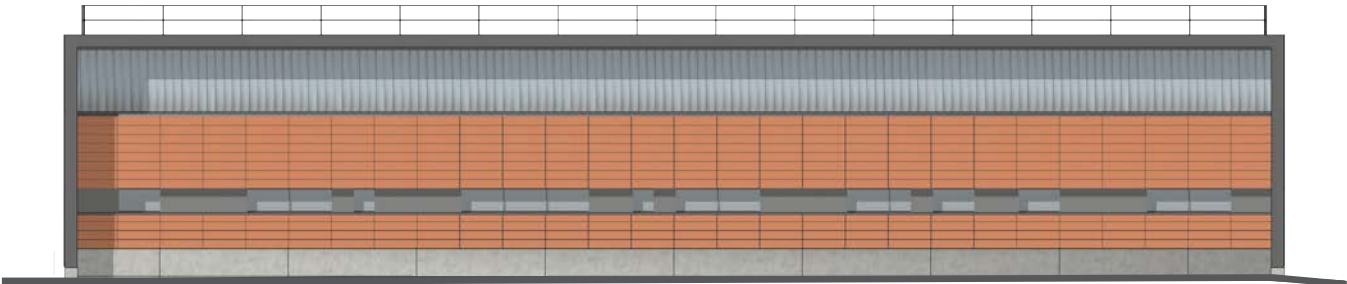
NORTHWEST ELEVATION (PLANT SIDE)



NORTHEAST ELEVATION



SOUTHEAST ELEVATION

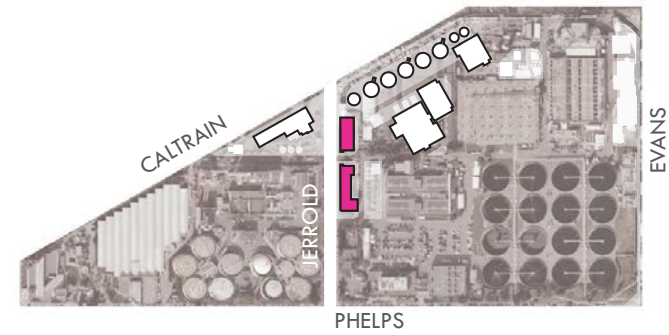


SOUTHWEST ELEVATION (JERROLD AVE SIDE)



# MAINTENANCE SHOPS

## OVERALL ELEVATIONS



NORTHEAST ELEVATION (PLANT SIDE)

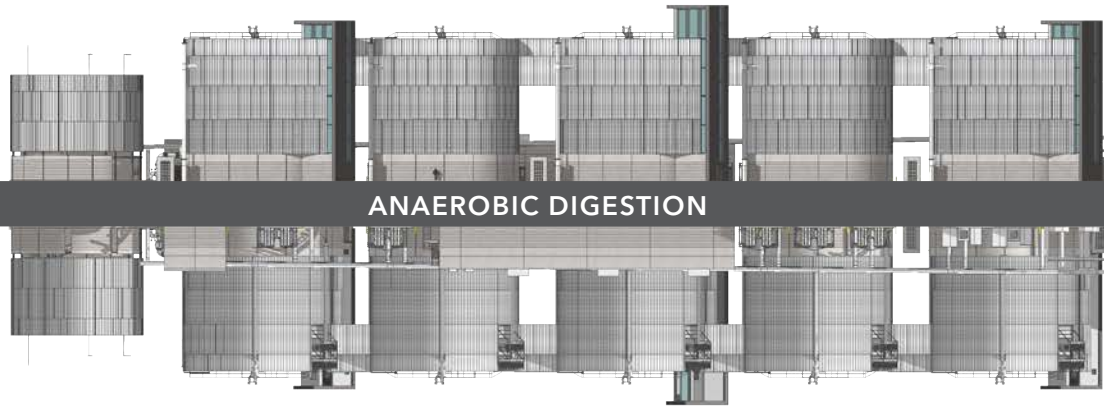


SOUTHWEST ELEVATION (JERROLD AVE SIDE)

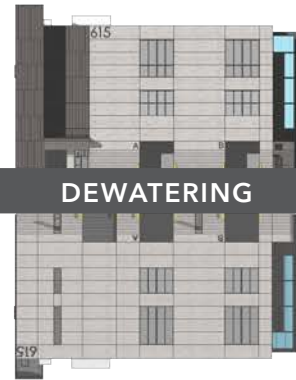




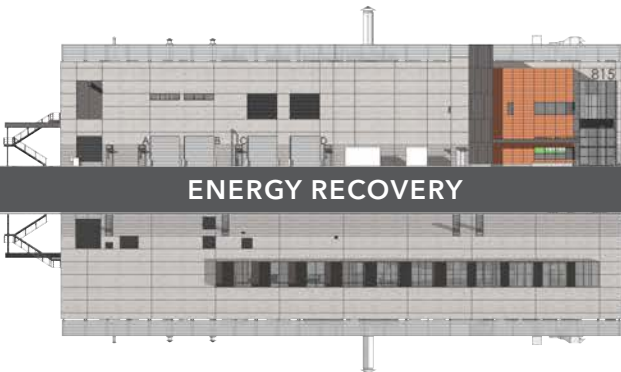
PRETREATMENT



ANAEROBIC DIGESTION



DEWATERING



ENERGY RECOVERY



MAINTENANCE SHOPS 1 & 2



THANK YOU