San Francisco Water Power Sewer
Services of the San Francisco Public Utilities Commission

Civic Design Review Phase 2

Westside Recycled Water Project

Oceanside WPCP, San Francisco

October 20, 2014

Civic Design Review Phase 2

Westside Recycled Water Project

Project Objective:

The San Francisco Westside Recycled Water Project will design and construct treatment and distribution system facilities required to produce and deliver recycled water to serve irrigation and other non-potable uses in the western area of the City. The use of recycled water will offset the current use of groundwater, and domestic supplies for non-drinking use. The project will serve Golden Gate Park, Lincoln Park Golf Course, and Presidio Trust Properties.

Design Constraints:

The new recycled water facility must fit into the existing Oceanside Water Treatment Plant. Impact to the existing water treatment facility is to be minimized. The existing plant is contained within 45' high retaining walls that visually screen the plant from the surroundings. These retaining walls will limit access to service and replace equipment. Equipment replacement on the 2nd floor will require the use of a crane from a second story exterior landing.

Civic Design Review Phase 2

Westside Recycled Water Project

Building Solution:

A 26,700 sq. ft. two story structure located at the northeast corner of the existing administration building. The second floor will be aligned with the existing promenade. A north/south service corridor will be used to access equipment. The west elevation will consist of a removable wall system for access to the microfiltration and reverse osmosis units.

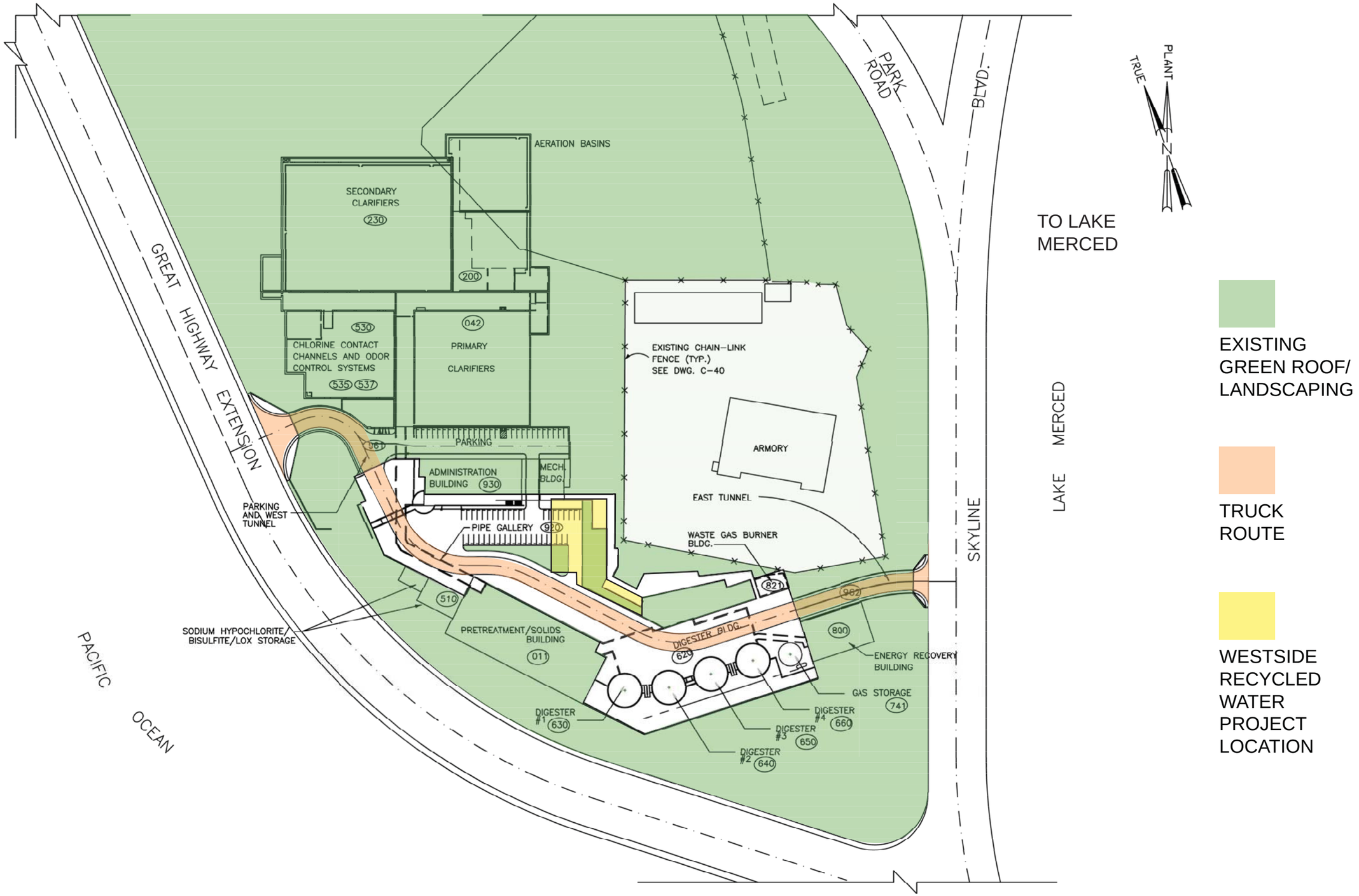
Building/Landscape Design Objectives:

Transparency in Water Conservation Processes: The new structure will emerge from the existing promenade and culminate into a westward translucent wall that silhouettes water recycling mechanics. Removable light transmission panels will be provided in the west elevation for the replacement of reverse osmosis and microfiltration skids. Building design and aesthetics will be contemporary in harmony with the existing treatment Plant. The new structures will be reinforced concrete and glass. Material will be corrosive resistant. A green roof will enhance LEED aspects of the project and fit into the existing OWPCP. Water treatment educational display panels can be provided at the site for tours.

CUSTOMER AREA SERVED

PREFERRED PIPELINE ALIGNMENT

SAN FRANCISCO ZOO
San Francisco Zoological Gardens
San Francisco Zoo
PACIFIC OCEAN
Great Hwy
Great Hwy
Great Hwy
National Guard Armory
WESTSIDE RECYCLED WATER PROJECT
Herbst Rd
Skyline Blvd
Janet Pomeroy Center
Little Learners at the San Fra...
Probert Art
Lakeshore Dr
Brookhaven
Huntington Dr
Country Club Dr
Lakeshore Dr
Sunset Blvd
Gellert Dr
Bonnie Brae
Lake Merced Blvd
LAKE MERCED
Harding Rd
35
35

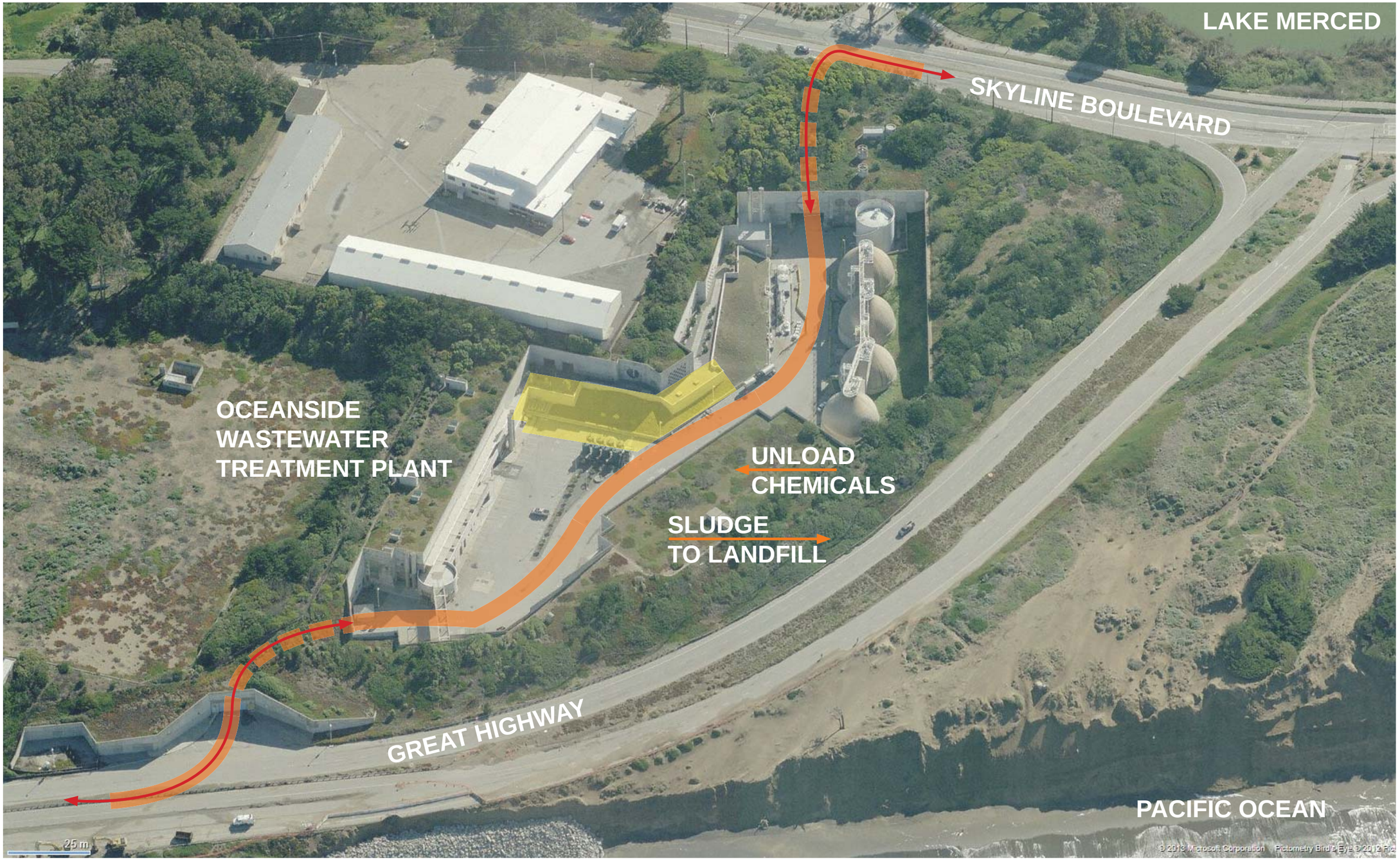


EXISTING GREEN ROOF/ LANDSCAPING

TRUCK ROUTE

WESTSIDE RECYCLED WATER PROJECT LOCATION

25 m
© 2013 Microsoft Corporation



TRUCK ROUTE

ENTRY & EXIT

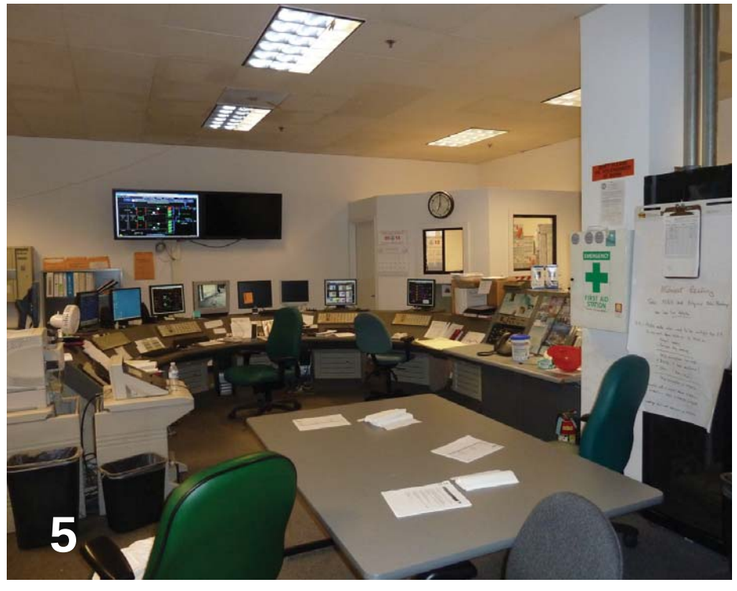
WESTSIDE RECYCLED WATER PROJECT LOCATION

EXISTING SITE CONDITIONS

PEDESTRIAN WALKWAY CANYON

EXISTING TRAILERS AND BIOFUEL TANKS

SCALE OF RETAINING WALL AT ELEVATED PEDESTRIAN WALKWAY



EXISTING UNDERGROUND CONTROL ROOM

LOOKING EAST TOWARDS LAKE MERCED ENTRANCE/EXIT

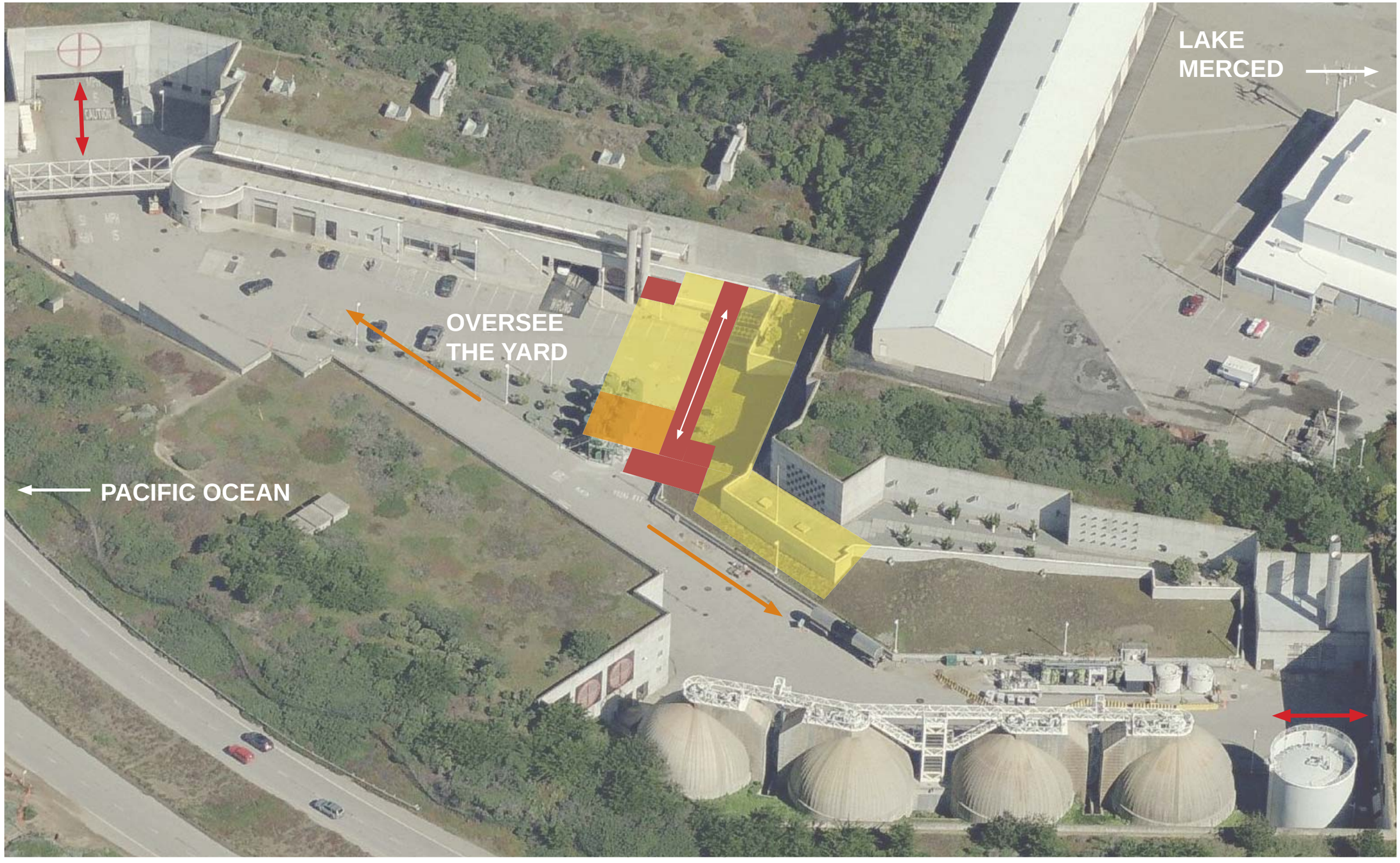
PEDESTRIAN WALKWAY
AT ADMIN. BUILDING

DIGESTERS

EXISTING MECHANICAL BLDG.
SUPPLY & EXHAUST

PEDESTRIAN WALKWAY CANYON

CAUTION



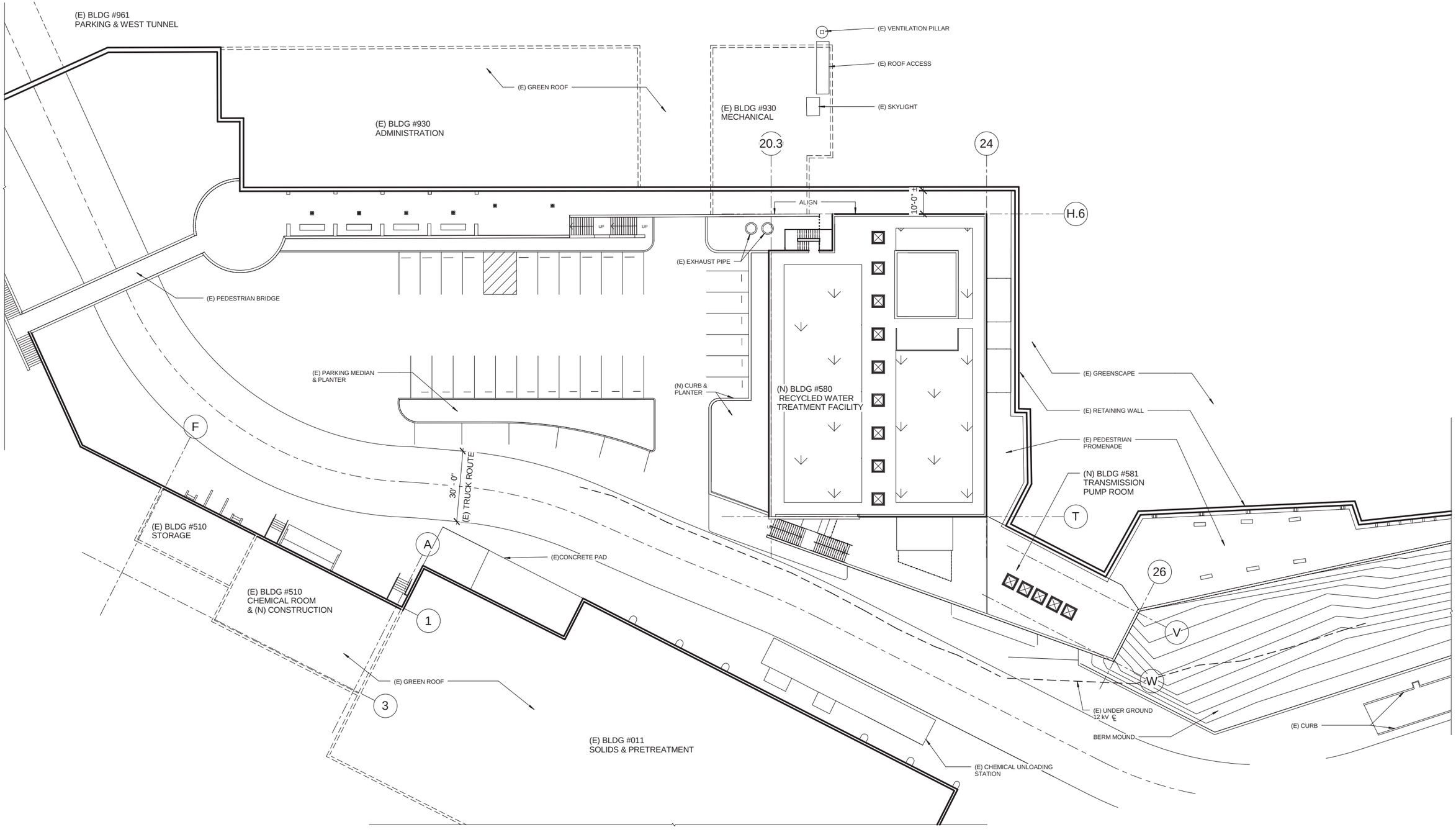
MECHANICAL EQUIPMENT

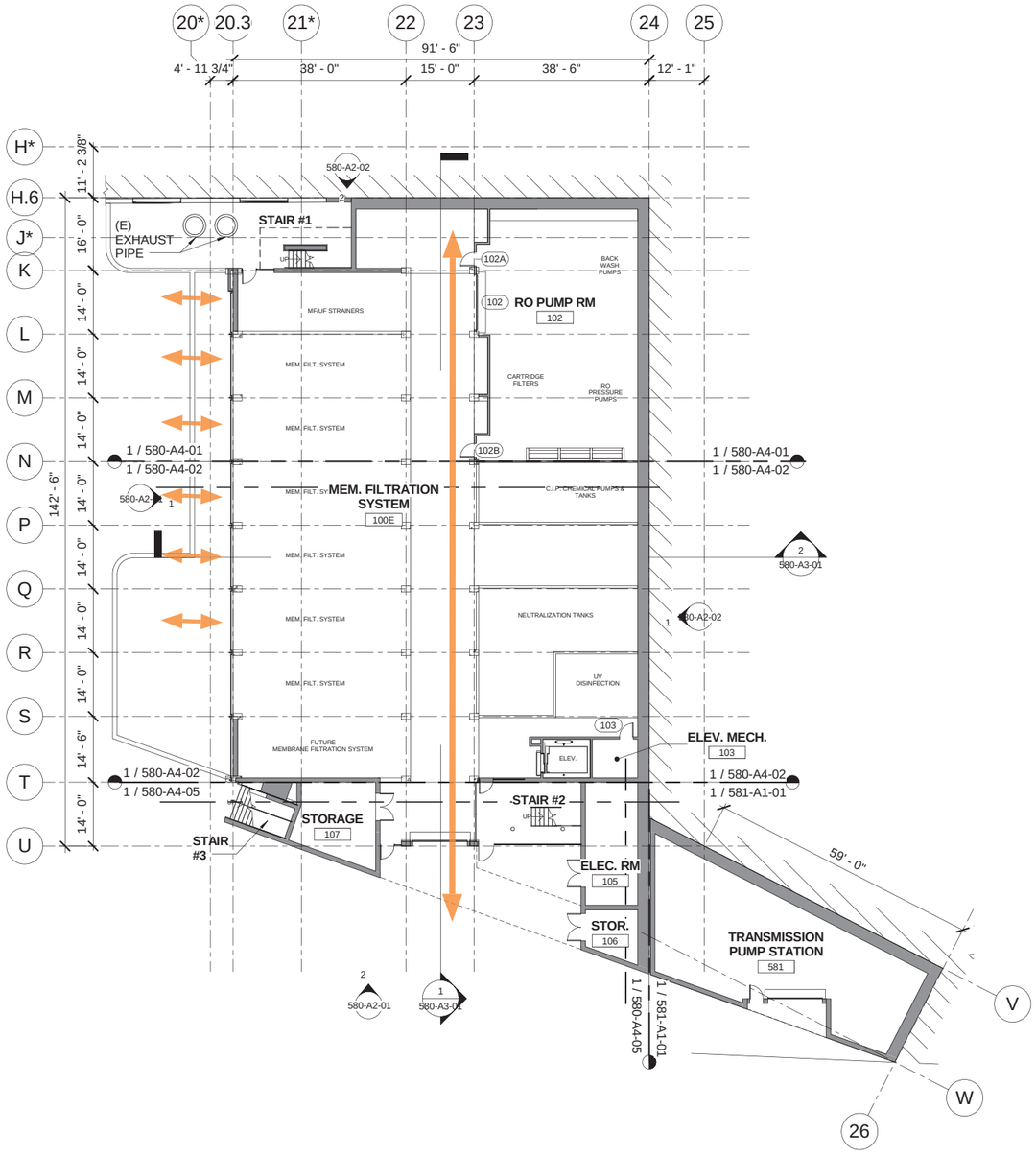
CIRCULATION

CONTROL ROOM

VIEWS FROM CONTROL ROOM

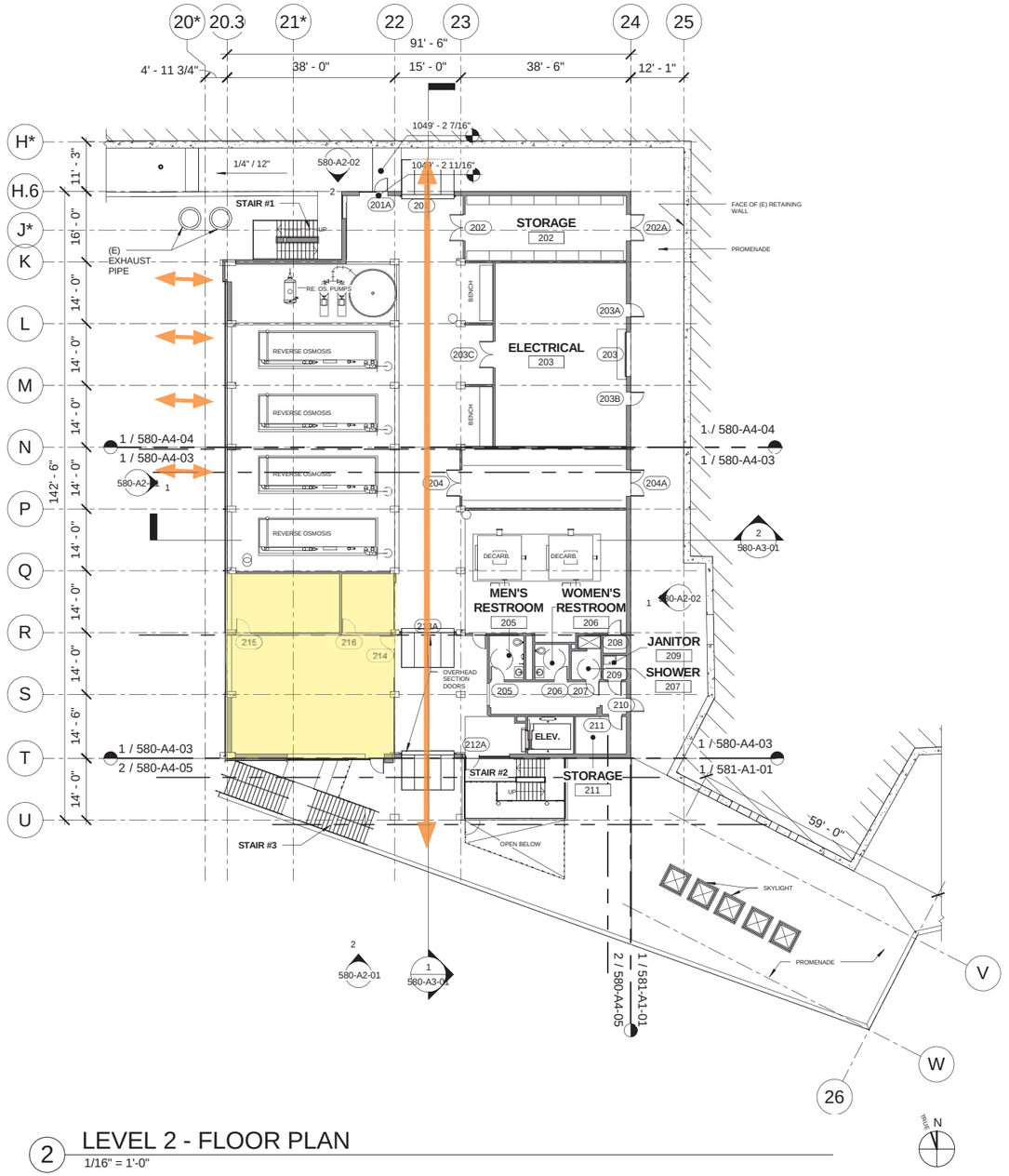
ENTRY & EXIT


(E) BLDG #961
PARKING & WEST TUNNEL
(E) VENTILATION PILLAR
(E) ROOF ACCESS
(E) GREEN ROOF
(E) SKYLIGHT
(E) BLDG #930
ADMINISTRATION
(E) BLDG #930
MECHANICAL
20.3
24
H.6
ALIGN
10'-0" ±
UP
UP
(E) EXHAUST PIPE
(E) PEDESTRIAN BRIDGE
(E) PARKING MEDIAN
& PLANTER
(N) CURB &
PLANTER
(N) BLDG #580
RECYCLED WATER
TREATMENT FACILITY
(E) GREENSCAPE
(E) RETAINING WALL
(E) PEDESTRIAN
PROMENADE
(N) BLDG #581
TRANSMISSION
PUMP ROOM
F
30' - 0"
(E) TRUCK ROUTE
T
26
(E) BLDG #510
STORAGE
A
(E)CONCRETE PAD
V
(E) BLDG #510
CHEMICAL ROOM
& (N) CONSTRUCTION
1
W
(E) GREEN ROOF
3
(E) UNDER GROUND
12 kV
(E) CURB
BERM MOUND
(E) BLDG #011
SOLIDS & PRETREATMENT
(E) CHEMICAL UNLOADING
STATION



1 LEVEL 1 - FLOOR PLAN

1/16" = 1'-0"



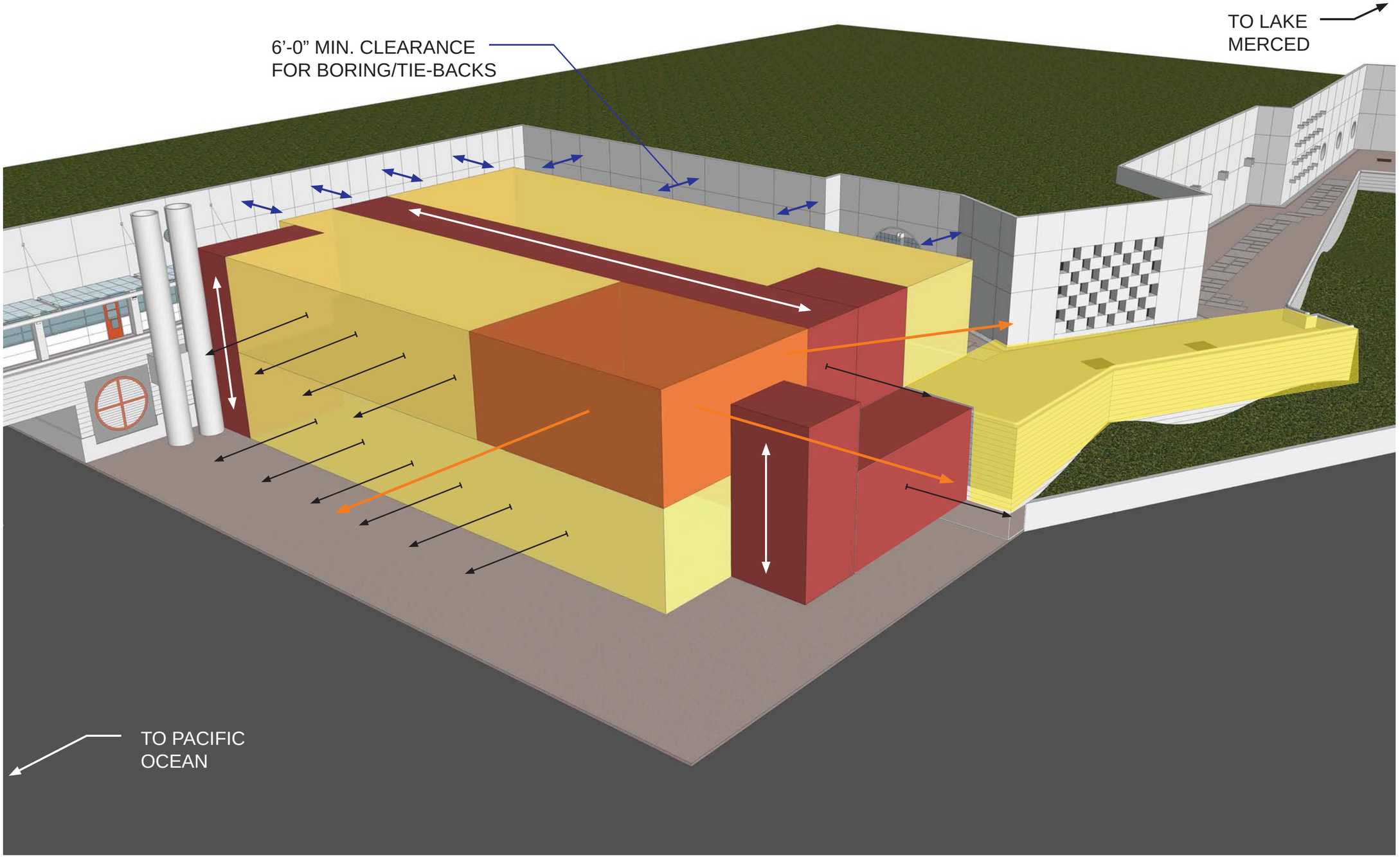
2 LEVEL 2 - FLOOR PLAN

1/16" = 1'-0"

EXISTING RETAINING WALL

CLEARANCE PATH FOR EQUIPMENT REMOVAL/ MINTENANCE

CONTROL ROOM



MECHANICAL EQUIPMENT

CIRCULATION

CONTROL ROOM

VIEWS FROM CONTROL ROOM

REMOVABLE PANELS FOR EQUIPMENT MAINTENANCE

Civic Design Review Phase 1

Westside Recycled Water Project

Motion to approve Phase 1 of West Side Recycled Water Treatment Plant project, contingent upon:

(1) eliminating the door on the second floor

(2) using small horizontal sunshades on the control room on the south façade rather than the more expensive electrochromatic glass

(3) eliminating bumps and jogs on the south stairway

(4) eliminating the "water drop" wall

(5) on the west façade, keeping the parapet flush with the two wingwalls

(6) using the façade treatment detailed in drawing 6.1c.6

(7) supplying more detail on the landscape plan

PHASE 1
Iteration 6.1c.6

West Elevation Windows Recessed With No Horizontal & Vertical Sun Control

PHASE 1
Iteration 6.1c.7 & 6.1c.7a

Full Glazing on West Elevation
Horizontal &/OR Vertical Sun Control on West Elevation

Civic Design Review Phase 2

Westside Recycled Water Project

Major Design Changes:

(1) Eliminated door on second floor at glass box

(2) Eliminated “water drop” wall

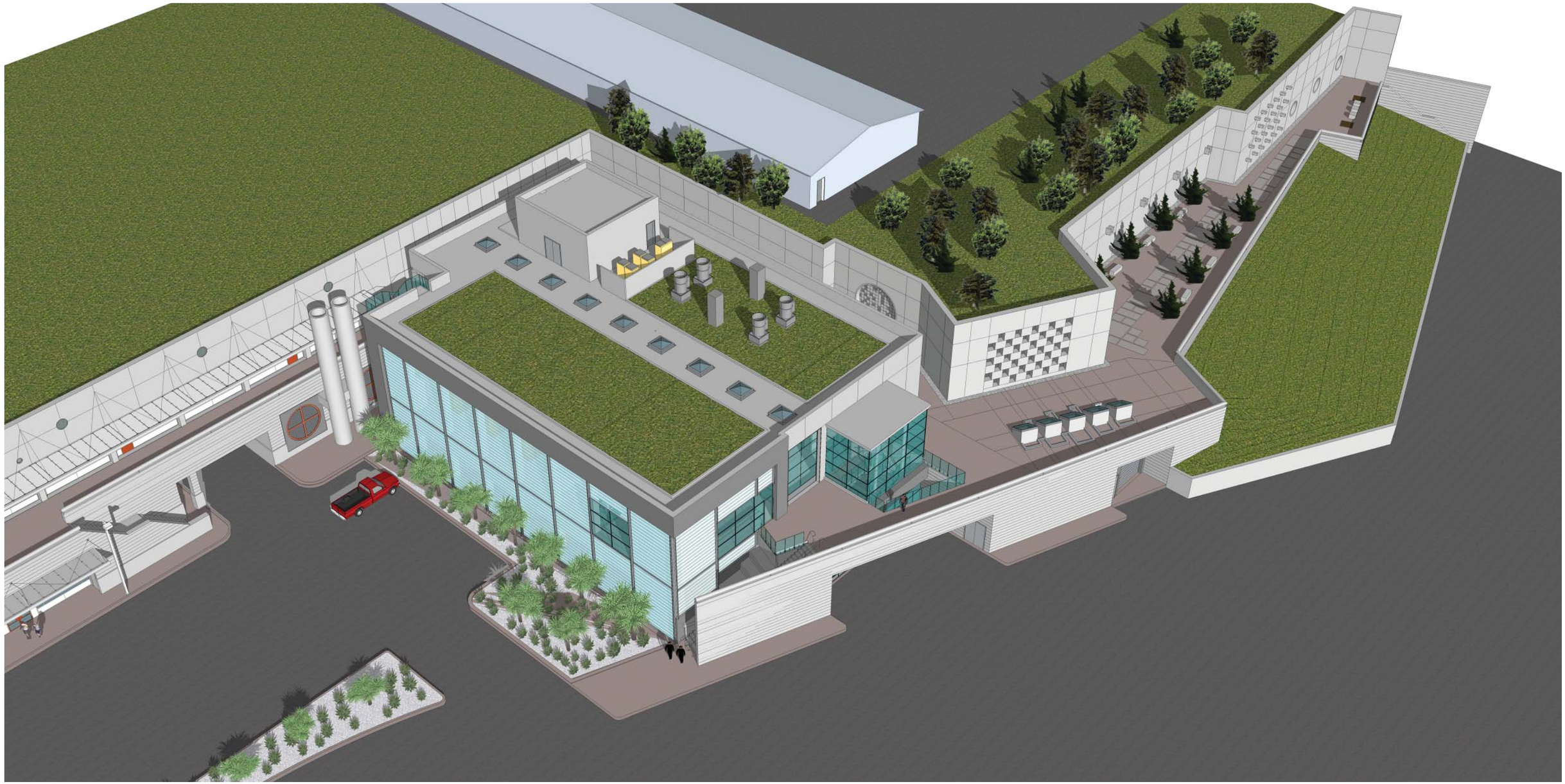
(3) Developed landscape plan and details

(3) Wrapped channel glass around south-west façade

(4) Iteration A: developed horizontal channel glass scheme

(5) Final Iteration B: developed vertical channel glass scheme

ITERATION A

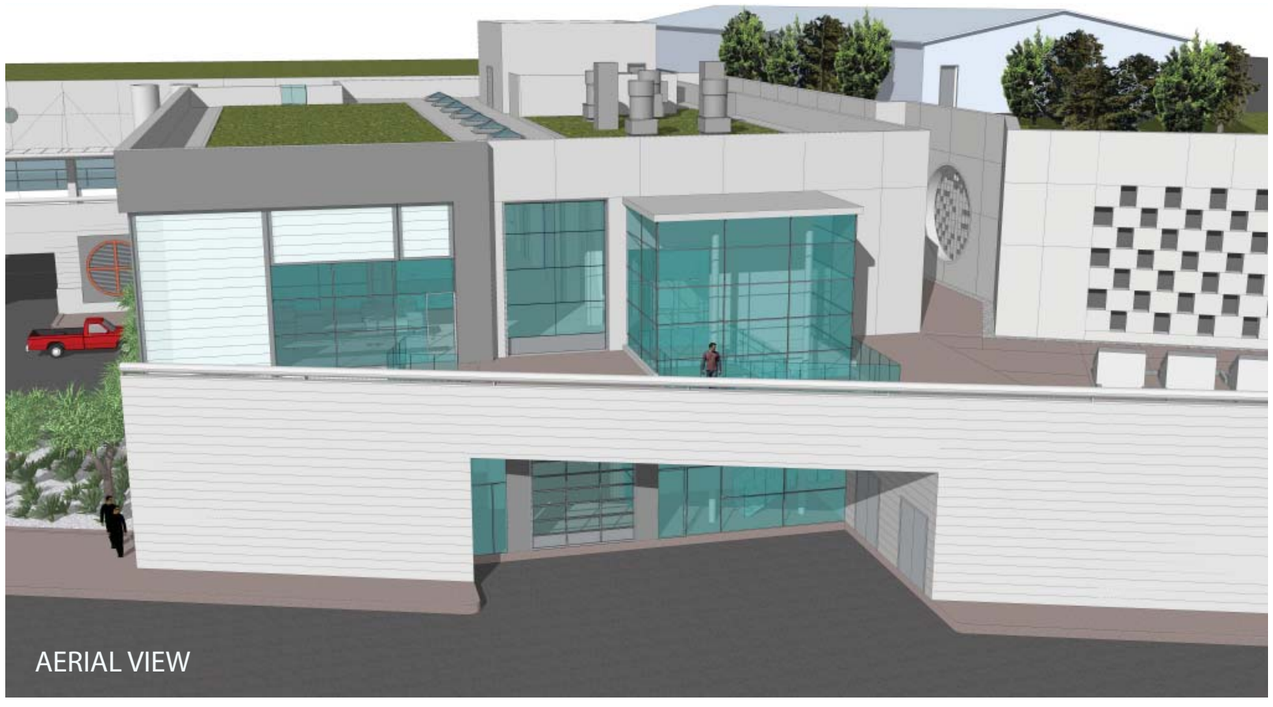


ITERATION A

ITERATION A
Horizontal Channel Glass

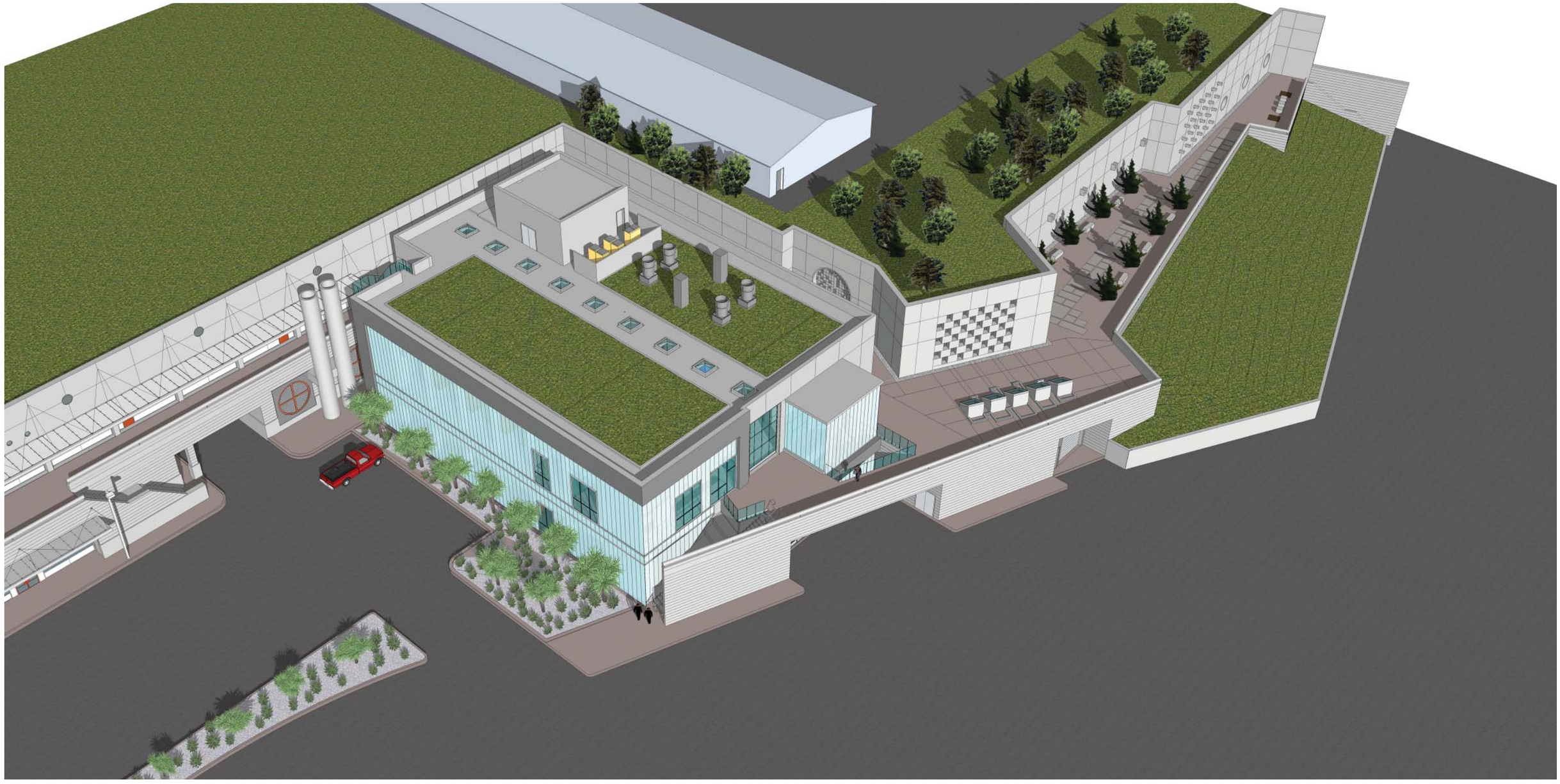
WEST FACADE

SOUTH FACADE



AERIAL VIEW

ITERATION B



ITERATION B

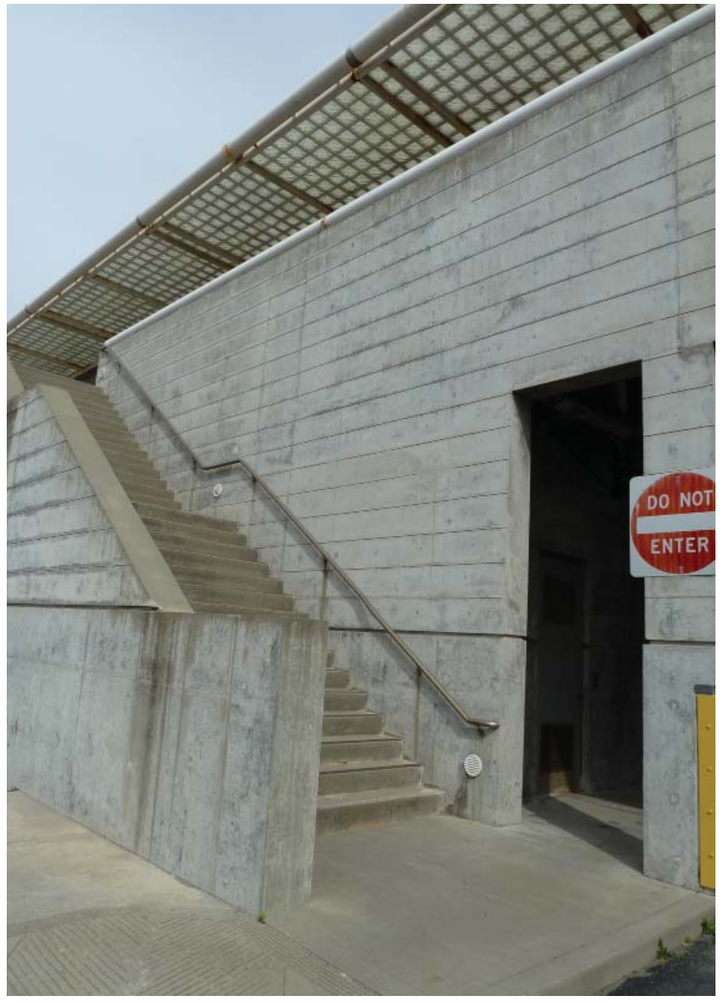
ITERATION B
Vertical Channel Glass

WEST FACADE

SOUTH FACADE

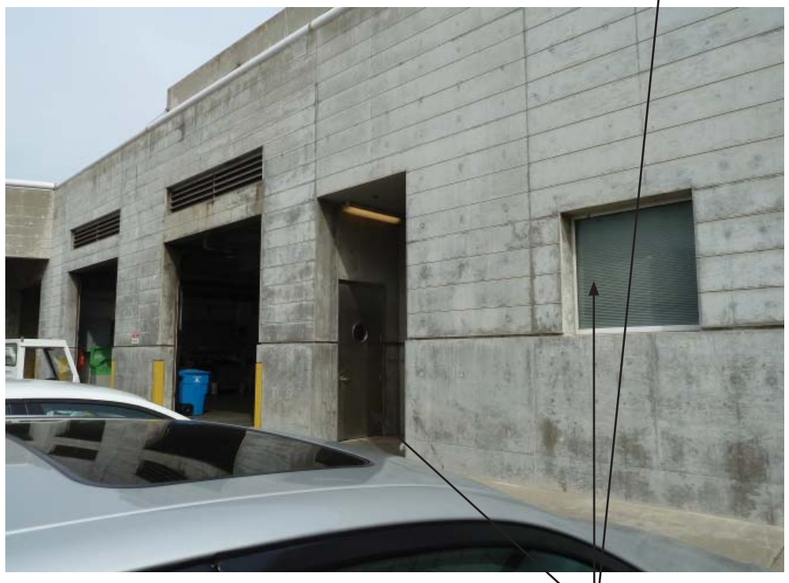
AERIAL VIEW

DESIGN & MATERIAL PALETTE



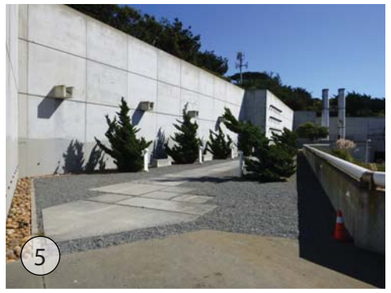
CONCRETE MATERIAL FINISH

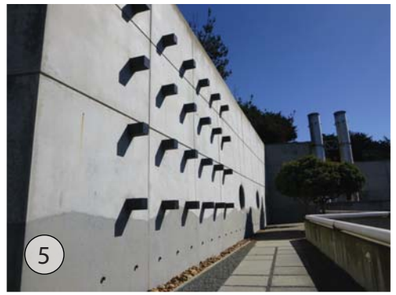
AVOID METAL DUE TO EXTREMELY CORROSIVE ENVIRONMENT

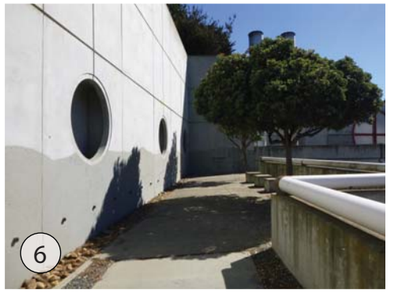


RECESSED / PUNCHED OPENINGS

REMOVABLE GLASS PANELS
EXISTING GLASS BLOCKS / CHANNEL GLASS







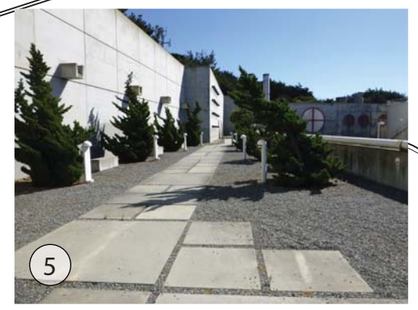
EXISTING WALL FOCAL ELEMENTS

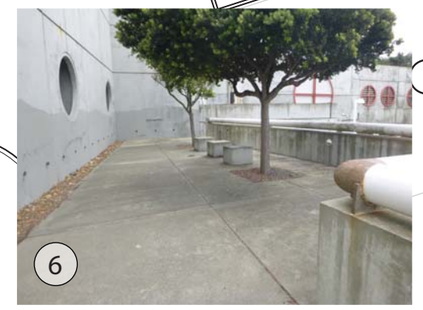
GRANITE PAVERS

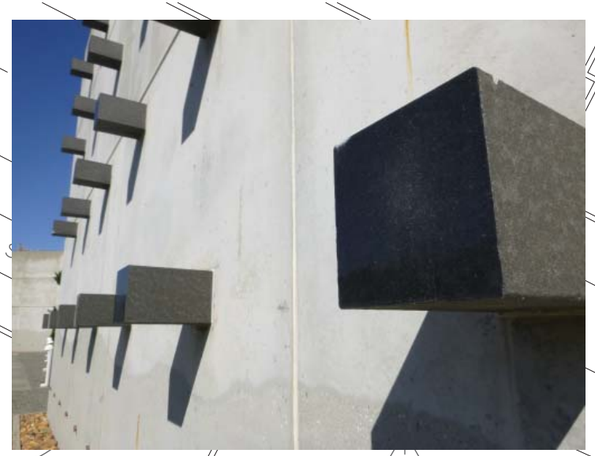
CONCRETE PAVING

PAVERS WITH GRAVEL

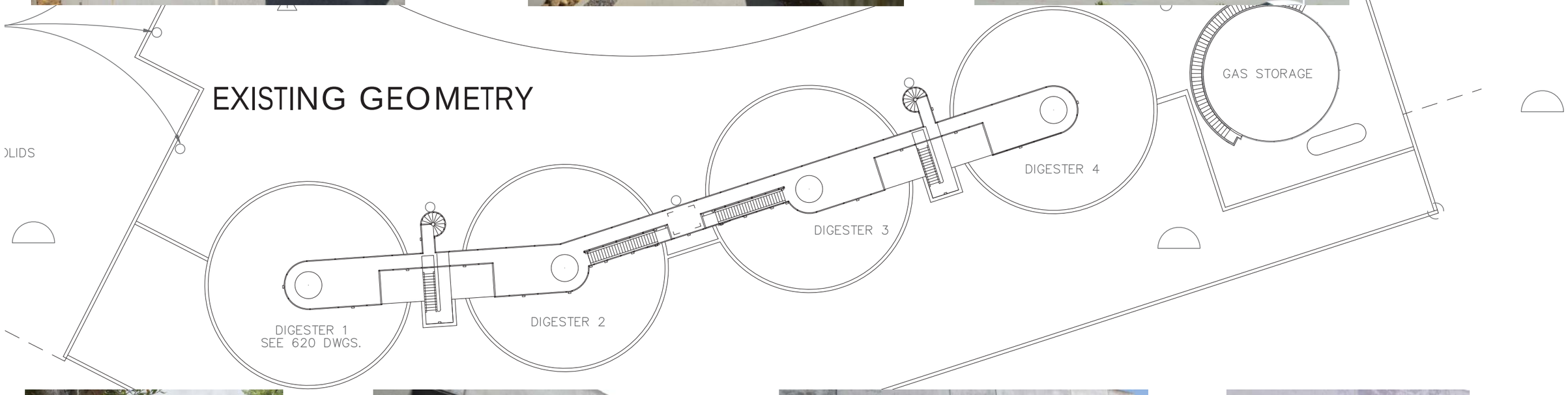
EXISTING PAVING CONDITIONS

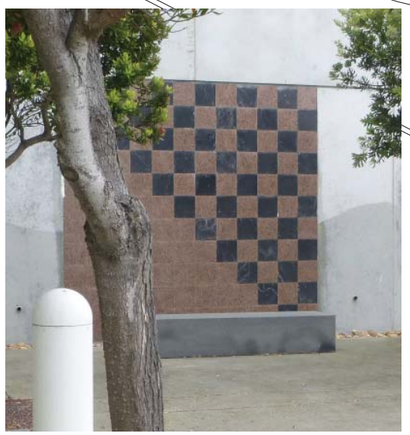


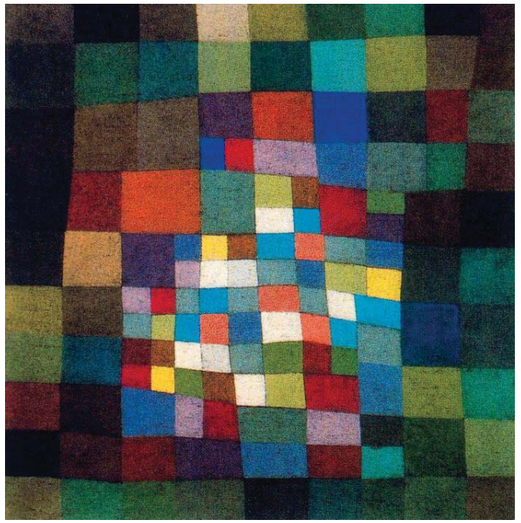




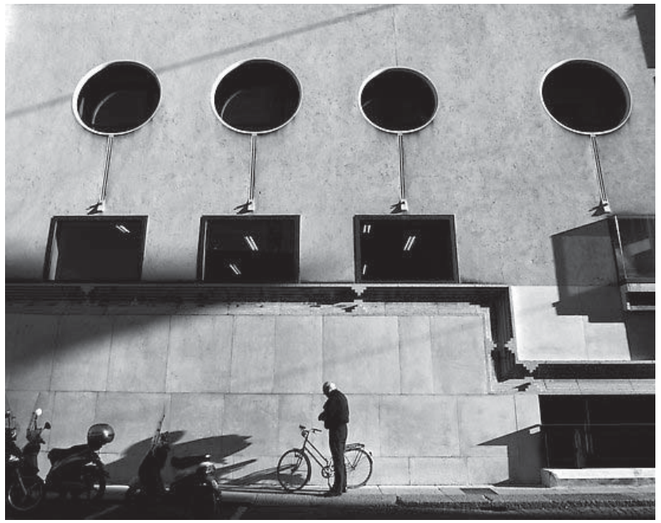
EXISTING GEOMETRY





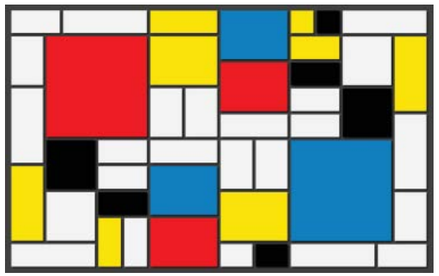


IN THE DESERT, PAUL KLEE



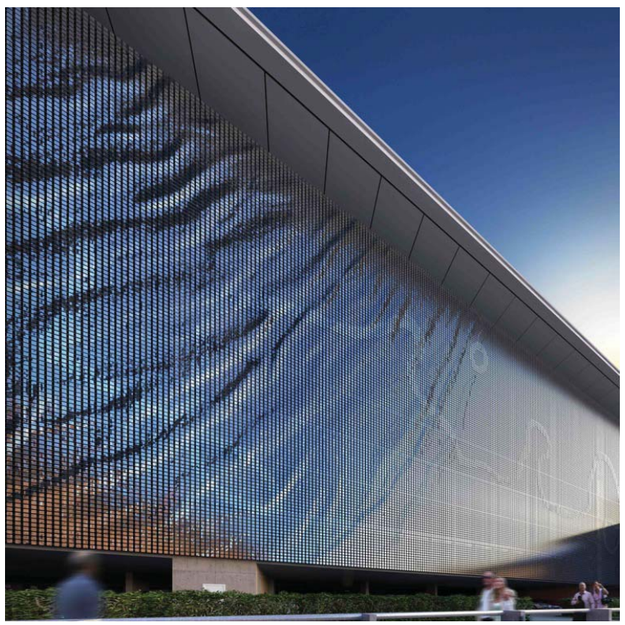
BPV BUILDING, CARLO SCARPA

BRION CEMETARY, CARLO SCARPA



PIET MONDRIAN

INSPIRATION



WIND VEIL, NED KHAN

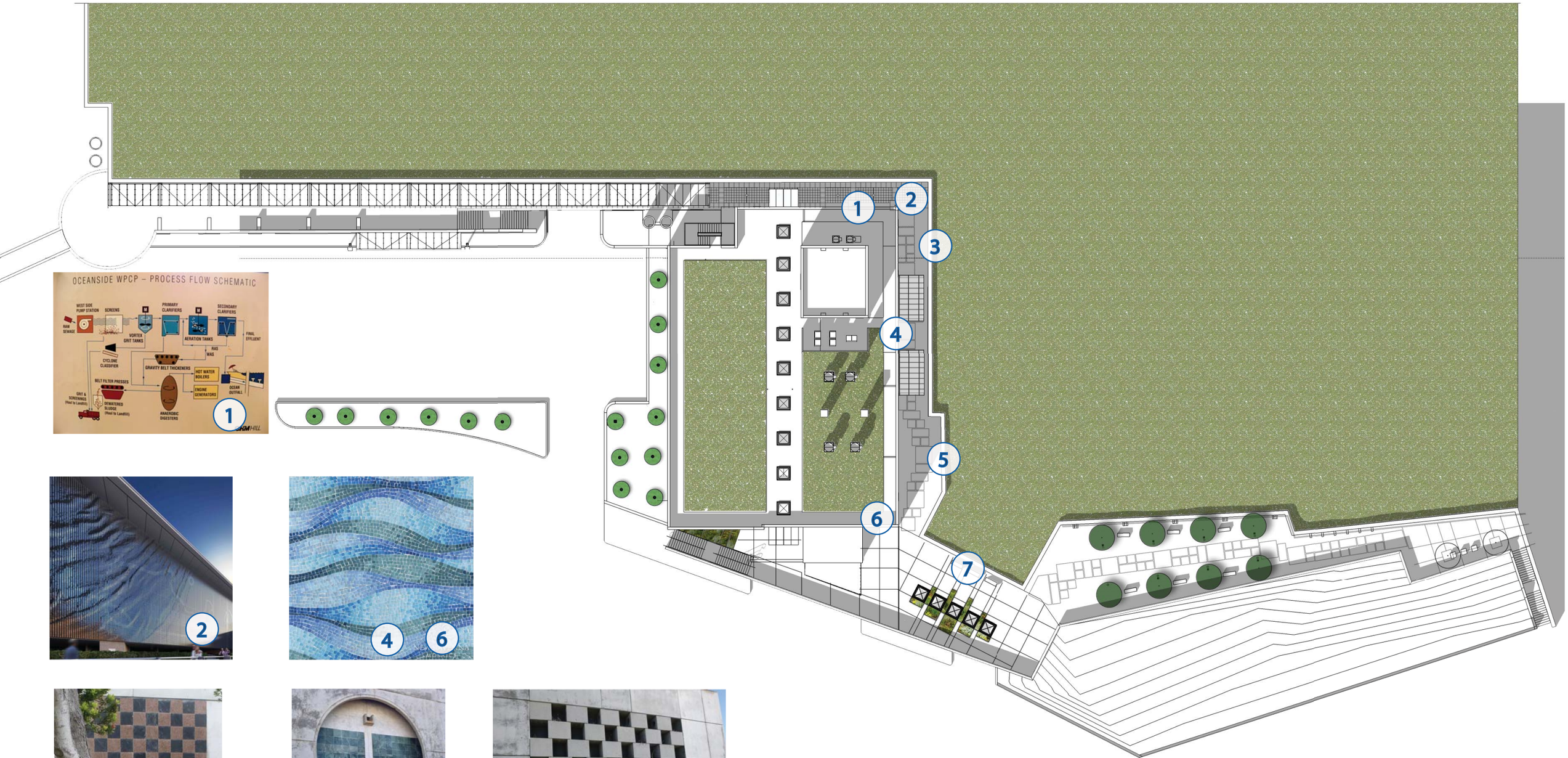
OLIVETTI, CARLO SCARPA

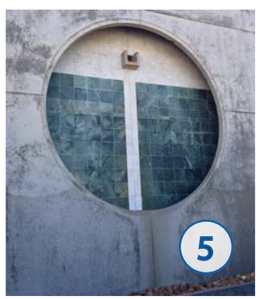
WEST CAPITOL AVENUE, WEST SACRAMENTO

OLIVETTI CARLO SCARPA

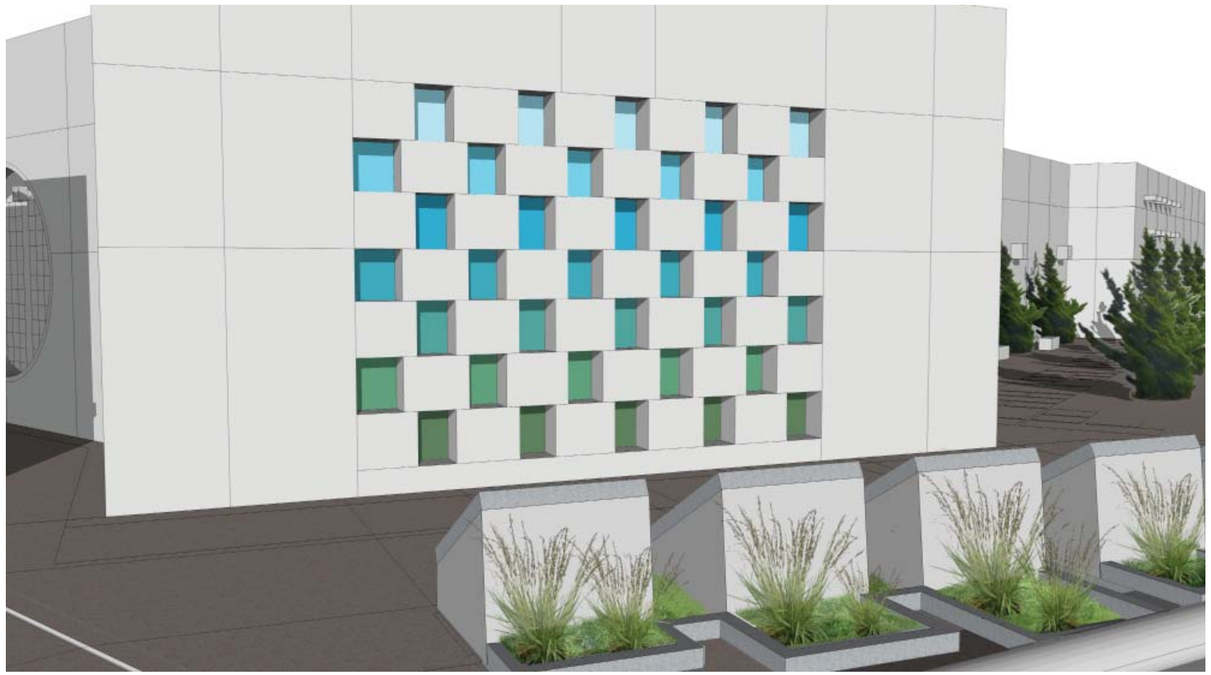
FOCAL ELEMENTS - EXISTING AND PROPOSED

Elements on the wall that reference the stages of the water treatment process.





FOCAL ELEMENT
#7 OPTIONS



PLANT PALLETTE

1. *Nemophila menziesii*
   Baby Blue Eyes
2. *Festuca idahoensis*
   Idaho Fescue
3. *Agave attenuata*
   Foxtail Agave
4. *Stachys bullata*
   Hedge Nettle
5. *Eriophyllum confertiflorum*
   Golden Yarrow
6. *Dudleya caespitosa*
   Sea Lettuce
7. *Aster chilensis*
   California Aster
8. *Erigeron glaucus*
   Seaside Daisy
9. *Layia platyglossa*
   Tidy Tips
10. *Eschscholzia californica*
    California Poppy
11. *Dracaena draco*
    Dragon Tree