



**SFPUC
SOUTHEAST PLANT**



Southeast Plant Building 522 (521A) Electrical/HPU Building | Civic Design Phase 2 Package | December 15, 2014
BUILDING DESIGN AND CONSTRUCTION
S.F. DEPARTMENT OF PUBLIC WORKS



PROJECT OBJECTIVES

Building Location:

The proposed Electrical Equipment Building is located at the SFPUC South East Plant (Evans and Phelps Street) located parallel to Evans Street just inside the brick and concrete security wall.

Project Objective:

To provide a building enclosure for electrical equipment that is "contemporary" in design and responsive to the existing structures on the site. The building shall minimize energy usage and incorporate sustainable design practices through the use of daylighting devices and a natural ventilation system. Proposed facility shall also be resistant to the corrosive environment created by the wastewater treatment plant.

Proposed Design Goals include:

Stormwater Management and Reuse (Reduction of waste water into storm drainage systems through the use of pervious pavement materials)

Heat Island Effect (Use of roofing materials with recommended solar reflectance index)

Reduced Power Input (Use of daylighting devices in lieu of artificial lighting)

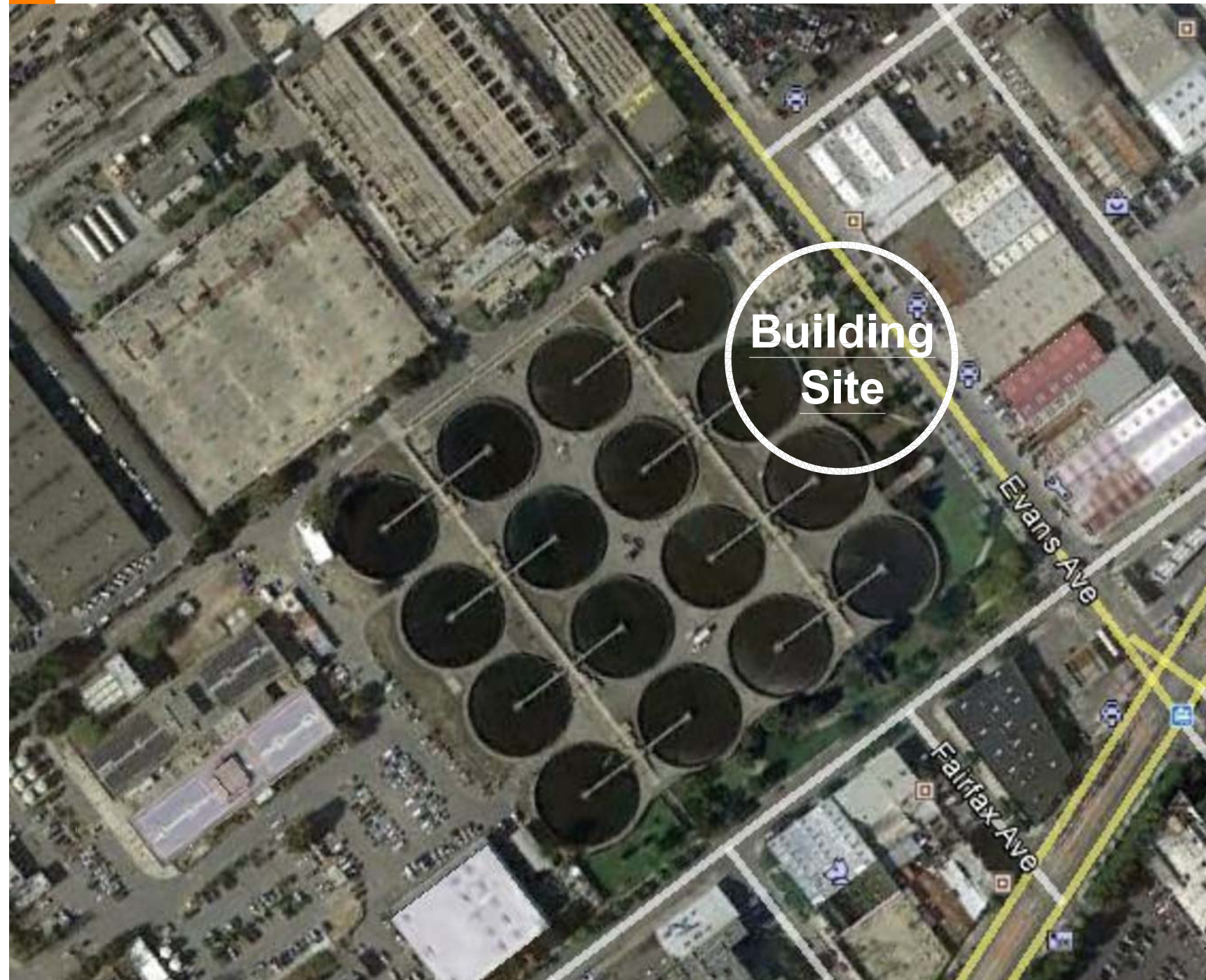
Natural Ventilation System (Use of natural ventilation system consisting of roof vents/fans to draw air up and out from an exterior louver system)

Materials Reuse (Use of building materials with recycled content)

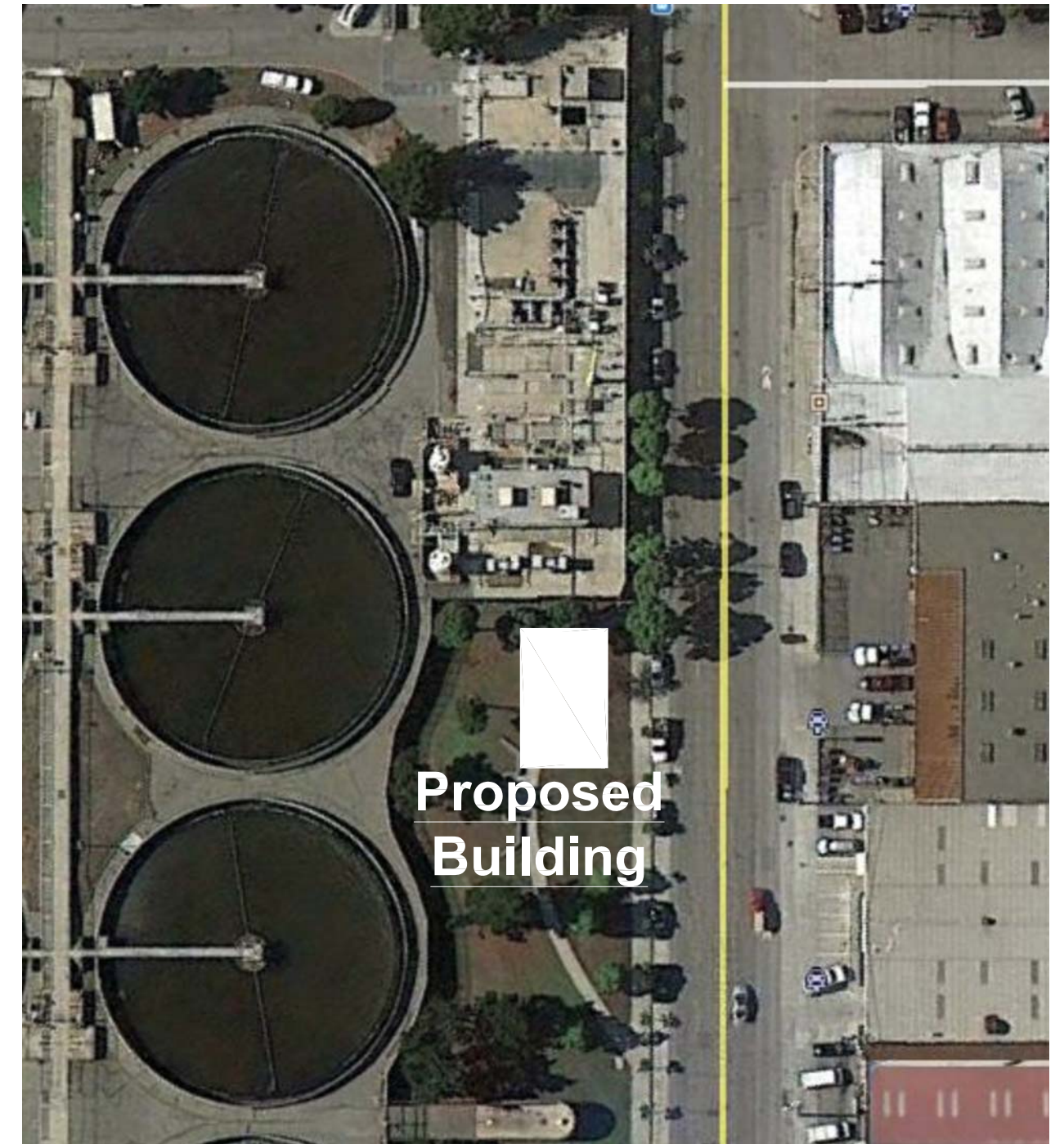
Building Solution:

A 1,700 square foot facility located parallel to the site security wall. The plan will allow for a linear circulation pattern that permits personnel to travel through the building from the west side to waste water facilities located at the east side. The proposed foot print is approximately 31' x 56' with a roof height that varies from 13'-3" above finished floor to 15'-6" to top of the higher parapet.

PROJECT SITE



Site Aerial Photo



Site Aerial Blow-Up



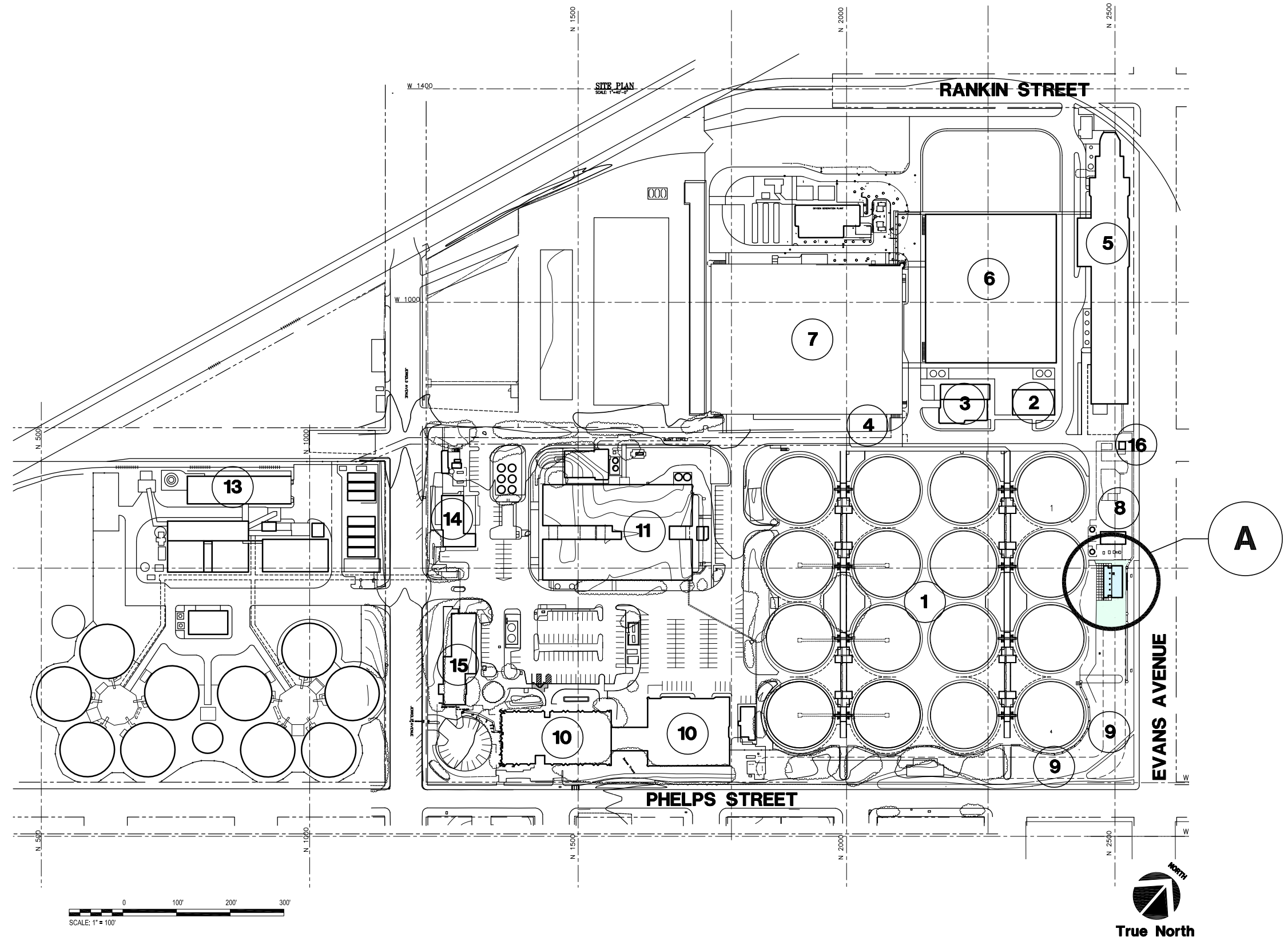
OVERALL SITE PLAN

Location of Proposed Building

A Proposed New Building

EXISTING SURROUNDING STRUCTURES

- 1 SECONDARY SEDIMENTATION TANKS
- 2 PRIMARY POWER SWITCHING STATION
- 3 SECONDARY SLUDGE CONTROL BUILDING
- 4 GALLERY
- 5 PRETREATMENT FACILITY
- 6 SEDIMENTATION BUILDING
- 7 AERATION TANKS
- 8 POSTCHLORINATION BUILDING
- 9 CHLORINE CONTACT CHANNELS
- 10 ADMINISTRATION/LABORATORY BUILDINGS
- 11 SEDIMENTATION BUILDINGS
- 12 DIGESTERS
- 13 DRYER BUILDING
- 14 SERVICE BUILDING
- 15 OPERATORS BUILDING
- 16 SMALL CONCRETE BUILDING



SITE AND SURROUNDING AREA



Photo Looking North at Equipment Yard



Photo Looking North-West at Sedimentation Tanks



Photo Looking at Site of Proposed Building



Photo Looking North at Site of Proposed Building



Photo Looking South at Site of Proposed Building



Photo Looking North at Site of Proposed Building

SITE PLAN

Existing Clarifier

Daylighting Device
(Typ of 4)

Roof Access Hatch

Proposed Building 522

Existing Security Wall with Fencing on Top

Evans Avenue

Chlorine Contact Channels

11' Dia. Pipe
(Effluent Control)

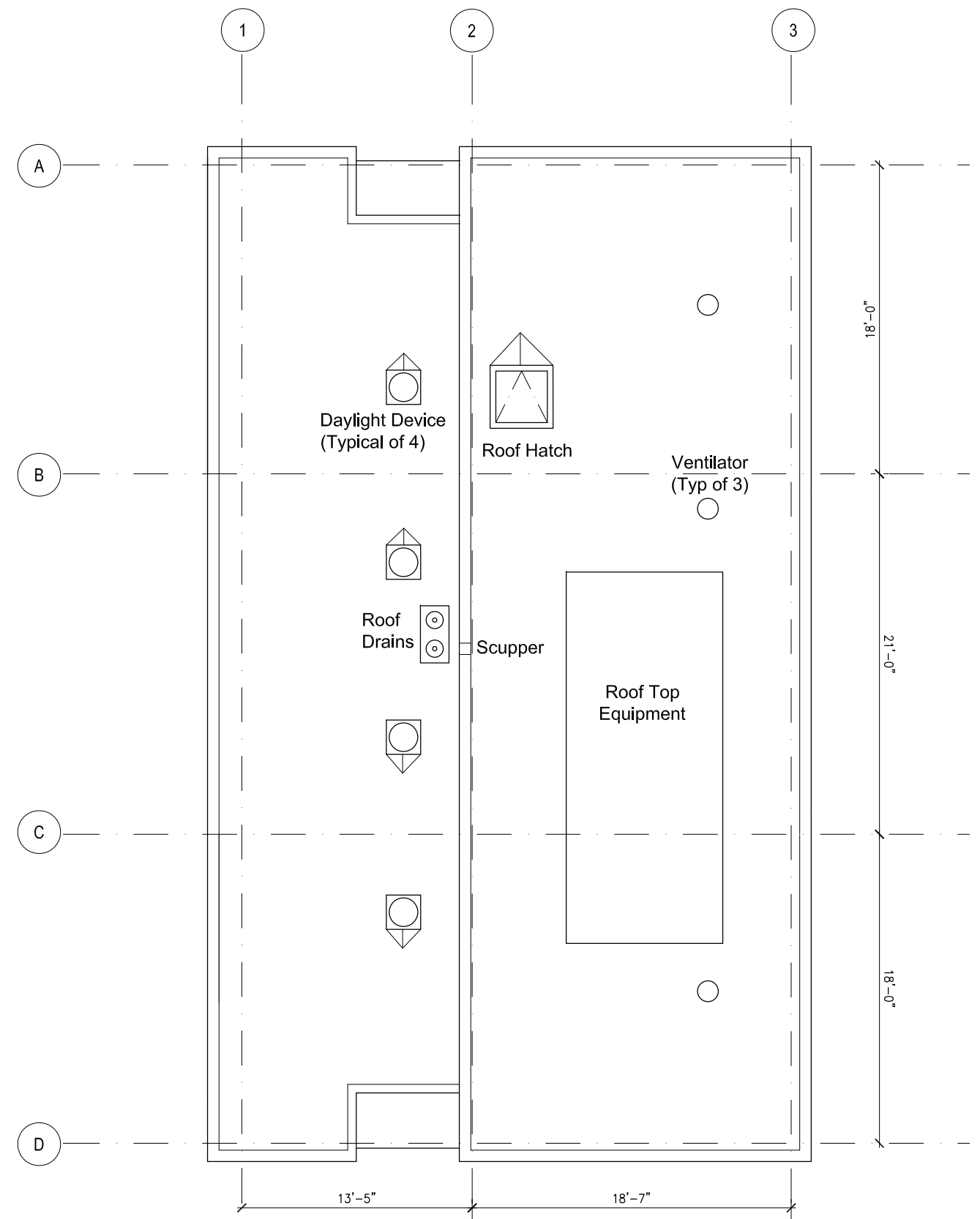
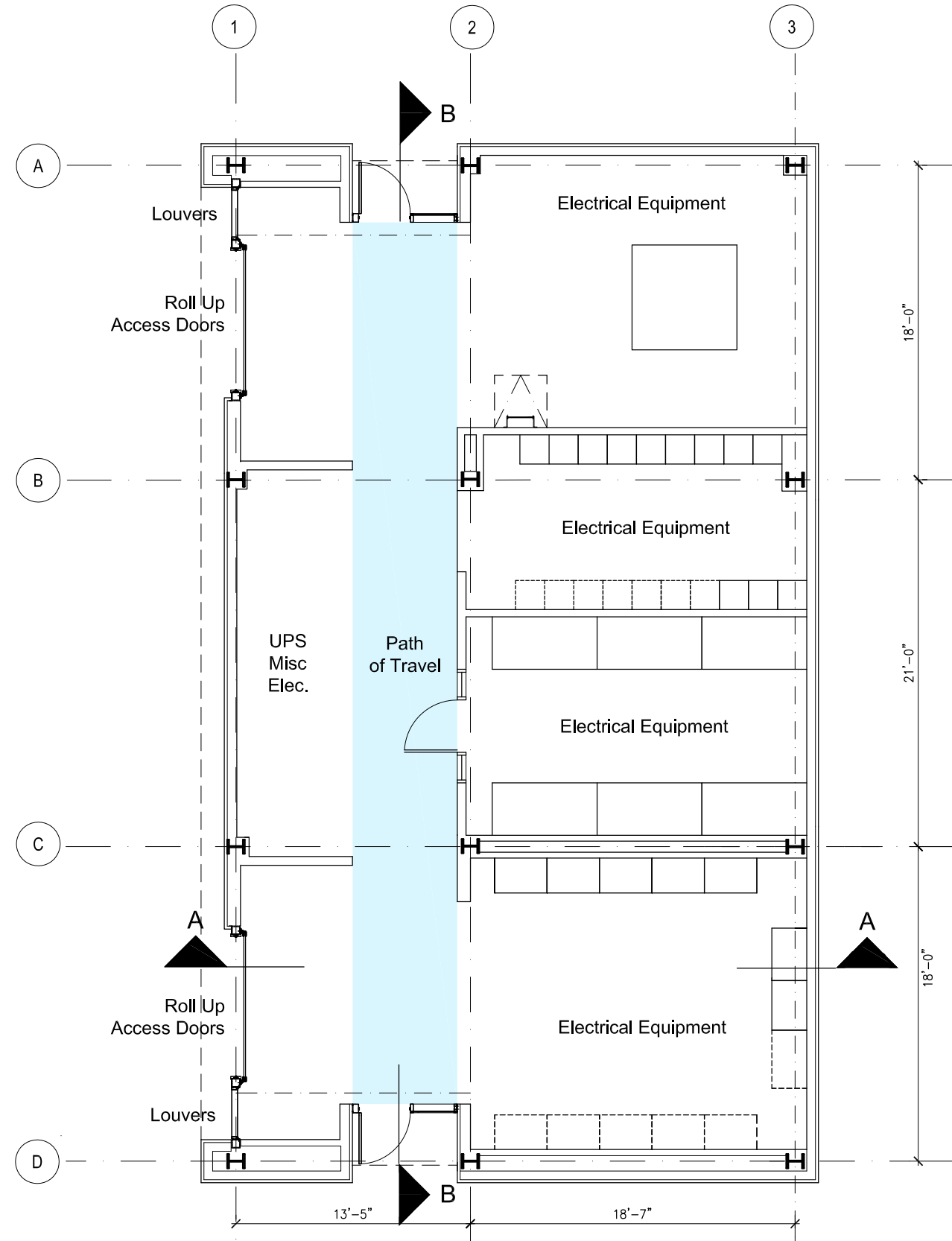


4' 2' 0 4' 8' 12'
SCALE: 3/16" = 1'-0"

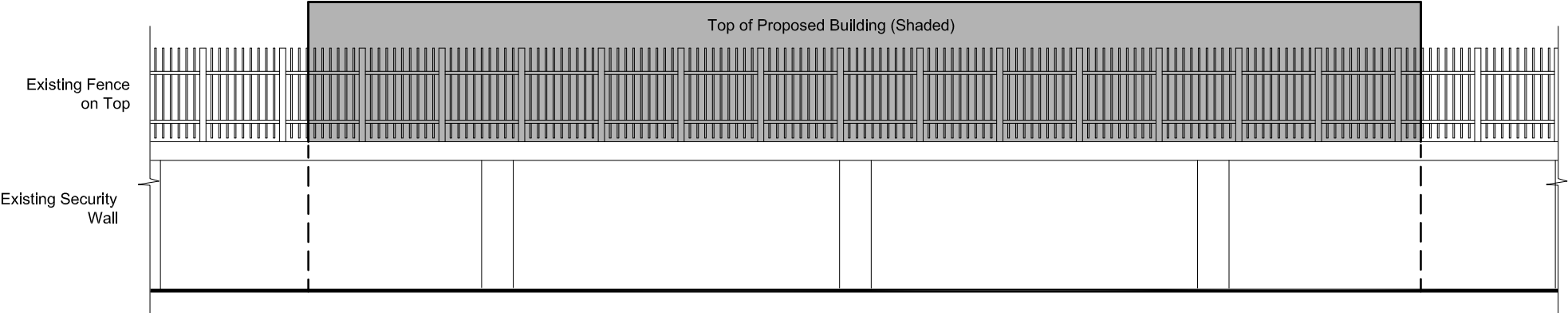
Site Plan



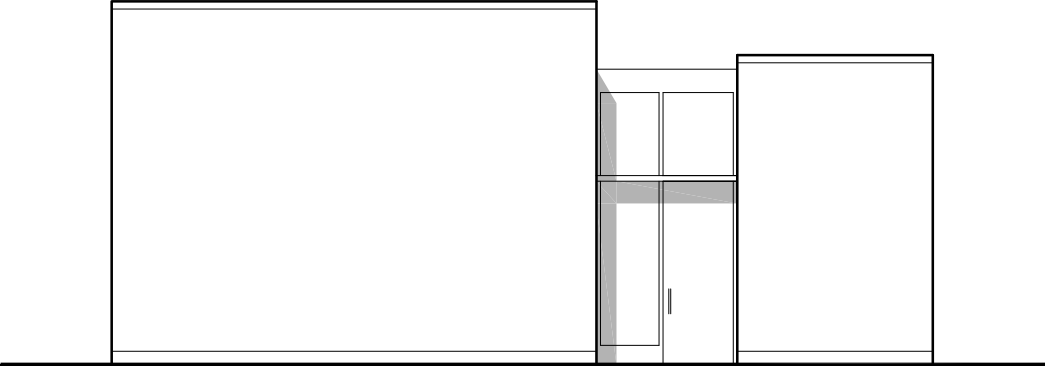
FLOOR AND ROOF PLAN



EXTERIOR ELEVATIONS

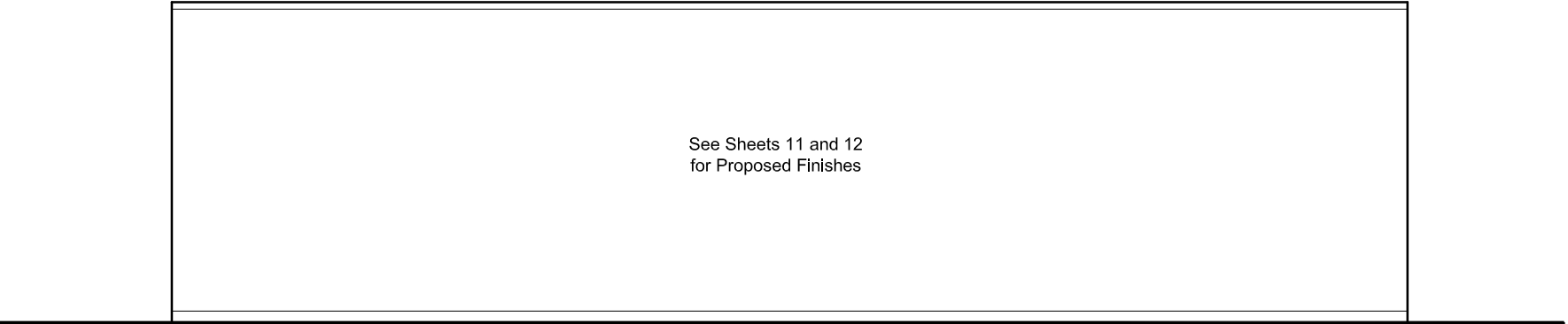


View from Evans Avenue

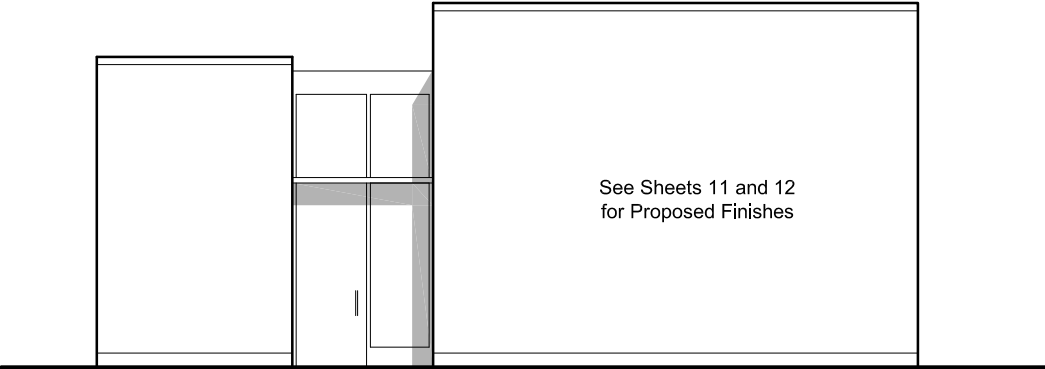


North Elavation

Alum.
Storefront

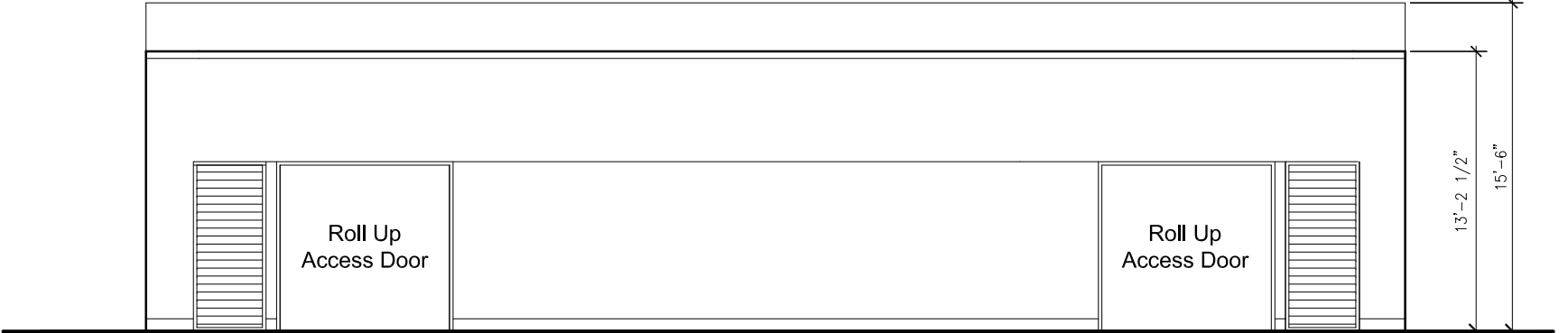


East Elevation - Rear
(Facing Security Wal)l



South Elevation

Alum.
Storefront



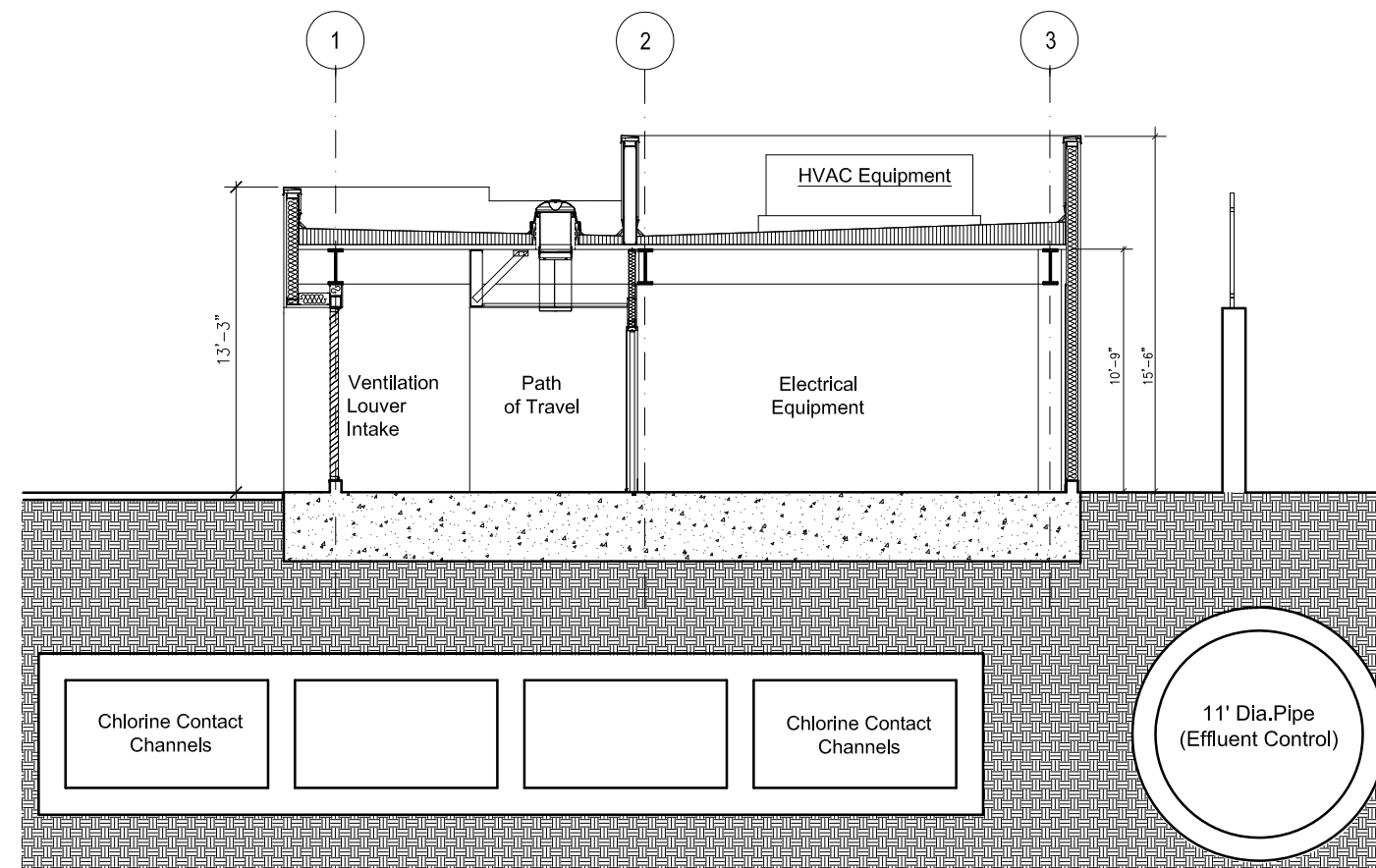
West Elevation - Front

Louvers

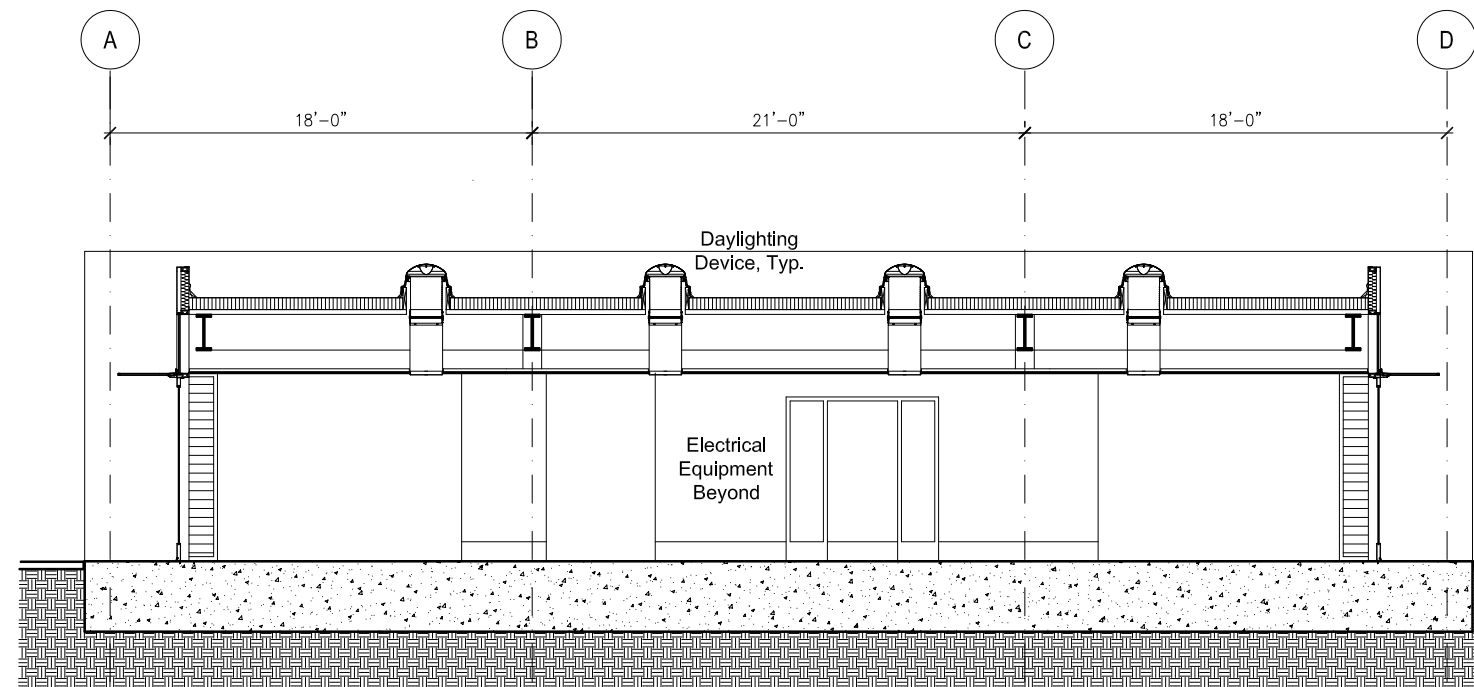
Louvers



SECTIONS



Transverse Section A-A



Logitudinal Section B-B



PERSPECTIVE



MATERIAL OPTION 1

Fiber Cement Board with Terra Cotta Rainscreen



Isometric

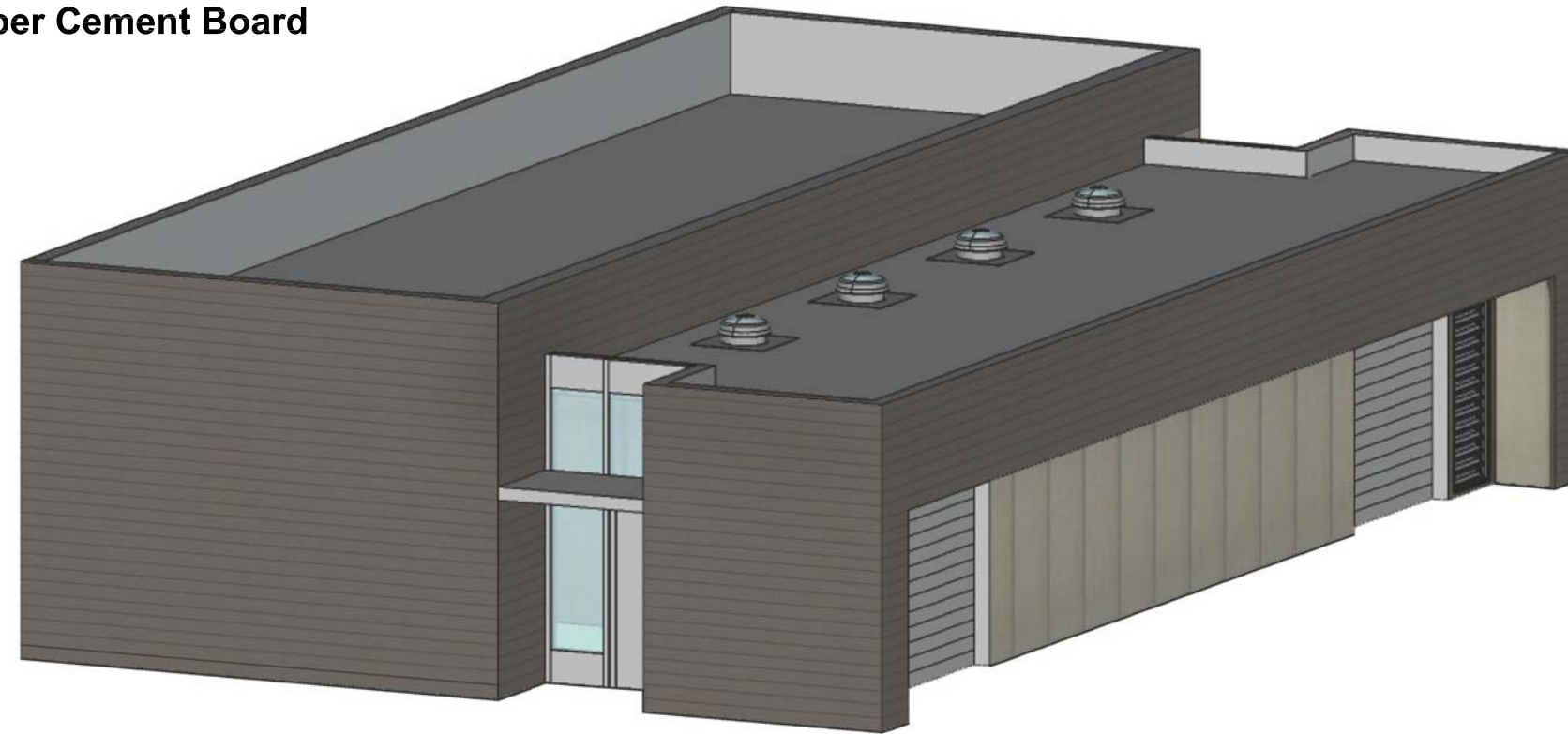


North Elevation - South Similar

West Elevation - Front

MATERIAL OPTION 2

Composit Wood Board with Fiber Cement Board



Isometric



North Elevation - South Similar

West Elevation - Front