

# P250 Biomolecular Science & Synthetic Biology Laboratory U.S. Naval Research Laboratory Washington, D.C.

Revised Concept Submission  
U.S. Commission of Fine Arts

17 September 2026





## Concept: Architectural Heritage & Campus Continuity

### Traditional, Regional Architecture

Draw from the NRL's World War II utilitarian industrial and Cold War Brutalist architectural legacy.

### Strengthen the Campus Fabric

Reinforce the established building pattern and character, pedestrian connectivity, landscape and riverfront.

### Reference, Don't Replicate

Interpret historic proportions, materials, colors, scale, and architectural language through a refined expression.

### Enhance Performance & Durability

Improve long-term site and building quality, resilience, and aesthetic value.

### Establish a Framework for Future Growth

Create an architectural precedent for future projects as the campus evolves.



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EXISTING SITE  
+ CONTEXT



## EXISTING SITE + CONTEXT

### Complex site context

Fronting the Potomac River, this narrow site is flanked by existing buildings, a historic greenspace and floodplain accommodation.



EXISTING SITE  
+ CONTEXT

SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS



## EXISTING SITE + CONTEXT

### Diverse architectural history

Two eras:

WWII utilitarian industrial architecture characterized by highly functional, simple uniform facades and streetscapes. Early buildings of concrete and later renovated facades in insulated lightweight materials.

Cold War Brutalist buildings characterized by a modern heavy mass and volumetric aesthetics, also with no expressive architectural ornament.

EXISTING SITE  
+ CONTEXT

SITE ACCESS

BUILDING  
MASSING

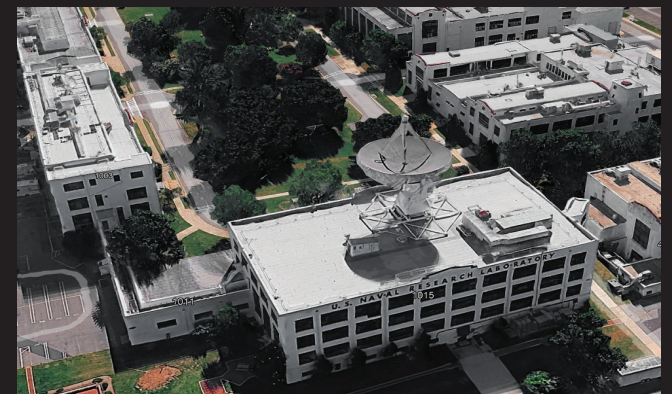
BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS



Site views  
Top - view to the site northwest  
Bottom - view to the site northeast



Context images  
Top - NRL mall  
Bottom - NRL mall

## EXISTING SITE + CONTEXT

### Campus Connectivity

Reinforces the identity and traditional industrial character while creating a thoughtful connection between past and present.

EXISTING SITE  
+ CONTEXT

SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS





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SITE ACCESS

## SITE ACCESS

### Restricted Site Access

NRL is a controlled-access facility. Prior arrangements must be made with an NRL point of contact before visiting the Laboratory.

All primary vehicle and pedestrian access to the campus is controlled through the NRL Main Gate.

P250 site access from the south will primarily come through the central mall loop via Cooley Avenue. Primary access from the north campus loop will be via Smith Street and Magazine Road SW.



EXISTING SITE  
+ CONTEXT

SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS



1 2 3 4 5 6

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BUILDING  
MASSING

## BUILDING MASSING

EXISTING SITE  
+ CONTEXT

SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS



### Buildings in Laboratory Districts

Science buildings in laboratory districts often require large-scale spatial planning to accommodate highly specialized research. High floor-to-floor and area requirements are often the result.



### Strategic Planning

Careful campus planning can mitigate the perceived scale of larger lab building projects. P250 is setback from primary roads and waterways with added pedestrian sidewalks and greenspace to reduce comparative scale to other adjacent buildings. Landscape buffers are also used to screen views of P250 from the historic green.



## **BUILDING MASSING**

P250 Design Study Rendering - View to Northeast

EXISTING SITE  
+ CONTEXT

SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS





## **BUILDING MASSING**

P250 Design Study Rendering - North Facade

EXISTING SITE  
+ CONTEXT

SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS





## **BUILDING MASSING**

P250 Design Study Rendering - View to Northeast

EXISTING SITE  
+ CONTEXT

SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS



## **BUILDING MASSING**

P250 Design Study Rendering - Site Section (N/S)

EXISTING SITE  
+ CONTEXT

SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
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SITE +  
LANDSCAPE

STORAGE  
BUILDINGS





## **BUILDING MASSING**

P250 Design Study Rendering - Entry Plaza

EXISTING SITE  
+ CONTEXT

SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS





## **BUILDING MASSING**

P250 Design Study Rendering - View to Southeast

EXISTING SITE  
+ CONTEXT

SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS





## **BUILDING MASSING**

P250 Design Study Rendering - South Facade

EXISTING SITE  
+ CONTEXT

SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS



## **BUILDING MASSING**

P250 Design Study Rendering - Details

EXISTING SITE  
+ CONTEXT

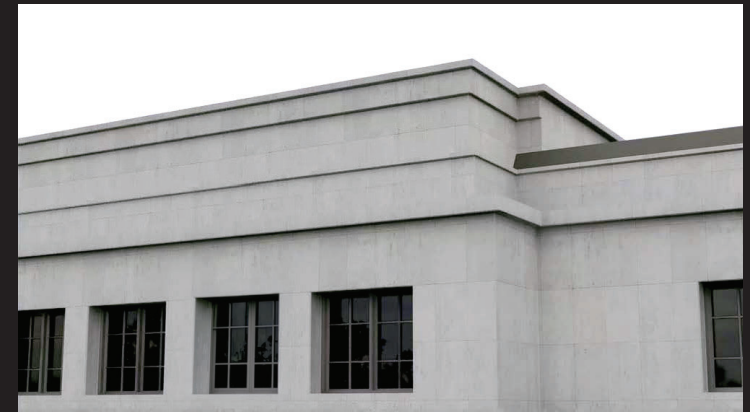
SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS





## **BUILDING MASSING**

P250 Design Study Rendering - East Facade

EXISTING SITE  
+ CONTEXT

SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS



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BUILDING  
ELEVATIONS  
+ MATERIALS



## BUILDING ELEVATIONS + MATERIALS

EXISTING SITE  
+ CONTEXT

SITE ACCESS

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MASSING

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BUILDINGS



P250 West Elevation



P250 North Elevation



Metal roof  
screen wall

Precast  
concrete  
panels

Glazing

Precast  
concrete  
panels

Metal and  
glass canopy

## BUILDING ELEVATIONS + MATERIALS

EXISTING SITE  
+ CONTEXT

SITE ACCESS

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SITE +  
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BUILDINGS



P250 East Elevation



P250 South Elevation



Metal roof  
screen wall

Precast  
concrete  
panels

Glazing

Precast  
concrete  
panels



## **BUILDING ELEVATIONS + MATERIALS**

### Precast Concrete Panel Option

*reference images: 36-38 Berkeley Square, London, Piercy and Company Architects*

EXISTING SITE  
+ CONTEXT

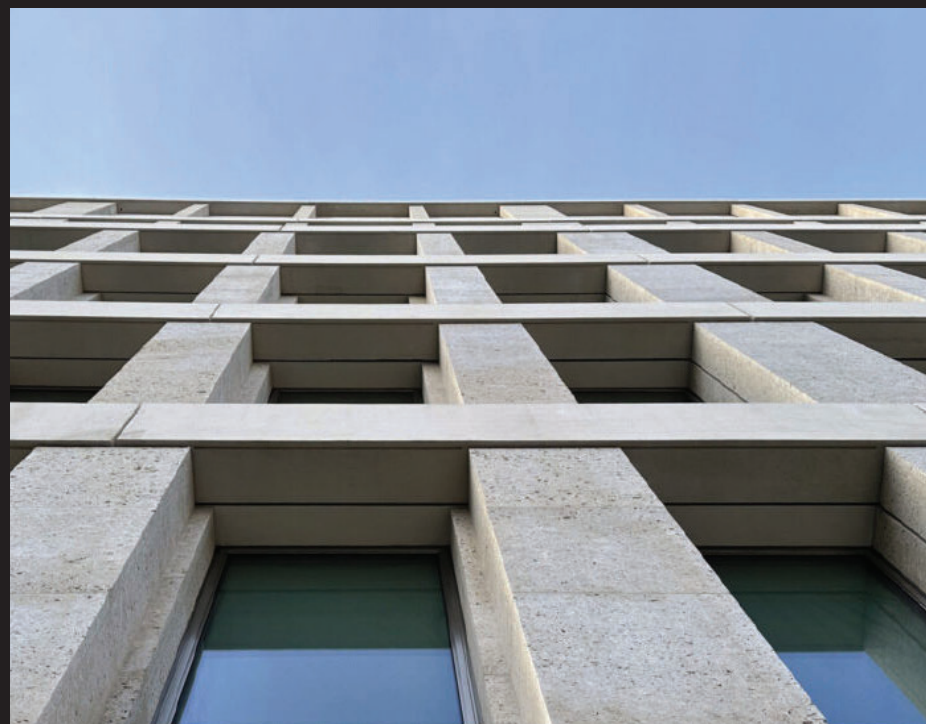
SITE ACCESS

BUILDING  
MASSING

BUILDING  
ELEVATIONS  
+ MATERIALS

SITE +  
LANDSCAPE

STORAGE  
BUILDINGS



## BUILDING ELEVATIONS + MATERIALS

### Precast Concrete Panel Option

*reference images: 260 Kent Ave., New York, COOKFox Architects*

EXISTING SITE  
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## Facade Materials Comparison

Generalized early-design comparison — actual performance depends on detailing, climate, substrate, and installation quality.

| Category                        | Precast Panel                                                                     | Limestone                                                                        | Cement Plaster                                                               |
|---------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <b>Design flexibility</b>       | <b>High.</b><br>Molded forms, textures, colors, and panel sizes.                  | <b>Moderate.</b><br>Natural variation; limited by quarry sizes and detailing.    | <b>High.</b><br>Many colors, textures, and profiles.                         |
| <b>Cost</b>                     | <b>Moderate.</b><br>Efficient at scale; molds, engineering, and lifting add cost. | <b>High.</b><br>Material, fabrication, anchorage, and labor can be substantial.  | <b>Low–moderate.</b><br>Economical and widely available.                     |
| <b>Durability</b>               | <b>High.</b><br>Performs well when reinforced and properly detailed.              | <b>High.</b><br>Long-lasting; sensitive to staining, cracking, and freeze-thaw.  | <b>Moderate.</b><br>Can crack, absorb moisture, and need periodic recoating. |
| <b>Ease of Installation</b>     | <b>Moderate.</b><br>Rapid field installation, but requires cranes and precision.  | <b>Low–moderate.</b><br>Heavy and labor-intensive; skilled setting is needed.    | <b>High.</b><br>Applied directly to prepared substrates with simple tools.   |
| <b>Strength-to-weight ratio</b> | <b>Moderate–high.</b><br>Capacity can be optimized, but panels remain heavy.      | <b>Low–moderate.</b><br>Dense and heavy relative to its structural contribution. | <b>Moderate.</b><br>Lightweight finish, but not a structural material.       |

Relative ratings: Low / Moderate / High. Cost rating reflects typical installed cost, not material cost alone.

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SITE +  
LANDSCAPE



## SITE + LANDSCAPE

Site and Landscape Plan - Overview

### Waterfront & Pedestrian Connectivity

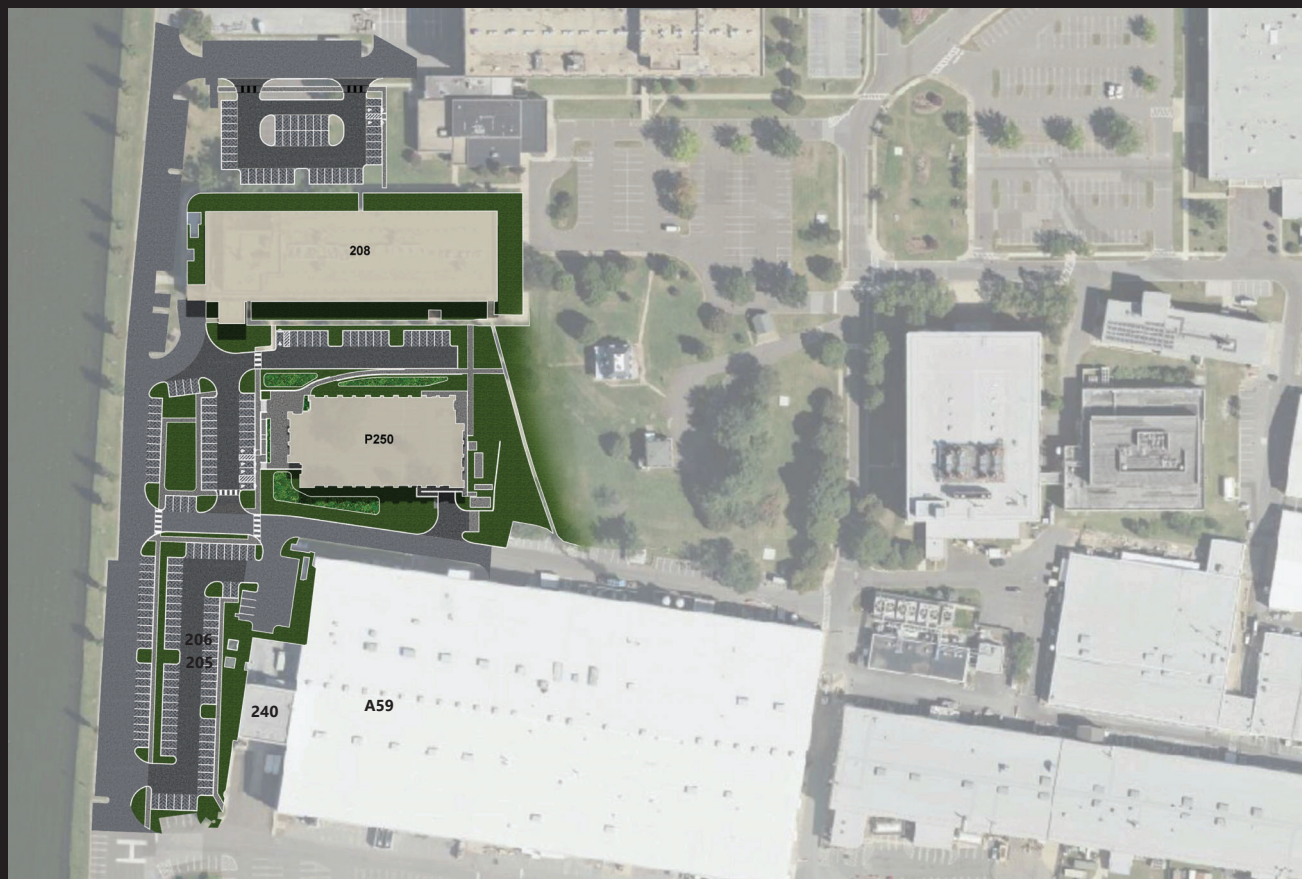
Extends the campus pedestrian network with safe, connected sidewalks and creates new opportunities to experience the Potomac and waterfront greenspace.

### Tree Replacement Strategy

Preserves two larger existing trees while replacement and new trees will be placed throughout the site per NCPC replacement policy.

### Historic Greenspace Screening

Enhances existing mature trees with layered, low landscape screening to frame the project and buffer views from the adjacent historic greenspace.



## SITE + LANDSCAPE

### Site and Landscape Plan

#### Waterfront & Pedestrian Connectivity

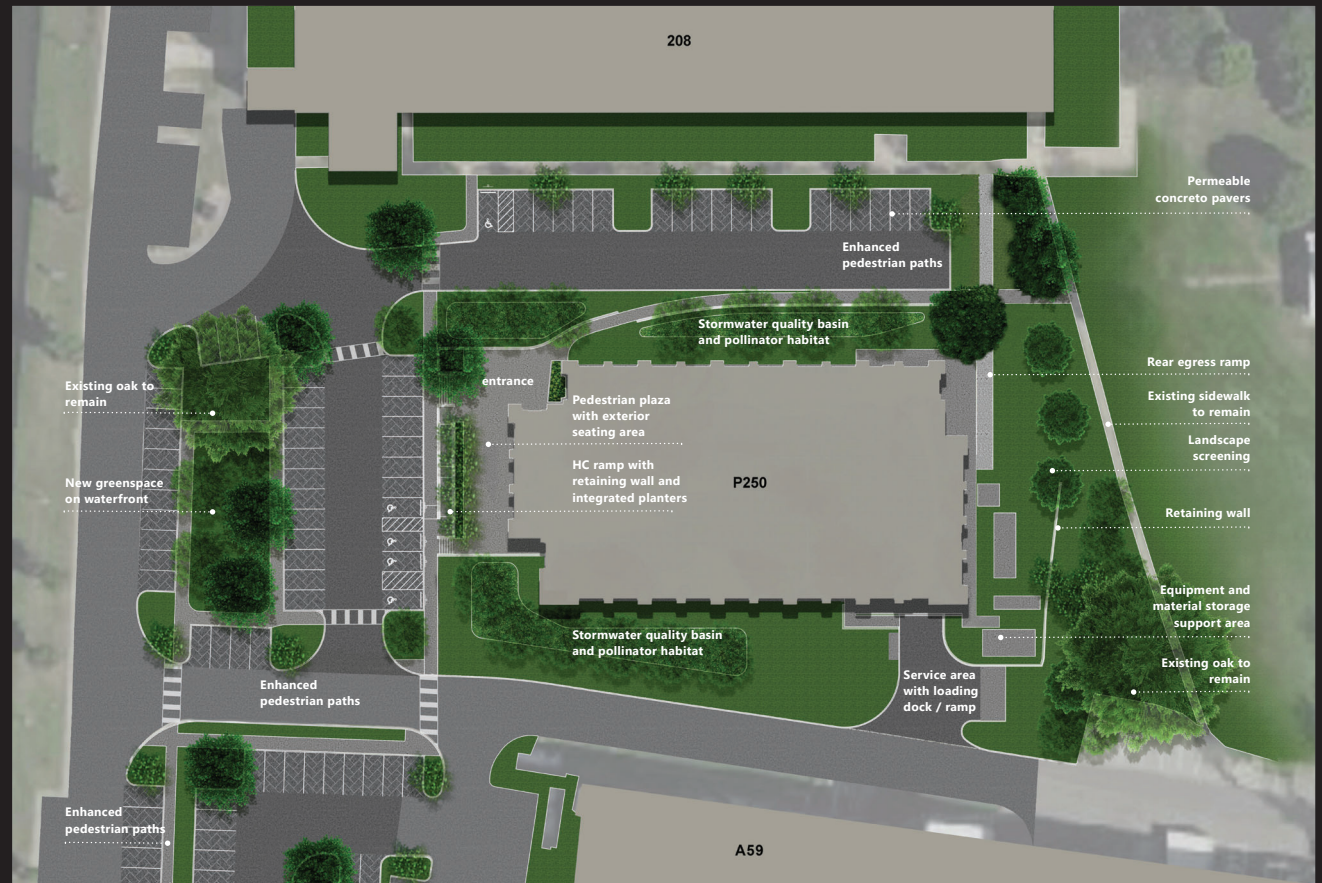
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## SITE + LANDSCAPE

### Hardscape / Landscape Palette

EXISTING SITE  
+ CONTEXT

SITE ACCESS

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Crusador Cockspur Hawthorn



Wildfire Tupelo



Sweetbay Magnolia



Bald Cypress



American Holly



Overcup Oak



Claudia Wannamaker Magnolia



Swamp White Oak



Lowfast Bearberry Cotoneaster



Creek Sedge



Common Milkweed



Swamp Milkweed



Butterfly Milkweed



New England Aster



Wingstem



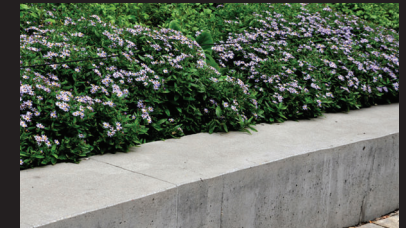
Culver's Root



Purple Love Grass



Purple Coneflower



**Hardscape**  
Top - Seatwall  
Middle - Exposed aggregate  
Bottom - Permeable pavers



## **SITE + LANDSCAPE**

### Entry Plaza

#### **Employee Wellness**

Integrates nature, restorative spaces, and opportunities for informal collaboration to support employee wellness, productivity, and workplace satisfaction.

#### **Waterfront & Lawn Views**

Responds to floodplain requirements by elevating the site and creating a new plaza with enhanced views toward the waterfront and new greenspace.

EXISTING SITE  
+ CONTEXT

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SITE +  
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STORAGE  
BUILDINGS



1 2 3 4 5 6

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STORAGE  
BUILDINGS



## STORAGE BUILDINGS

Location and Materials - Buildings 205, 206

EXISTING SITE  
+ CONTEXT

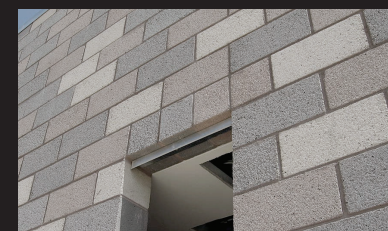
SITE ACCESS

BUILDING  
MASSING

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SITE +  
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**Storage buildings**  
Top - Building 240 (adjacent existing facade)  
Bottom: New storage building - split-face block - ref. image

