UCHealth – University of Colorado Hospital Parking Garage 2 Project

University of Colorado Design Review Board Schematic Design March 13, 2020



Contents

- A. Introductions
- B. Site & Landscape
- C. Building
- D. Sustainable Strategies



A. Introductions



A/E Team

Dactsudios





Kimley »Horn





Pact Studios, LLC – Architectural Design

Martin & Martin - Civil and Structural Engineering

Specialized Engineering Solutions – MEP Design; Low Voltage; Lighting Design

Kimley>Horn – Landscape Architecture

Felsburg Holt & Ullevig – Traffic, Transportation, and Parking Study

Lerch Bates - Vertical Transportation

Fd2s – Graphic and Signage Design



B. Site & Landscape



Campus Plan



Context of Project – Campus





Grading Plan



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Utility Plan



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PEDESTRIAN AND VEHICULAR CIRCULATION

Solar Studies



March/Sept – 8:00am



March/Sept – 12:00pm



March/Sept - 4:00pm



June – 8:00am

June – 12:00pm

June – 4:00pm



Dec – 8:00am



Dec – 12:00pm



Dec – 4:00pm

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Preliminary Concept



PROS:

- VISUALLY INDICATES PRIMARY AND SECONDARY PEDESTRIAN PATHS
- HARDSCAPE DESIGN REFLECTS BUILDING ARCHITECTURE

CONS:

- MULTIPLE CIRCULATION ROUTES
- OPPORTUNITY FOR PEDESTRIAN TRAFFIC IN UNWANTED AREAS
- TOO MANY TREES -OBSTRUCTS BUILDING VISIBILITY
- 18" HEIGHT SEAT WALLS CAN BE STEPPED OVER

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ALTERNATIVE CONCEPT

Overall Project Site Plan



OVERALL PROJECT SITE PLAN

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Site Furnishings



Hardscape and Material Finishes



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Perimeter Landscape







Site Enlargement Plan



SITE ENLARGEMENT PLAN PERIMETER LANDSCAPE

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Existing Site Photos





EXISTING SITE PHOTOS PERIMETER LANDSCAPE











Existing vs. New





EXISTING

PROPOSED

EAST 16TH AVENUE FACING NORTHWEST PERIMETER LANDSCAPE



Existing vs. New





EXISTING

PROPOSED

EAST 16TH AVENUE FACING NORTHEAST PERIMETER LANDSCAPE



Planting Plan



PLANTING PLAN PERIMETER LANDSCAPE

Overall Section







AURORA COURT FACING WEST (A)



E 16TH AVENUE FACING NORTHEAST (B)

PERSPECTIVE VIEWS PERIMETER LANDSCAPE



Entry Drive







Site Enlargement Plan



SITE ENLARGEMENT PLAN ENTRY DRIVE



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Existing Site Photos





EXISTING SITE PHOTOS ENTRY DRIVE











Existing vs. New







EXISTING

PROPOSED

AURORA COURT AND "TROY STREET" FACING WEST ENTRY DRIVE







EXISTING

PROPOSED

"TROY STREET" FACING EAST ENTRY DRIVE



Planting Plan



PLANTING PLAN ENTRY DRIVE

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Overall Section

ENTRY DRIVE SECTION FACING WEST

ENTRY DRIVE







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Enlarged Section





BOULEVARD SECTION FACING WEST ENTRY DRIVE





Perspective Views





"TROY STREET" FACING WEST (A)

"TROY STREET" FACING SOUTHEAST (B)

PERSPECTIVE VIEWS ENTRY DRIVE



Plaza Spaces and Crosswalks









Site Enlargement Plan



SITE ENLARGEMENT PLAN ENHANCED PEDESTRIAN SPACES

Existing Site Photos

















Existing vs. New







EXISTING

PROPOSED

"TROY STREET" FACING NORTHEAST ENHANCED PEDESTRIAN SPACES


Existing vs. New





EXISTING

PROPOSED

NORTH PLAZA FACING NORTH ENHANCED PEDESTRIAN SPACES



Planting Plan



PLANTING PLAN ENHANCED PEDESTRIAN SPACES

Overall Section





Overall Section





0 1' 5' 10' 20' SCALE: 1"=10'

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ENHANCED PEDESTRIAN SPACES

Overall Section









Perspectives



ACP ENTRANCE FACING SOUTH



AOP ENTRANCE FACING SOUTHEAST **PERSPECTIVE VIEWS** ENHANCED PEDESTRIAN SPACES



AOP EXIT FACING EAST



WEST PLAZA FACING SOUTH



C. Building



Schematic Design Key Drivers

- Campus Vocabulary Proposed design takes queues from existing vocabulary but incorporates feature elements to establish a unique identity within the campus framework.
- Campus Materials Design is complimentary to existing campus material palette and showcases distinctive materials in selective areas.
- Site Context Existing site conditions have an influential role in garage location and how the facades interact with the adjacent buildings and spaces surrounding garage.
- Massing Relief is provided on the south side to avoid one large extrusion along 16th Ave.
- Layering The design is both cohesive and visually interesting as it began with a typical garage structure to ground the composition; then stair tower elements were incorporated, adding verticality and transparency; and finally a metal screen façade was applied to help break down the scale of the building and complete the solution.

Façade Experience

The north and west facades have a direct visual connection to the existing campus buildings (Anschutz Outpatient Pavilion, Anschutz Cancer Pavilion, and Sue Anschutz-Rodgers Eye Center). Visitors will have direct interaction with the north and west facades for a significantly longer duration than that of the south and east facades. Scale, rhythm, repetition, and pattern will be used to define points of significance as well as establish contextual presence on the site.





Proposed Exterior Materials



Perforated Metal



ACM







Blonde Brick



Rose Brick



Precast Concrete





Schematic Design - Layering





Structure



Structure + Core/Stairs + Precast/Thin Brick Skin

View Looking Northeast



Structure + Core/Stairs + Precast/Thin Brick Skin + Perforated Overlay

82 (--)

Structure + Core/Stairs

Schematic Design - Layering





Structure



Structure + Core/Stairs + Precast/Thin Brick Skin

View Looking Southwest



Structure + Core/Stairs + Precast/Thin Brick Skin + Perforated Overlay

83 (--)

Structure + Core/Stairs





North Elevation

West Elevation



South Elevation









North Elevation





West Elevation





South Elevation





East Elevation



Schematic Design – Aerial Plan



Aerial Plan











Aerial View Looking Northeast





Aerial View Looking Southeast





Aerial View Looking Southwest





Street View at 16th Ave & Aurora Court Looking Northwest





Street View at 16th Ave & 'Troy' Street Looking Northeast





Street View at Entry Drive & Aurora Court Looking Southwest





View of Entry Drive Looking Northeast





Street View at 16th Ave & 'Troy' Street Looking Northeast



Core Development



Main Circulation Core Development





North/South Section





East/West Section

Garage 2



Typical Floor Min. Clearance



Signage and Wayfinding



Lighting Inspiration





Site Lighting



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Lighting Fixtures

Fixture Vocabulary A

Vehicular Luminaire

Gardco "Round Form 10" CA Style Material: Aluminum, RAL7038 Height: 30' (RA5) "See University of Colorado Denver Design & Construction Standards, Section 26 56 00 for additional Information



Bollard Lighting

Gardco "Round Form 10" MP Style Material: Aluminum, RAL7038 Size: 16" Diameter "See University of Colorado Denver Design & Construction Standards, Section 26 56 00 for additional Information

Discontinued

Exterior Building Wall Lighting

Gardco "Bollard 10" BR160 Material: Aluminum Color: RAL 7038 *See University of Colorado Denver Design & Construction Standards, Section 26 56 00 for additional Information









Proposed Sconce Fixtures



Pedestrian Luminaire

Gardco "Round Form 10" MP Style Material: Aluminum, RAL7038 Height: 10' (RA4) "See University of Colorado Denver Design & Construction Standards, Section 26 56 00 for additional Information

Campus Standard Fixtures

D. Sustainable Strategies



Energy Design Consideration Summary

	Typical Parking Structure	Best Practices	Project Implementation
Performance			Design team has set annual energy goal of 51kWH/parking
Specification	None.	Energy goal-driven specification	stall/year.
	Mechanical ventilation if underground or		
Ventilation	enclosed	Natural ventilation only	Garage will be entirely naturally ventilated.
Daylighting	None	Daylight provides 75%-100% energy use reduction for electric lighting during daytime hours	Daylighting sensors provided to reduce power to luminaires by 30%.
Electric Lighting	0.18-0.30 W/ft2 installed load	0.05-0.18 W/ft2 installed load depending on illuminance requirements	0.17 W/ft2 installed load.
		Concern for safety and way finding, driving time, and lighting use. Flow considerations reduce energy	
Pedestrian Flow	Concern for safety and way finding	use by 75% during nighttime hours (can vary based on garage use patterns).	High priority on pedestrian experience and way finding.
	Active heating methods to prevent freezing		
Equipment	in drainpipes and elevator gear.	Passive heating and heat recovery methods to prevent freezing in drain-pipes and elevator gear.	TBD
Incentives	Preferred parking.	Preferred parking and onsite charging stations powered by renewable energy	Infrastructure for (2) EV charging stations per floor.
Renewable Energy	None	Solar electricity and wind used in appropriate climate zones	Alternate for solar electricity on top level is included.
Commissioning	Commissioning but no measurement and verification (M&V)	Commissioning and ongoing M&V	TBD

Notes:

1. US Energy Star does not provide Energy Use Intensity (EUI) data for parking garage projects.

2. This list is adapted from NREL guidelines for Low-Energy Parking Structure Design.


Photovoltaics (Alternate)





Notes:

Design team is exploring this as an option for consideration based on recent successful installation at UCHealth Steadman Hawkins Clinic Denver.

UCHealth Steadman Hawkins Clinic Denver





Swale





TYPICAL SWALE SECTION



Thank you

