

NASCC
THE **STEEL** CONFERENCE

Winning IDEAS in Steel-Framed Building Design



AIA A821 | AISC G295
American Institute of Steel Construction

PDH Code: 68521

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Best Practices

Credit(s) earned on completion of this course will be reported to AIA CES for AIA members. Certificates of Completion for both AIA members and non-AIA members are available upon request.

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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

Course Description

Structural steel is a material that engineers and architects are using in multitudes of creative and innovative ways to design amazing buildings throughout the U.S. AISC's annual building design awards competition, the Innovative Design in Engineering and Architecture with Structural Steel (IDEAS²) Awards, recognizes the nation's top buildings using structural steel with the highest award the steel industry bestows for excellence in design – the IDEAS² Award. For this first time at NASCC, recipients of the 2017 IDEAS² Awards competition will discuss the challenges and design solutions that made their projects winning IDEAS in steel-frame building design.

Learning Objectives

Learning Objective 1:

Explore how engineering and architectural teams devise design solutions to create award-winning steel-frame building designs that perform well and provide safe spaces for their occupants.

Learning Objective 2:

Evaluate strategies employed by project teams which deliver designs that capture the imagination and exude strength, style and elegance.

Learning Objective 3:

Demonstrate how designers collaborate with fellow project team members to produce structural steel buildings that accomplish the program goals of their specific buildings and for their owners and users.

Learning Objective 4:

Recognize the design achievements possible when designing with structural steel for creative and beautiful buildings which incorporate well being, structural soundness, and safety.

Pterodactyl



Pterodactyl



Main entrances from fourth floor of the parking building.

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Presenter:

Hooman Nastarin, P.E.

NAST Enterprises Corp.

Consulting Structural Engineering Services

Los Angeles, CA

Web: www.nastenterprises.com

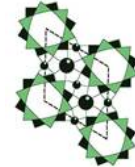
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The Team:

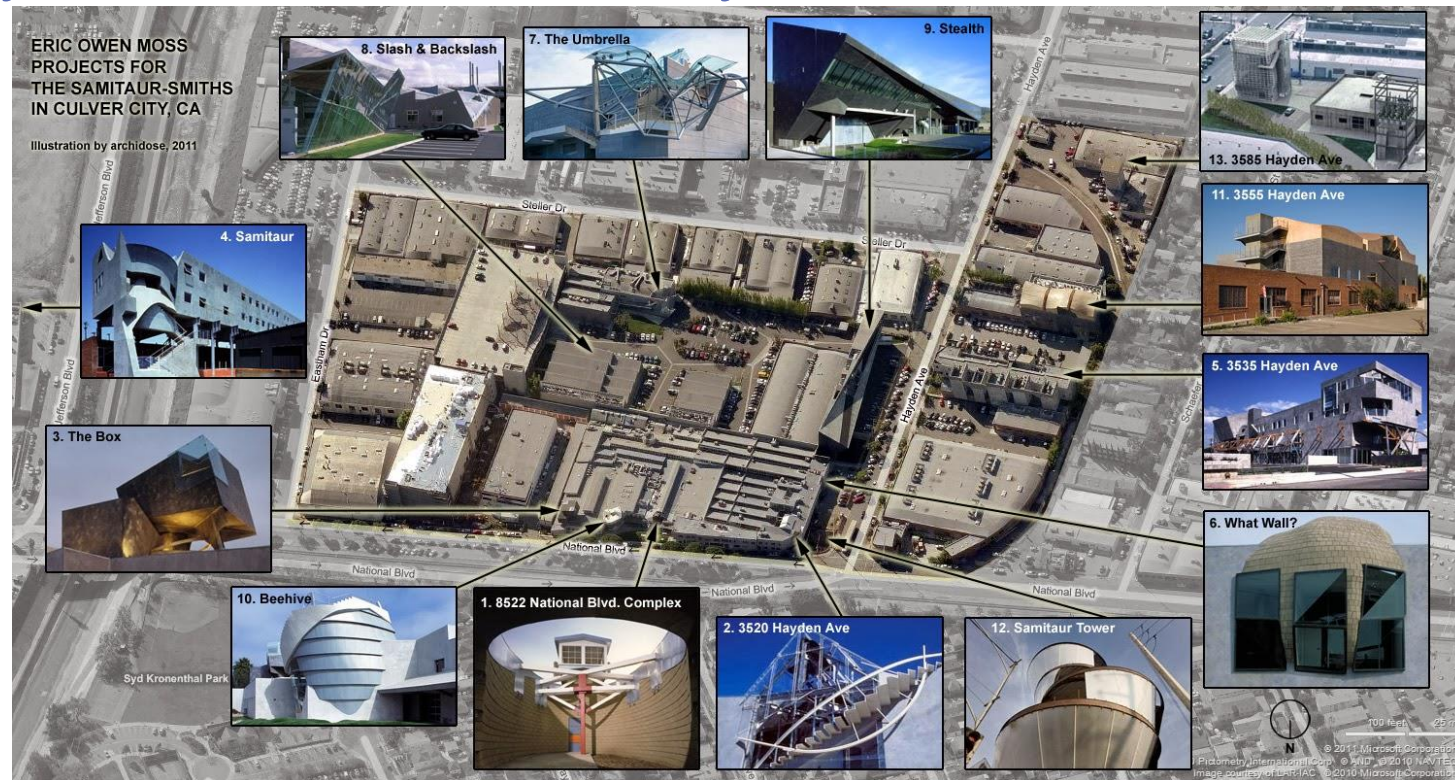
- Owner:** Frederick and Laurie Samitaur Smith
- Architect:** Eric Owen Moss Architects (Culver City)
- Structural Engineer:** Nast Enterprises Corp. (Los Angeles)
- General Contractor:** Samitaur Constructs (Culver City)
- Fabricator:** Cal State Steel (Compton)
- Erector:** Cal State Steel (Compton)
- Mechanical Engineer.:** Fruchtmann & Associates –(Los Angeles)
- Electrical Engineer:** Silver Roth & Associates –(Los Angeles)
- Photography:** Tom Bonner Photography (Venice, CA)



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Hayden Tract, Culver City

Population: 40k vs. 4m



Wedgewood Complex



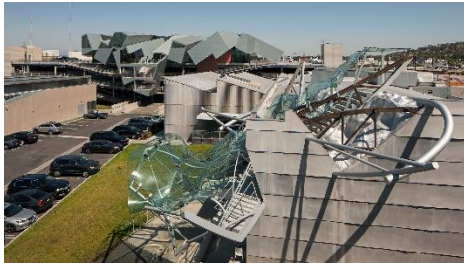
The complex consists of five buildings, all designed by EOMA:
Stealth, Umbrella, Slash, Backslash and now, **Pterodactyl**.

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Wedgewood Complex



The complex consists of five buildings, all designed by **EOMA** and **NAST**: Stealth, Umbrella, Slash, Backslash and Pterodactyl.



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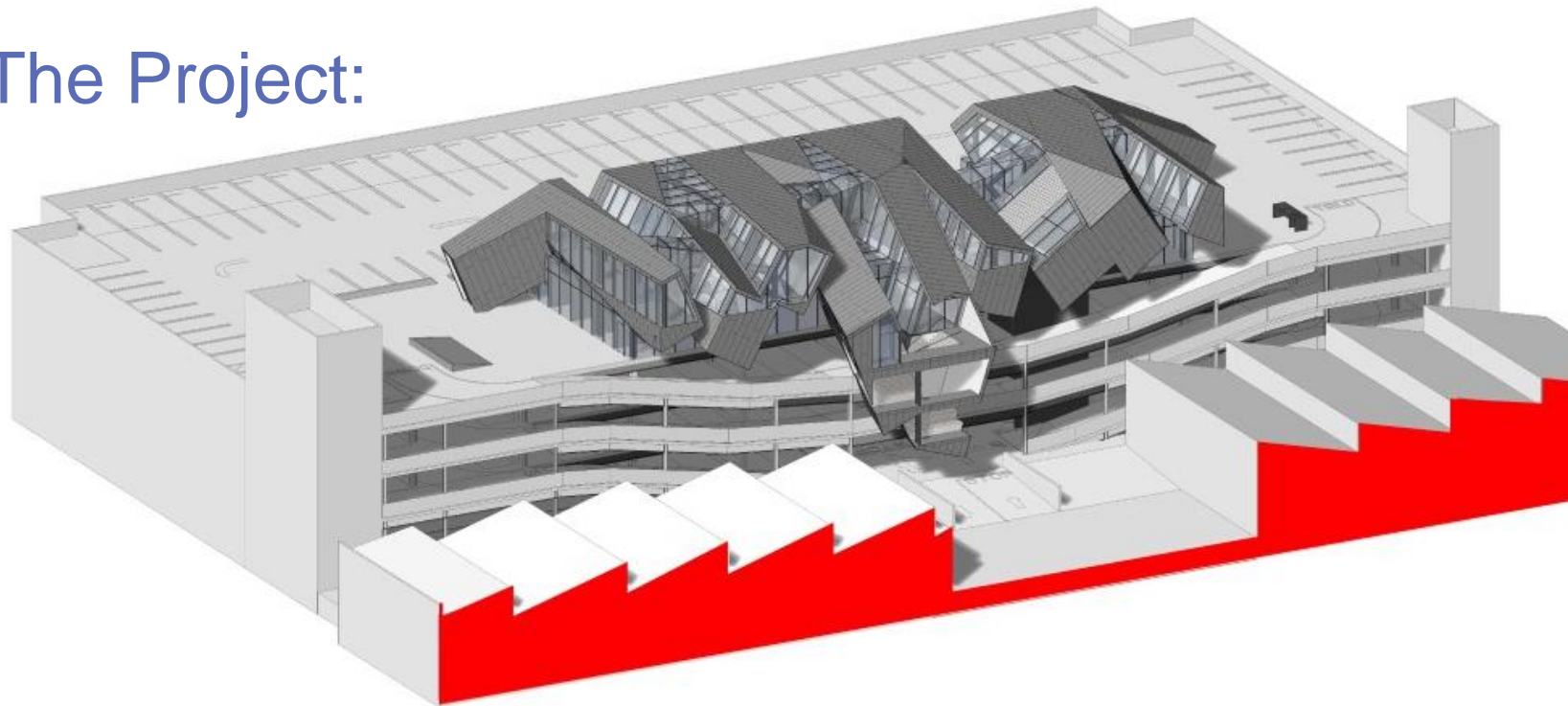
Parking Garage:

Waiting for
the Beast
to Arrive



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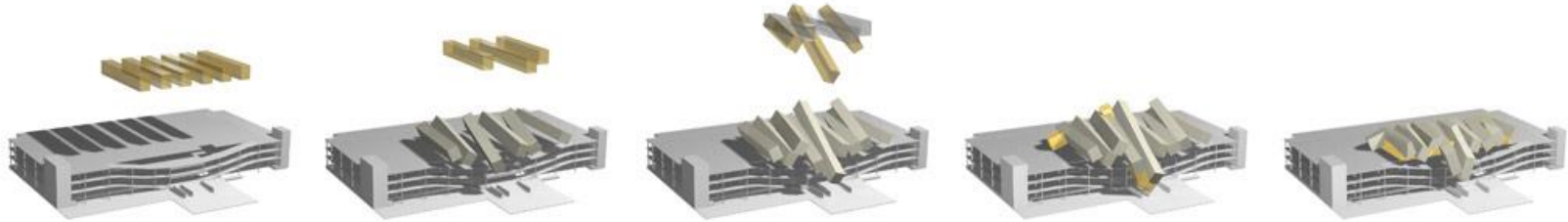
The Project:



The Pterodactyl is the final phase of the **Wedgewood Holly Campus**: office buildings that were originally part of a grouping of contiguous **warehouses** in Culver City that had been added to incrementally since the 1940s. The design premise required a strategic removal of portions of the original buildings in order to establish discrete new building identities, allow sufficient space for landscaping, and accommodate both pedestrian and automobile circulation on the site.

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The Concept:

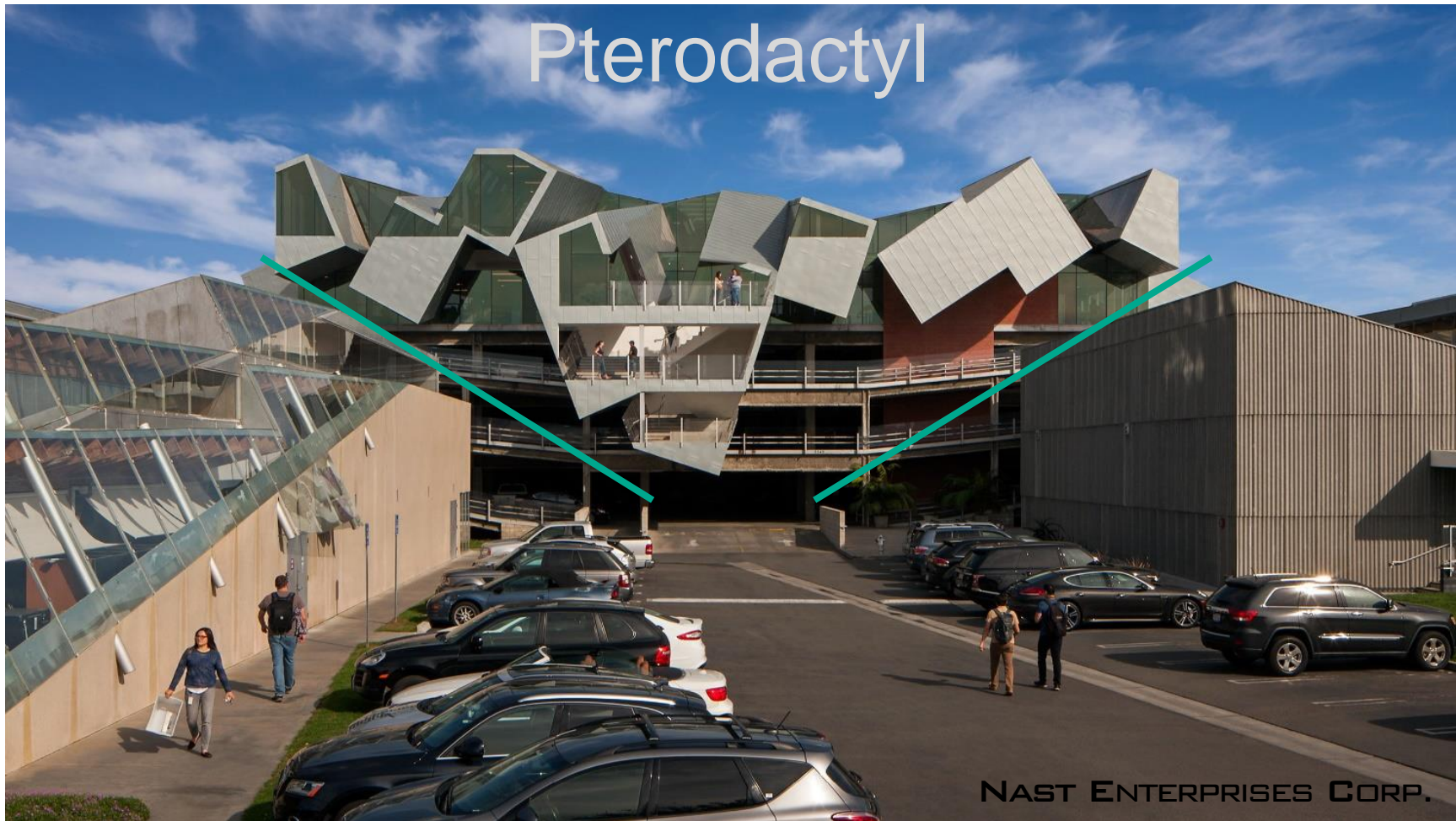


https://youtu.be/ufZF6J25_Qc

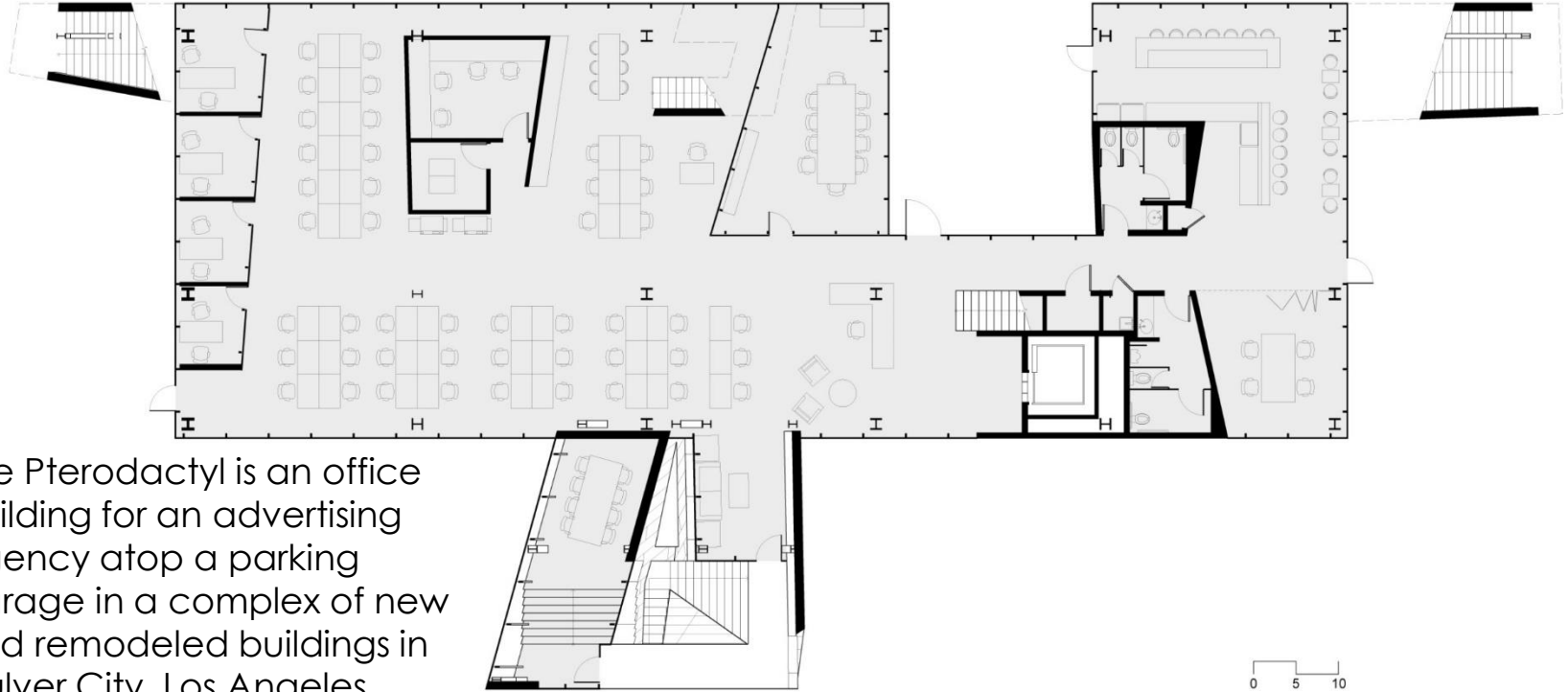
The office building is formed by the intersection of nine rectangular boxes, lifted one level above the garage roof, stacked either on top of, or adjacent to each other, along the west edge of the garage roof. The nine boxes organize essential program elements connected by an interior, second floor bridge. The underside of the boxes is cut to accommodate an open plan on the main office floor below. The boxes are supported on the steel column grid extended from the parking structure.

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Pterodactyl



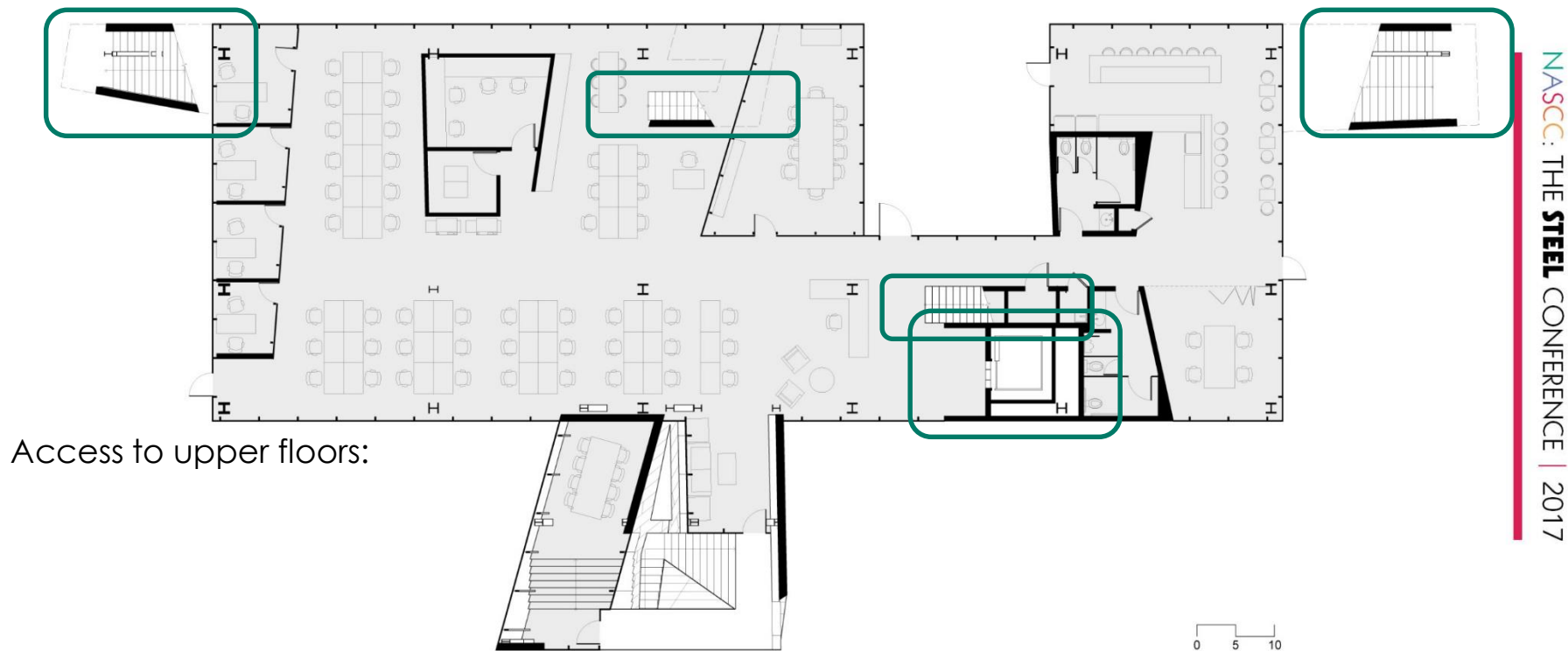
Office Floor Plan:



The Pterodactyl is an office building for an advertising agency atop a parking garage in a complex of new and remodeled buildings in Culver City, Los Angeles.

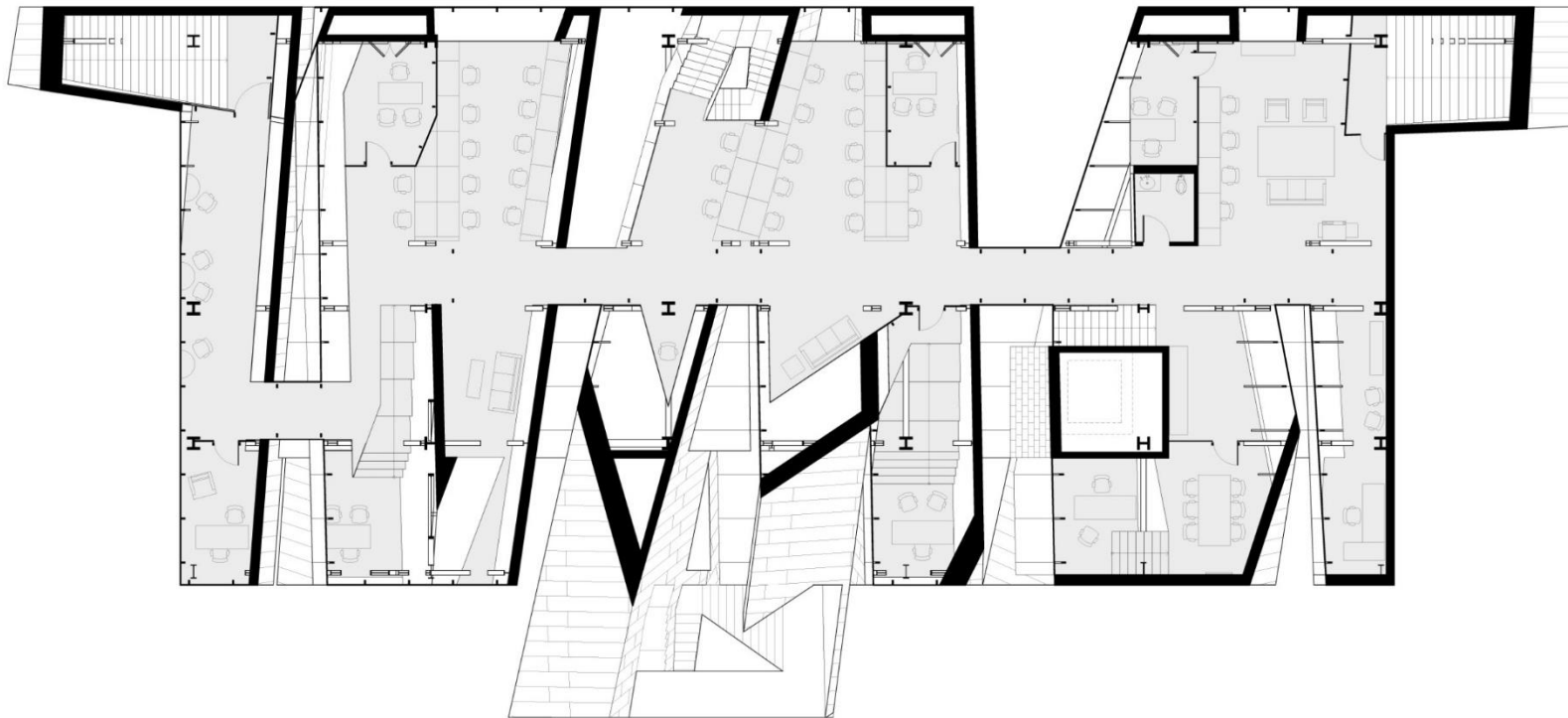
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Office Floor Plan:



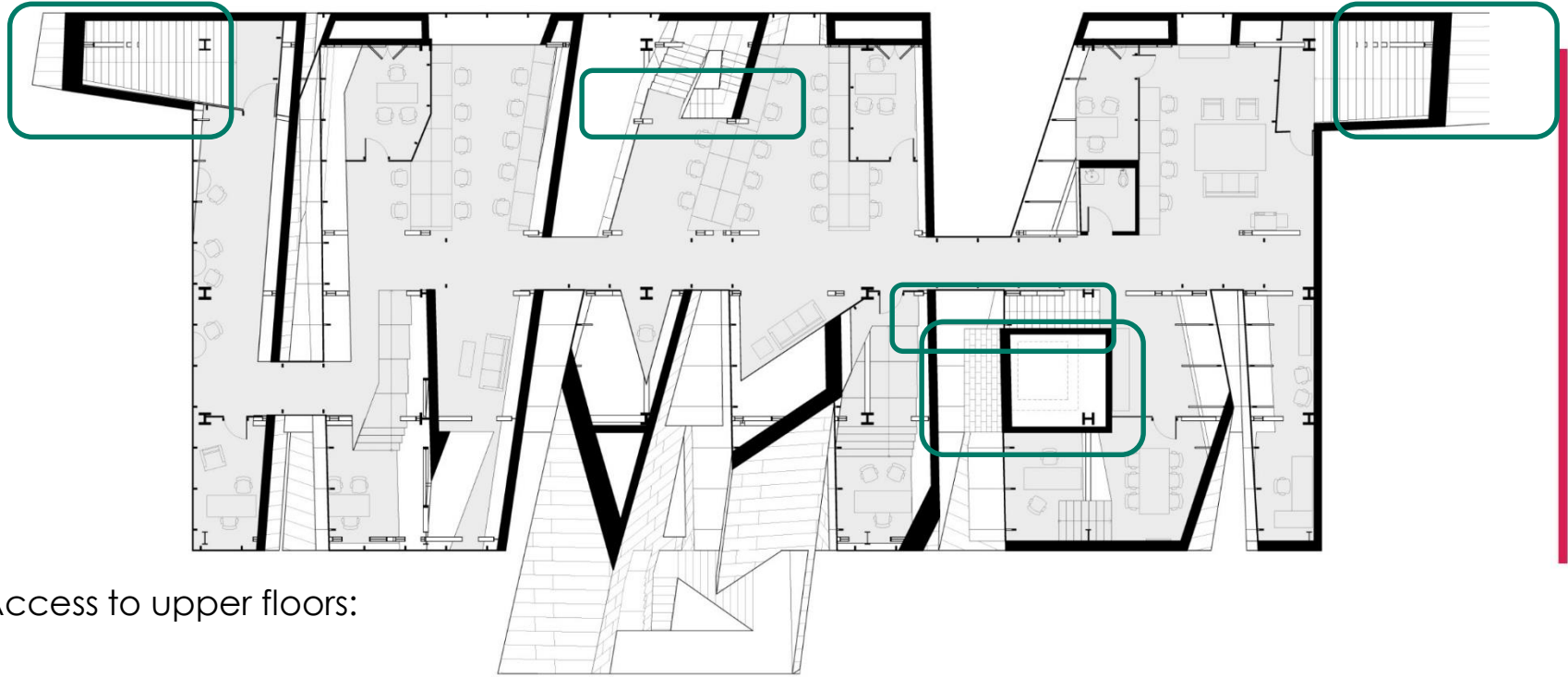
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Mezzanine Floor Plan:



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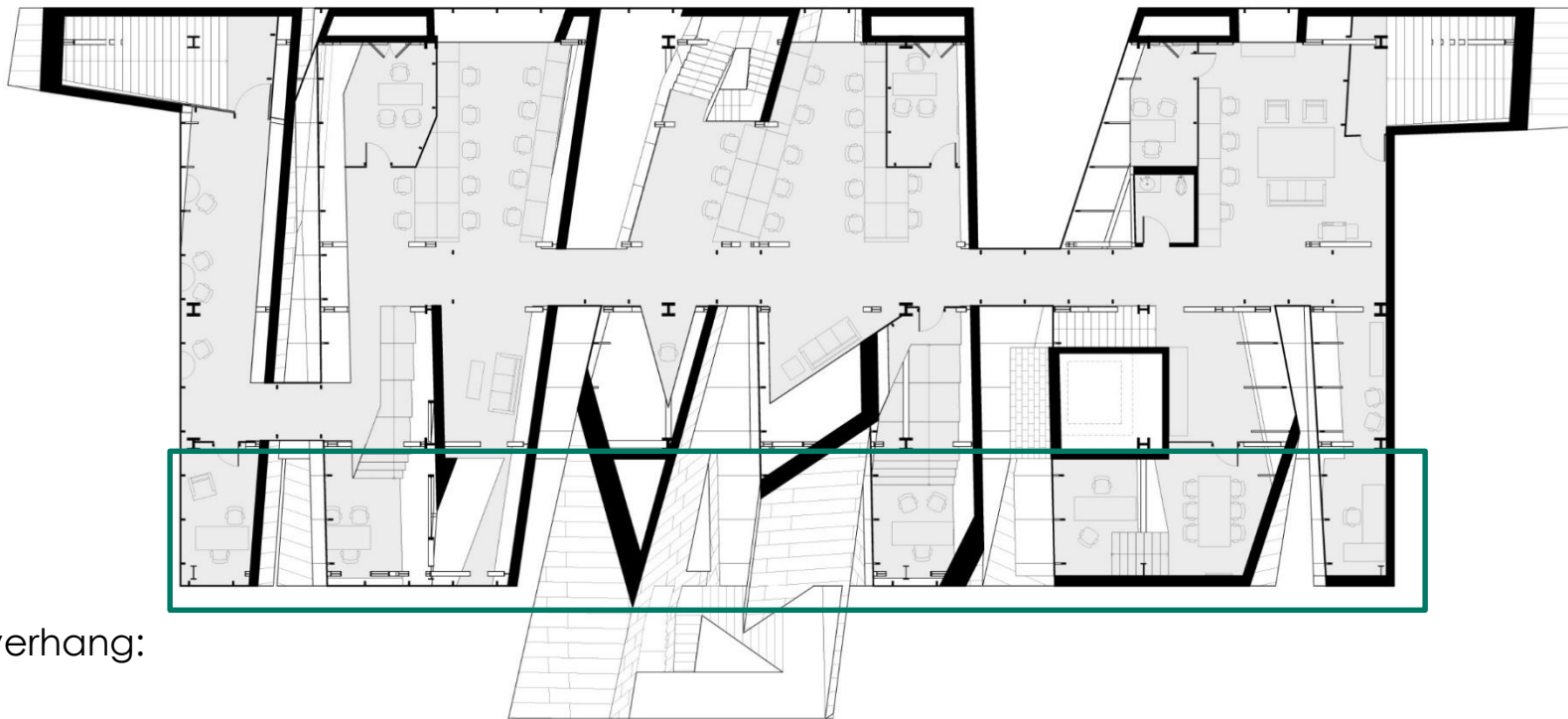
Mezzanine Floor Plan:



Access to upper floors:

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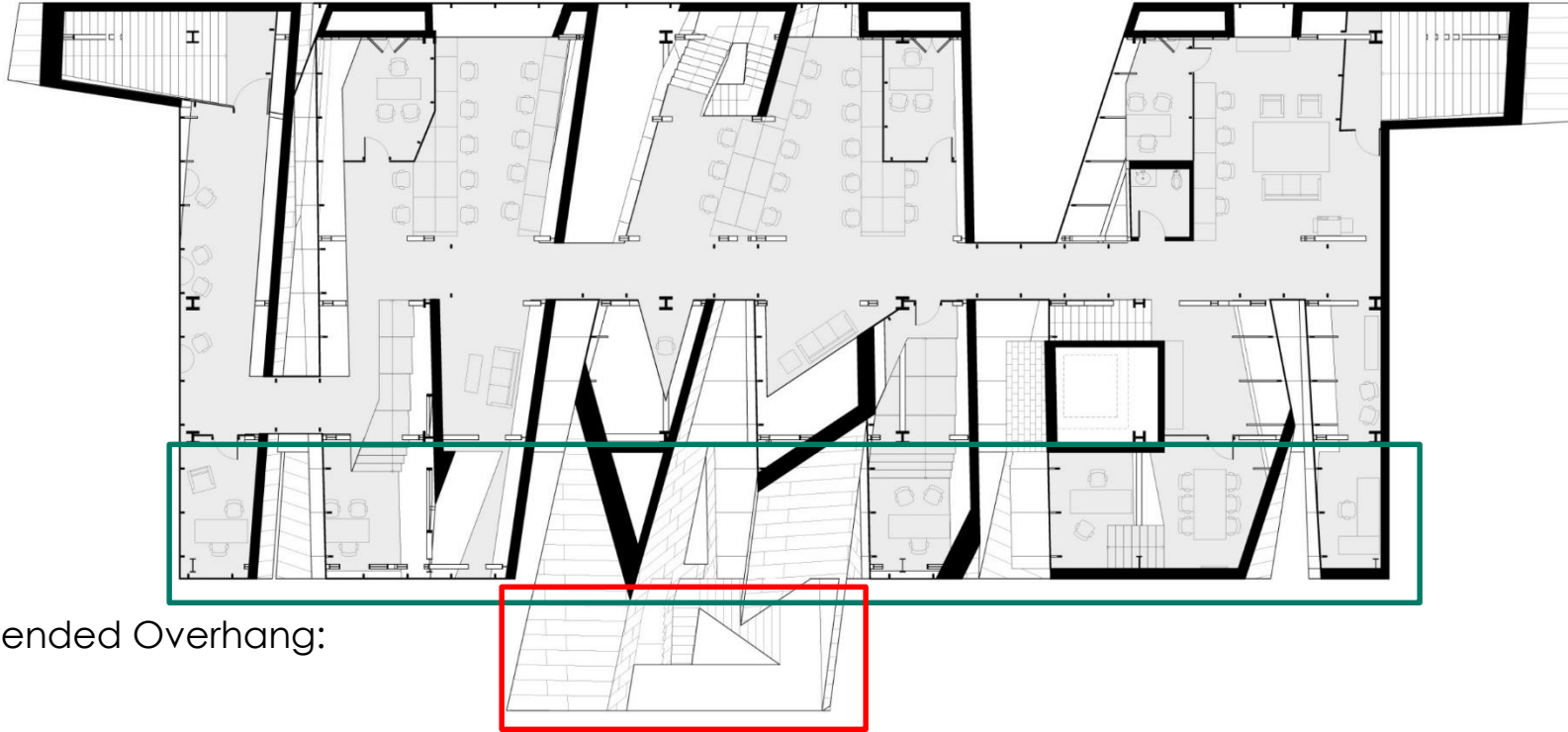
Mezzanine Floor Plan:



Overhang:

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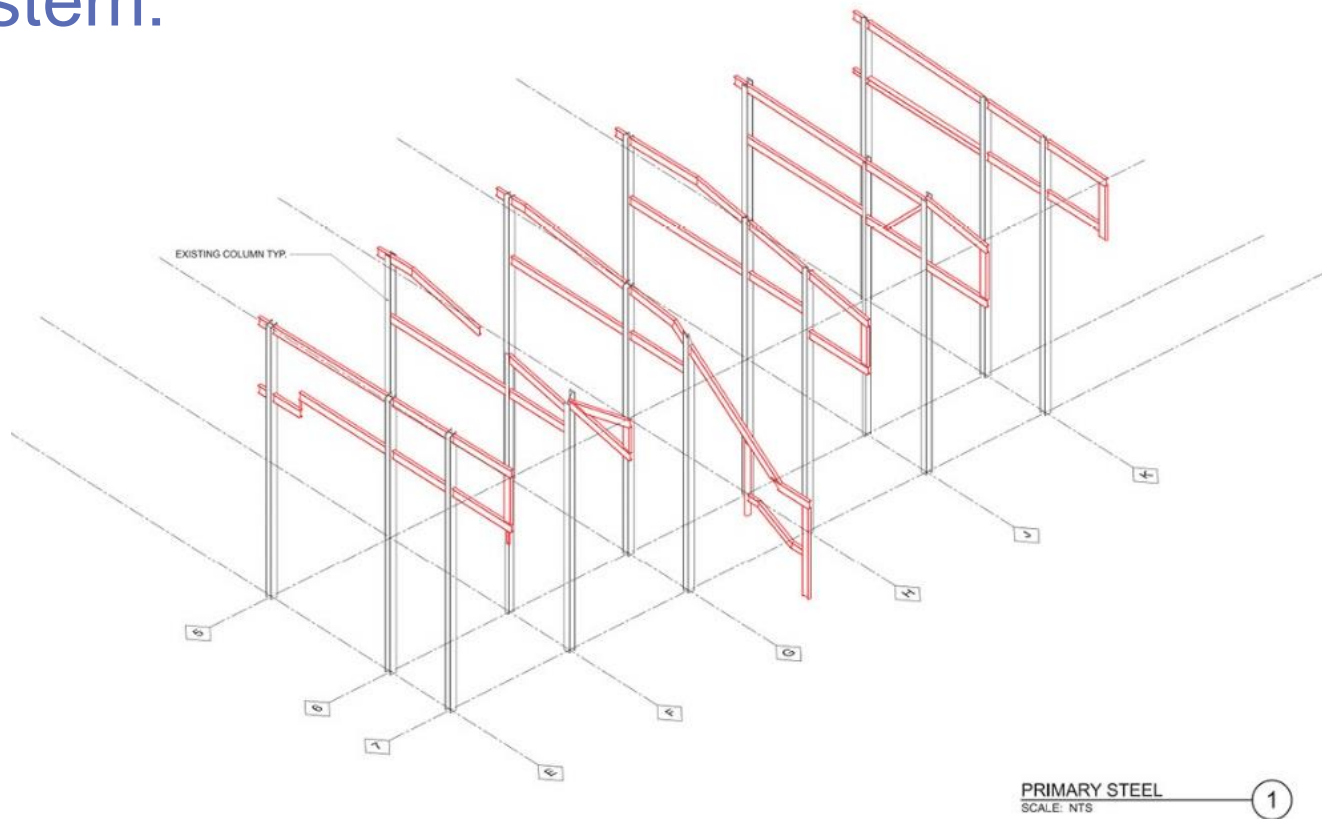
Mezzanine Floor Plan:



Extended Overhang:

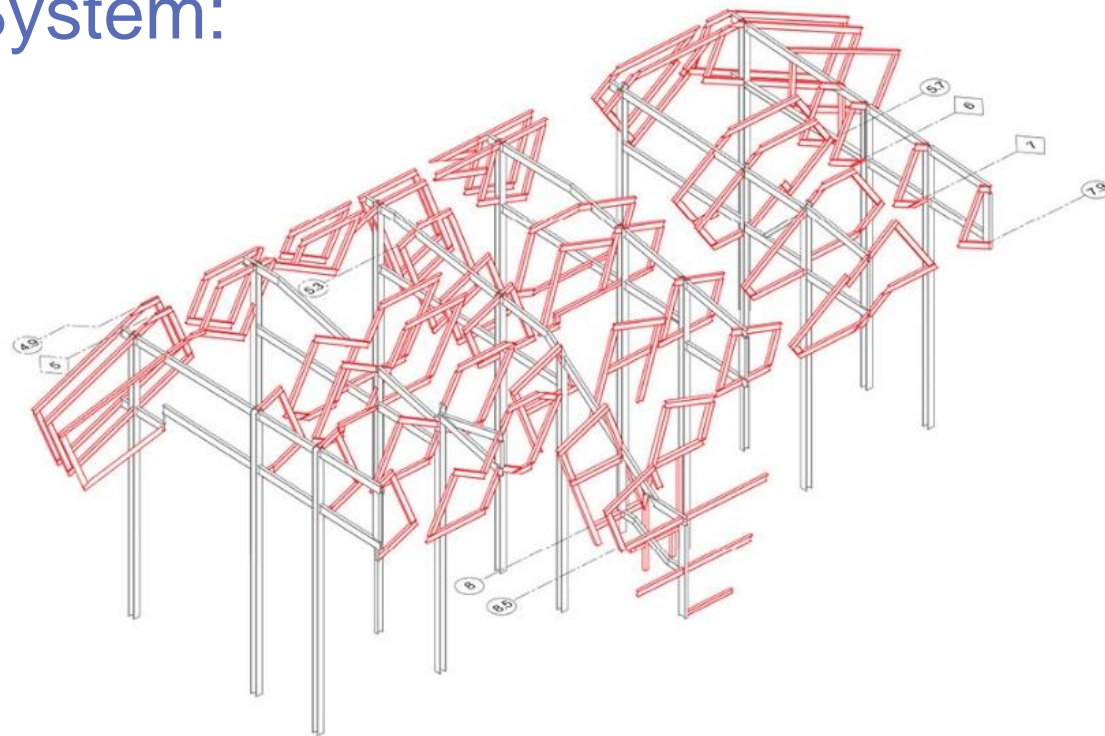
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Main System:



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Secondary System:

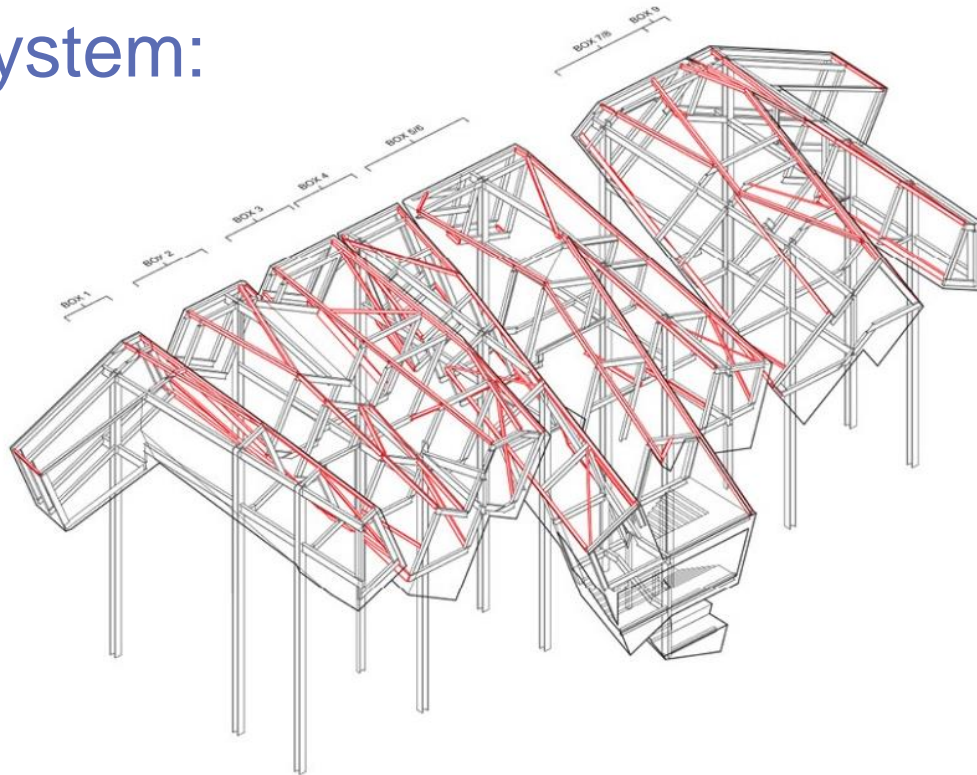


FRAME STEEL
SCALE: NTS

2

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Secondary System:



SECONDARY STEEL
SCALE: NTS

3

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Construction:



Construction:



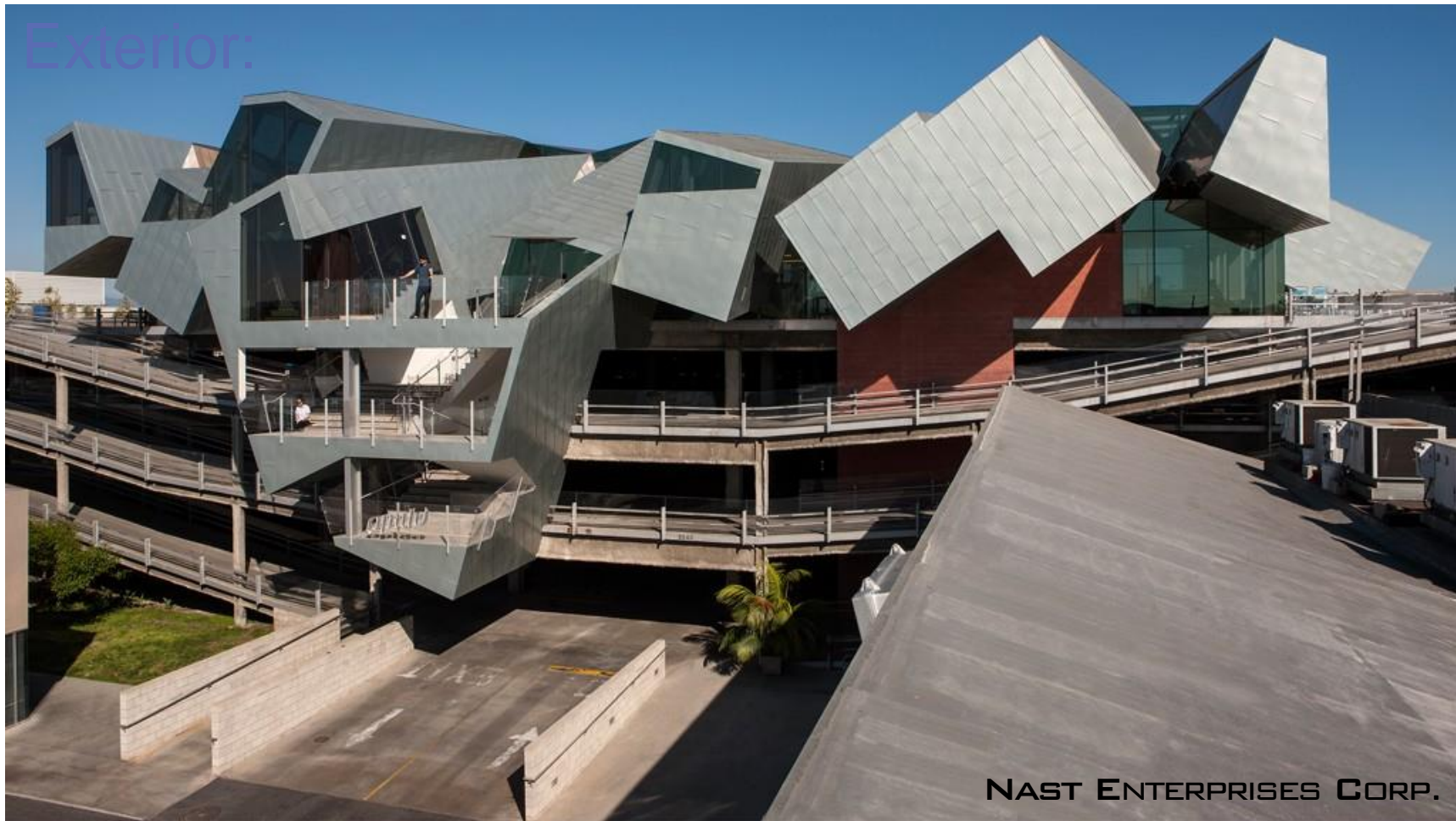
Construction:



Exterior:



Exterior:



Exterior:



Exterior:

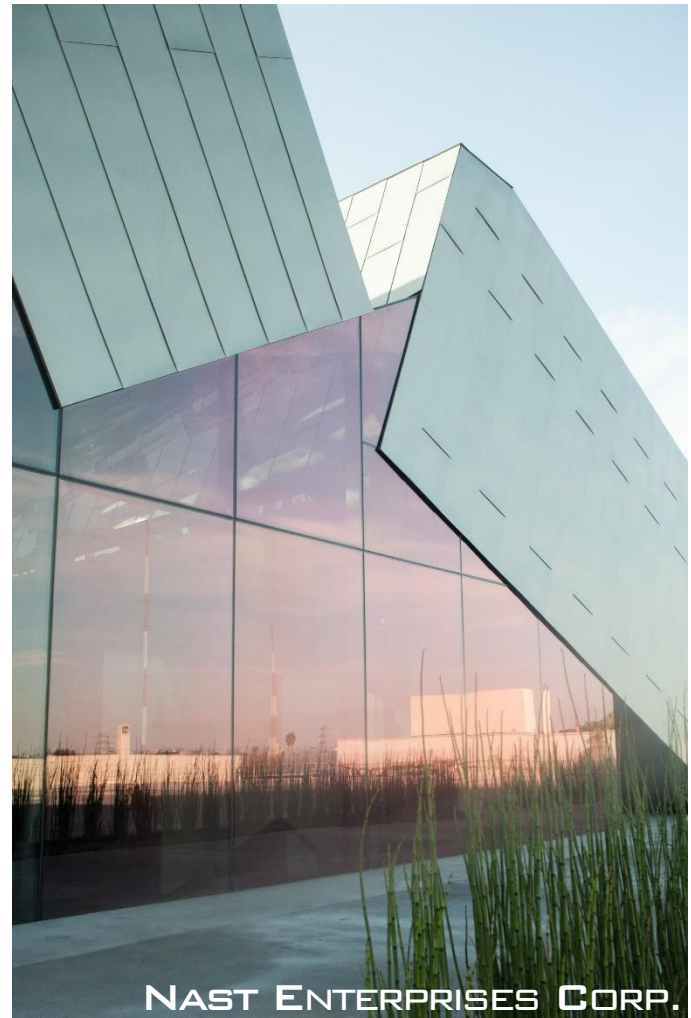
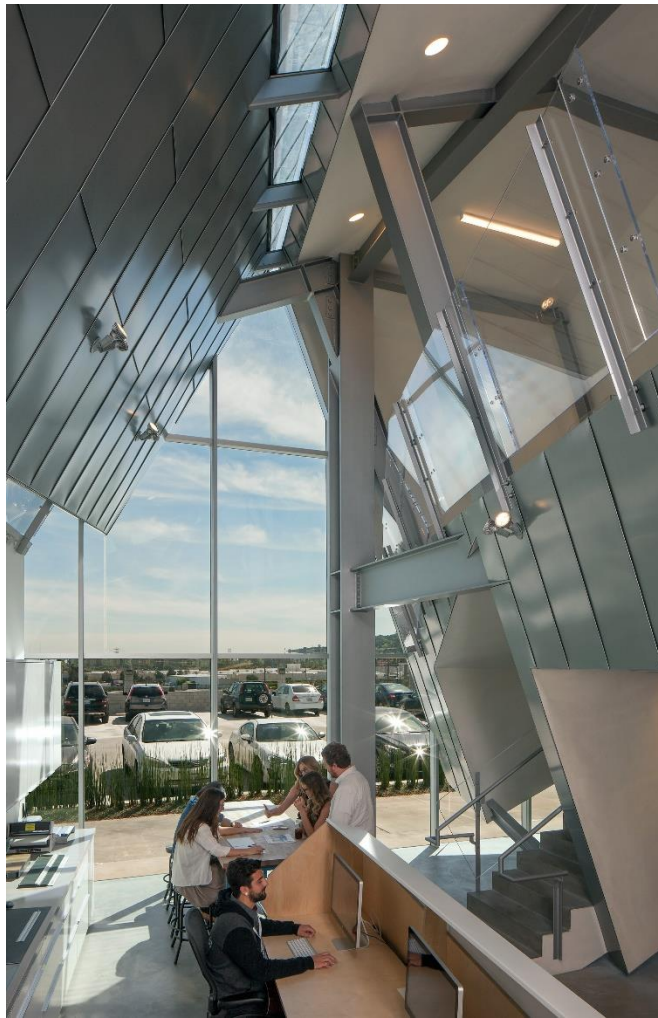


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Exterior:



Exterior:
Interior:



Exterior:



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Interior:



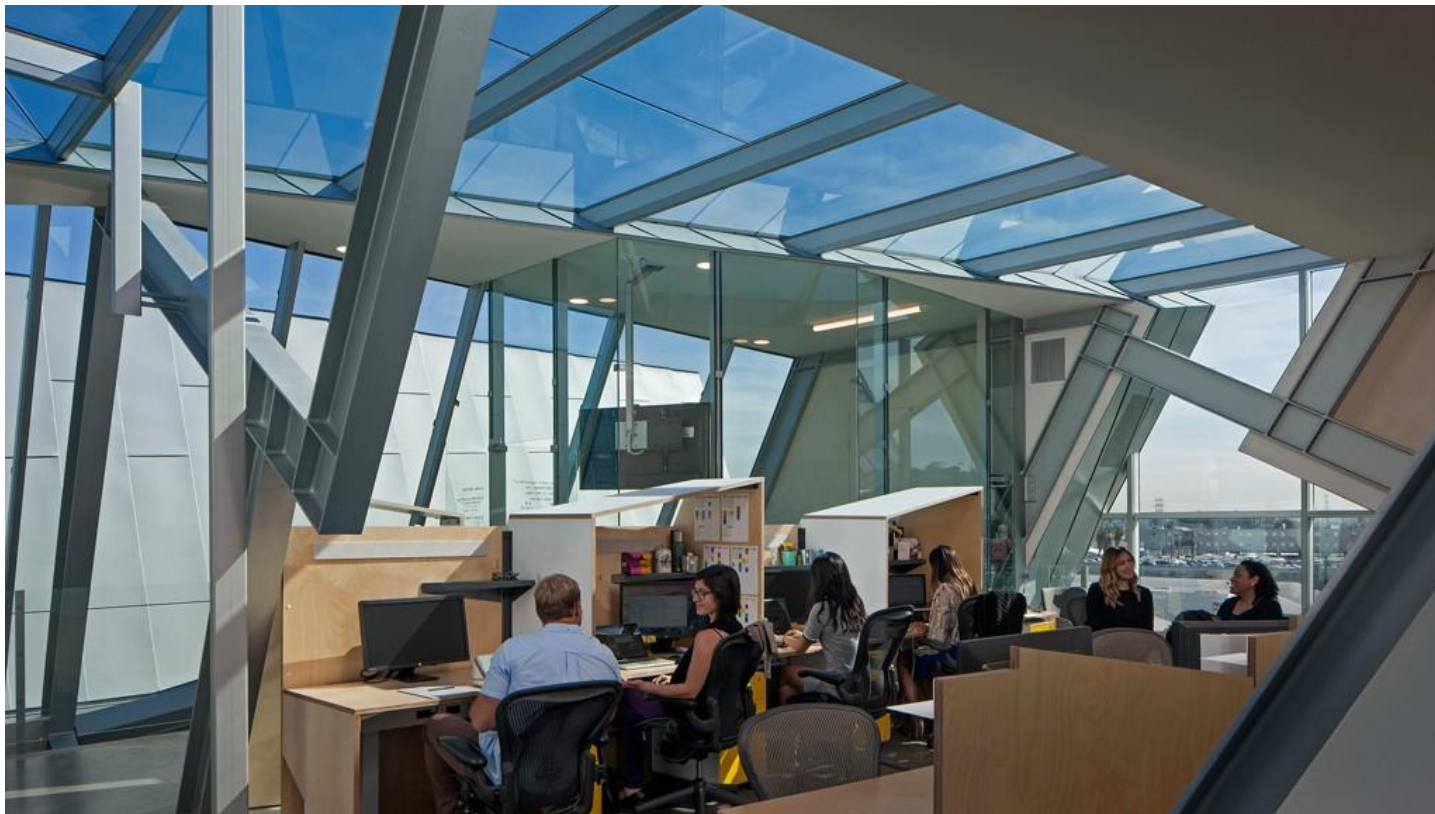
Interior:



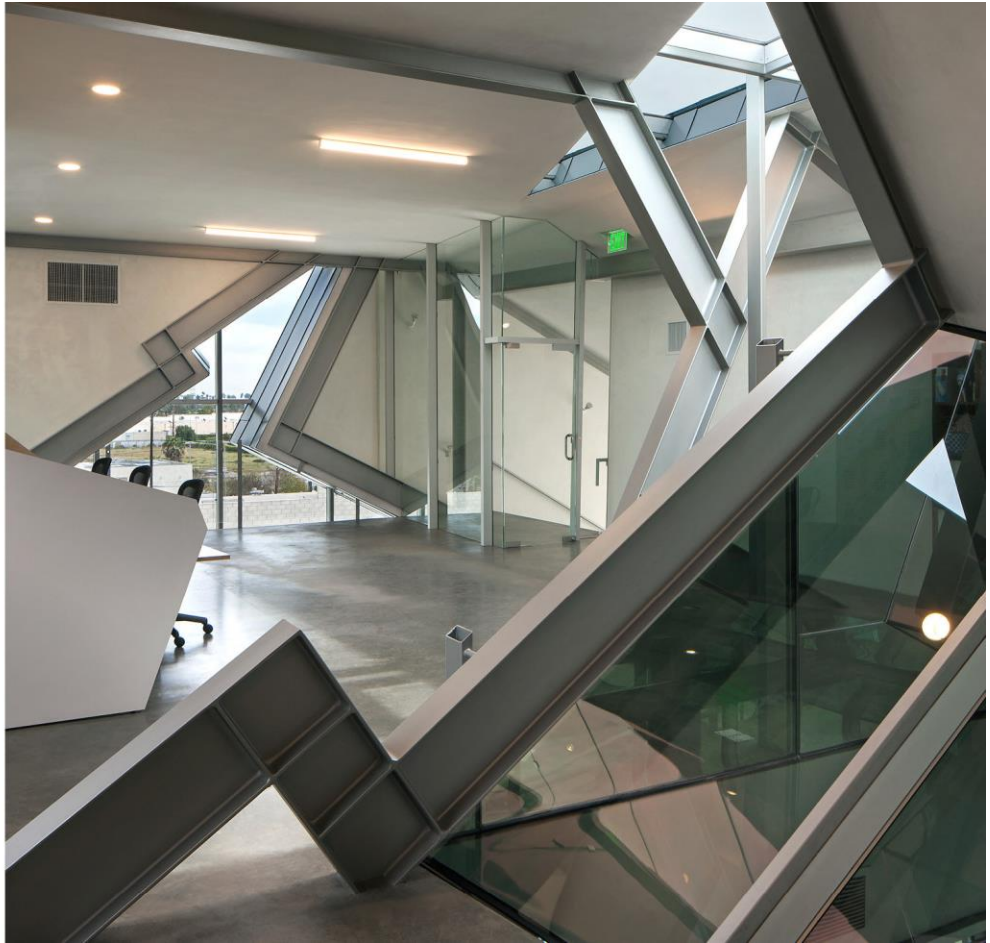
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Interior:



Interior:

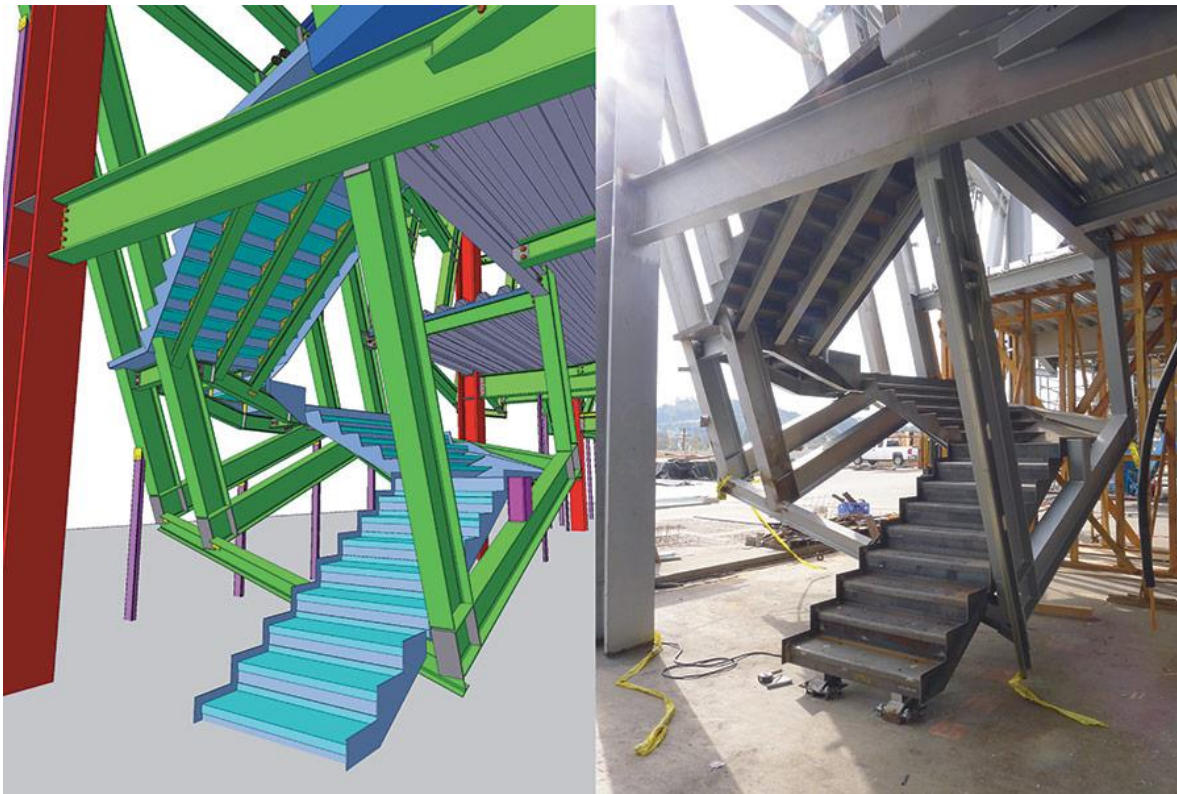


Interior:



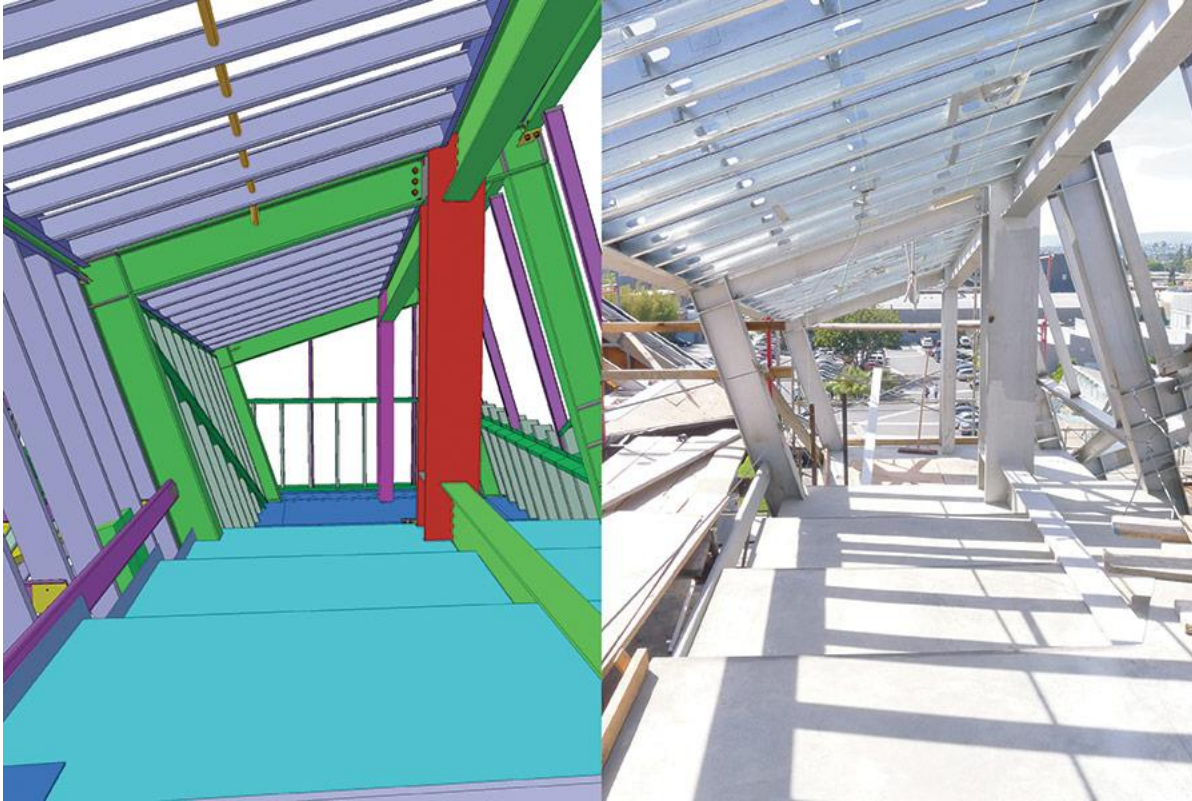
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D.P. vs. Construction:



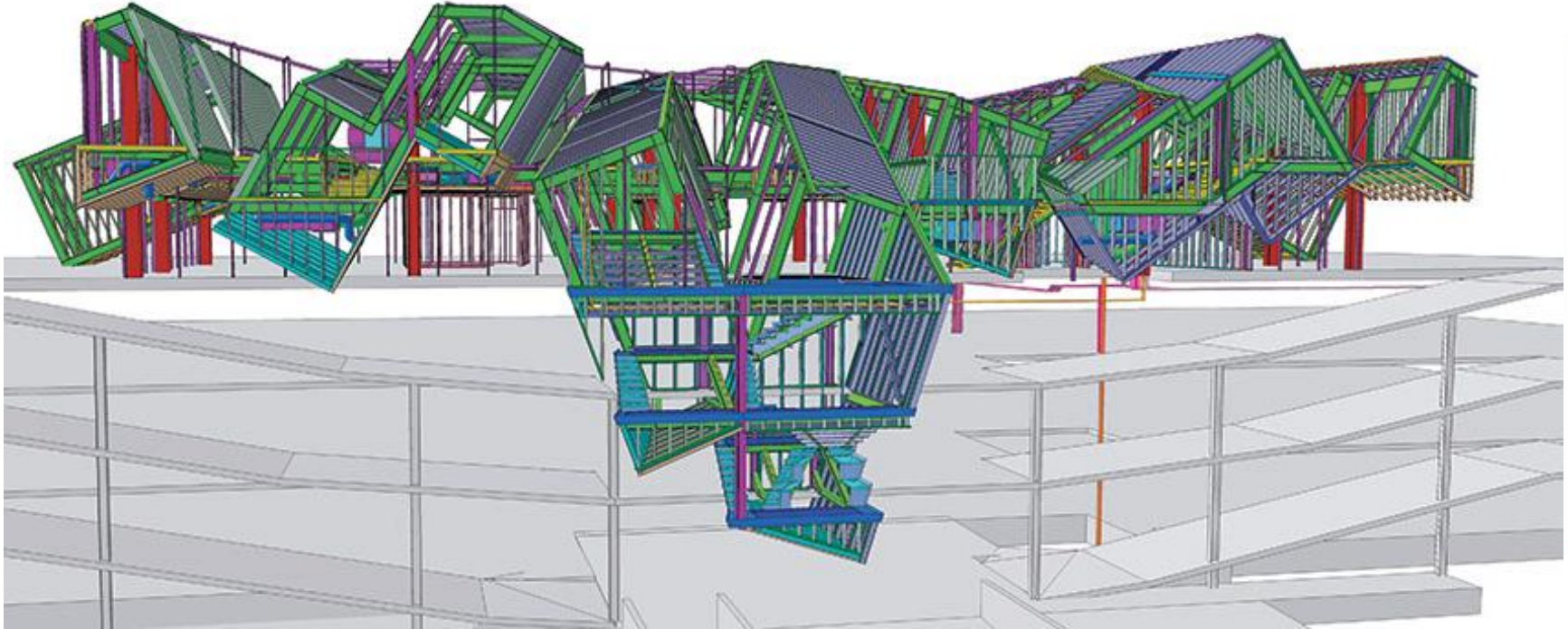
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D.P. vs. Construction:

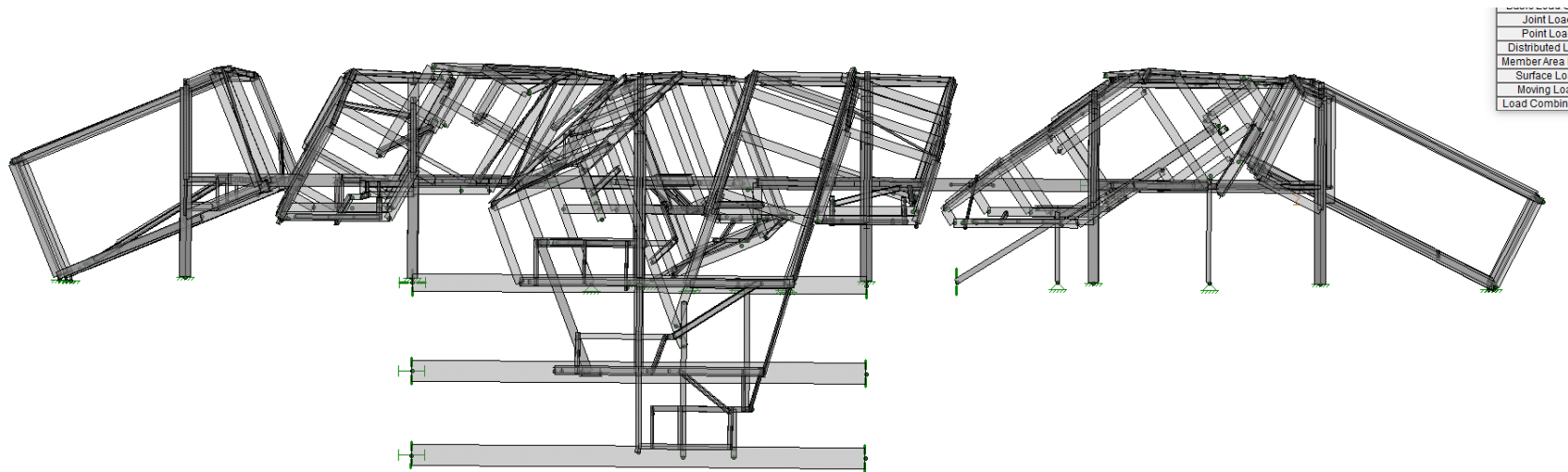


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D.P. Rendering:



RISA 3D Rendering:



Pterodactyl



Questions.



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