



Architecture Design
Portfolio

Selected works by

Arpit Malhotra.

www.arpitmalhotra.com

+1 734 4963532

Arpit Malhotra
Architect | Entrepreneur | Exploring AI | Content Creator

02 - 04	Collective Housing Systems
05 - 07	Architecture of Tomorrow Technical Aesthetics
08 - 10	Wellness Centers, Washington Const. Administration
11 - 13	Columbia University Facades Preservation Conservation
17 - 19	Adaptive Reuse of Urban Ruins Speculation Design Thinking
20 - 22	Ai x Architecture Certificate Generative AI for Business
26 - 28	Brochure Design Marketing Communications
29-30	Podcast Series Public Engagement Storytelling
31-31	Resume

I/ Collective Housing, Detroit

Building Systems

Architecture Design
Portfolio

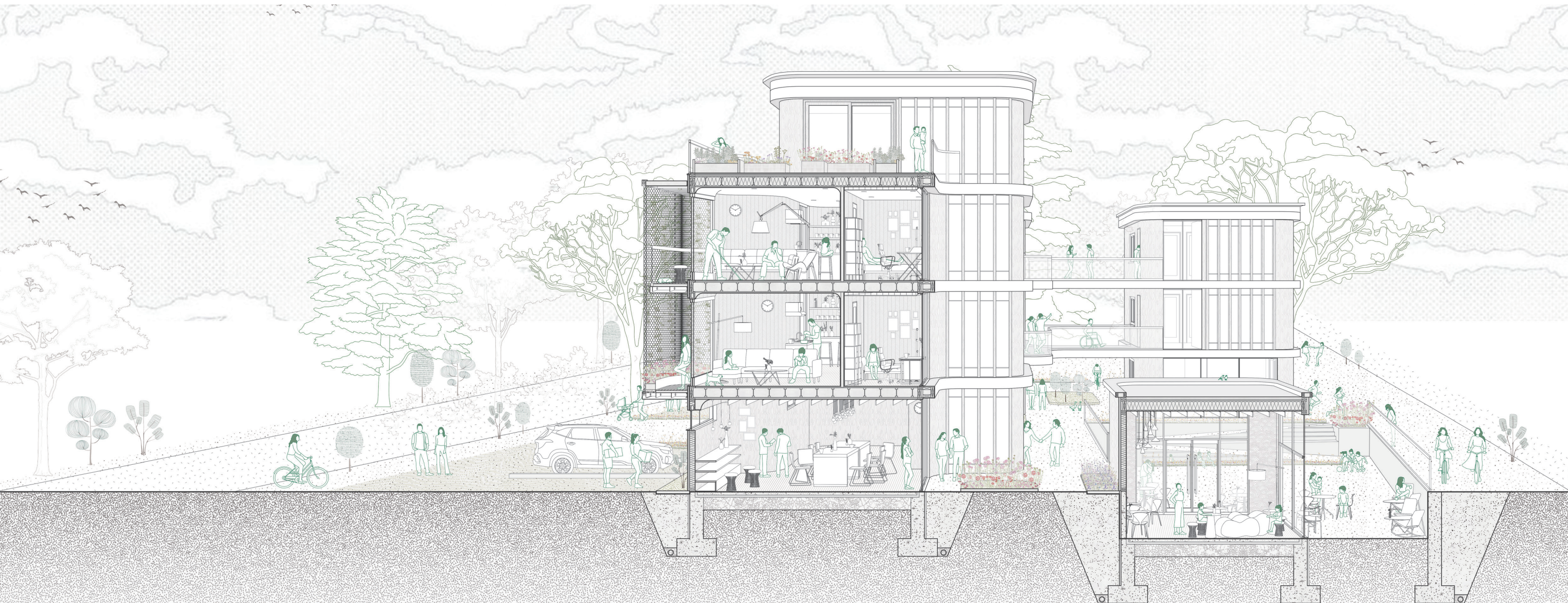
www.arpitmalhotra.com
+1 734 496 3532

Project Type
Academic Studio Project
Winter 2025

This project explored affordable housing solutions tailored to Detroit's local regulations, climate, and market demands. The design focused on efficiency, adaptability, and cost-effectiveness within a tight project timeline. I designed, detailed, and produced drawings for the building systems, conducted cost analysis, and ensured code compliance while supporting sustainable, adaptable, and cost-effective design.

Mentored
By Claudia Wigger
Craig Borum

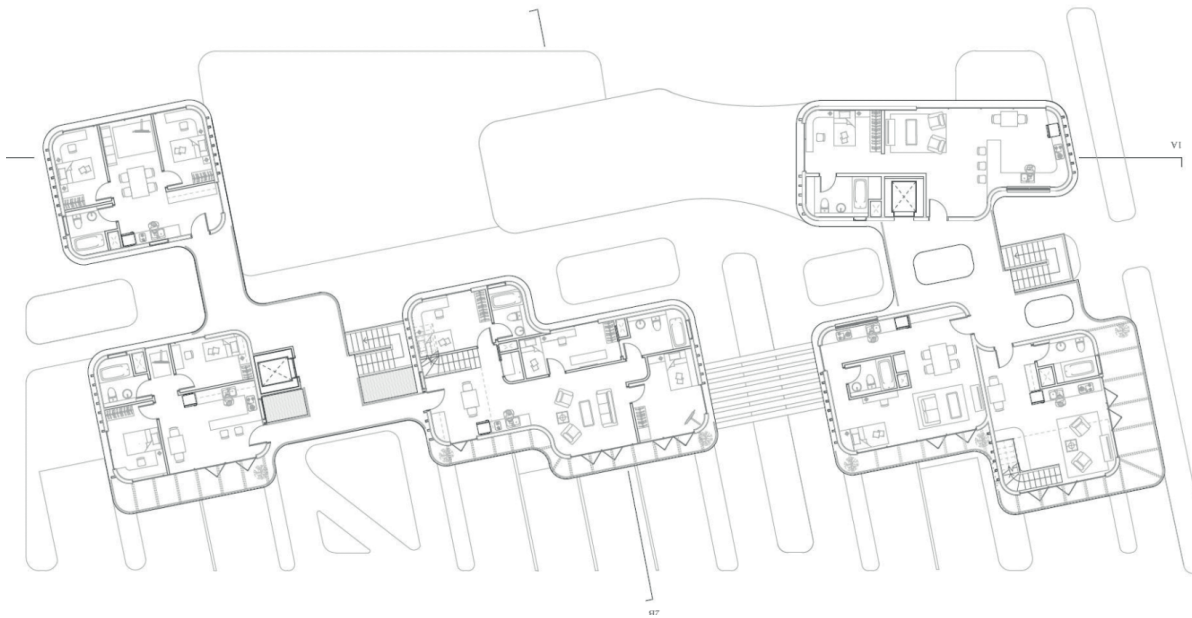
Team : Anna Peterson, Hui-Cheng
Location : Detroit, US
Technical Booklet : [View complete documentation online](#)
Role : Reviewed regulations, Integrated systems, developed details, and produced drawings



PERSPECTIVE SECTION
SCALE: 1/4"=1'-0"



Perspective
External Courtyard



Plan
Typical Floor Plan



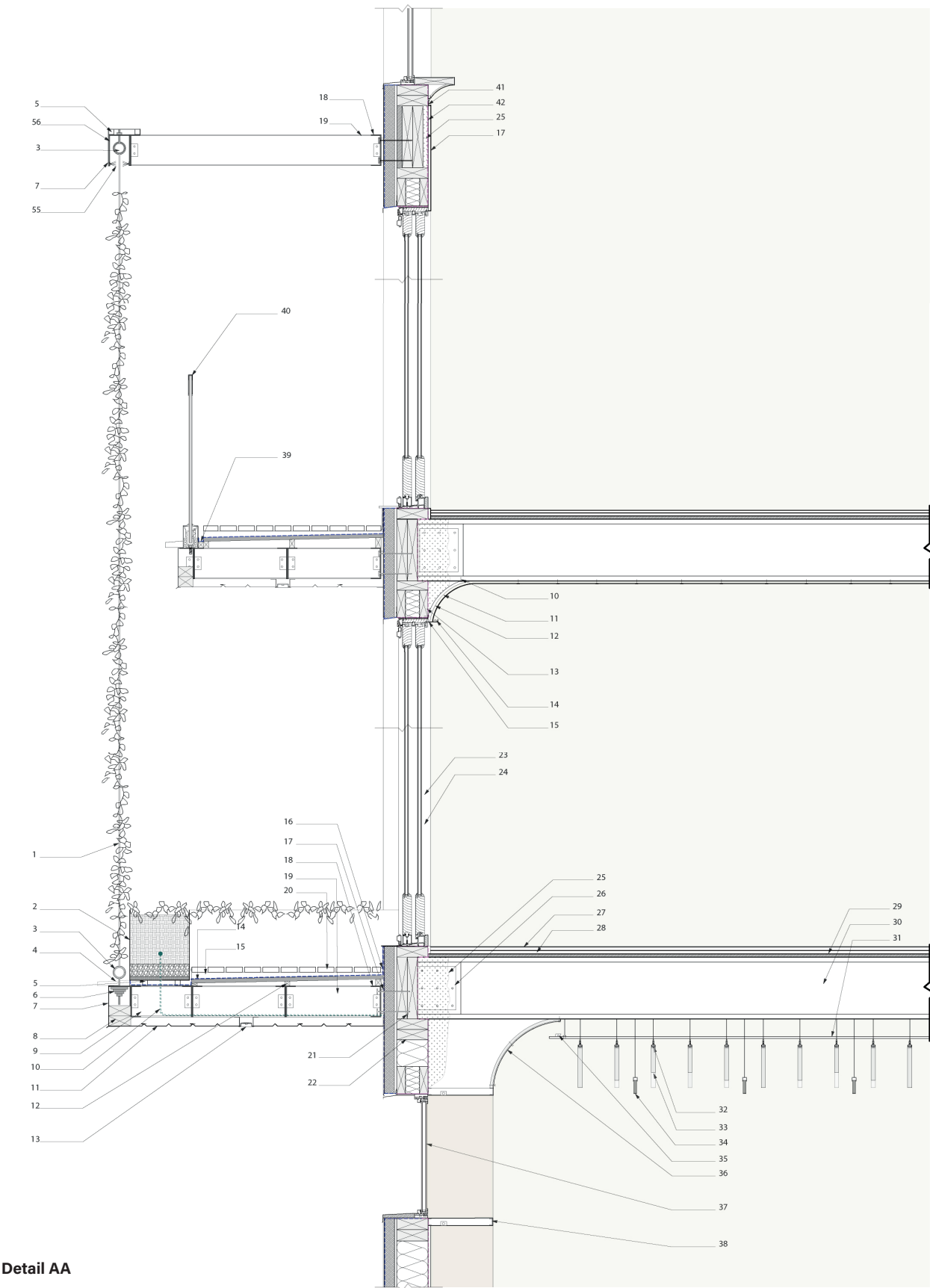
Perspective
Studio Balcony



Elevation
South West side

Legend

- 1. Mesh Facade
- 2. 6" Depth Aluminum Planter Box
- 3. Mesh Rings as per Manufacturer
- 4. Scupper as per Plan
- 5. Aluminum Hollow Box Channels
- 6. Bottom Clevis Bolts as per Manufacturer
- 7. Fascia
- 8. Blocking
- 9. Drainage Box
- 10. Fresh Water Pipe
- 11. Perforated Soffit Panels
- 12. Sleepers (Stepped Down to Achieve 1/8" Slope)
- 13. Exterior Flushed Lighting Fixture
- 14. OSB Board 3/4"
- 15. Sleeper
- 16. Flashing
- 17. 0.4" Gap for Drainage
- 18. C Channels as per Structural Brackets
- 19. Brackets
- 20. 1x6 Wood Decking
- 21. Joist Headers
- 22. Blocking
- 23. 6"x6" LVL Column as per Plan
- 24. Sliding Door as per Manufacturer
- 25. Spray Foam Insulation
- 26. Web Stiffeners
- 27. Floor Finish
- 28. Acoustic Insulation
- 29. OSB Board
- 30. I-Joist 11 7/8" Deep @ 16" o.c.
- 31. Drywall
- 32. Anchor as per Manufacturer
- 33. Felt Works Acoustic Panels
- 34. Track Lights as per Spec
- 34. Cove Lighting
- 36. Cove Ceiling with Curved Ply Wood Support
- 37. Fixed Clerestory Window
- 38. Al. channels for Inbuilt Shelving
- 39. Drain
- 40. Glass Railing with Metal Cover
- 41. Screws as Required
- 42. 1/4" Drywall
- 43. Wooden Support for Coved Ceiling
- 44. LVL Header (as per Structural Engineer)
- 45. LED Strip
- 46. Aluminum Channel
- 47. Aluminum Box Channels
- 48. U Channel
- 49. Top Clevis Bolt (as per manufacturer)
- 50. On site - framed Fascia
- 51. Brush Seals
- 52. Cornice Moulding with LED Channel
- 53. Vapor Barrier
- 54. Drywall
- 55. Brush Seals
- 56. U Shaped Channel



Detail AA
9" 1'-6" 3'

Axonometric Wall Section
3' 6' 9'

II/ Housing of Tomorrow, France

Technical Aesthetics

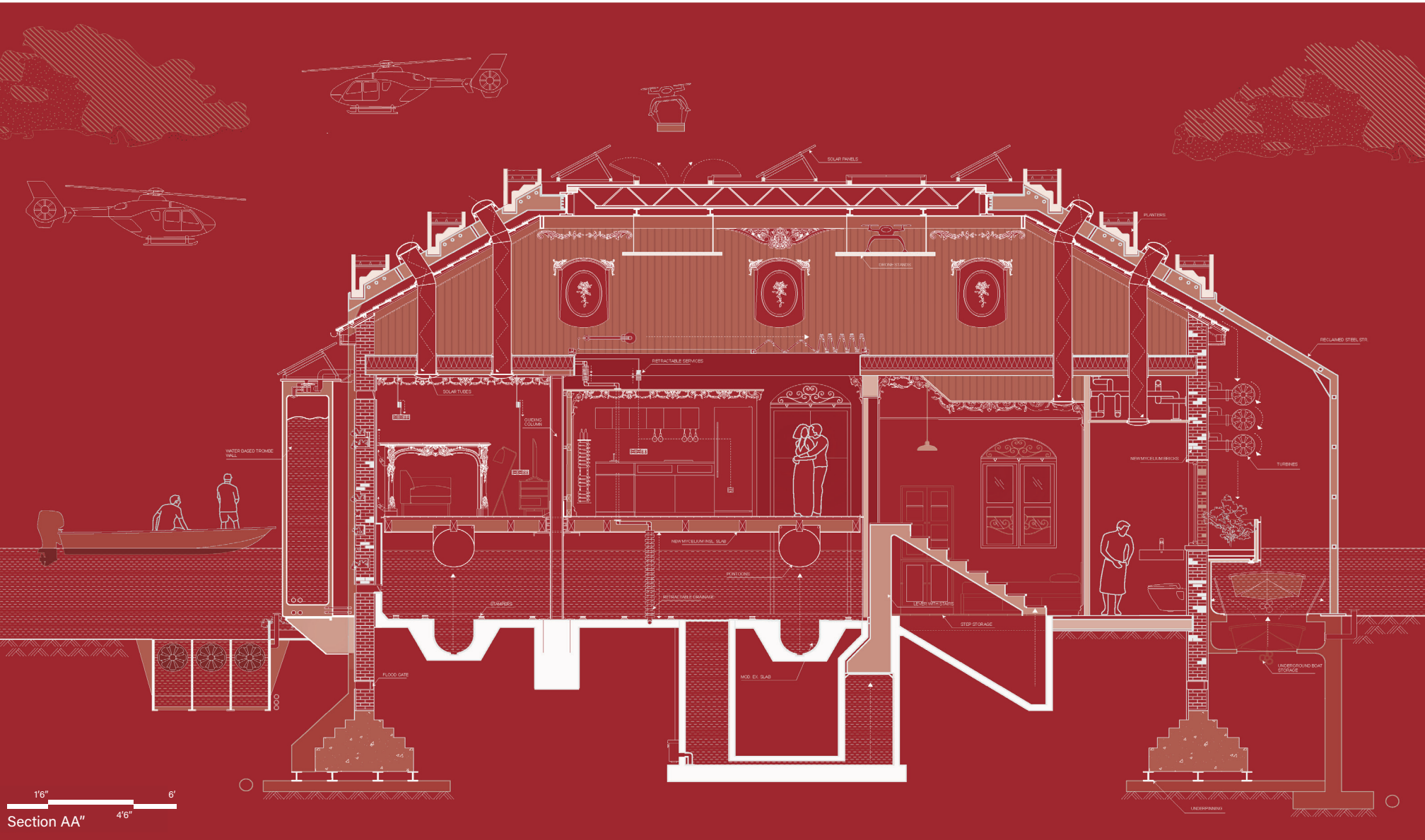
Architecture Design
Portfolio

www.arpitmalhotra.com
+1 734 496 3532

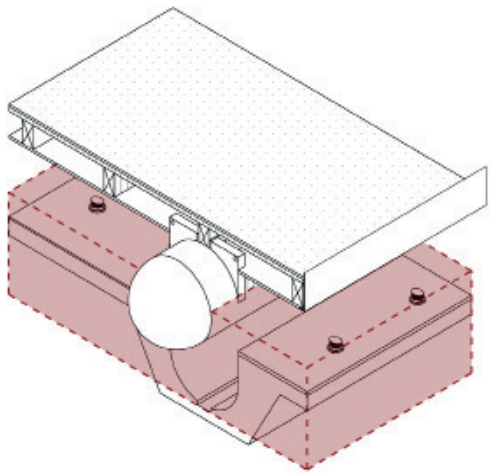
Developed with the theme of the ‘Chrono Soils’ Pavilion, Venice Biennale 2025, this drawing explores flood-resilient cities through adaptation rather than abandonment, using existing infrastructure as a framework for layered interventions and transforming informal networks into micro-resilience hubs.

Mentored
By Clément Blanchet Architecture,
Paris, France

Commissioned for : Venice Biennale 2025
Status : Unrealized
Timeline : Summer 2025
Location : Paris, France
Softwares : Autocad, Rhino, Adobe Suite



The design incorporates buoyant flooring systems that allow occupied levels to rise with floodwaters, self-closing flood doors for interior protection, and energy-harvesting systems that generate power from water movement. High-tech monitoring and adaptive infrastructure envision a future-ready urban fabric capable of responding in real time to environmental challenges while preserving community and cultural continuity.



III/ Senior Wellness Center, Washington DC

Construction Administration

Architecture Design
Portfolio

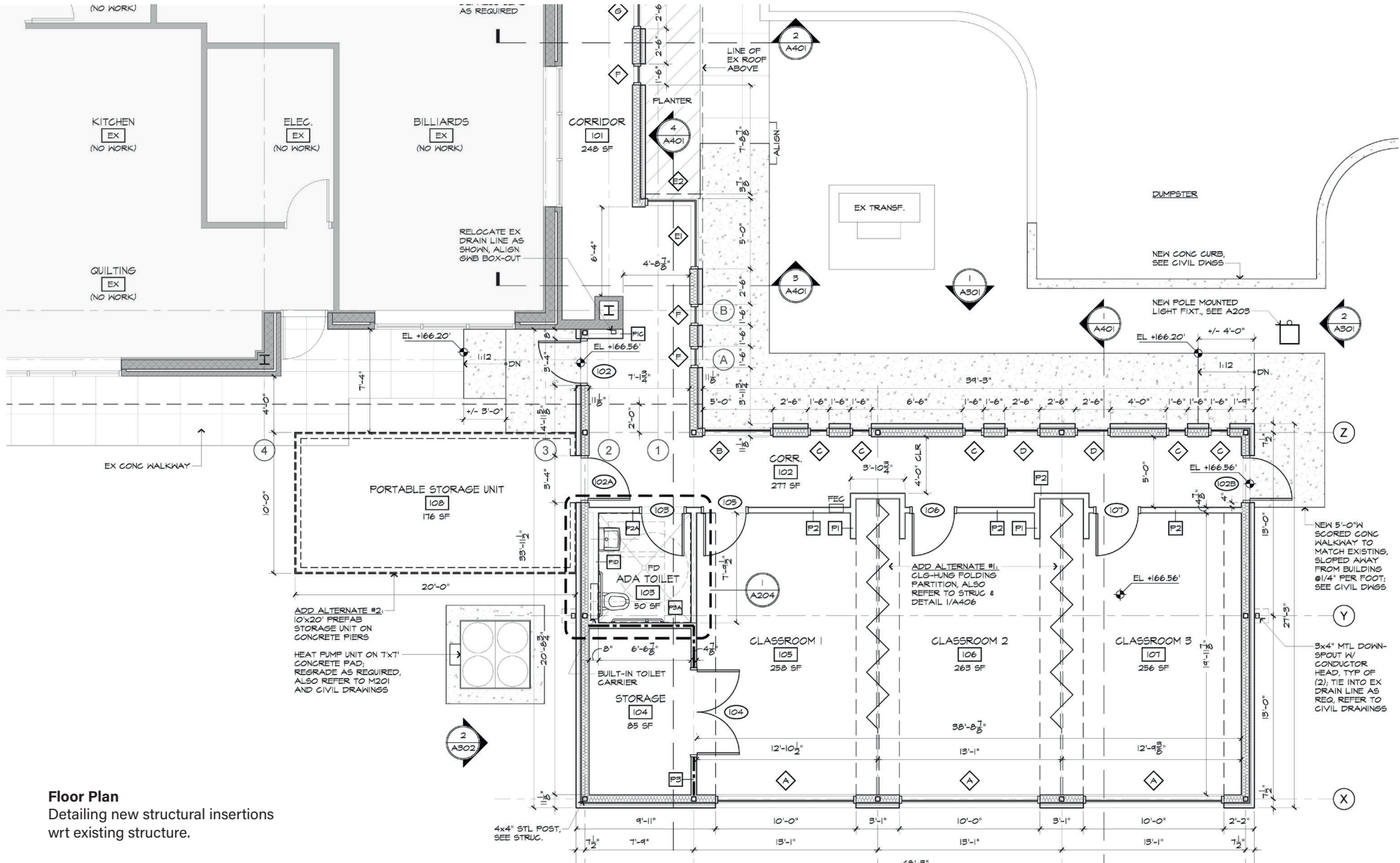
www.arpitmalhotra.com
+1 734 496 3532

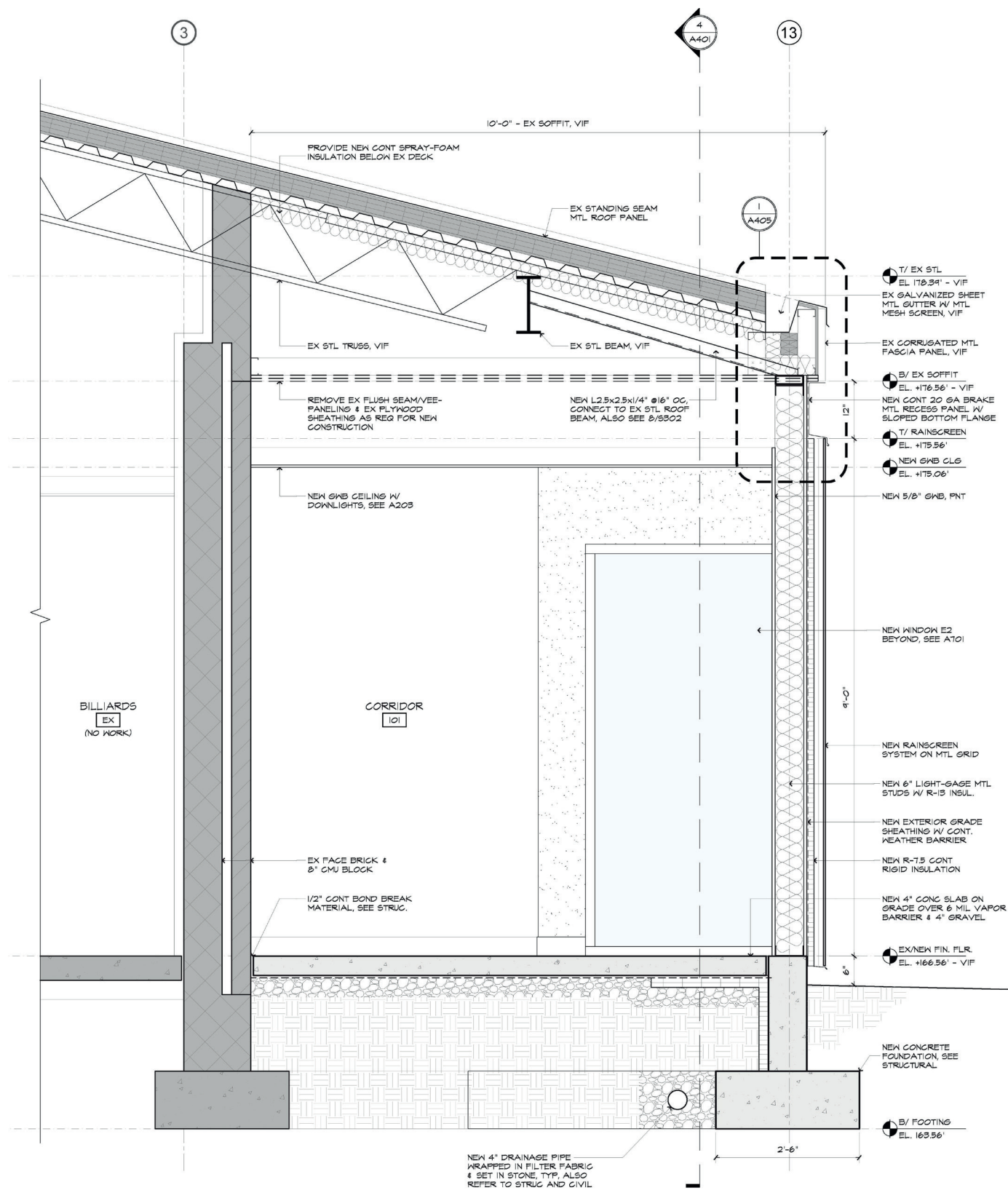
At dp+ partners in Washington, D.C., I contributed to two senior wellness center additions, spanning all phases from concept design to construction close-out. This experience strengthened my skills in team coordination, drawing production, financial tracking, and project management support.

Mentored
By dp+ partners architects,
Washington DC

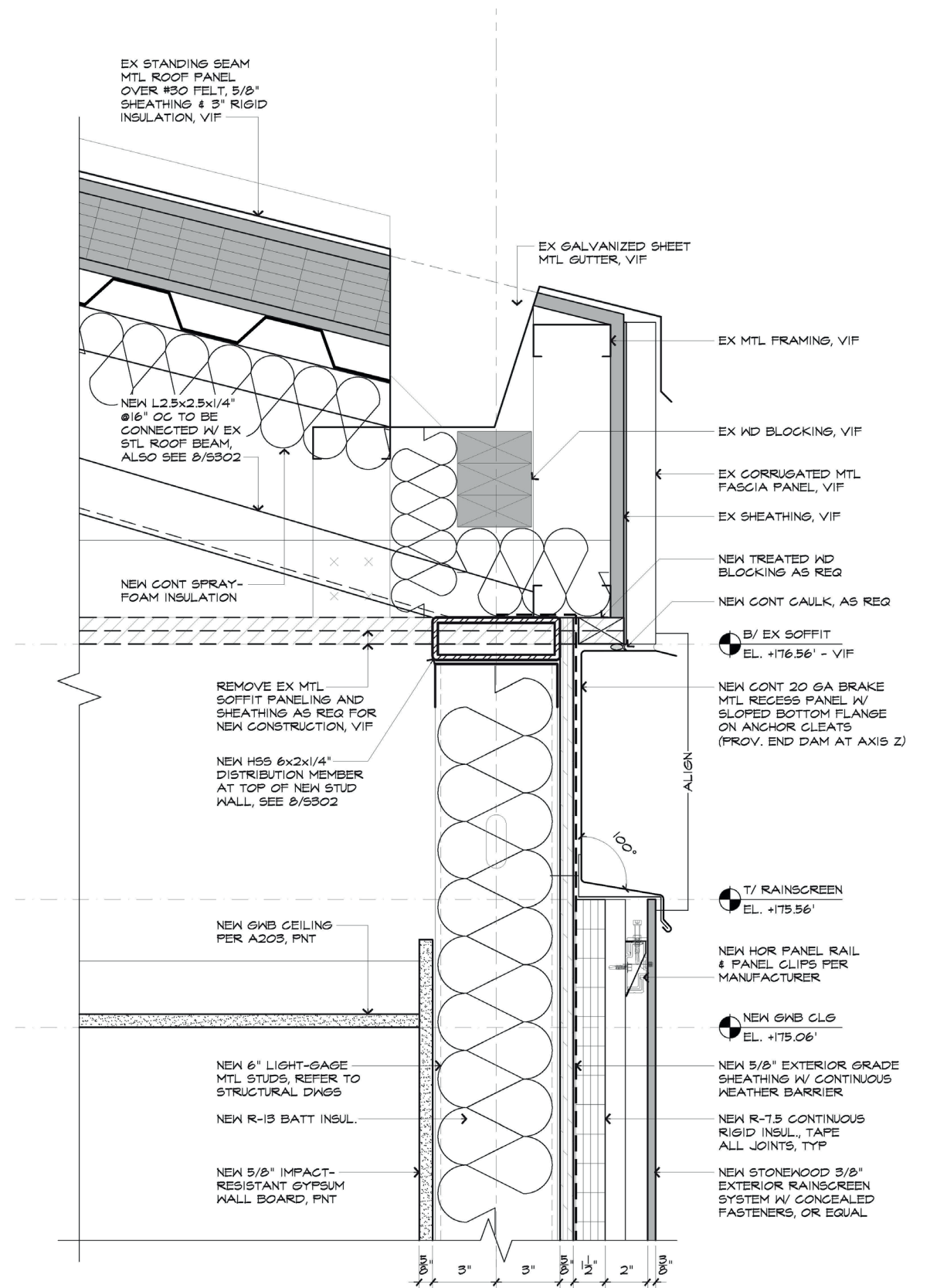
Status : Completed
Timeline : 2019 - 2023
Client : Dept of General Services, Washington DC
Team : Danny Williams, NAAB, NAARC; Lillian Romero
Roles : Designer, Assistant CA, Assistant Manager
Location : 3500 MLK, Jr. Ave, SE Washington, DC

The design expands program spaces, increases storage, and incorporates auxiliary areas while maintaining uninterrupted operations during construction. It achieves a seamless integration with the existing facility, giving the architecture a renewed identity that respects the surrounding context.





Wall Section
Existing roof structure retained; new interior spaces inserted through adaptive construction.



Section Detail

Roof & Wall Joint

During my experience in Construction Administration, the following diagrams present key on-site issues and the solutions we implemented to address them, ensuring functionality, quality, and smooth project delivery.

I co-managed quality checks, site visits, communication with stakeholders, problem-solving, and making sure everything met building codes. We faced challenges such as structural misalignments, tight spaces, design changes, and utility conflicts, which required quick, practical solutions. By adjusting designs, reworking layouts, and balancing function with budget, we kept the project on track and upheld its quality

- Adjust
- Innovate
- Discard
- Brainstrom & Improve
- Compromise

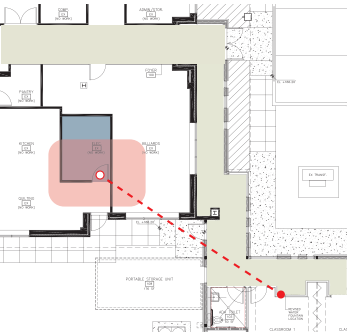
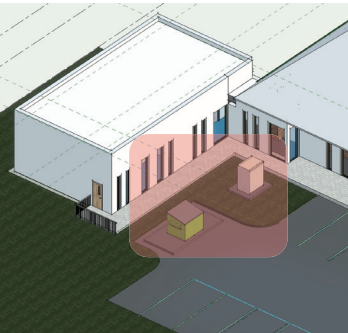
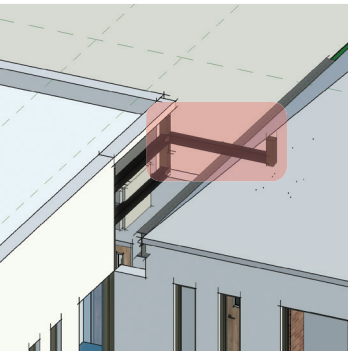
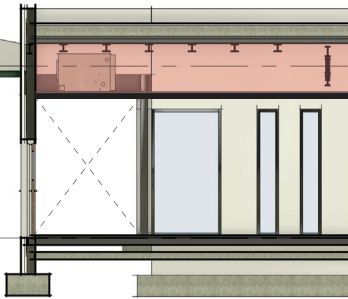


Initial Concept

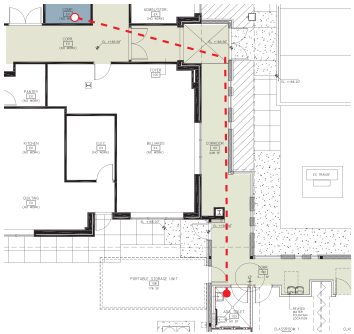
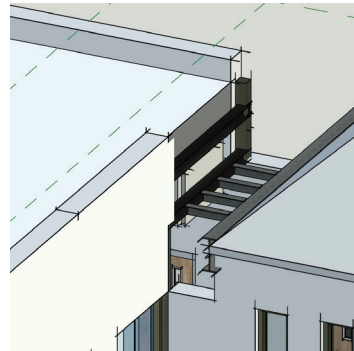
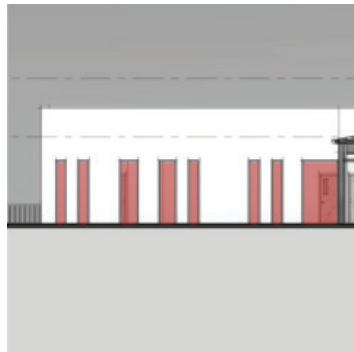
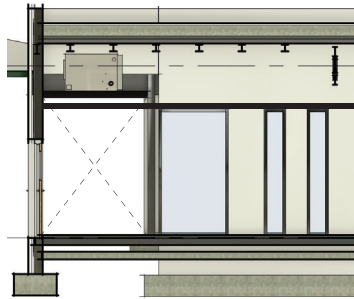


Actual Built

Field Condition



Resolved Condition



The FCU

The contractor, post-FCU installation, recognized the need for space for the engineer. This led to a design compromise, lowering the false ceiling to ensure the necessary room for access, prioritizing functionality within spatial limits.

Fibonacci Windows

The facade aimed for a musical rhythm of windows, but cost concerns shifted to repeating sizes. A compromise on a single color arose due to a client misunderstanding during a site meeting, prompting adjustments by the architect/engineer.

The Beam

The contractor, post-FCU installation, recognized the need for space for the engineer. This led to a design compromise, lowering the false ceiling to ensure the necessary room for access, prioritizing functionality within spatial limits.

Front yard transformer

Budget constraints rendered the relocation of the transformer and dumpster impractical. To improve aesthetics within limits, Plantation softened the visual impact, and a wooden barricade discreetly concealed the dumpster waste at the property's front.

Plumbing Pipe

The original plan was to connect the new sewage system to the kitchen sewage, but construction revealed the existing pipe was only 4" in diameter. To resolve this, a new connection was made to another pipe while preserving the existing floor and beams.

IV/ Columbia University Facades

Preservation and Conservation Architecture

Architecture Design Portfolio

www.arpitmalhotra.com
+1 734 496 3532

Mentored
by Architecture Restoration Conservation
PC, New York City

Status : Completed
Timeline : 2021 - 2022
Client : Columbia University
Team : Joakim Asprasen, NAAB;
 Cameron S. Lory
Softwares : CAD, Bluebeam, Adobe
Role : Architectural Assistant
 (Remote)

Restoration taught me to bridge the past, present, and future, preserving historic elements, crafting precise drawings, and studying the subtle changes that reveal how buildings age. This experience has deepened my technical skills and appreciation for architecture as a living record.

Responsibilities Handled:

- Created conservation and preservation reports for historic buildings.
- Developed restoration based construction drawings and closeout documents.

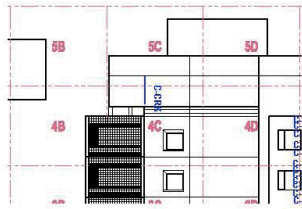


Bird's Eye View
423 west 120th St. NYC



Construction Drawing Sample
West Elevation

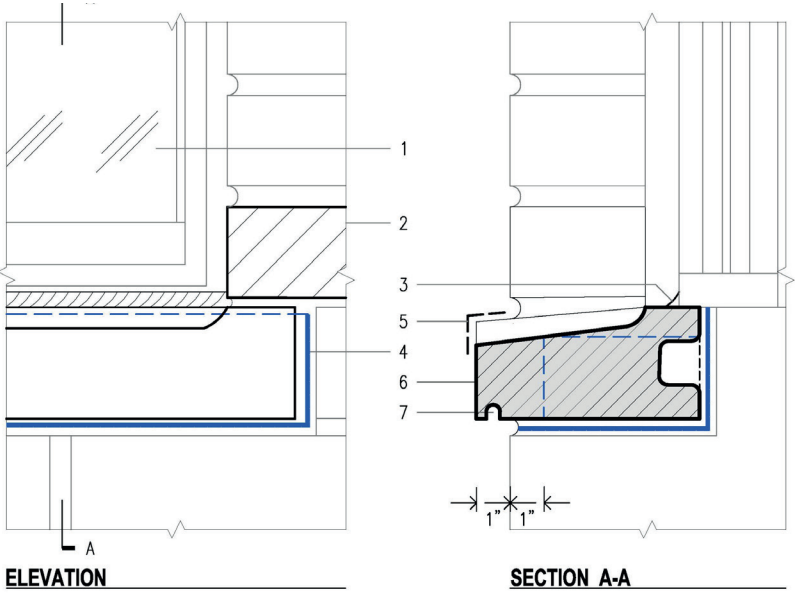
Drawings ©
ARC-PC, New York City



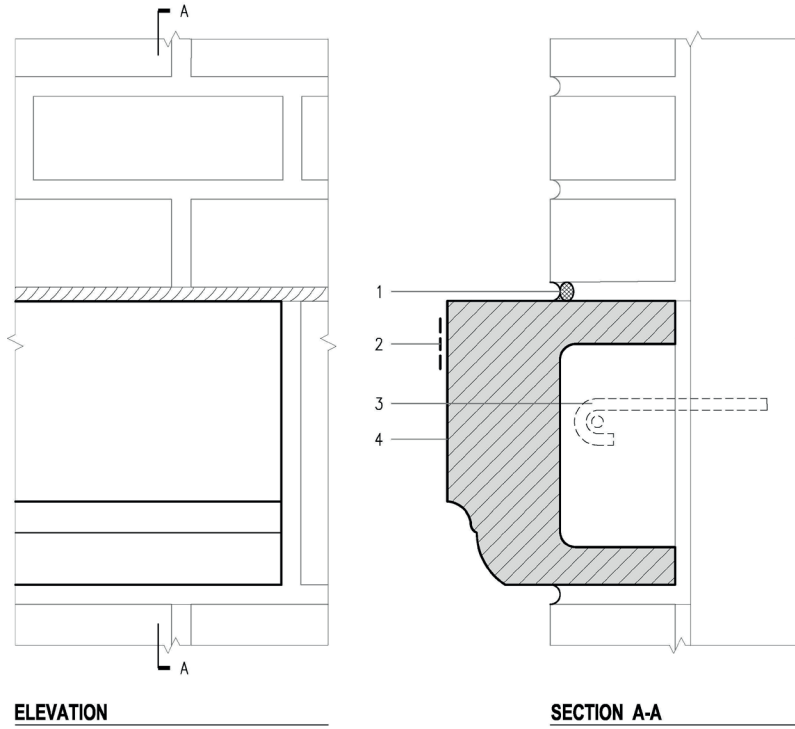
Location: North Facade
ID Tag: TC-WTB
FISP Status: SWARMP
Condition: Cracked terracotta block.
Recommendation: Replace the block and apply sealant.
Condition Date: 04/04/2023
Photo:



Report Sample
Façade Condition Assessment



- TC SILL REPLACEMENT NOTES:**
1. Retain the existing window.
 2. Remove damaged brick as needed.
 3. Apply sealant over a backer rod or bond breaker tape.
 4. Install liquid-applied flashing with end dams, parge, and prime the masonry backup.
 5. Remove the existing sill.
 6. Set the sill in a mortar bed.
 7. Provide a ½-inch drip.



- TC WATER TABLE REPLACEMENT NOTES:**
1. Apply sealant over a backer rod.
 2. Remove the existing terra cotta band.
 3. Install ¼" diameter stainless steel dowels set in epoxy, providing a minimum of two dowels per stone.
 4. Match the terra cotta water table's profile, color, and texture to the adjacent original.

Construction Drawing Samples
Facade Restoration Details

IV/ Adaptive Reuse of Urban Reuins: Cooling Towers of Bhatinda | Design Thinking

Architecture Design
Portfolio

www.arpitmalhotra.com
+1 734 496 3532

As energy production shifts, power plants face decommissioning. The most sustainable response is not to build anew, but to adapt what already exists. This project reimagines industrial structures as spaces experienced at both human and monumental scales.

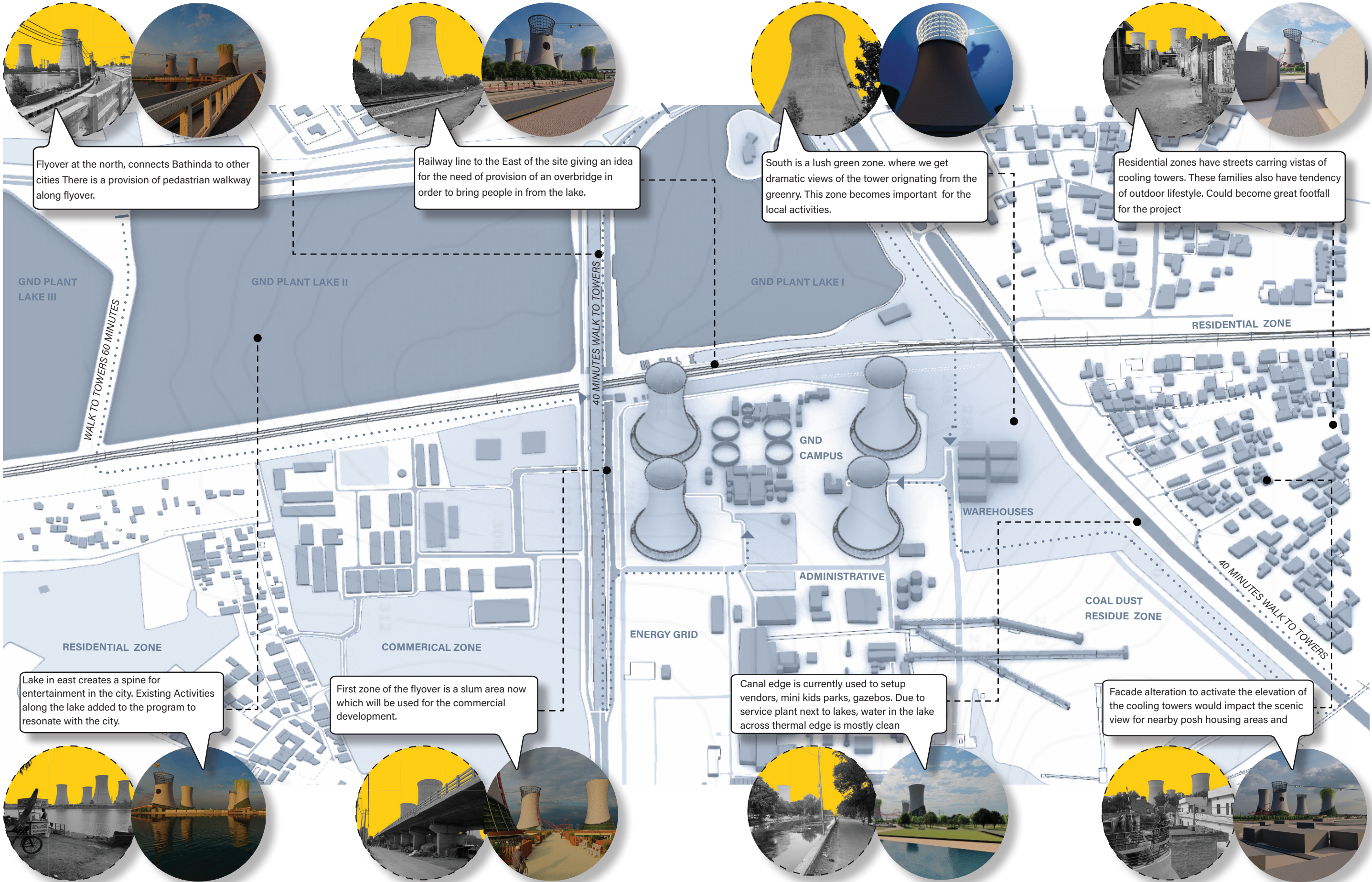
Mentored
By Sujaysen Gupta
Anjali Sagar

Timeline : B.Arch Thesis Studio Winter 2021
Location : Guru Nanak Dev Thermal Plant, India
Recognition : International Mango Architecture Award,
Archresource Thesis Award,
NASA Crit Room Thesis Trophy



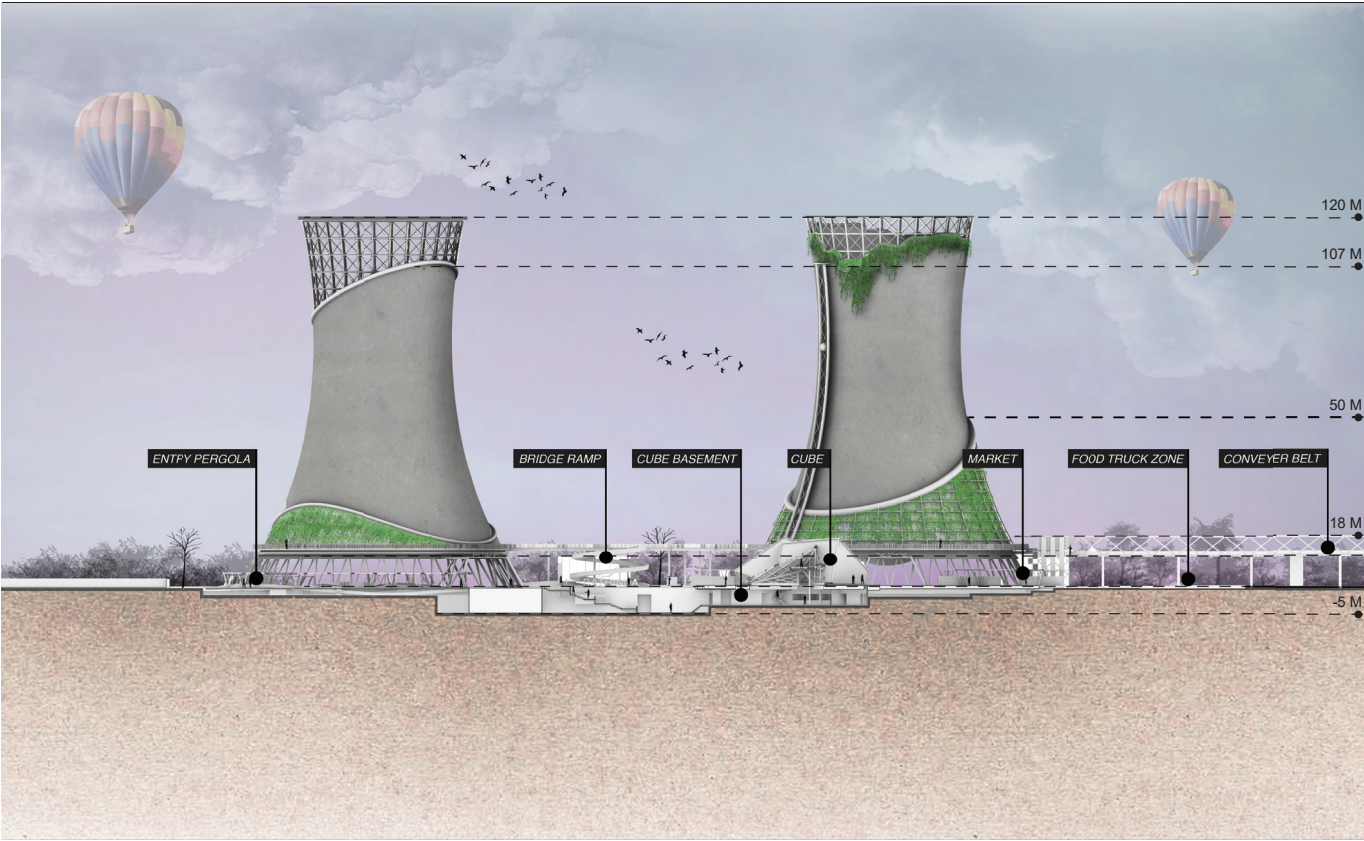
The design concept was to breathe new life into the old site, honoring its legacy while introducing a renewed respect for its presence. The proposed programs extend the life of the city, continuing its rhythms while opening possibilities for future use. The project opens to people across all strata, becoming both a symbol of the city and a model for the adaptive reuse of power plants worldwide.



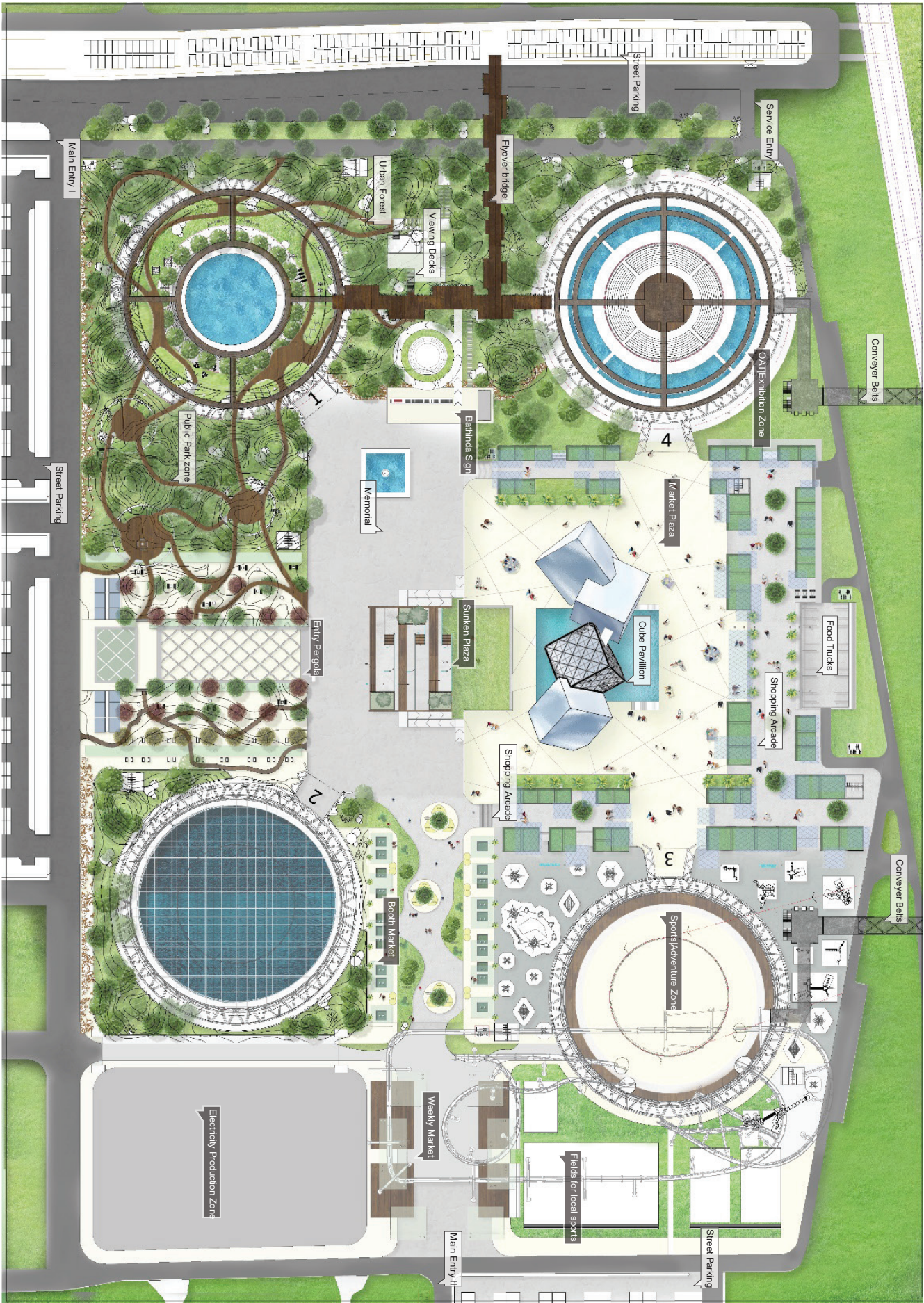
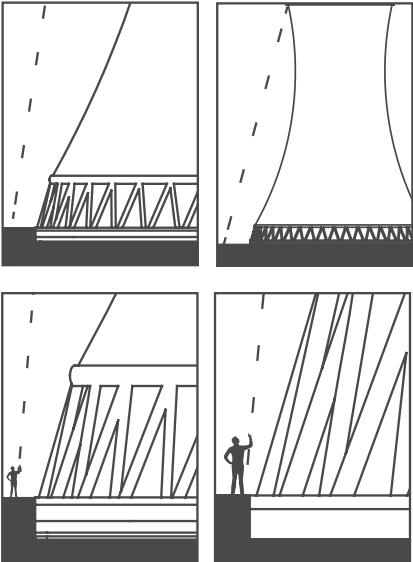


The site design responds to existing topography and infrastructure, with new additions shaped to revitalize the campus. Drawings reveal the site's scale variations, illustrating how different elements interact within the composition. Distinct forms blend into the whole while preserving their individual identities.

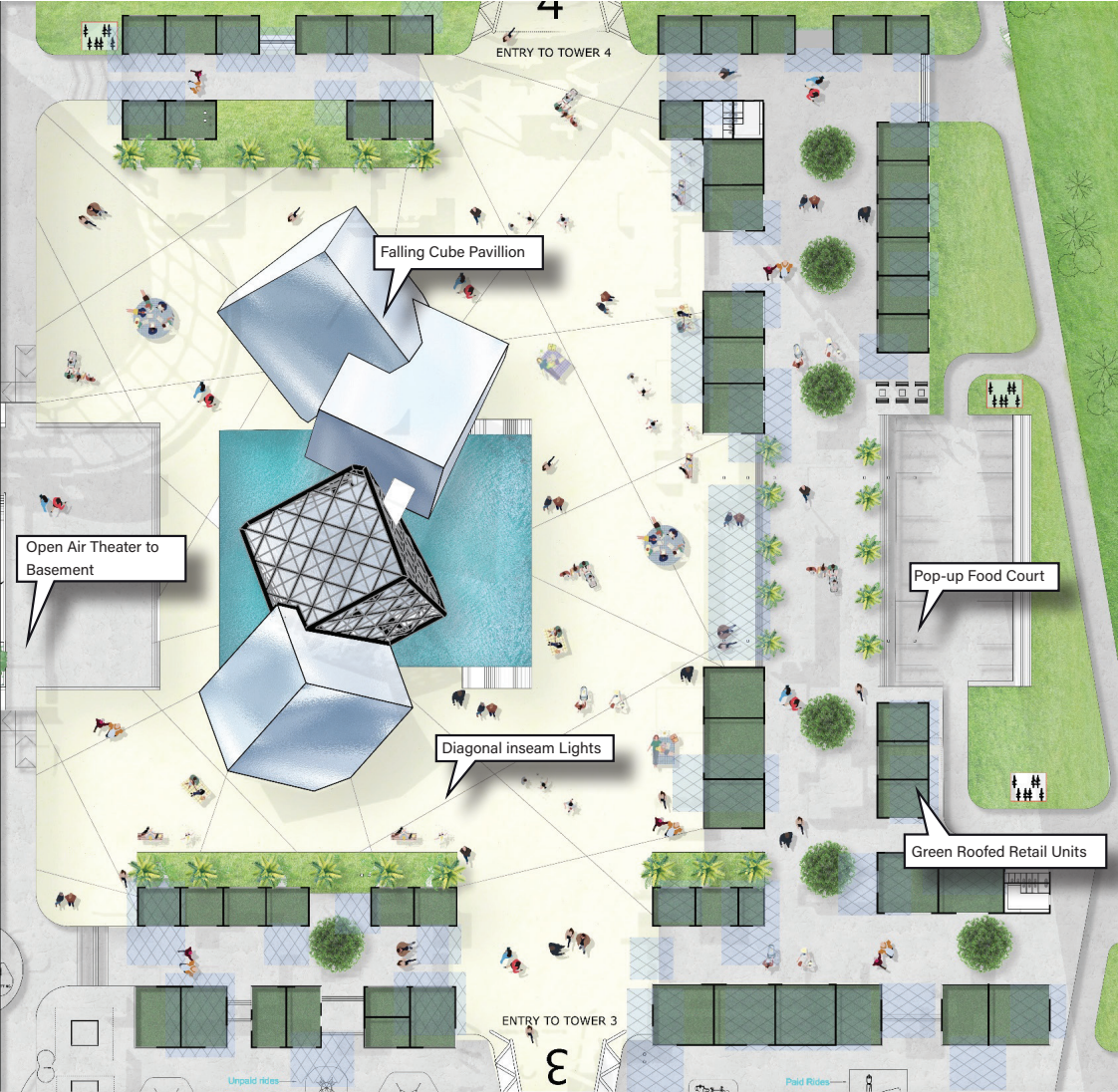
Site Section
Central campus with respect to
Cooling Towers



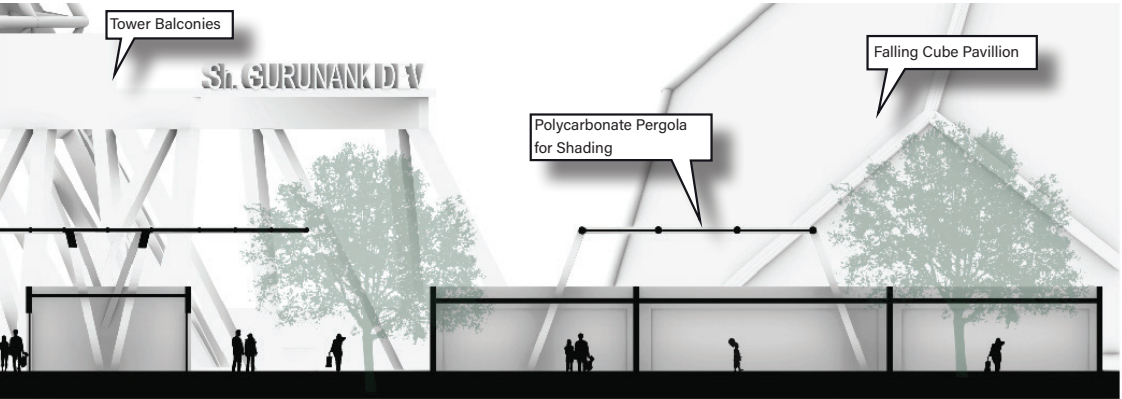
Study Sections
Human scale and Spatial
Perception



Plaza Site Plan
Ellaut voloreraes eicabor roviti
imenem corent ommost expeles
es remperum qui blabore



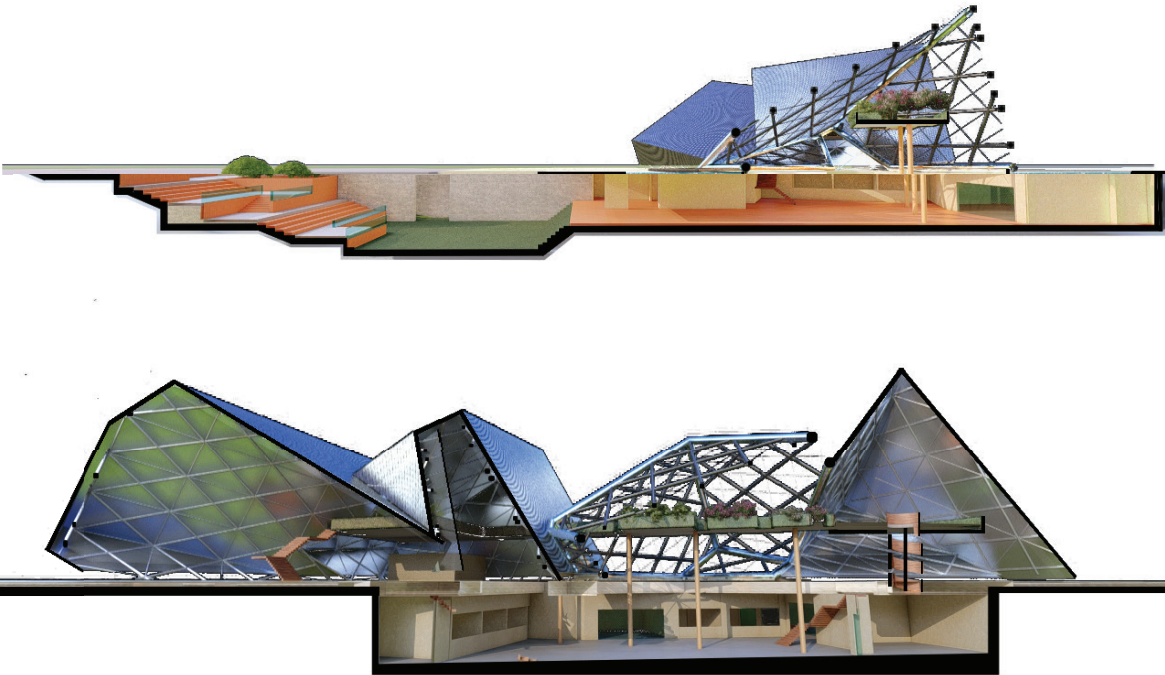
Market Section
Ellaut voloreraes eicabor roviti
imenem corent ommost expeles



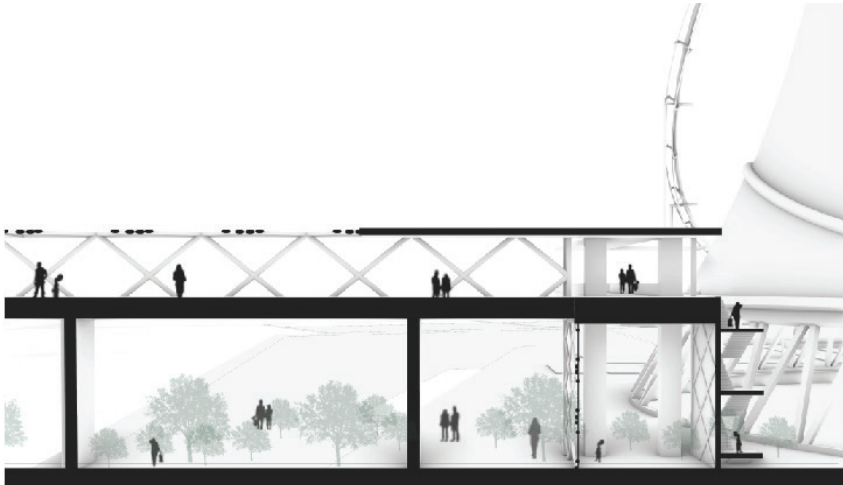
Falling Cube Plans
Ellaut voloreraes eicabor roviti
imenem corent ommost expeles
es remperum qui blabore



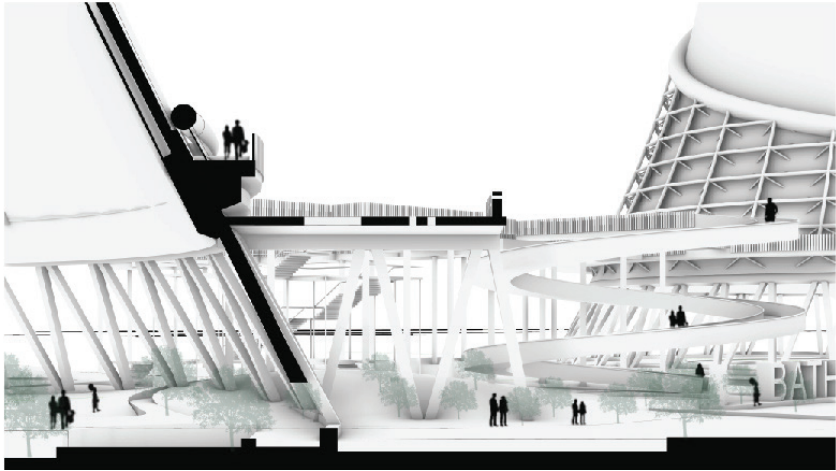
Falling Cube Sections
Ellaut volorera es eicabor
roviti imenem corent ommost
expeles es remperum qui



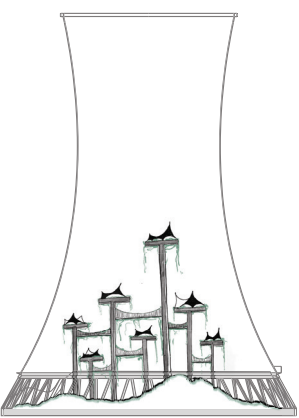
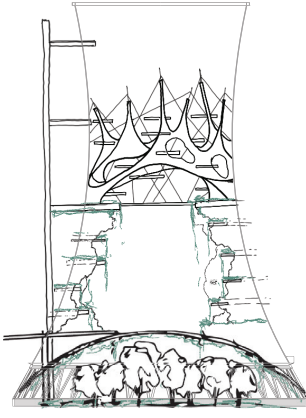
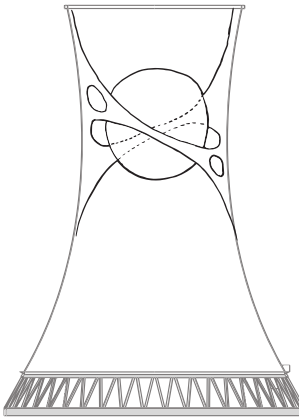
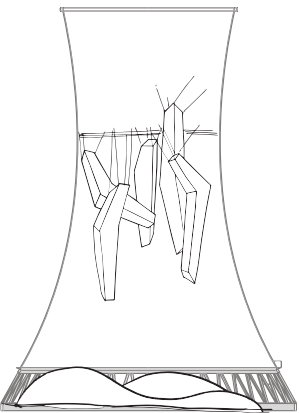
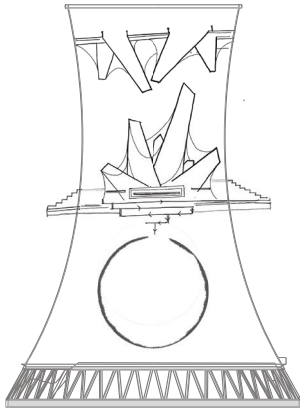
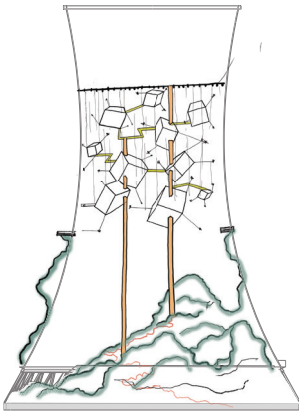
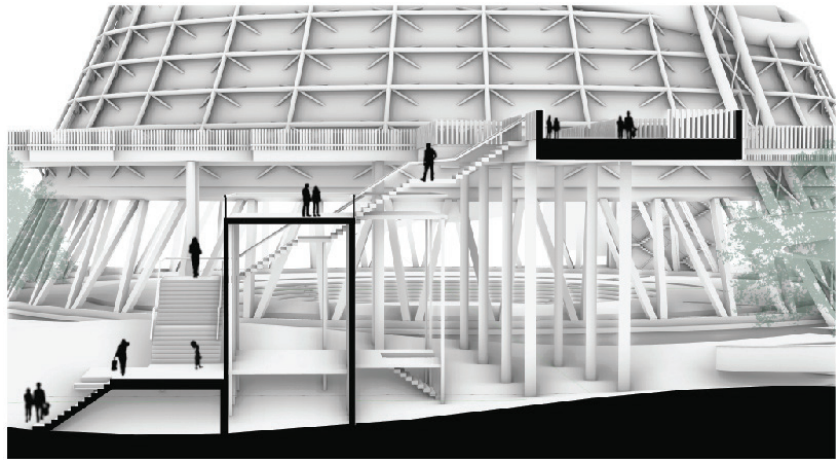
Section AA'
Rediscovering the
Coalway Path



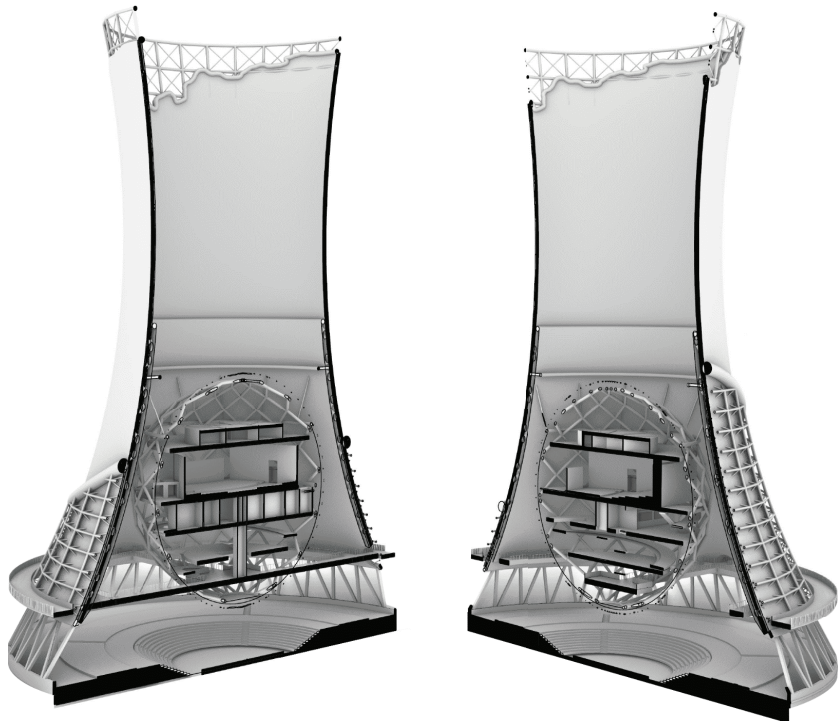
Section BB'
Balconies as Vantage
Points



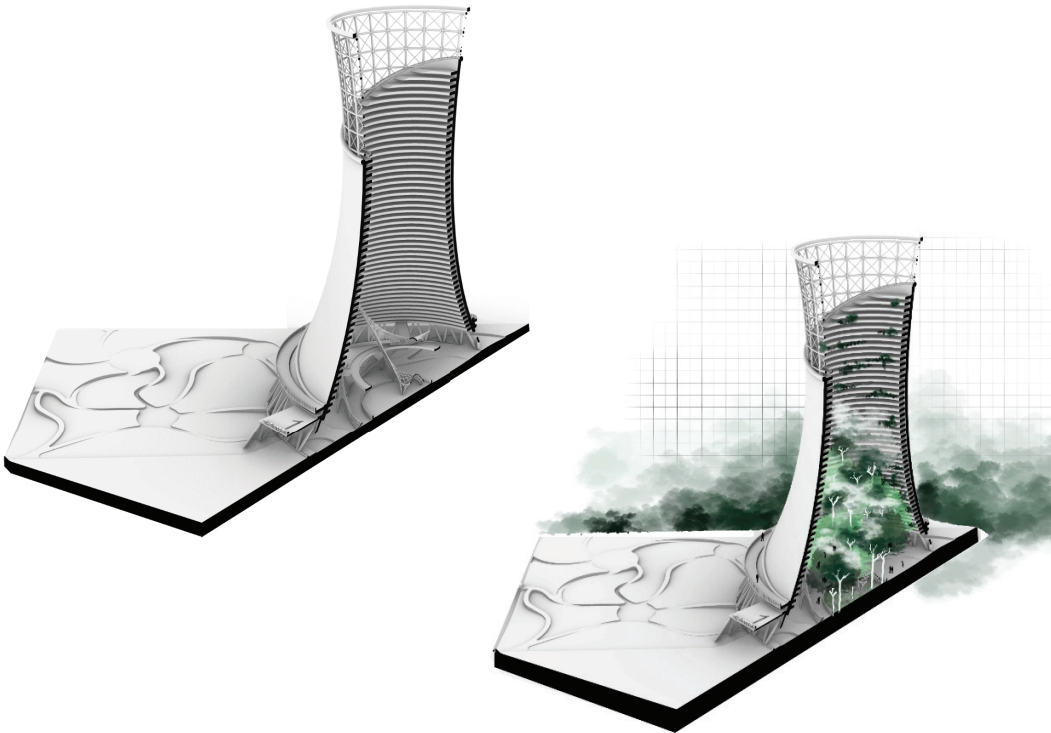
Section CC'
Urban Forest Stairway



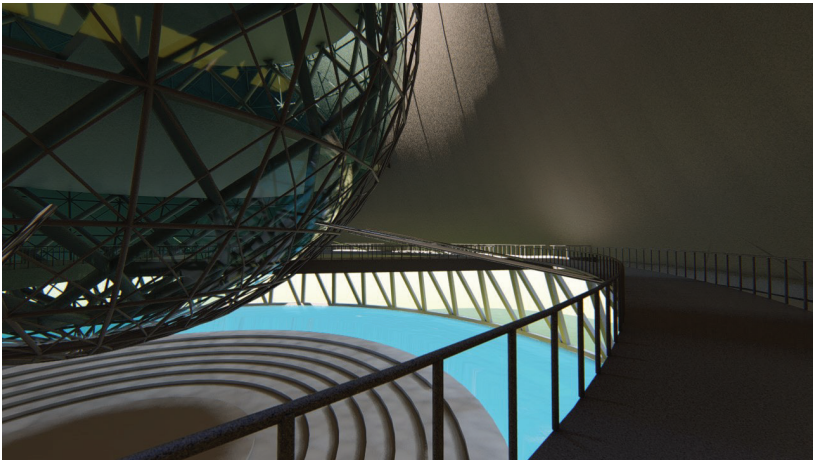
Study Sections
Understanding Forms & Programs
within Hyperboloid Space



The Hanging Orb Tower
A suspended sphere wrapped by walkways, blending organic greenery with high-tech interiors



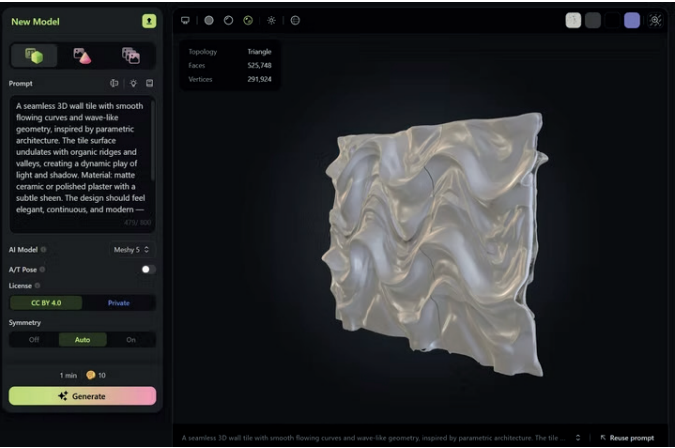
Green Echo Tower
An inverted stepwell tower with vertical greenery and layered interior rings



V/ Architecture x AI

Generative AI Workflows for Business

Certificate Earned
Generative Ai in Buissness
University of Michigan



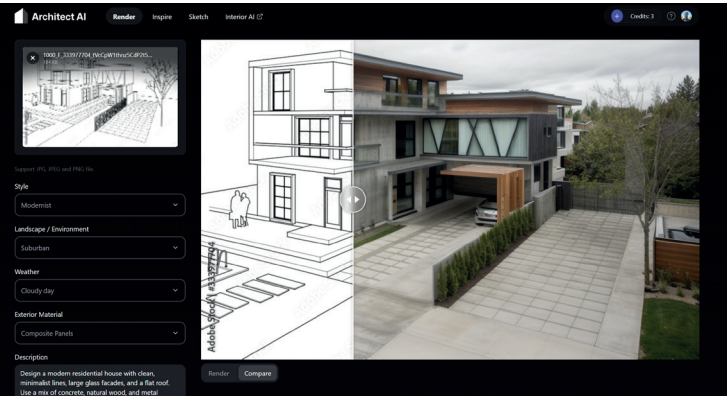
Text/Image to 3D Model Meshy Ai + ChatGPT

With Meshy AI and ChatGPT, I can transform simple text prompts into optimized 3D models. This workflow allows me to bypass traditional early-stage modeling, rapidly generate form studies, and experiment with variations in minutes.

It's an efficient way to bridge ideas and geometry, helping me test concepts quickly before committing to detailed design

Sketch to Render Architect Ai

I've been exploring Architect AI to turn simple sketches into detailed architectural renders. This platform uses generative AI to quickly visualize design ideas, experiment with styles, and create early concepts without needing full 3D modeling. It's a great way to brainstorm visually, test aesthetics, and speed up the early design process.

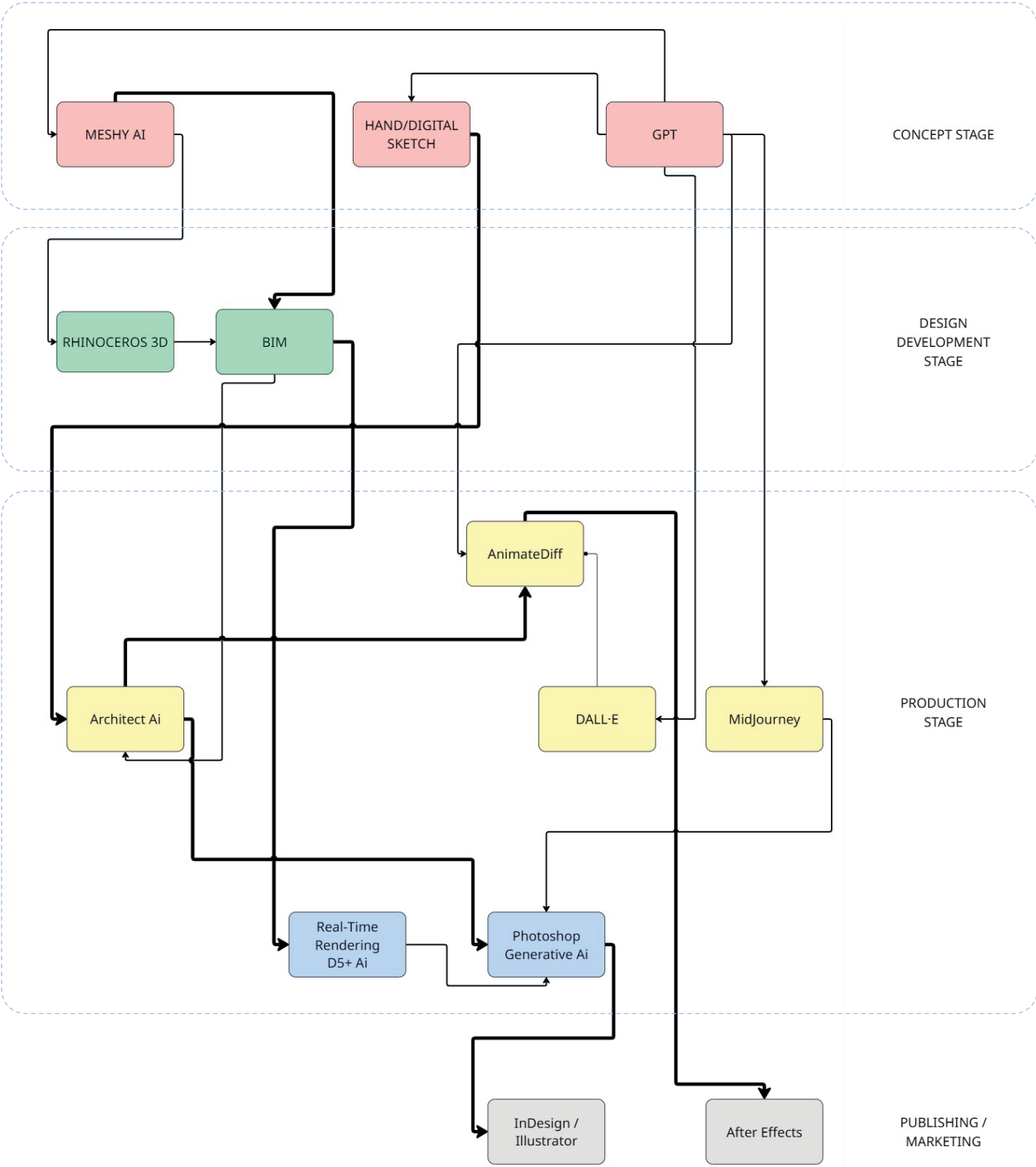


Animation AnimateDiff + Midjourney

Actively using Midjourney with AnimateDiff workflows in my current projects to develop conceptual architectural animations. I create prompt-based visual narratives that explore motion, atmosphere, and material behavior, while staying true to architectural clarity and design intent.



Pipeline Chart AI Integrated Architectural Visualization Business Workflow



VI/ Brochure Design
Marketing and Communications

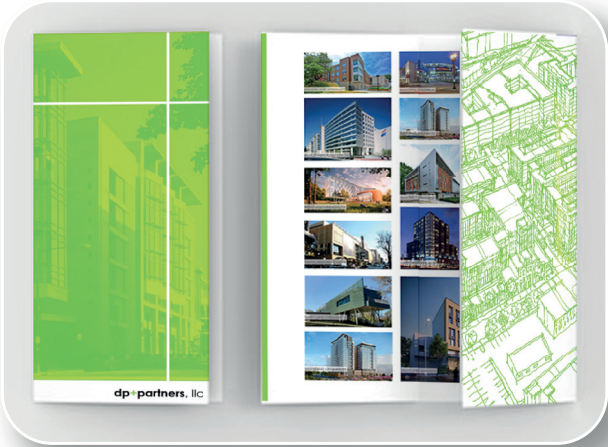
Timeline : 2021
Softwares : Adobe Suite
Role : Marketing and Communications

Mentored
By Danny Williams, AIA
Anthony Brown

Tri Fold Brochure
Front Spread - Branding Image
Inside panel - About Us + Services,
Back Spread - testimonials + contact information.

Images ©
dp+ partners architects, Washington DC

Led the design and execution of the company's marketing brochure, translating architectural projects into a clear, visually compelling narrative. My work focused on layout composition, typography, and integrating branding guidelines to effectively communicate the firm's values.



VII/ Podcast Series
Public Engagement and Storytelling

Timeline	: 2021	Skills	: Research, Storytelling, Active Listening,
Softwares	: Riverside Ai, After-Effects		Production, Public Speaking and Relationship
Role	: Host, Interviewer, Editor, Designer		Management

A self-initiated interview series that explores how people shape their creative journeys across art, technology, and well-being. Presented through both written features and visual video interviews, the series brings together professionals from diverse backgrounds to share with the world a deeper understanding of the human side of architectural practice — revealing how creativity, empathy, and leadership intersect in the making of meaningful work.

Conversations with Arpit

@arpitmalhotraconversations · he/him

I've always been fascinated by how people make choices, what drives their paths, passion ...more

[arpitmalhotra.com](#) and 1 more link

Customize channelManage videos

VideosShortsPosts

Video Publication
Youtube @Arpitmalhotraconversations
Instagram @Conversations_with_Arpit

Arpit Malhotra · 7 min read

Designing with Empathy: An Interview with Tamar

Interviewee: [Tamar Ayalew](#)
Interviewer: [Arpit Malhotra](#)

In this conversation, Arpit Malhotra speaks with Tamar Ayalew about architecture, fashion, collaboration, and finding purpose in practice. As an emerging designer and incoming Master of Architecture candidate at the University of Michigan, Tamar reflects on how education, politics, and empathy shape her approach to design. The conversation reveals how young architects today navigate ambition, authenticity, and the evolving role of creativity in shaping communities.

On Choosing Architecture

Arpit: What influenced your decision to pursue architecture? Was it passion, curiosity, or external factors?

Tamar: The choice was entirely my own. I've always been fascinated by the built environment, even as a child, before I fully understood why. Growing up near Washington, D.C., I was surrounded by distinct architectural styles. Old Town, Virginia, where I live now, had a character of its own — very different from suburban areas. I was drawn to that sense of identity architecture can give to a place. Additionally, I found myself becoming increasingly interested in how the places we live in can impact our mental health. The various spaces we move through every day have a profound impact on how we feel and interact, and that realization drew me toward architecture.

Website Publication

Interview with Tamar Ayalew

Arpit Malhotra | Resume

Architect | BIM | AI Business Integration Strategist | Content Creator

www.arpitmalhotra.com

(734) 496-3532

arpitmal@umich.edu



EDUCATION

University of Michigan Ann Arbor MI, US

Master of Architecture
Expected May 2026

Grad. Certificate in Innovation & Entrepreneurship
Expected May 2026

Certificate in FARO 3D Scanner Operations
Expexted Dec 2025

Certificate in Generative AI in Business
Earned May 2025

Chandigarh College of Architecture, India

Bachelor of Architecture
Graduated July 2021

Bachelor of Building Sciences
Graduated July 2019

SKILLSETS

AI

DALL-E, MidJourney, AnimateDiff, Architect AI, Generative AI Workflows

BIM & CAD

Revit, ArchiCAD, AutoCAD

3D Modeling & Parametric Design

Rhinoceros, Grasshopper, SketchUp

Visualization & Rendering

Lumion, V-Ray, After Effects

Graphics & Documentation

Adobe Creative Suite, Bluebeam

WORK EXPERIENCE

Project Architect & Assistant Manager

dp+ partners architects | Washington DC, US
July 2022 - January 2024 | July 2019 - December 2019

- Executed client-focused projects, coordinating consultants via BIM to enhance design integration and reduce clashes.
- Supported Construction Administration for two 1500 sq ft wellness centers, managing design changes and ensuring on-site compliance.
- Developed RFPs and maintained the firm’s website, strengthening client engagement and supporting business development.
- Conducted site visits, documented existing conditions, and prepared close-out reports to verify quality and project completion.
- Produced presentation materials, renderings, and mood boards to define design aesthetics and materiality.

Architectural Assistant – Historic Preservation

ARC, PC | New York City, US
November 2021 - July 2022 | Remote

- Contributed to historic preservation at Columbia University by preparingconservation reports and conducting building condition surveys.
- Supported restoration architecture by creating construction documentation (CDs), as-built drawings, and managing closeout documents.
- Assisted with payment application (AFP) paperwork

Project Architect & Assistant Manager

Williams & Williams Architecture | Louisiana, US
Jan 2020 - Jul 2022 | Remote

- Designed adaptive reuse of a library for Southern University, integrating sustainable and functional design solutions.
- Co-managed the SU Clinic project from design development through construction documentation.
- Supervised outsourced international teams, ensuring seamless collaboration with construction and joint-venture firms.
- Coordinated with consultants and stakeholders to align project goals and communication.
- Utilized BIM on Revit Cloud for accurate, collaborative, real-time documentation.

EXPANDED SKILLSET

Project Management

Asana

Augmented Reality

Adobe Aero (working knowledge)

Digital Fabrication

Laser Cutting, 3D Printing
Zünd Cutting, Vacuum Forming
CNC Cutting & Rod Bending

Programming

Python (fundamentals, scripting)

Mapping and Survey

Faro 3D scanner

AWARDS & ACCOMPLISHMENTS

Honourable Mention (Top 45)

International Mango Architecture

Honourable Mention (Top 48)

Archresource Thesis Competition

National Winner

A3 Foundation Photography

All India Shortlisted (Top 4)

CRIT Room Thesis Panel

All India Shortlisted (Top 8)

CRIT Room Portfolio Panel

State Winner

Pop Up Market Competition

Special Mention

Punjab Police Housing Corporation Ltd Competition

OTHER PROFESSIONAL EXPERIENCE

Business & Project Management Consultant

Alliance Service Brands | Michigan, US
Fall 2025 - Present

Consulting as a graduate student on strategy and operations for a construction/handyman business, creating business plan, SOPs, employee handbook, and marketing playbook to improve efficiency and scalability.

Research Assistant

FORM Lab | Michigan,US
Fall 2025 - Present

Developing AI-driven workflows and robotic fabrication methods with bio-based materials for optimized structures.

Digital Fabrication and Robotics Lab Assistant

Taubman College of Architecture | Ann Arbor, Michigan
Winter 2025 - Present

Operated and maintained laser cutters and 3D printers, providing technical support, training students in efficient and safety protocols.

Collaborative Studio Student Participant

Clément Blanchet Architecture | Paris, France
Summer 2025

Produced drawings and designs for the Venice Biennale, bridging academic research with professional practice and exhibition standards.

Interior Design and Rendering Consultant

Heusch Studio | Paris, France
Spring 2022 | Remote

Completed a outsourced project involving interior design, 3D modeling, andrendering for a studio apartment in Paris, France.

Architectural Volunteer for Social Impact

The Elements | Chandigarh, India
Summer 2017

Provided free architectural design services to disadvantaged communities, improving housing through sustainable solutions.

Arpit Malhotra

Architect | Entrepreneur | Exploring AI | Content Creator

This portfolio is a glimpse of my work. Explore more at
www.arpitmalhotra.com

arpitmal@umich.edu
(734) 496-3532
Ann Arbor, MI

[linkedin.com/in/arpit-malhotra-b08002227/](https://www.linkedin.com/in/arpit-malhotra-b08002227/)