

302B - SP 2012

VAL AUGUSTIN

AARON MICK

ARCH 302B

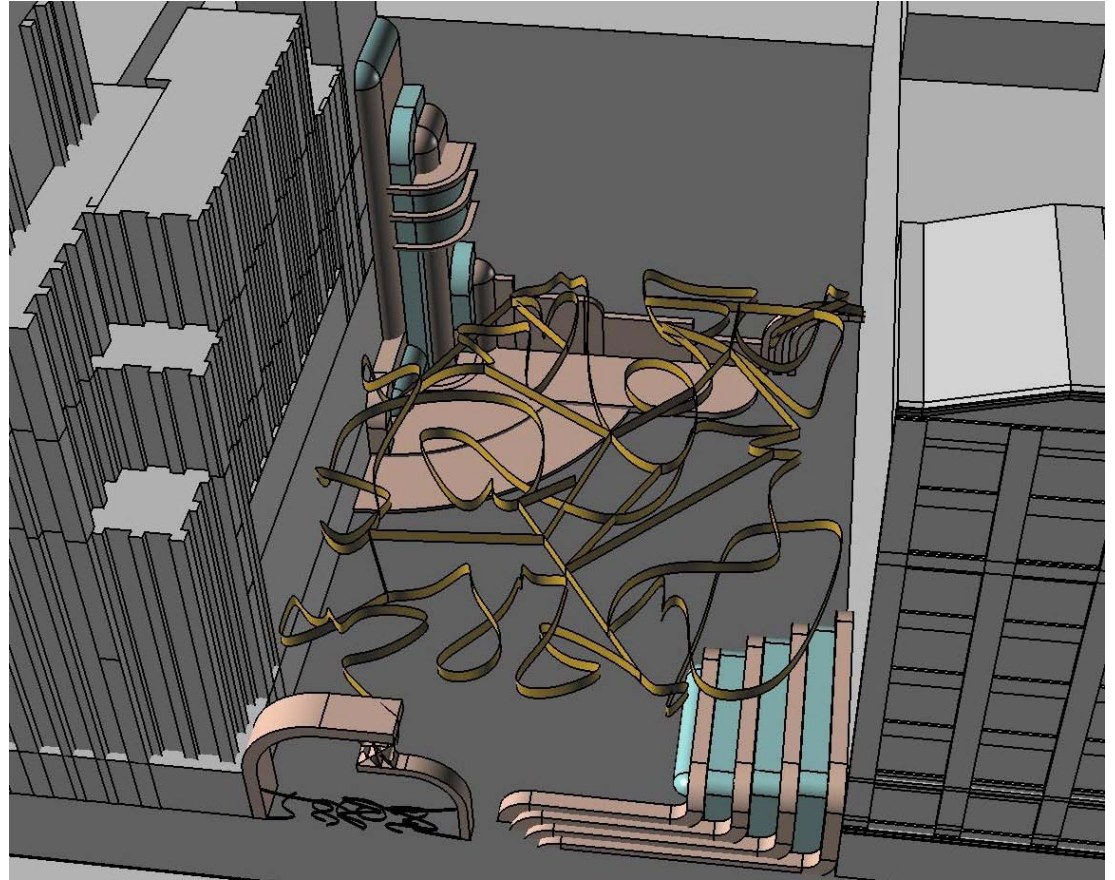


SPRING 2012: MAKING OF 'BROADWAY HIGH'

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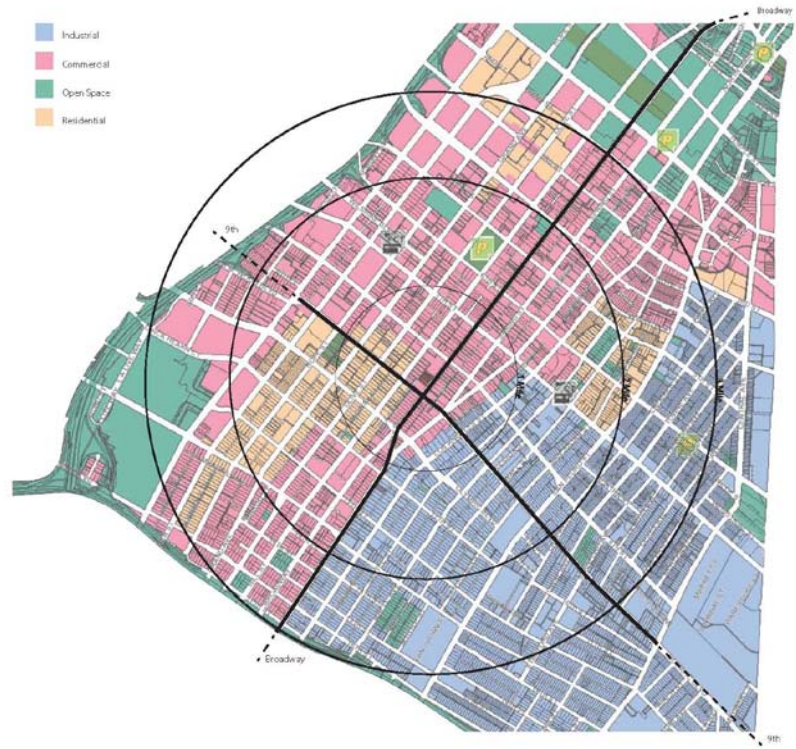
01: SITE ANALYSIS



AND 'OUTPOST' DESIGN



Public Commercial Residential Penthouse Recreation



The design of the Broadway High School began with a thorough site analysis to identify important influences affecting on it and the general character of the site. It was noted that the old Theatre District on Broadway attracted much low-rent retail during daytime and a small but reviving nightlife of entertainment seekers.

Afterward, a small outpost was designed that would act as a placeholder for the school and set a general approach to building on the site. This design evolved from a sensibility that the site should be accessible to Broadway and carry a vertical emphasis and aesthetic influence over from its surroundings.

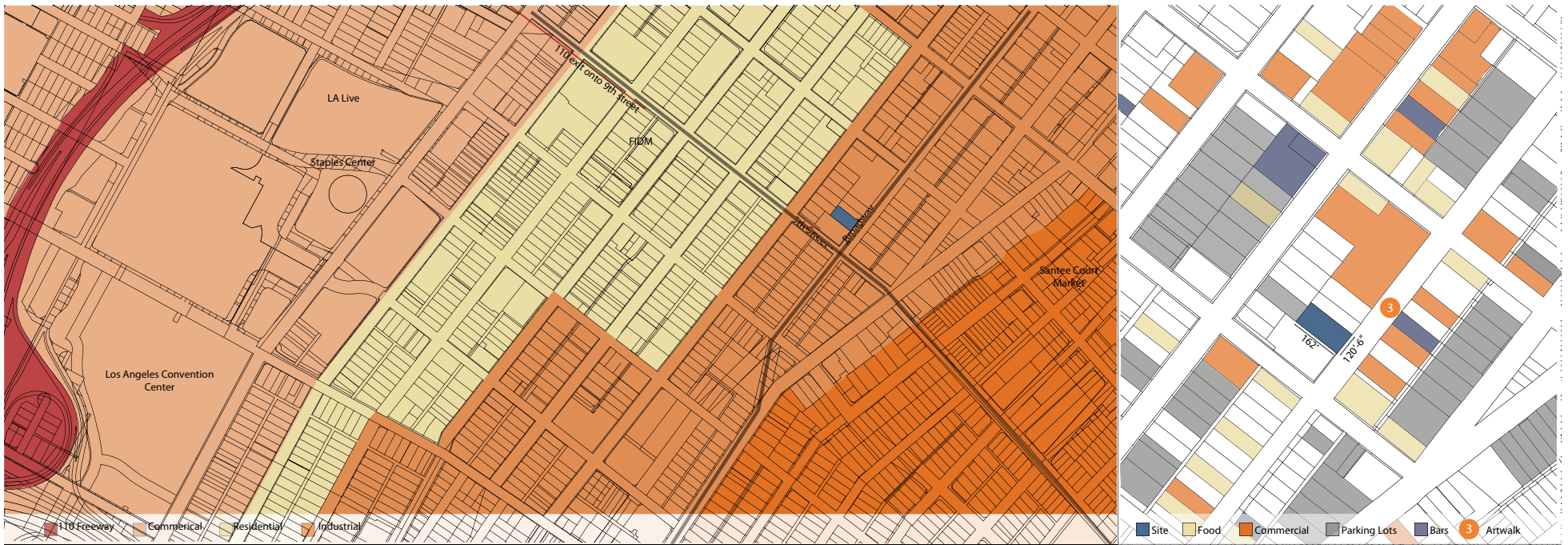
Left page: Preliminary diagrams describing site zoning and layers.



Above: Composite photomontage of front of site.

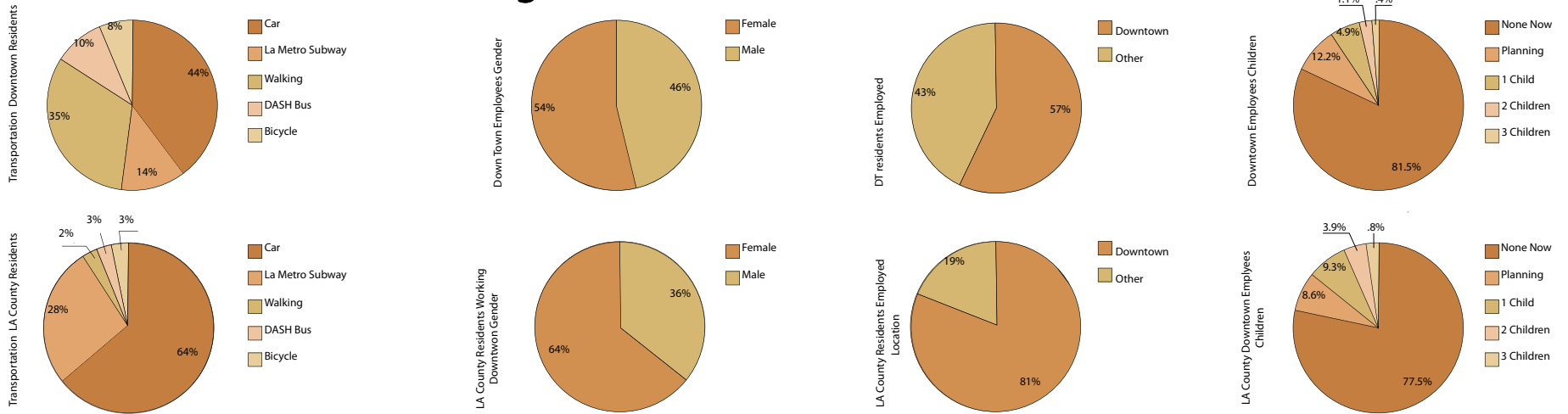
Right page: Rear of site.





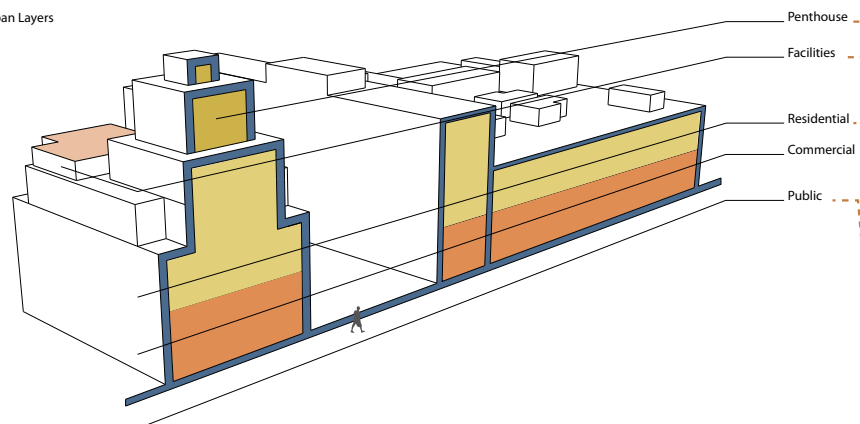
Downtown Los Angeles Site

Thomas Lin Aaron Mick Jordan Perkins

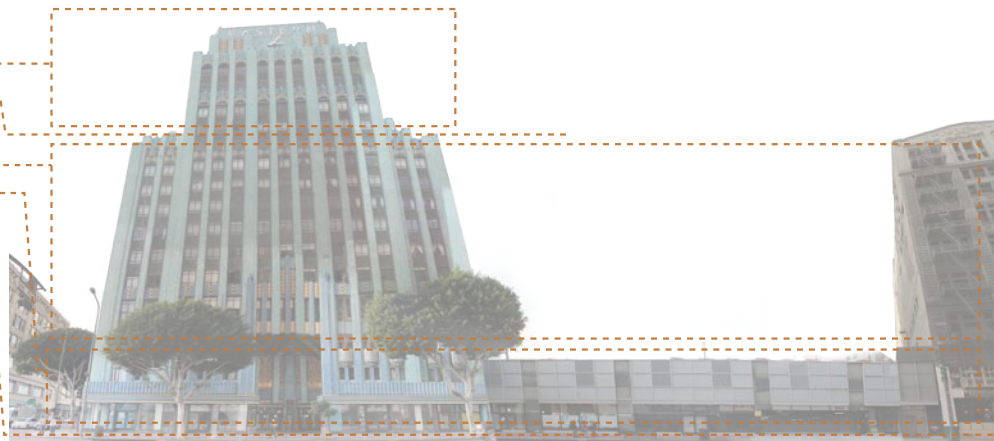


Above and right page: Final site analysis boards.

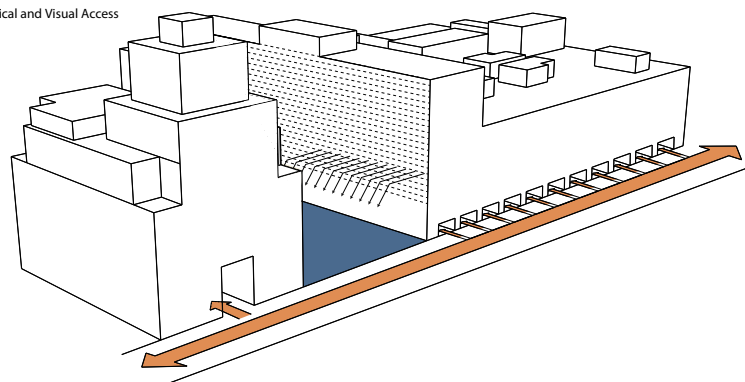
Urban Layers



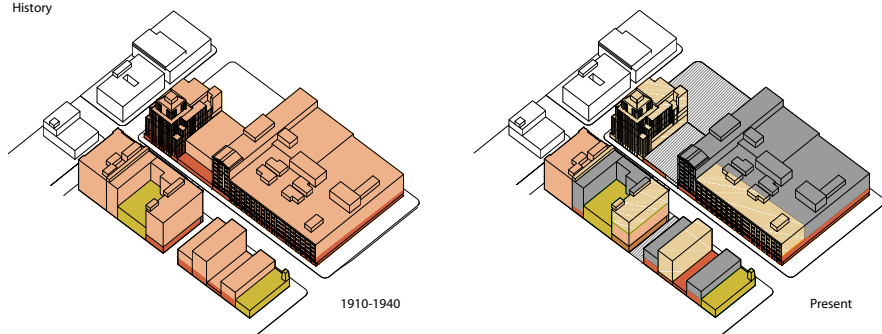
Penthouse
Facilities
Residential
Commercial
Public



Physical and Visual Access



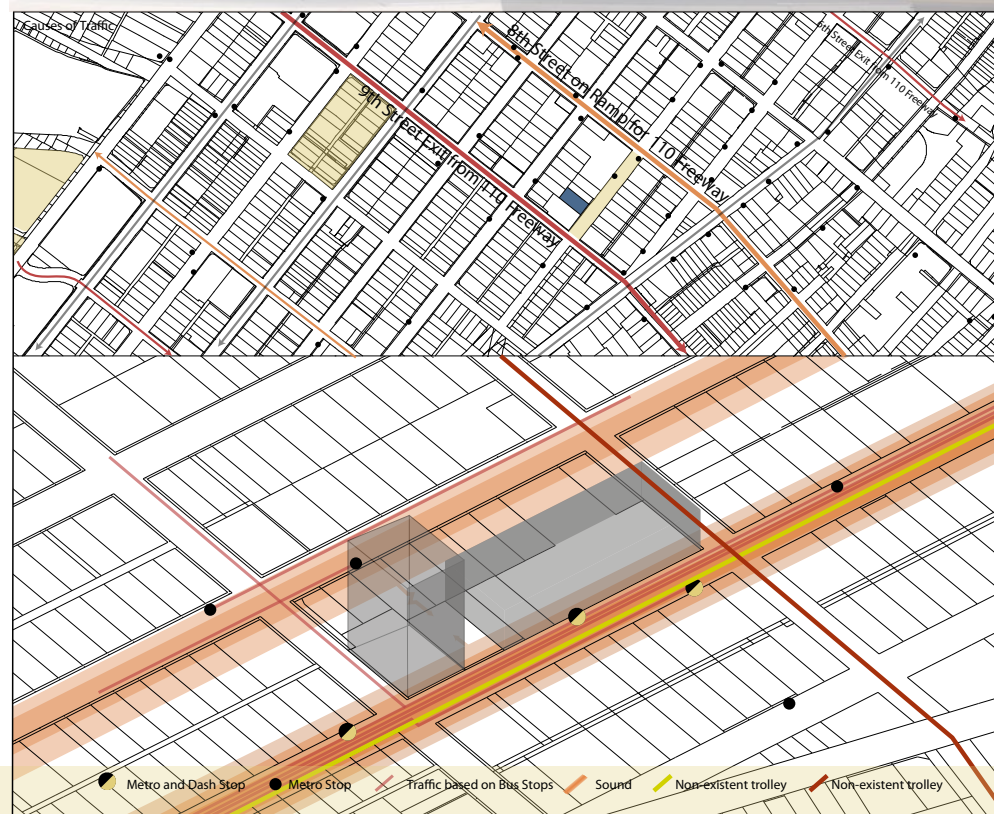
History



1910-1940

Present

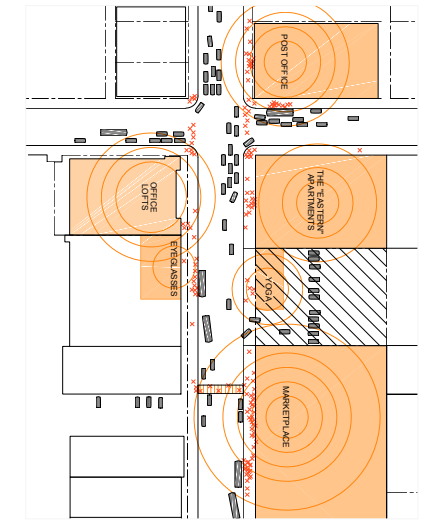
Residential Office Entertainment Bar/Nightlife Commercial Vacant Parking



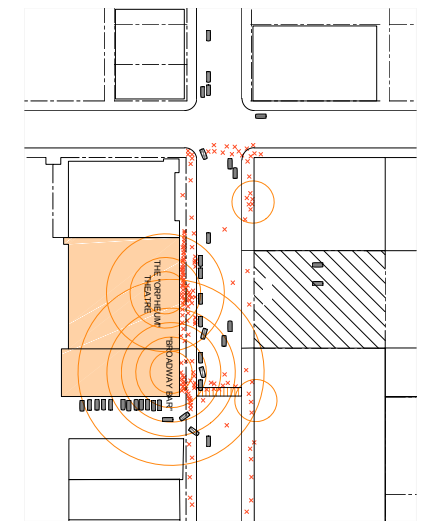
Metro and Dash Stop Metro Stop Traffic based on Bus Stops Sound Non-existent trolley Non-existent trolley



Morning/Daytime Activity Levels



Late Evening/Night Time Activity Levels



Above: Final site analysis board.

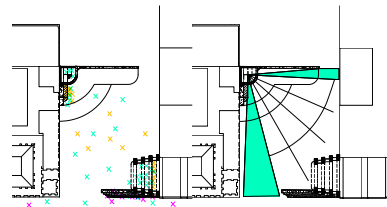
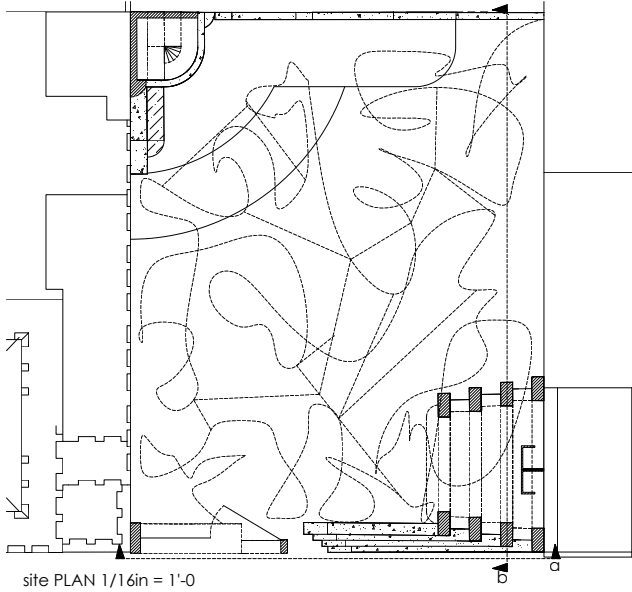
Right page: Final outpost drawings.

Aaron Mick

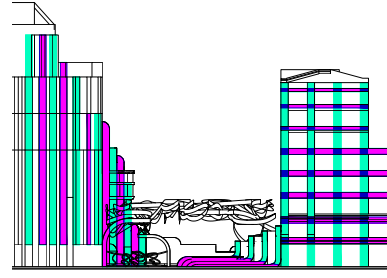
outpost on

BROADWAY

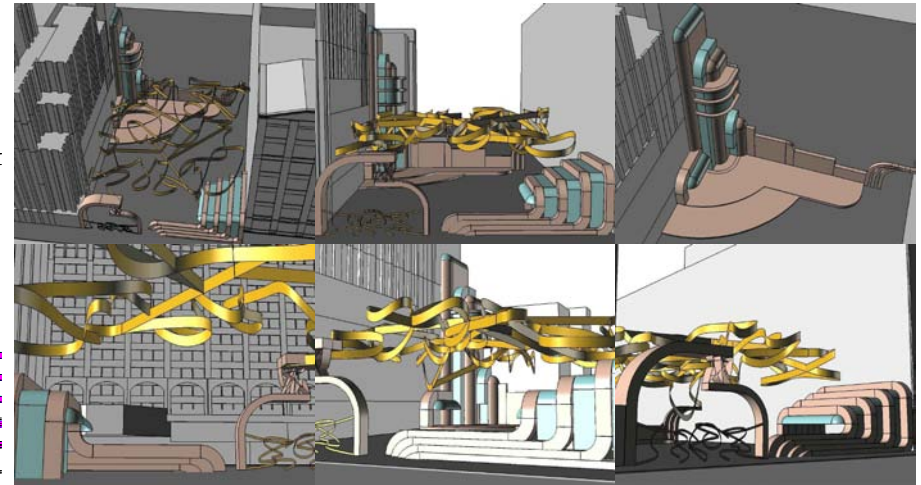
SITE ANALYSIS & OUTPOST



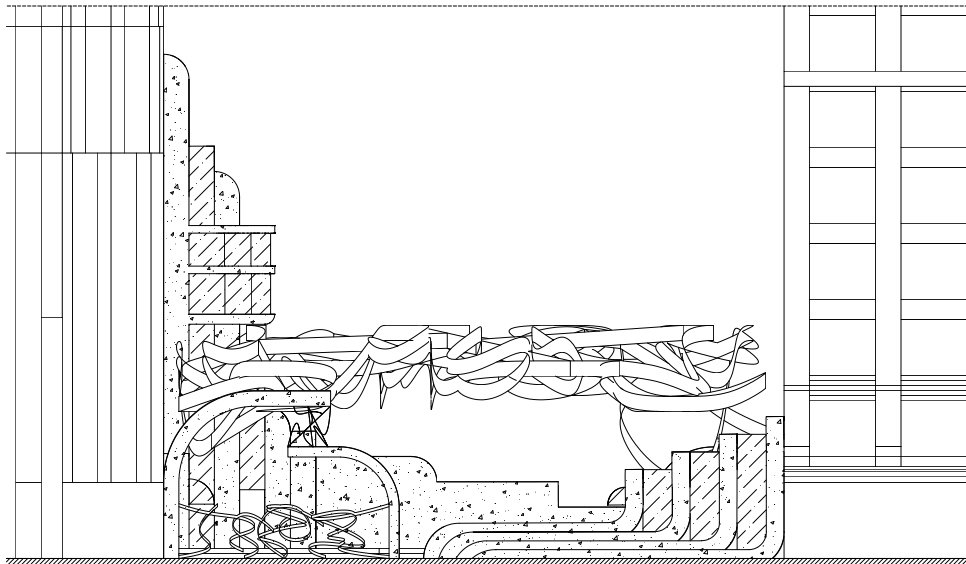
temporal USE PANOPTICON security



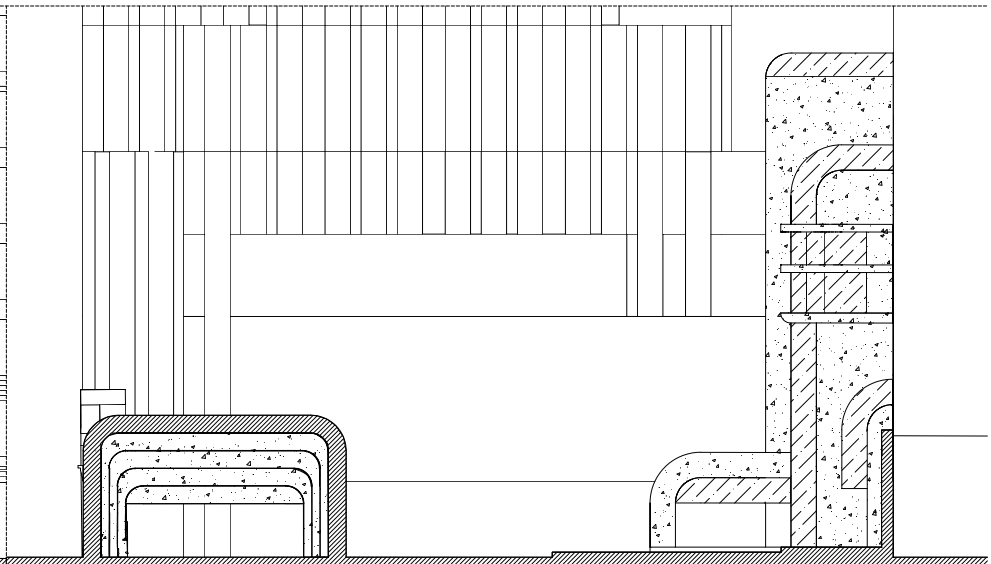
motifs/formal SYMBIOSIS



3d MODEL

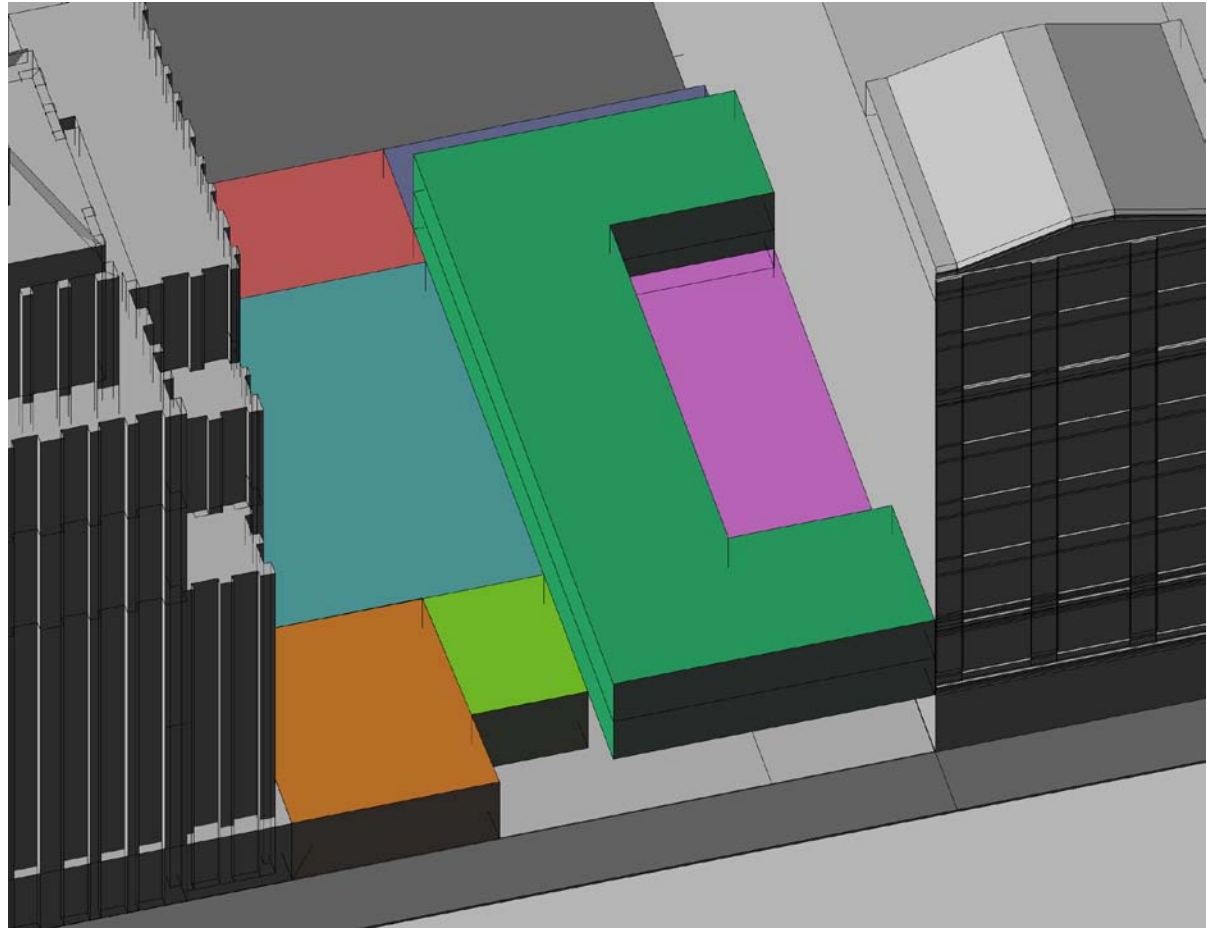


section A 3/32in = 1'-0'

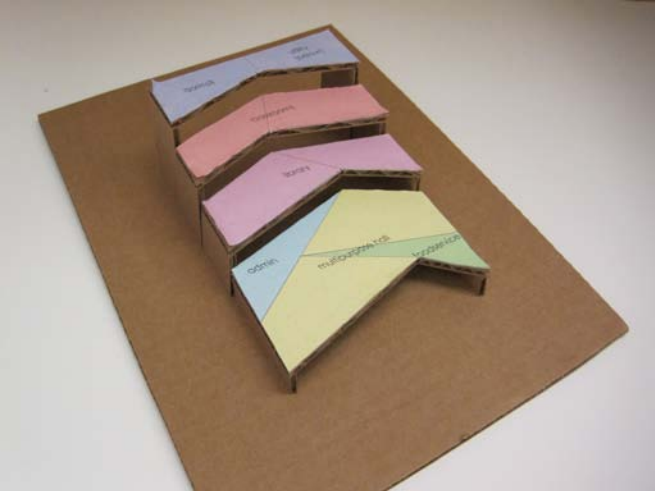


section B 3/32in = 1'-0'

02: DIAGRAMMATIC DESIGN



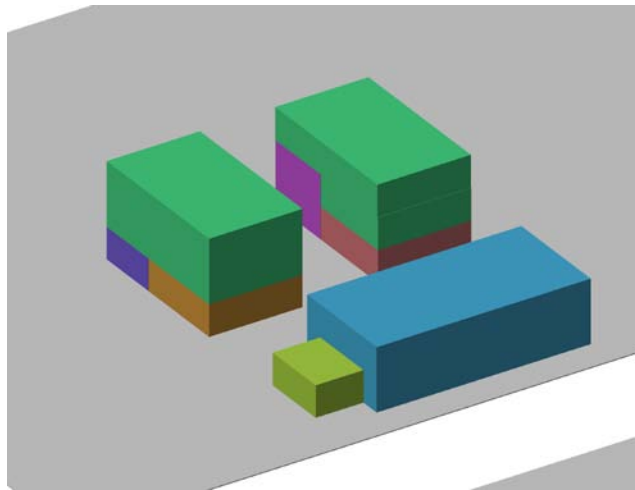
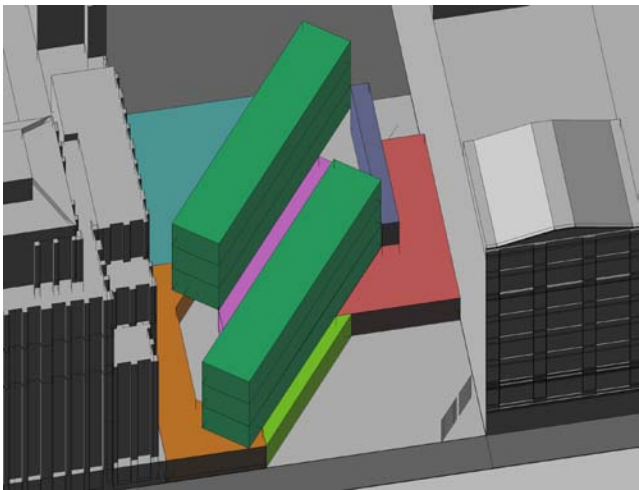
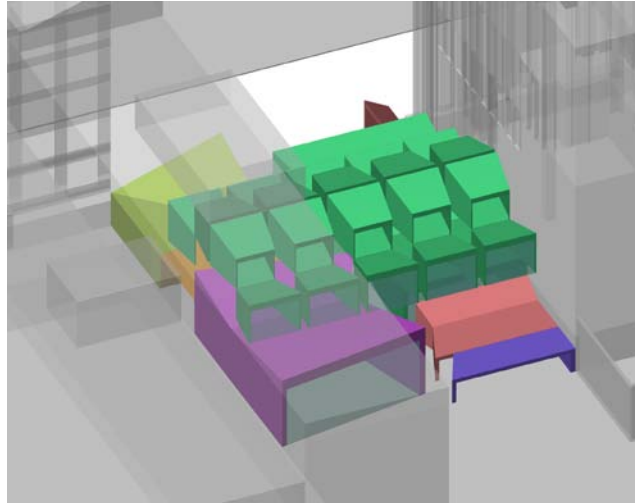
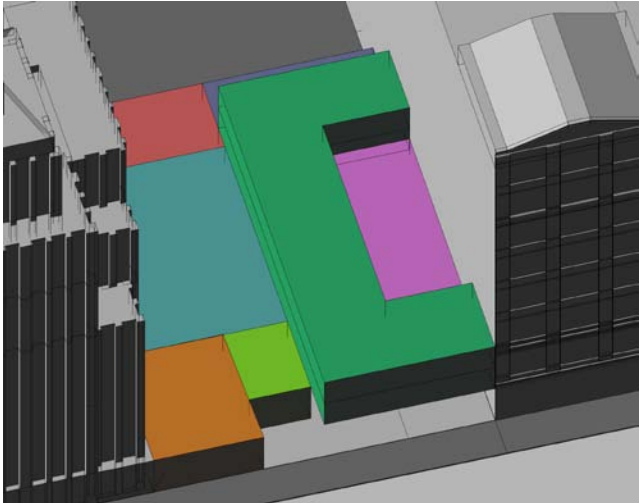
OF PROGRAM LAYOUT



Project 2 began with the development of the programmatic organization of the school in terms of massing of square footage, attitude toward access, views, and occupancy. Multiple schemes exploring differing organizational methods were created side by side to cross compare the strengths and weaknesses of each scheme.

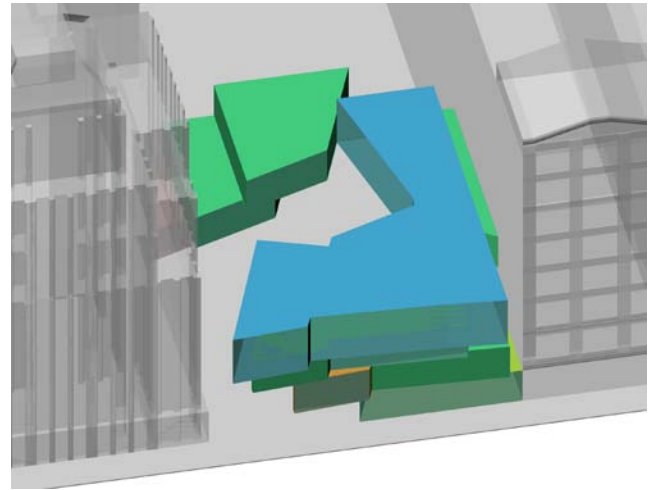
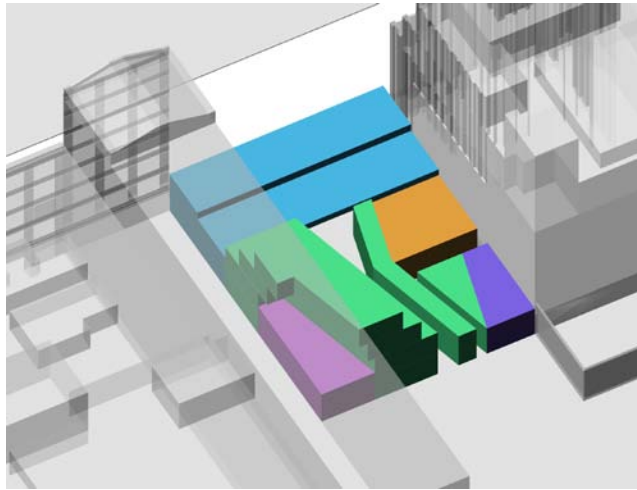
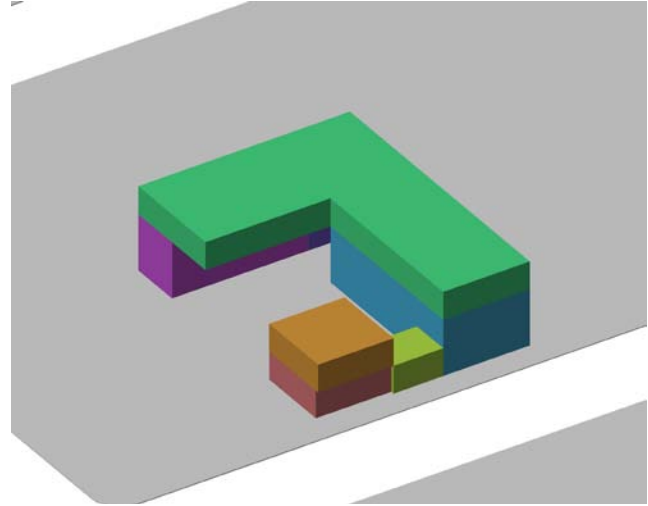
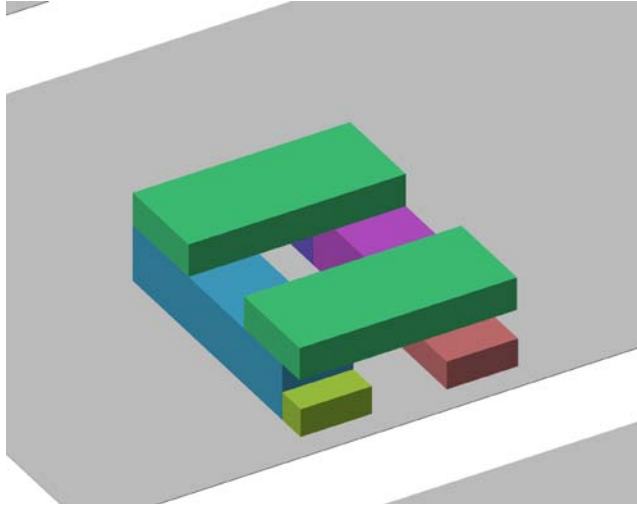
Three main schemes were created initially: a courtyard scheme, a banded scheme, and a stacked scheme. After several iterations and generation of multiple more partis, three schemes were developed further into a interior-focused courtyard scheme, a stacked canyon-esque scheme, and a split bi-partisan scheme.

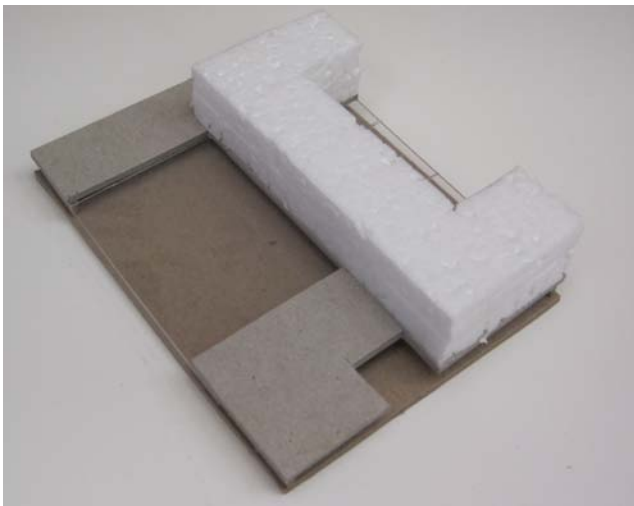
Left page: Initial parti models including terraced, courtyard, and stacked schemes.



Above: Diagrams describing banded, bi-partisan, and stacked schemes.

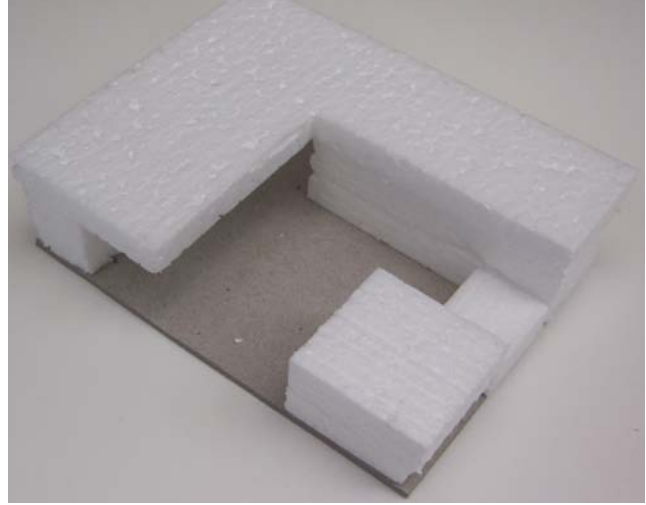
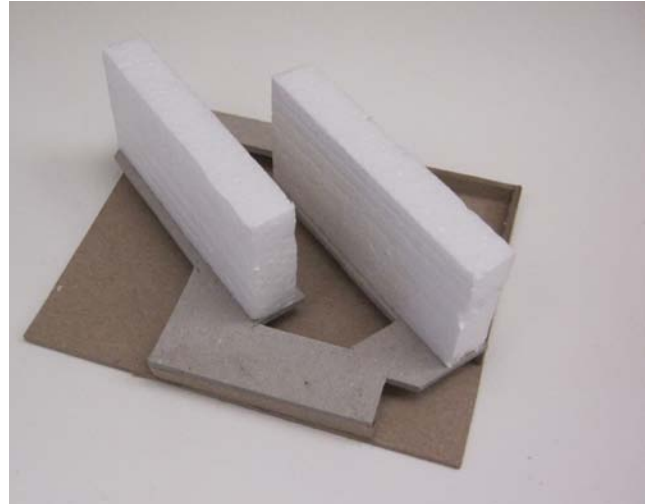
Right page: Diagrams describing central, courtyard, axial, and spiral terrace schemes.

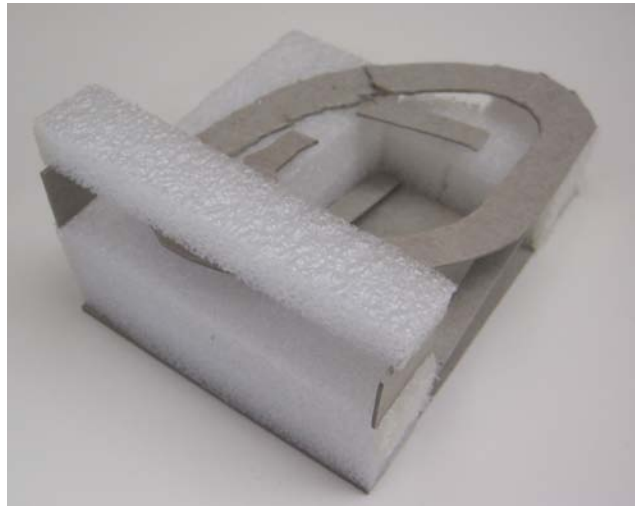
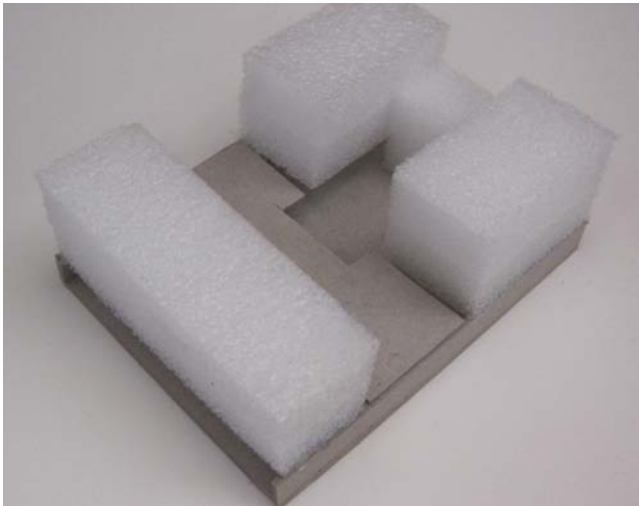




Above: Models describing banded, bi-partisan, and nodal schemes.

Right page: Models describing central, courtyard, and axial schemes.



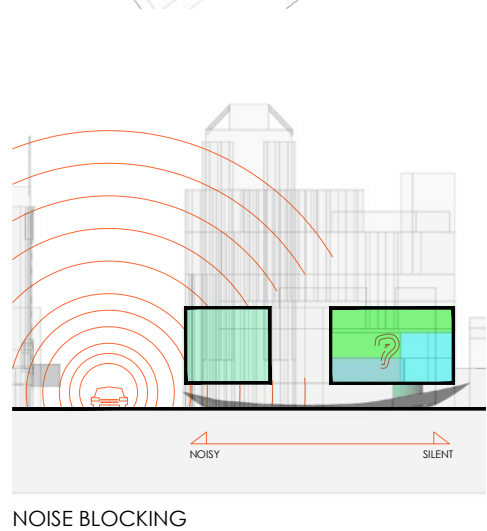
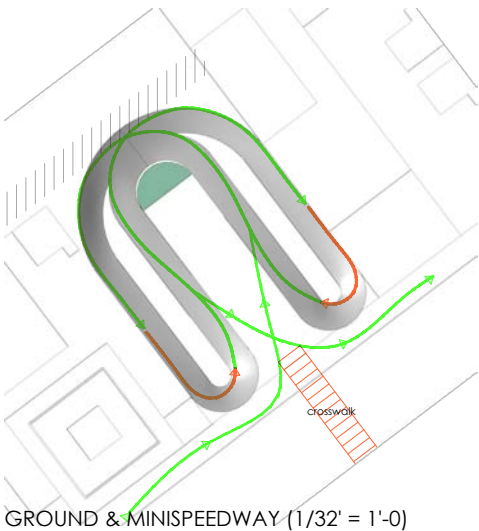
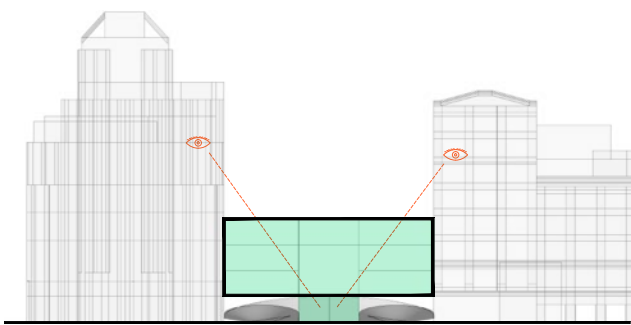
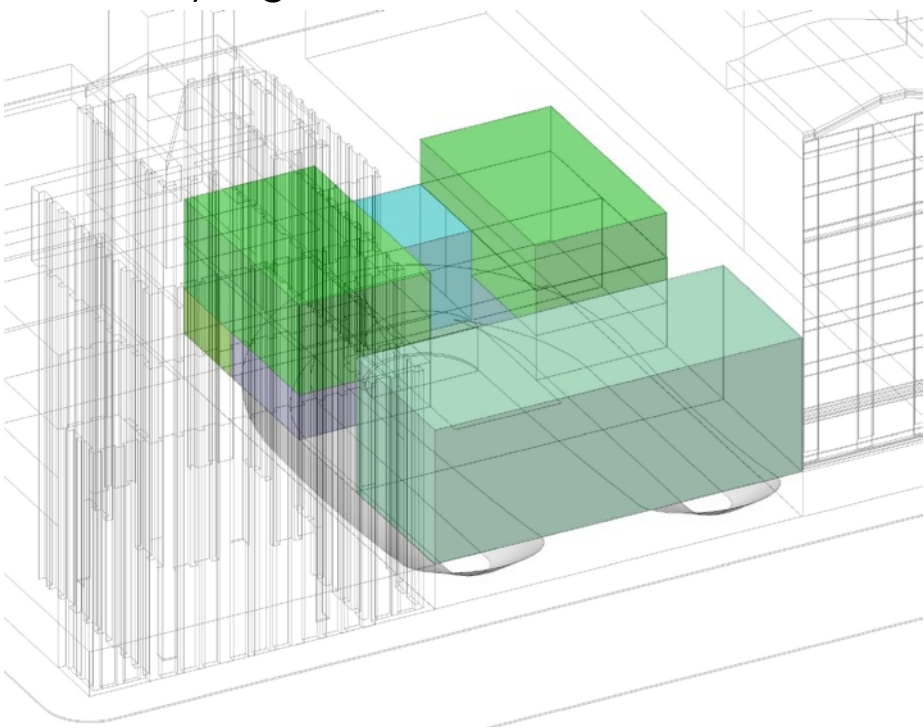


Above: Final models describing canyon, bi-partisan, and courtyard schemes.

Right and next pages: Final presentation schemes.

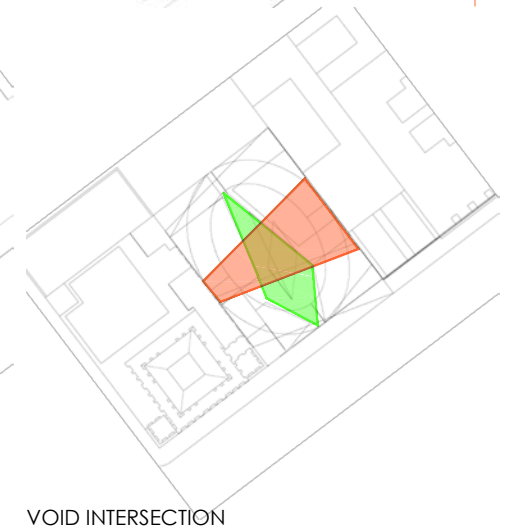
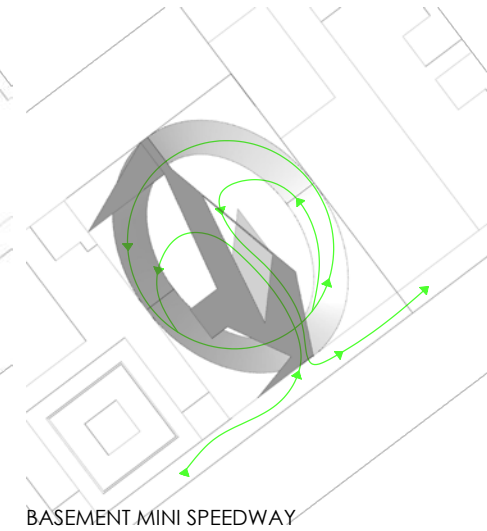
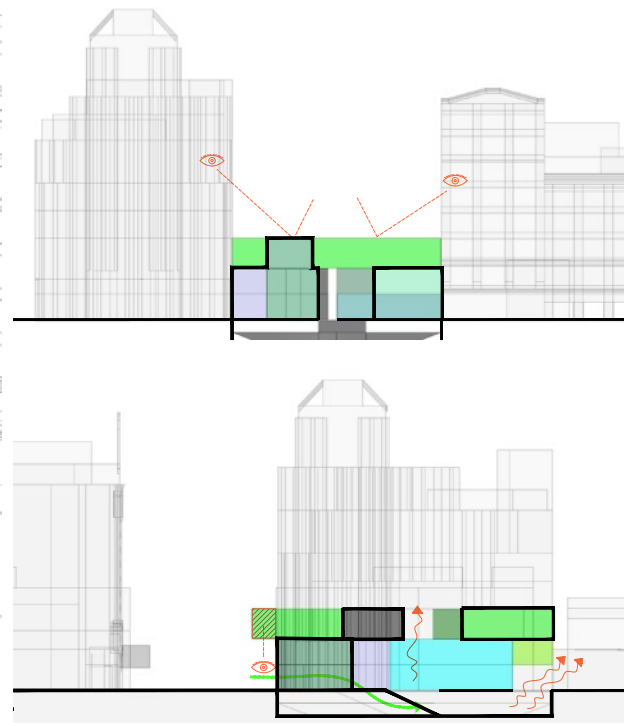
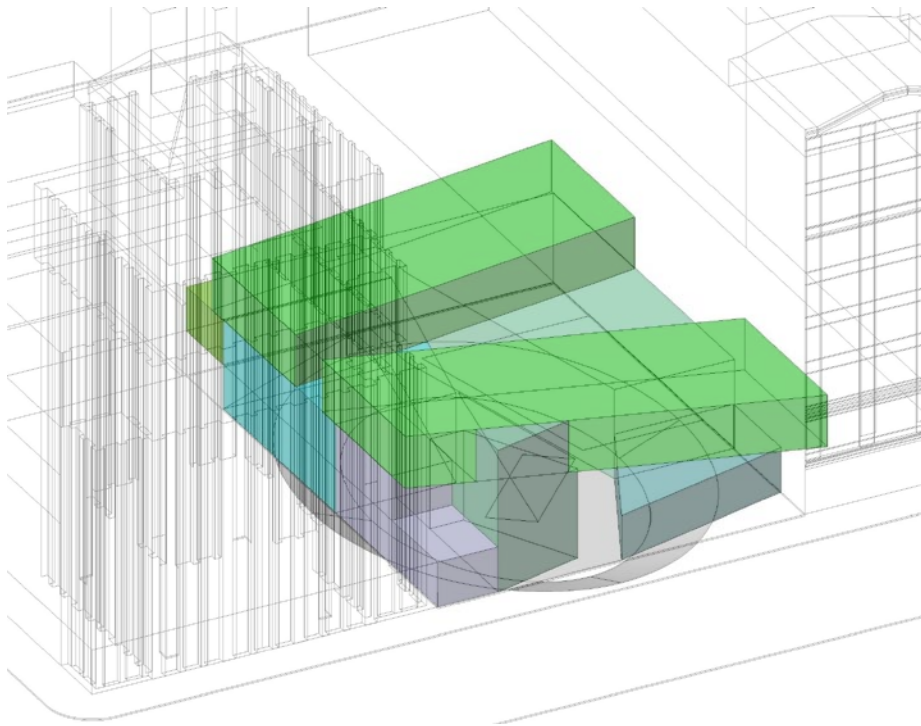
Broadway High -- BIPARTISAN SCHEME Aaron Mick - Val Augustin - 302b P2

DIAGRAMMATIC DESIGN

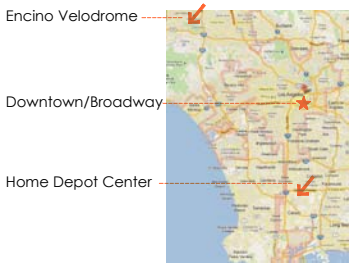
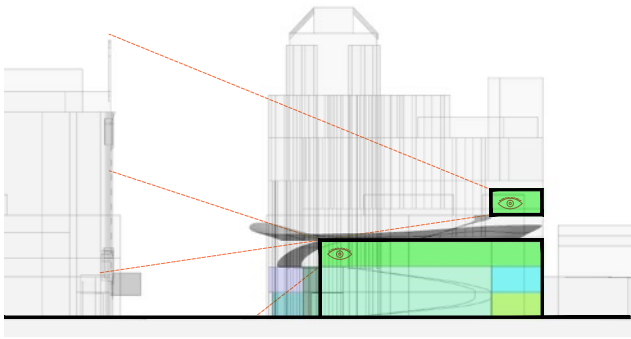
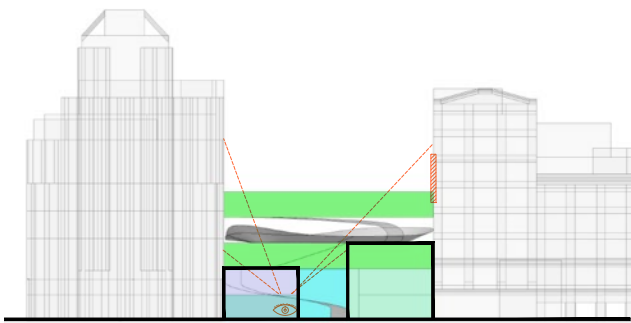
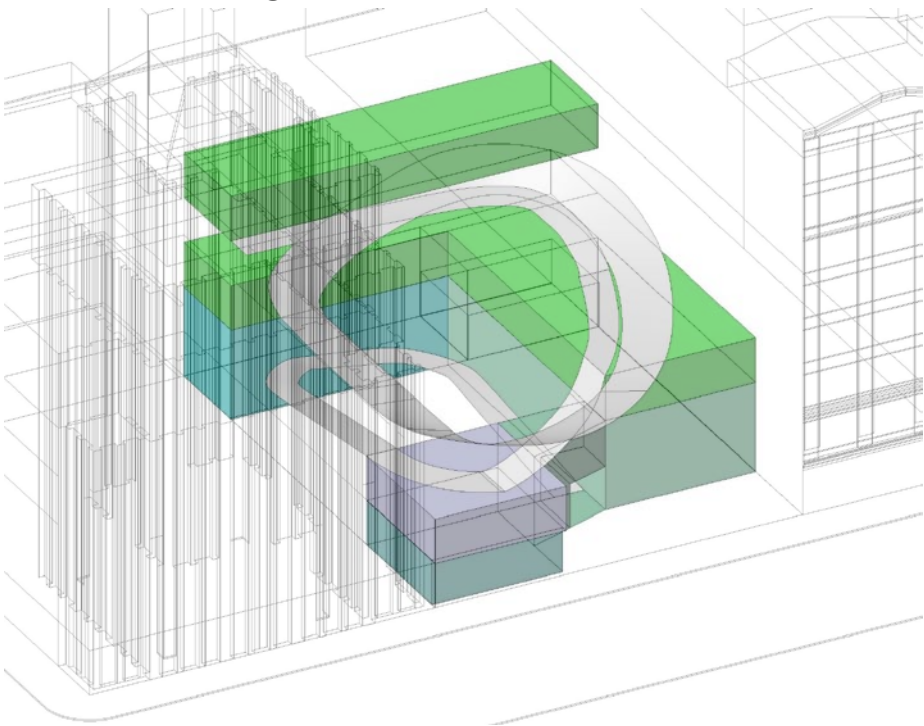


Broadway High -- CANYON SCHEME

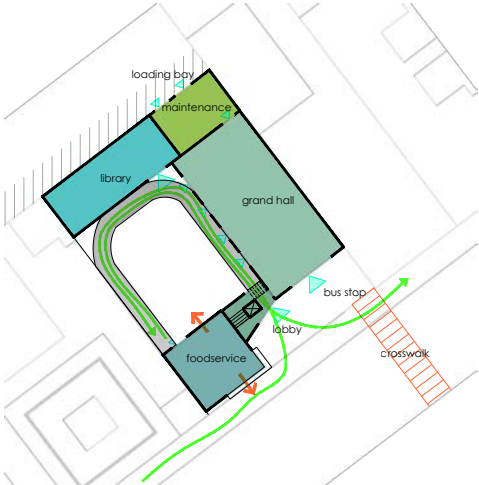
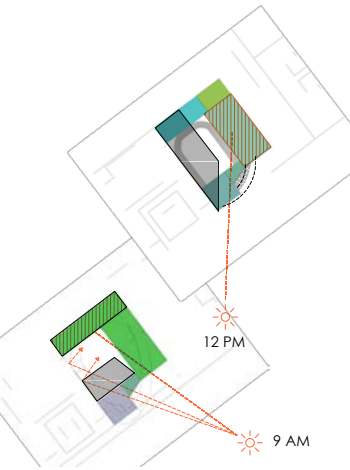
Aaron Mick - Val Augustin - 302b P2



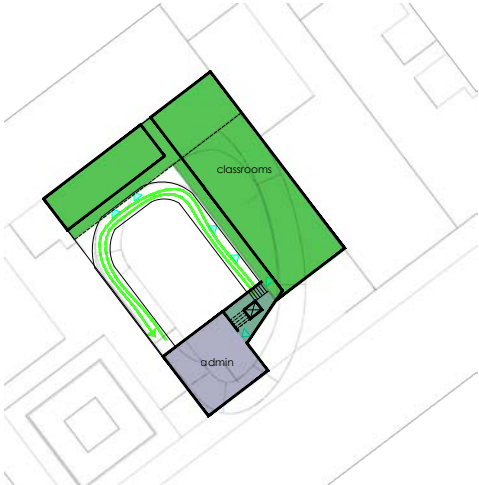
Broadway High -- COURTYARD SCHEME Aaron Mick - Val Augustin - 302b P2



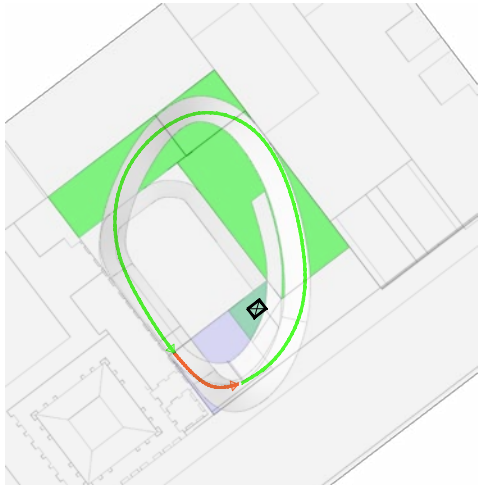
DIAGRAMMATIC DESIGN



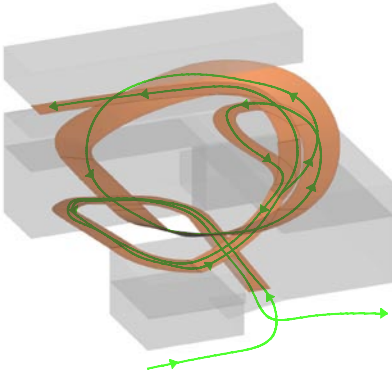
LOWER (1/32" = 1'-0")



UPPER

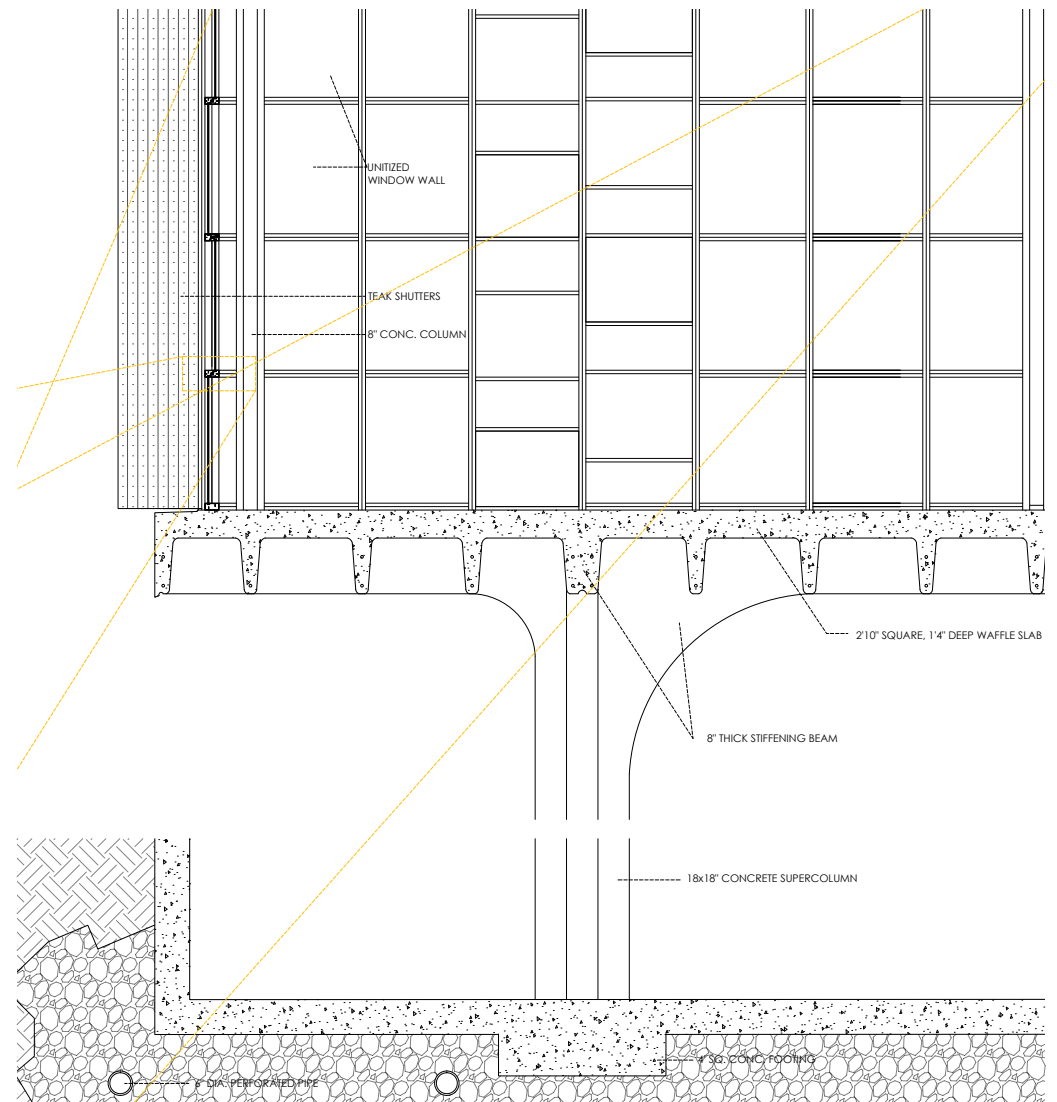


ROOFTOP MINI SPEEDWAY

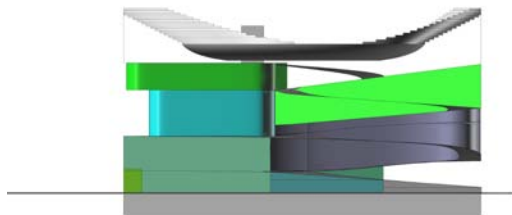
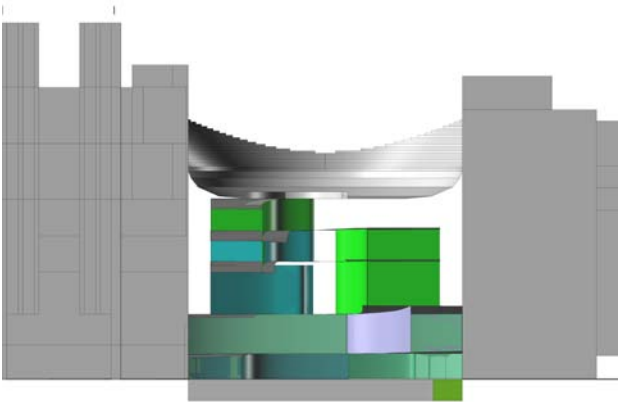
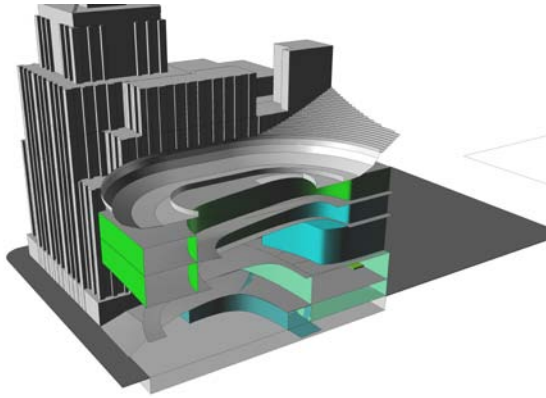
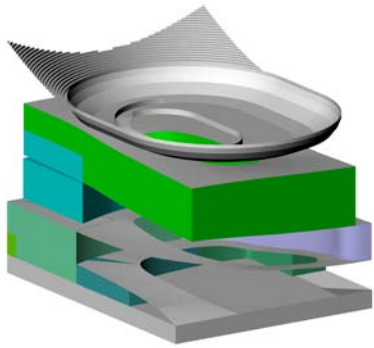


BICYCLE CIRCULATION

03: SCHEMATIC



DEVELOPMENT PHASE



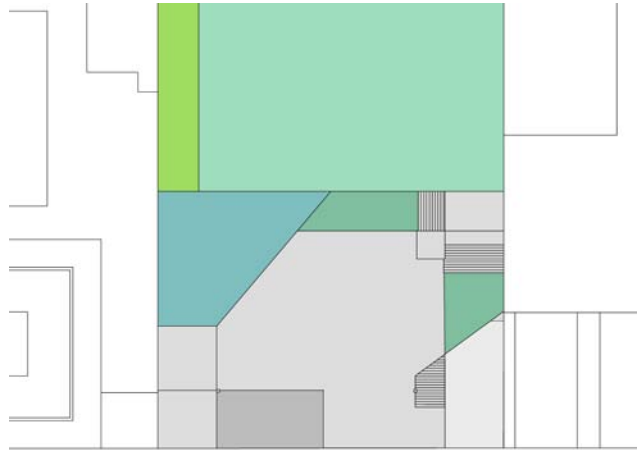
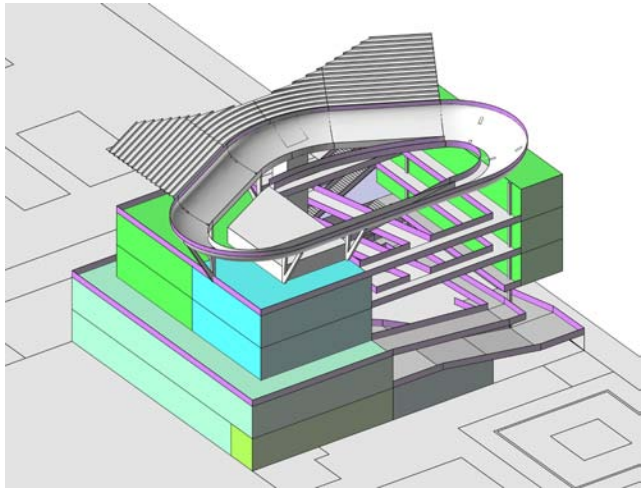
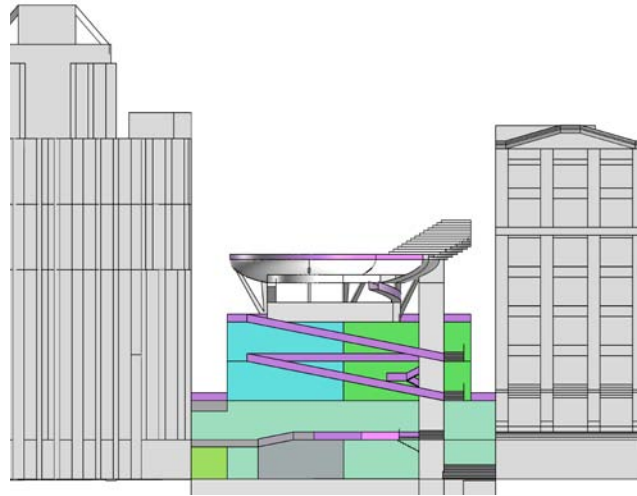
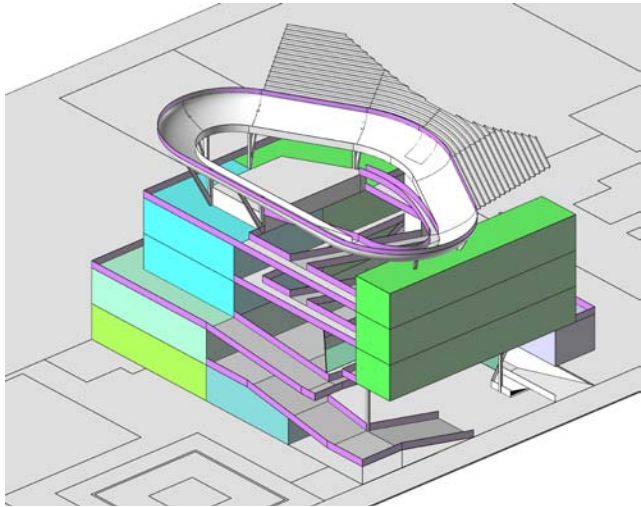
The project continued with the development of the courtyard scheme. This phase involved resolving issues with access and egress, refining the ramp system and circulation, and development of structure and enclosure.

The organization of the ramp system and layout of partitions and columns changed continuously throughout this phase, as did ideas about structure and enclosure; however, the programmatic organization and overall spatial characteristics were enhanced in more specificity while still maintaining the intent behind their original principles.

As the development enhanced with the addition of utilities and HVAC into plan and section, it was decided to use a concrete post and beam system using some load transfer between floors and precast elements for the span of the multipurpose.

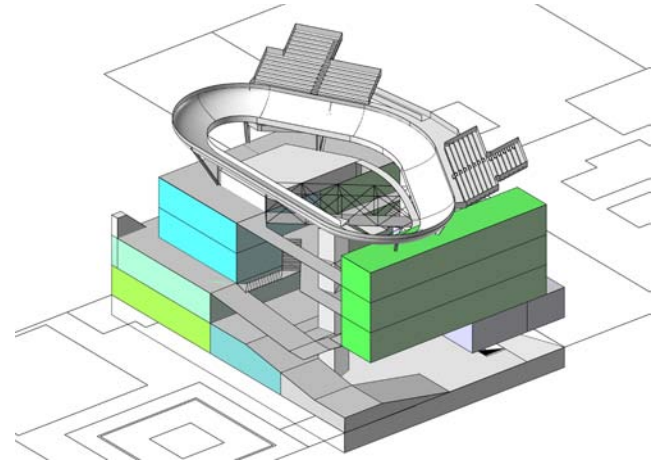
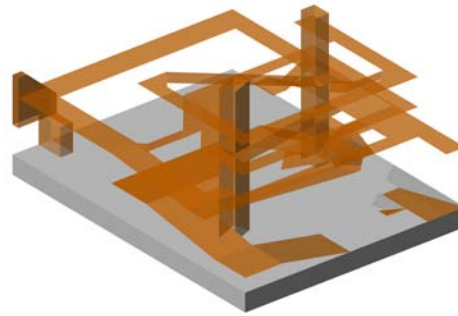
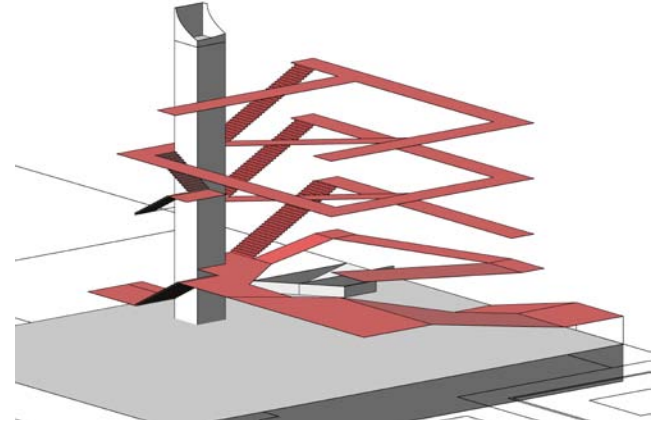
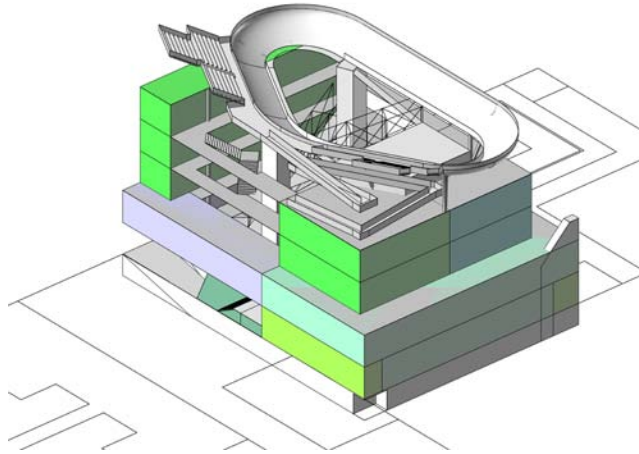
A shutter system for solar shading and exterior facades was also introduced.

Left page: Preliminary revisions for initial courtyard scheme.



Above: 3D development of scheme (2nd iteration).

Right page: Further development of scheme (6th iteration)
and circulation system.

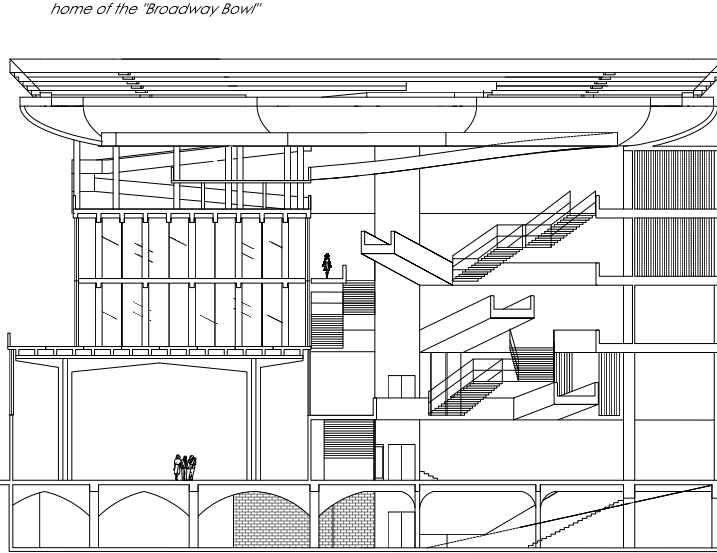


BROADWAY HIGH SCHOOL

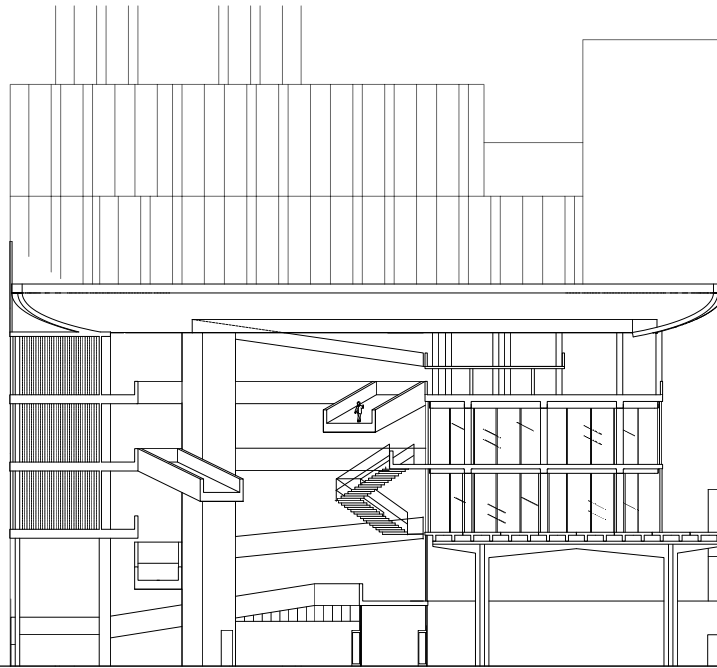
home of the "Broadway Bowl"

AARON MICK - VAL AUGUSTIN - 302B - P3

NORTHEAST SECTION (1/8" = 1'-0")

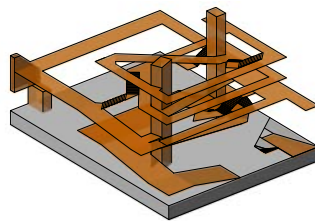


SOUTHWEST SECTION (1/8" = 1'-0")

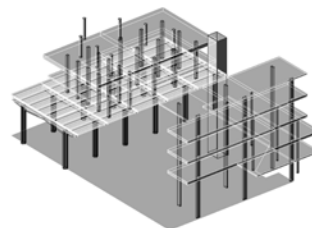


Above: Final section and elevation.

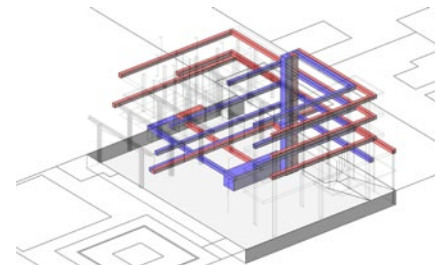
Right page: Final diagrams and renderings.



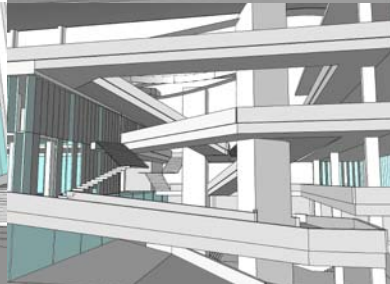
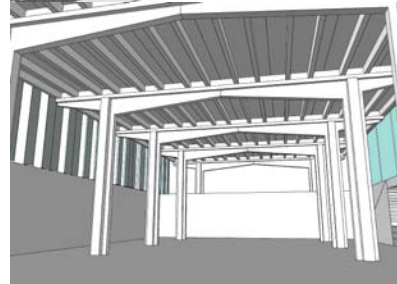
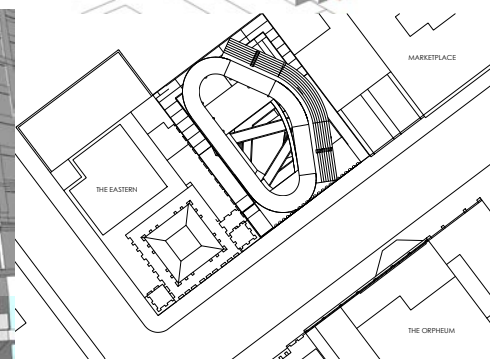
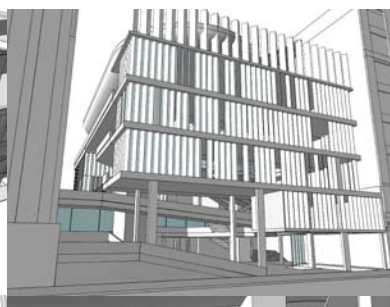
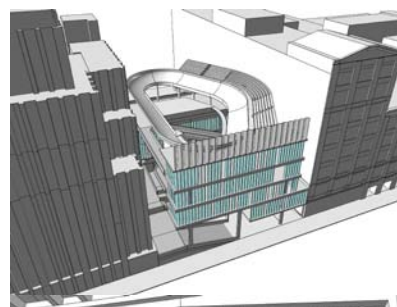
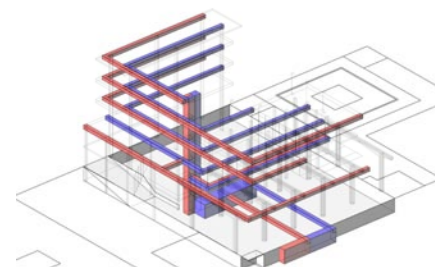
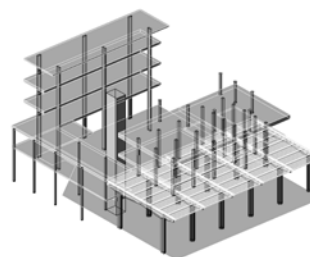
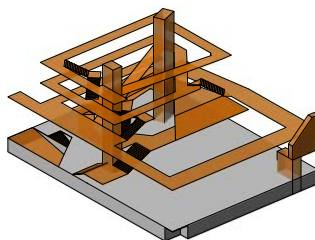
CIRCULATION

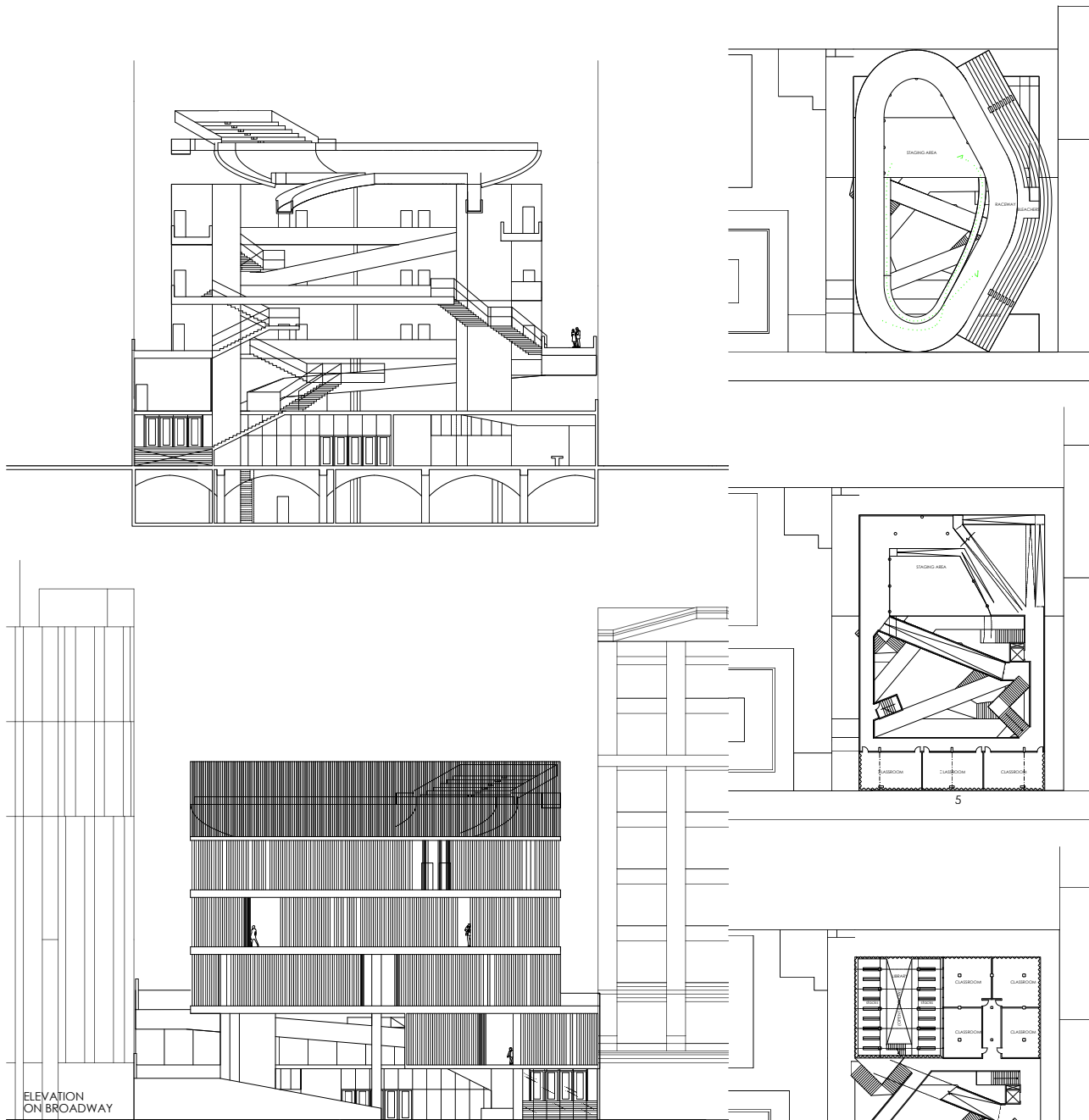


STRUCTURE



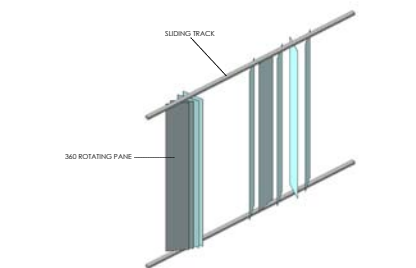
HVAC



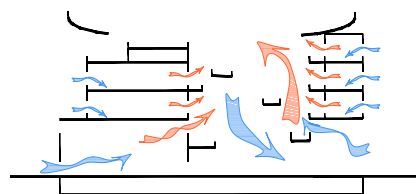


Above: Final section, elevation, and plans.

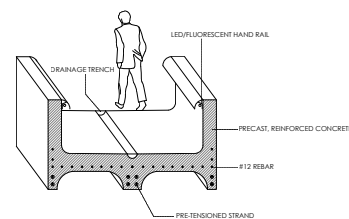
Right page: Final diagrams and plans.



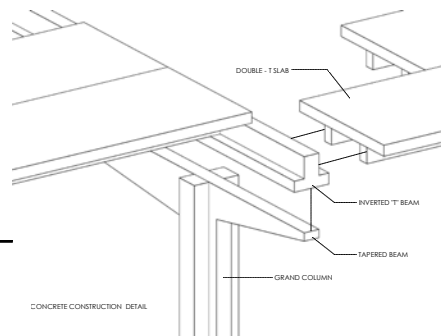
OPERABLE FENESTRATION DETAIL



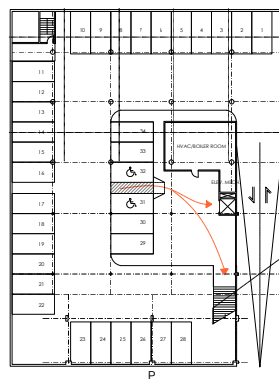
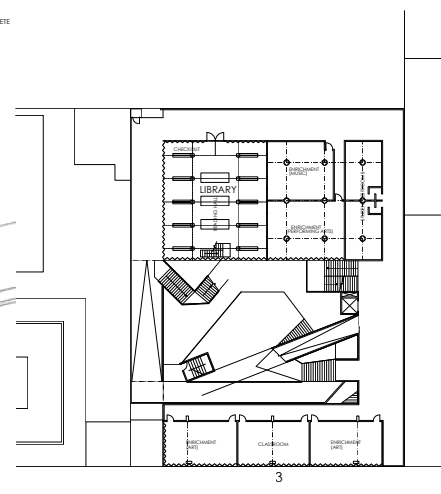
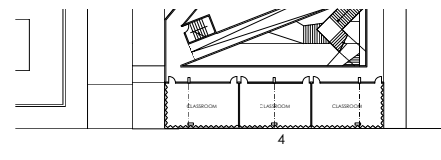
CROSS/STACK NATURAL VENTILATION



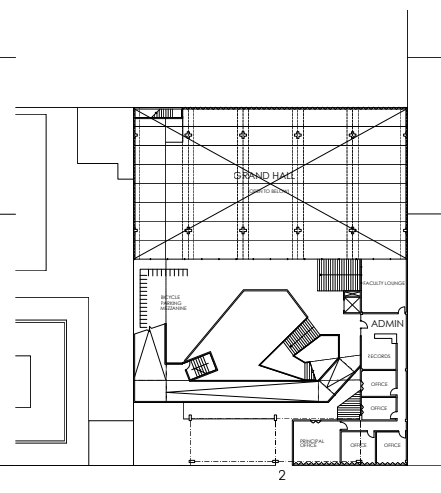
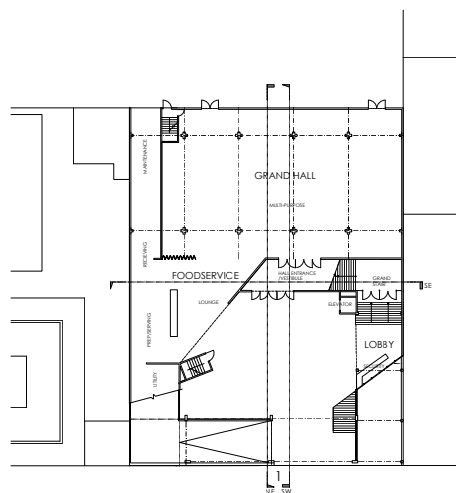
PRECAST CONCRETE BRIDGE DETAIL (3/8" = 1'-0")

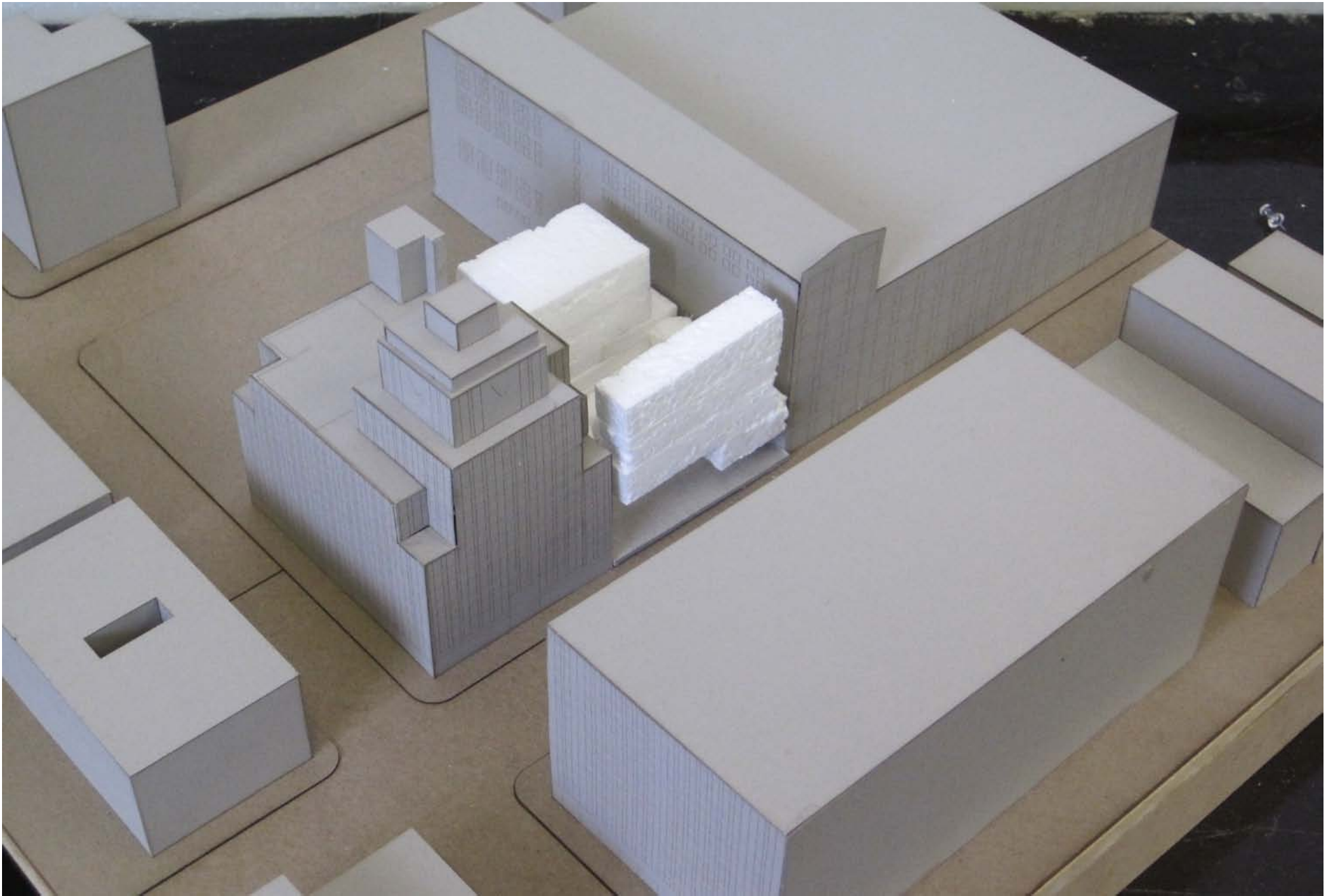


CONCRETE CONSTRUCTION DETAIL



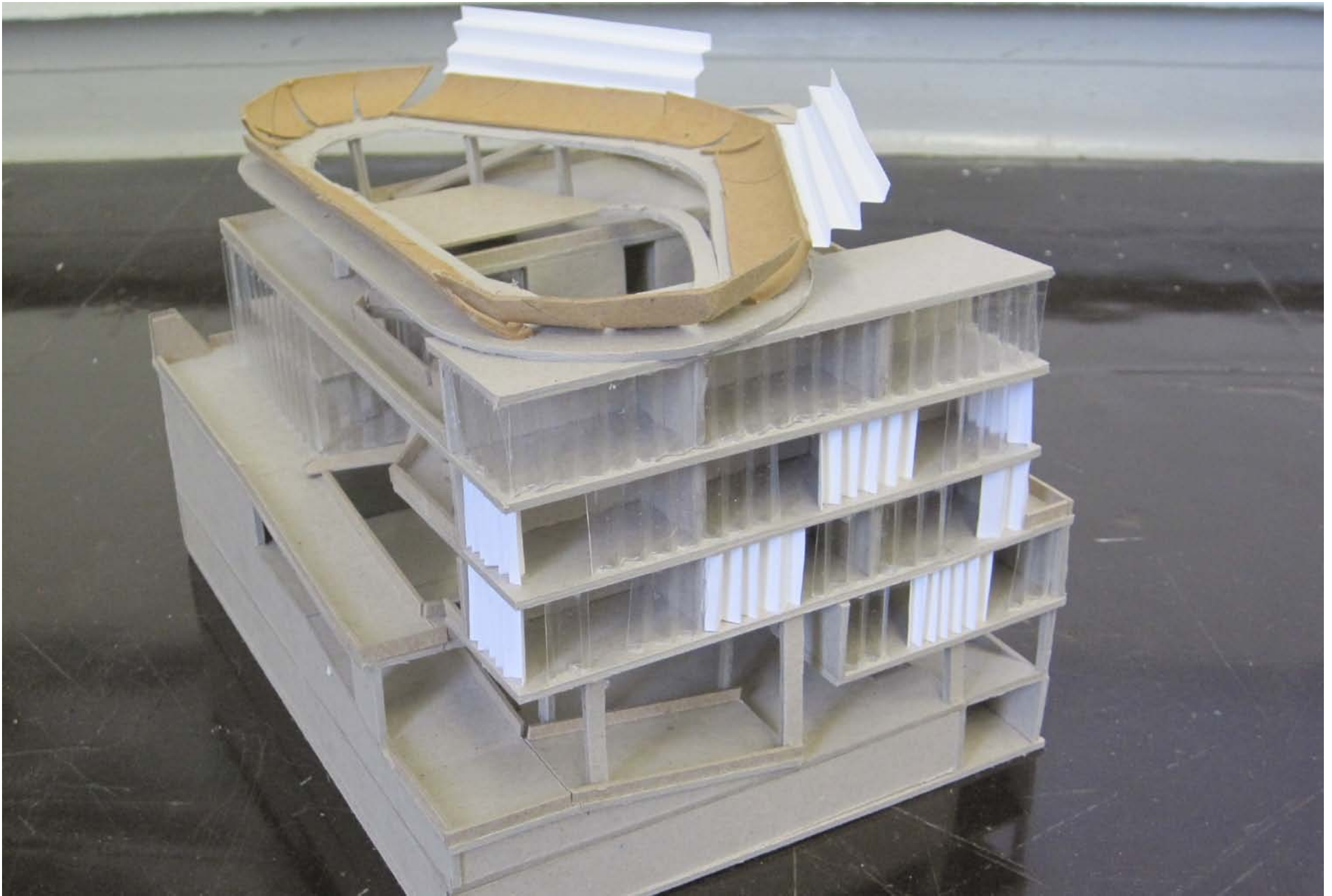
PLANS (1/16" = 1'-0")

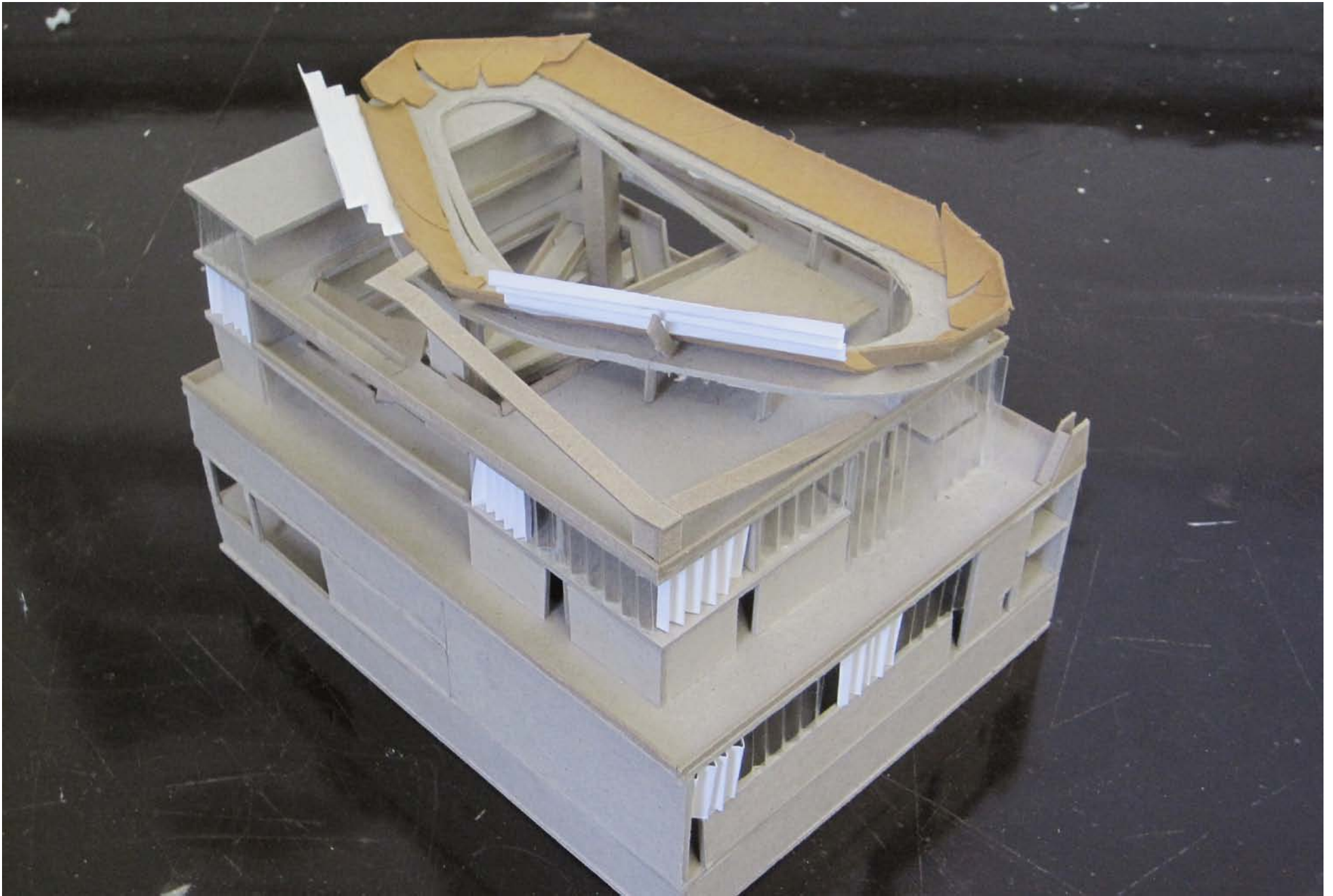




Above: 1/32" model in site.

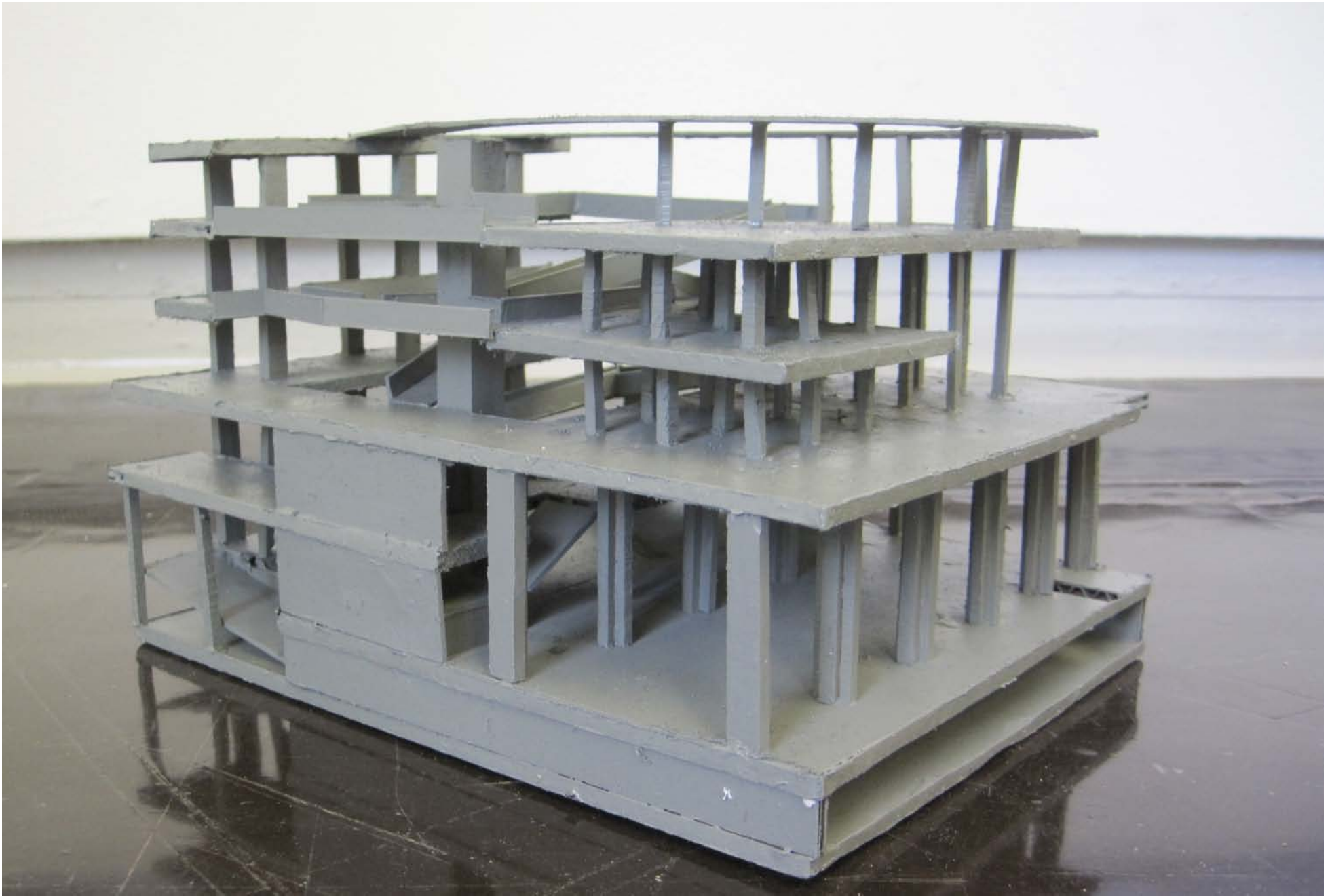
Right page: Final 1/16" model.



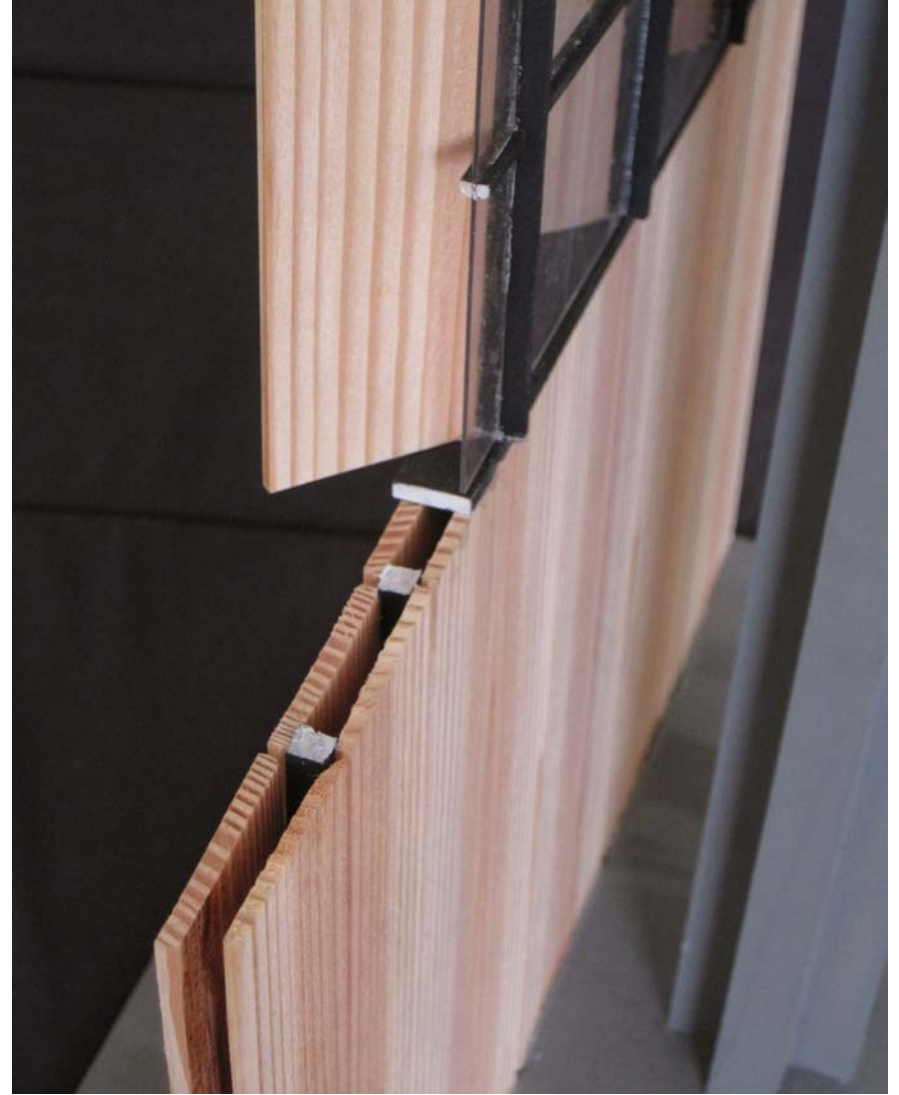


Above: Final 1/16" model.

Right page: Final 1/16" structural model.



04: DETAILED MODELING



OF STRUCTURE AND ENCLOSURE



Phase 4 involved the careful assembly of large-scale sectional models.

For the 1/4" model, a flat section cut was taken across approximately half the width of the site, resulting in the construction of nearly half the entire building from ground to sky, showing circulation, tectonic structure, spatial characteristic, and enclosure systems.

The 3/8" model studies a smaller chunk of the building in more detail, describing the hierarchical nature of the concrete structure and the assembly of the panelized infill and enclosure system.

Both models were hand-cut and crafted, requiring the fabrication and production of many individual wooden elements such as shutters and mullions that would later be painted to represent steel.

Left page: 1/4 model.



Above: Final 1/4" model.













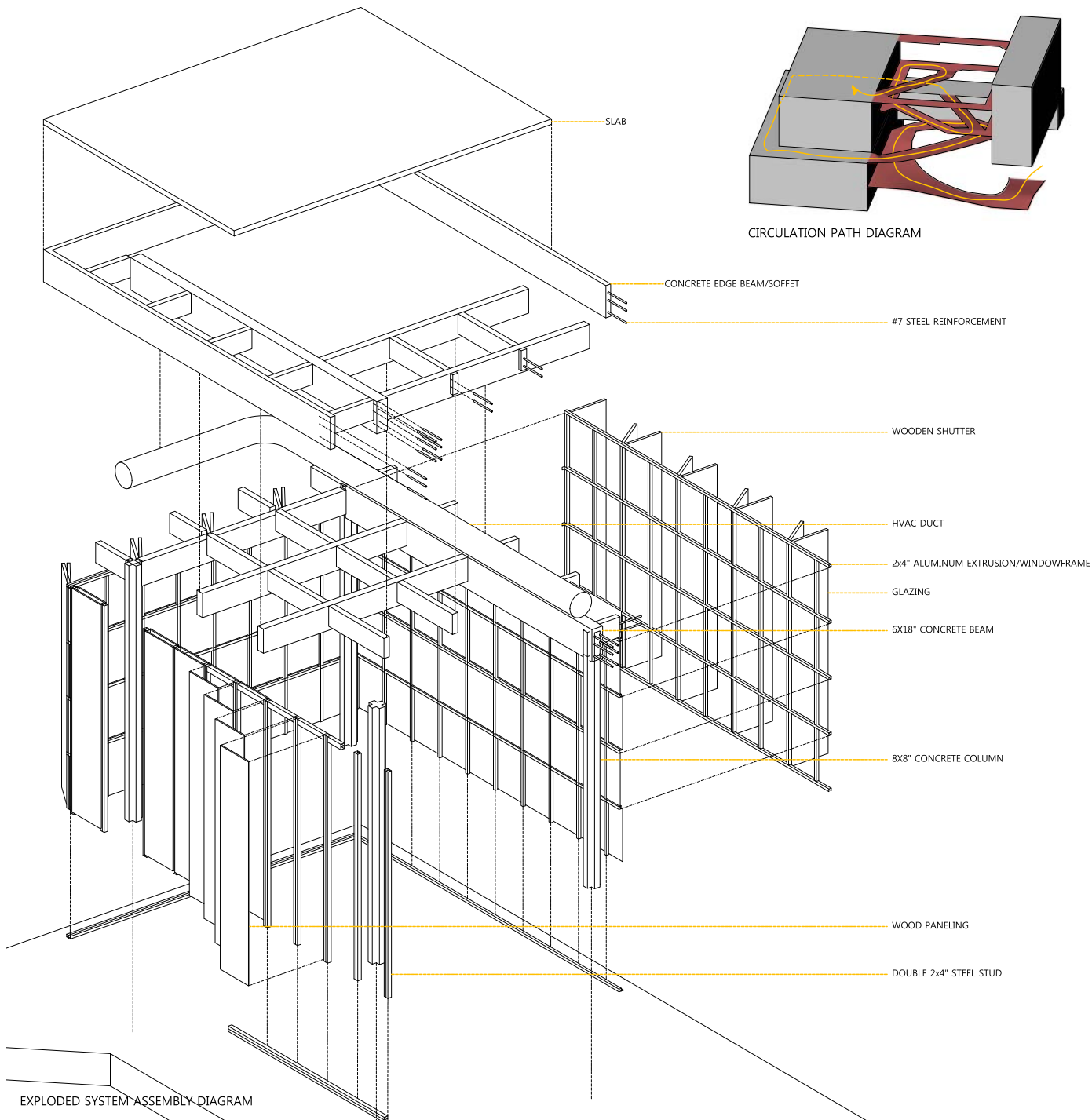
Above: Final 3/8" model.



05: REFINEMENT



OF COMPLETE BUILDING



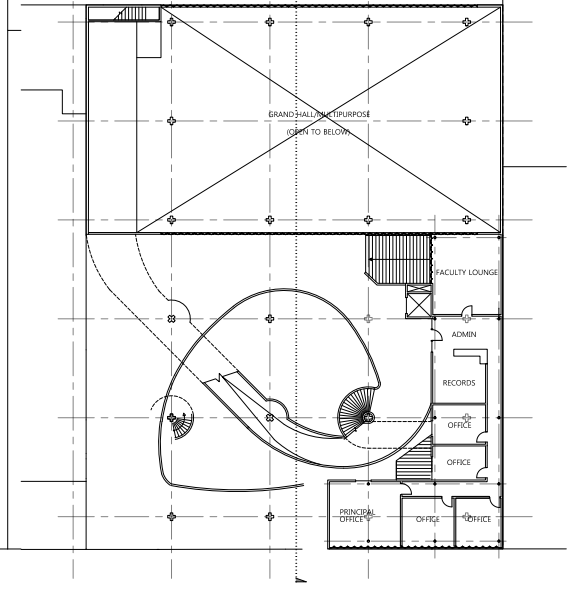
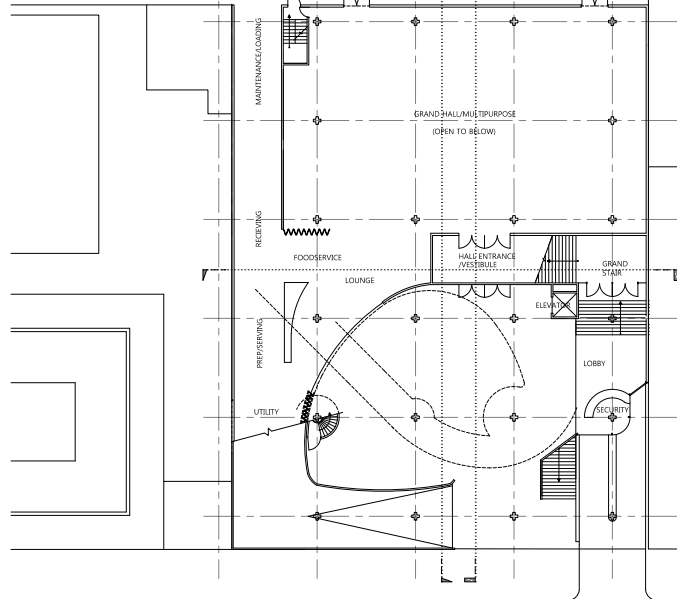
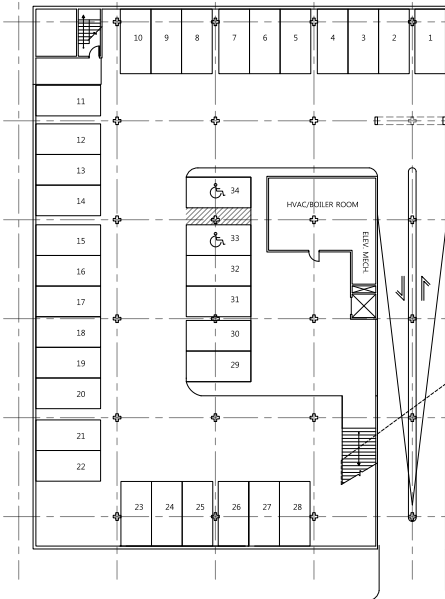
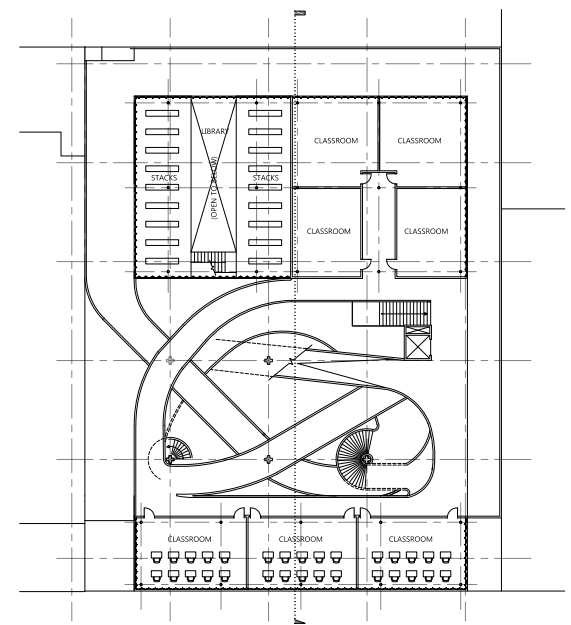
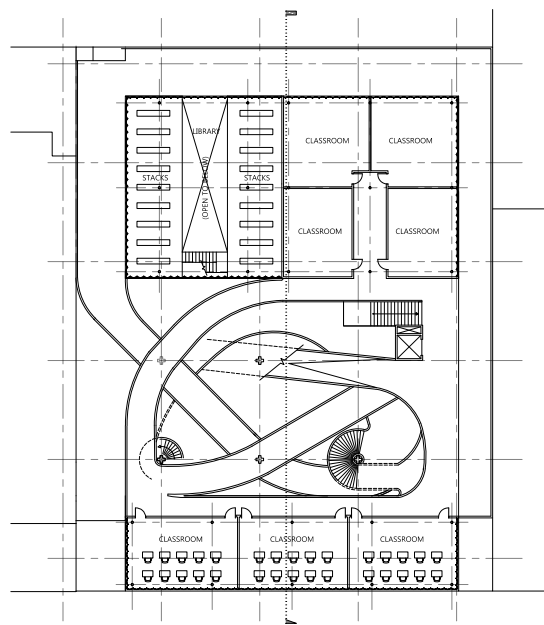
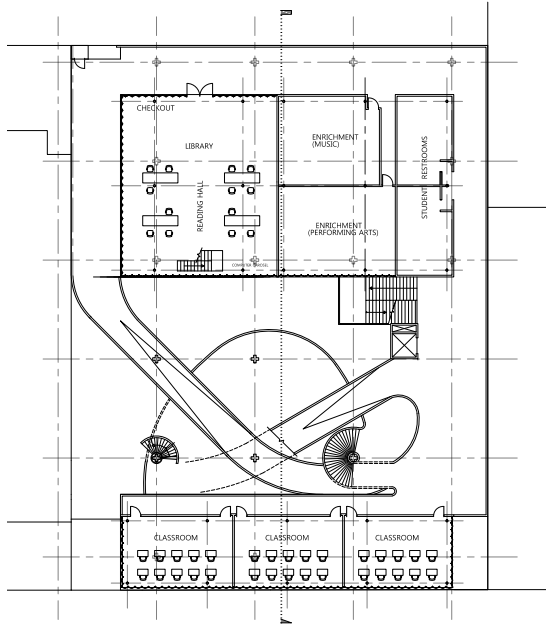
The completion of final presentation materials for the school began with the process of resolving all outlying problems in plan and section and making final decisions regarding structural and enclosure systems.

Without disturbing the layout of program or circulation, formal and tectonic changes were added to make the ramp system and courtyard area more functional and streamlined.

It was decided that the rooftop velodrome would remain as a fully functional public recreational area and raceway, and that it be supported with a concrete structure using the same tectonic logic as the rest of the building.

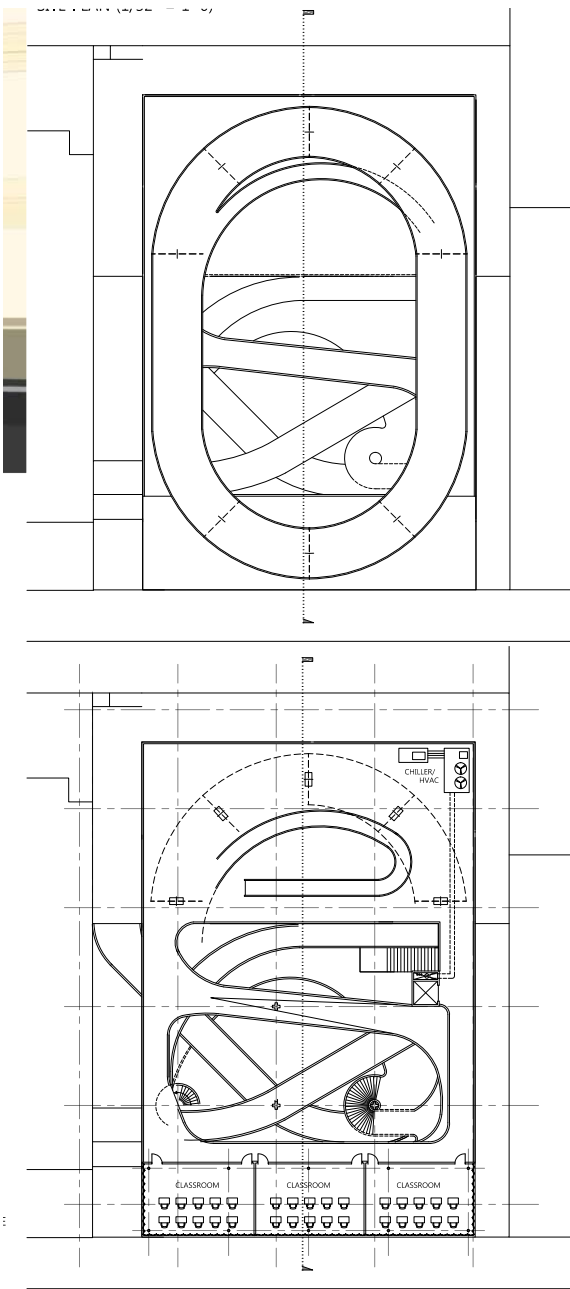
Column arrangements were revised and the structural grid throughout the building was made more consistent and substantial; along with the revision of the enclosure system and HVAC placement the final plans strive to integrate the buildings varying systems into a symbiotic relationship.

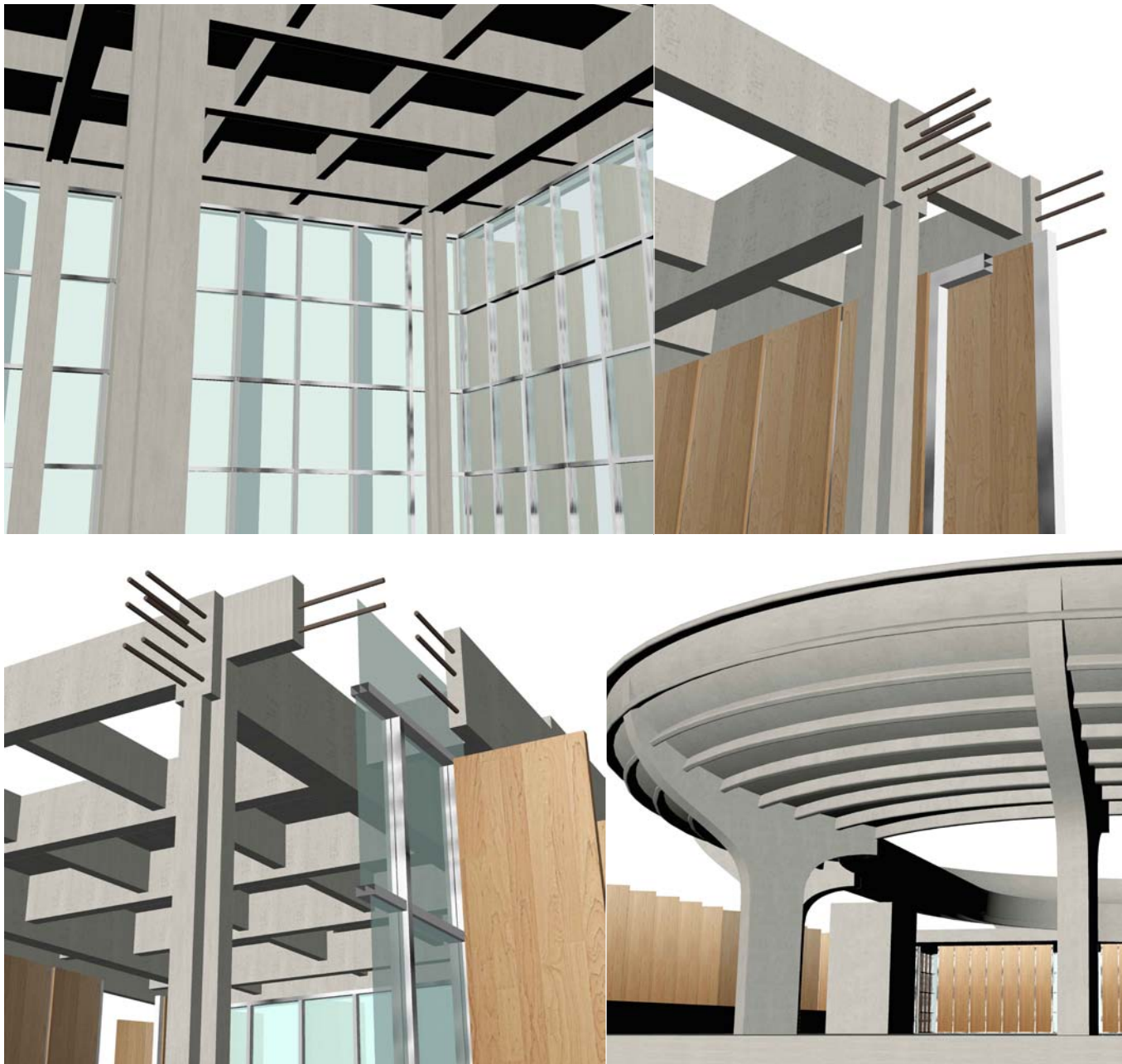
Left page: Diagrams of building systems.



Above: Final floor plans.

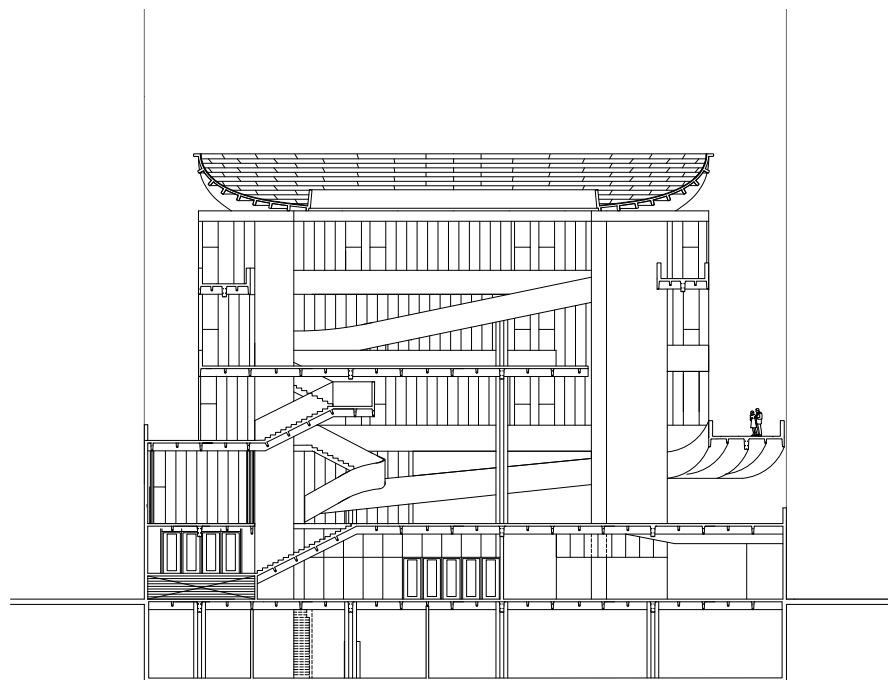
Right: Final rendering.



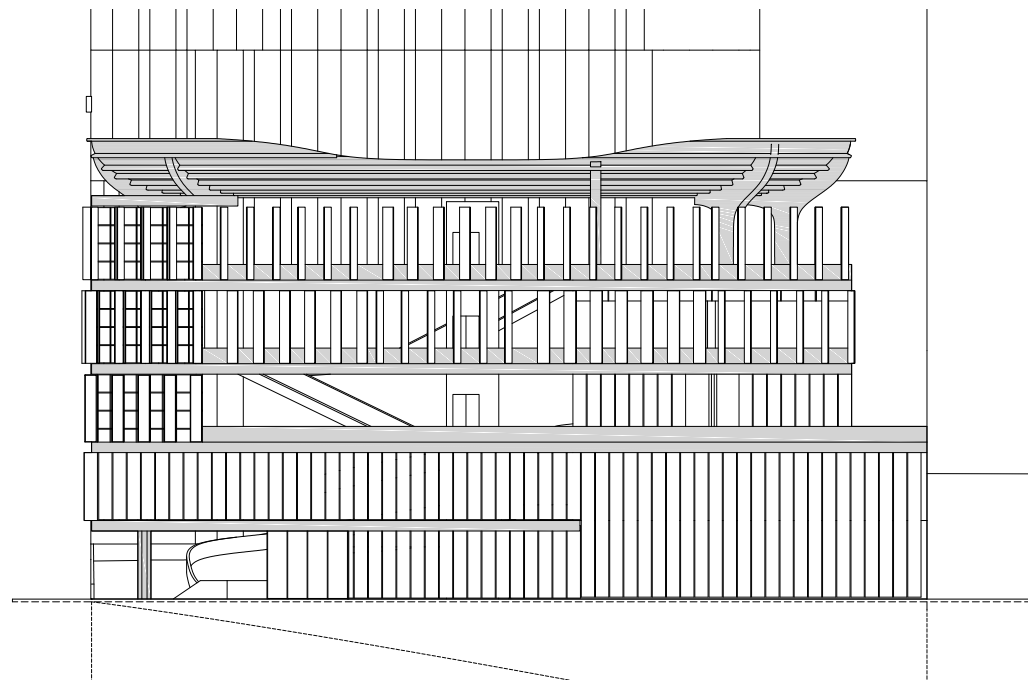


Above: Additional renderings.

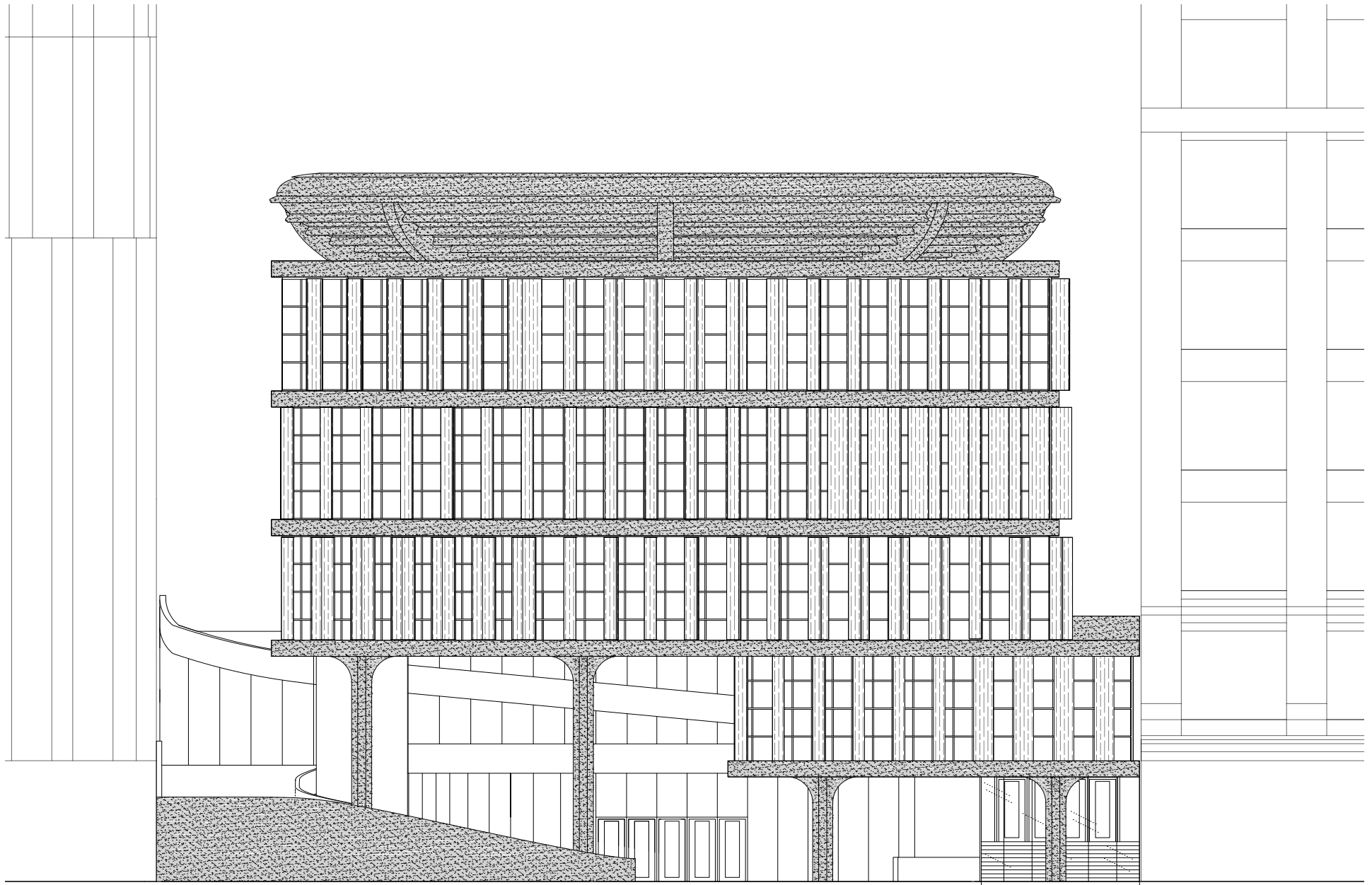
Right page: Section and elevation B.



CROSS SECTION (3/32" = 1'-0")

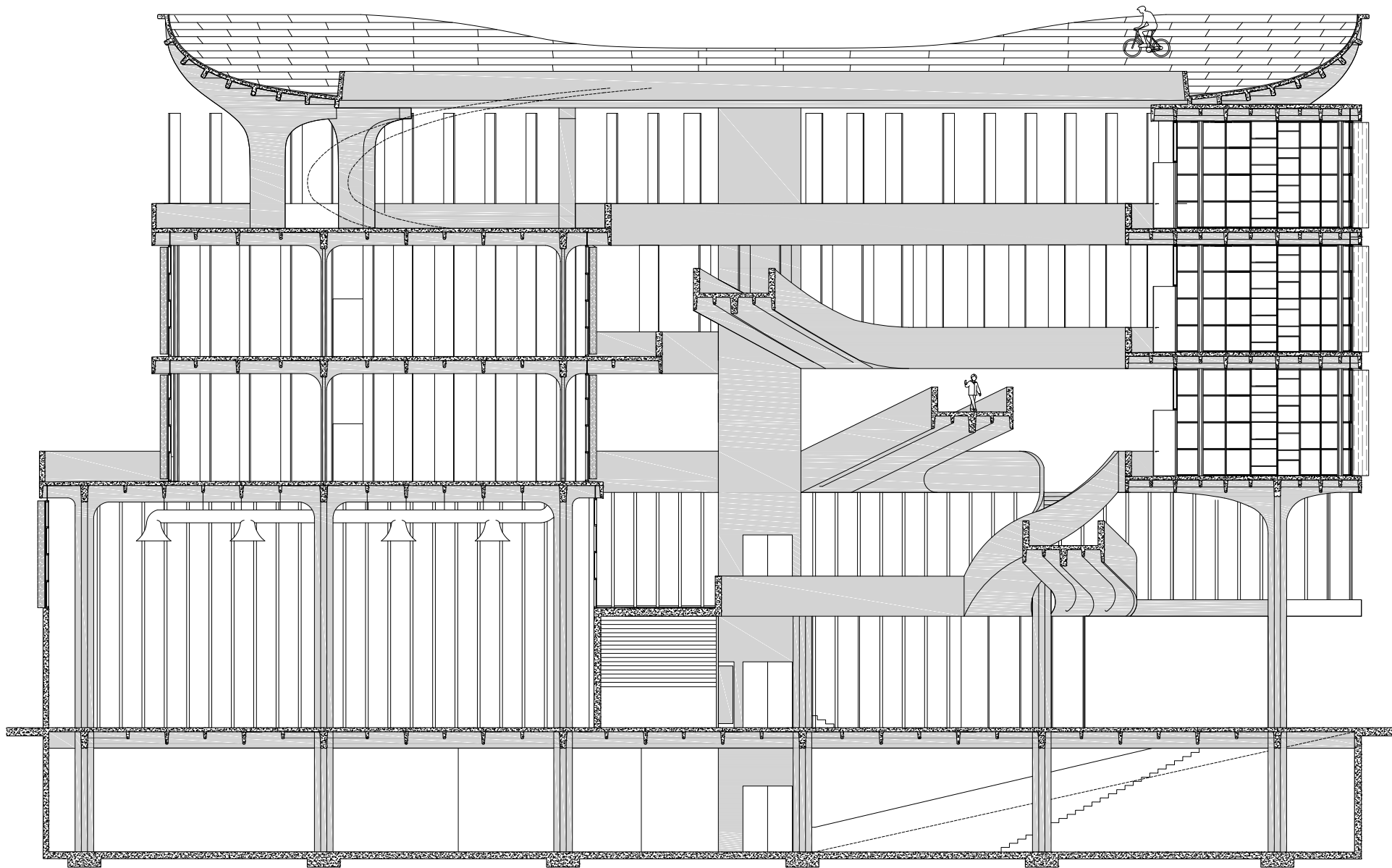


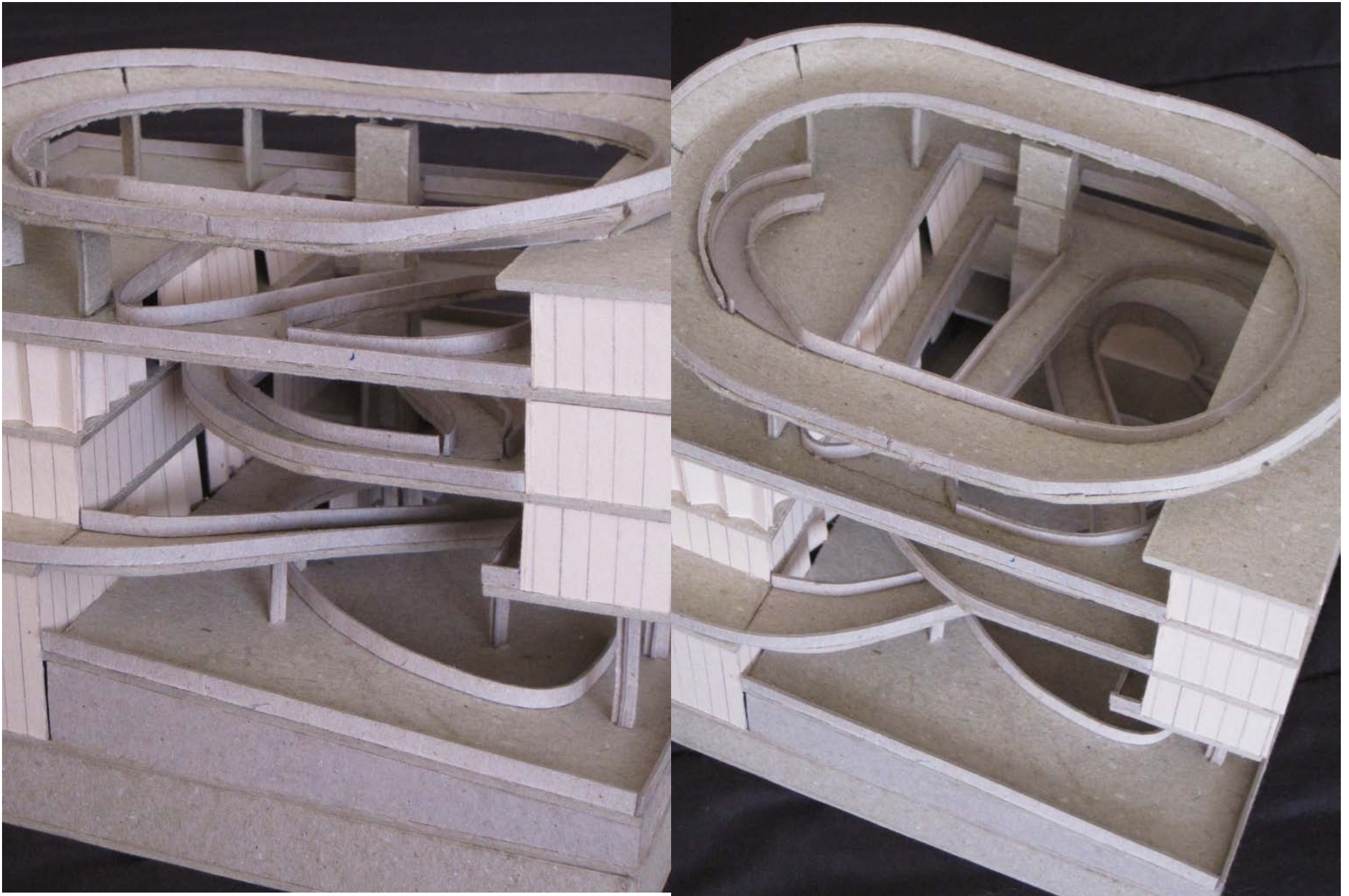
SIDE ELEVATION (3/32" = 1'-0")



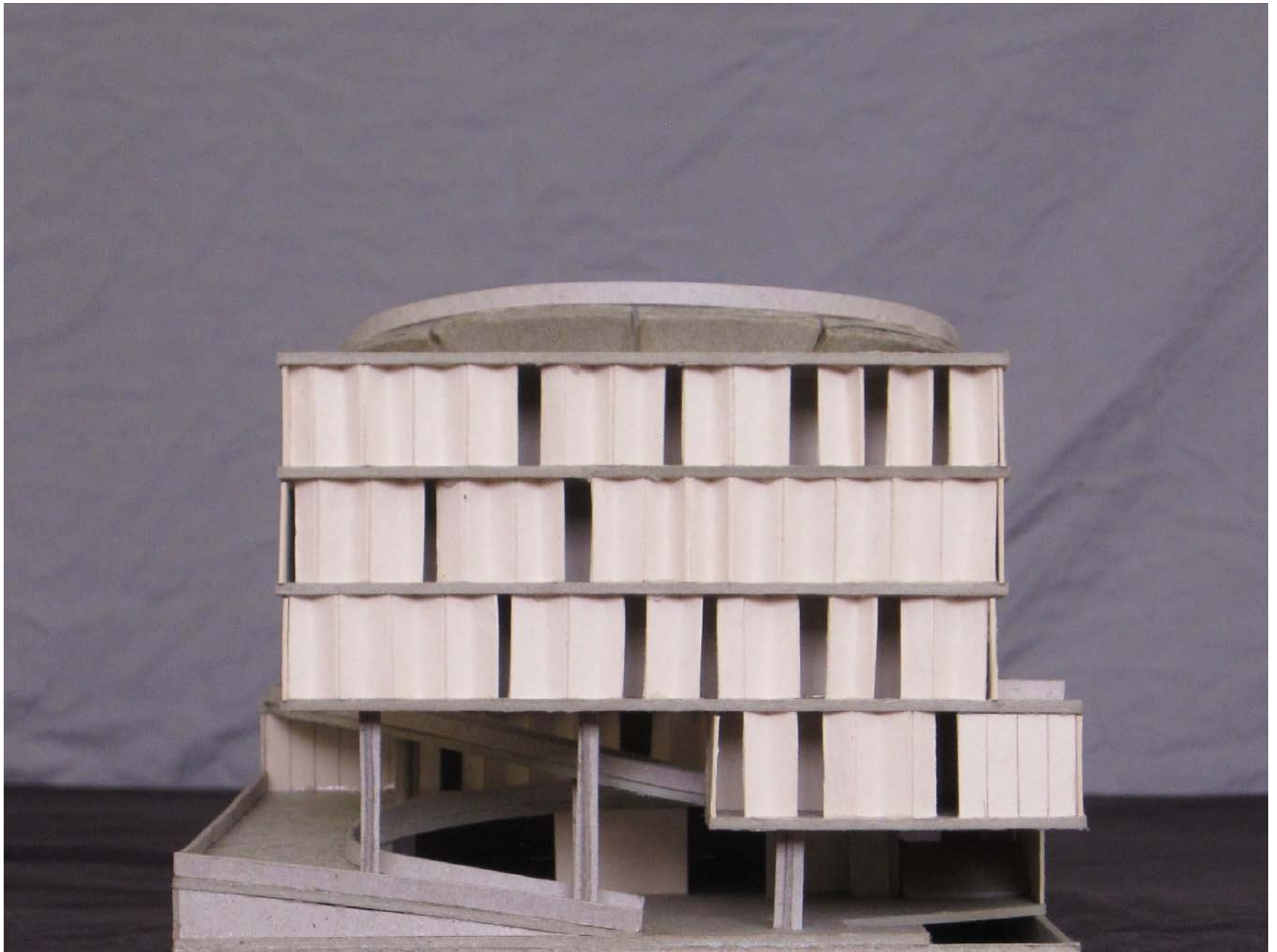
Above: Final elevation facing Broadway

Right: Final cross-section.





Final 1/16" model.





Above: Final 3/8" model.



SPECIAL THANKS

Mom & Dad

Val Augustin

Eric Haas

Friends and studio mates