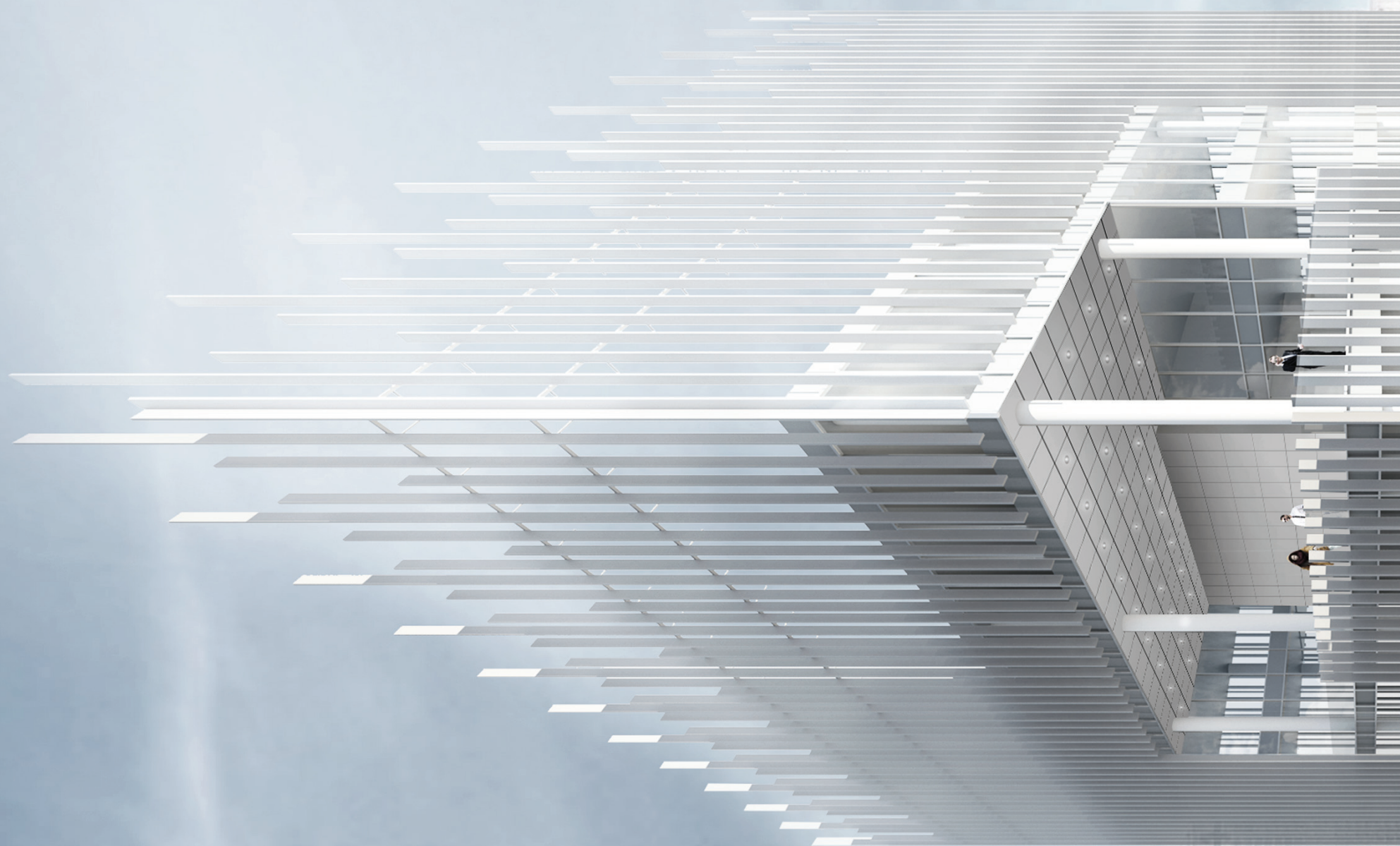


URBAN PORTAL

SPRING 2018

MEGAN ZHANG

MEGAN ZHANG





URBAN
PORTAL
HIGH LINE, NEW YORK

MEGAN ZHANG
CHAIR MARCEL ERMINY

COMMITTEE
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COLLEGE OF ARCHITECTURE

SPRING 2018

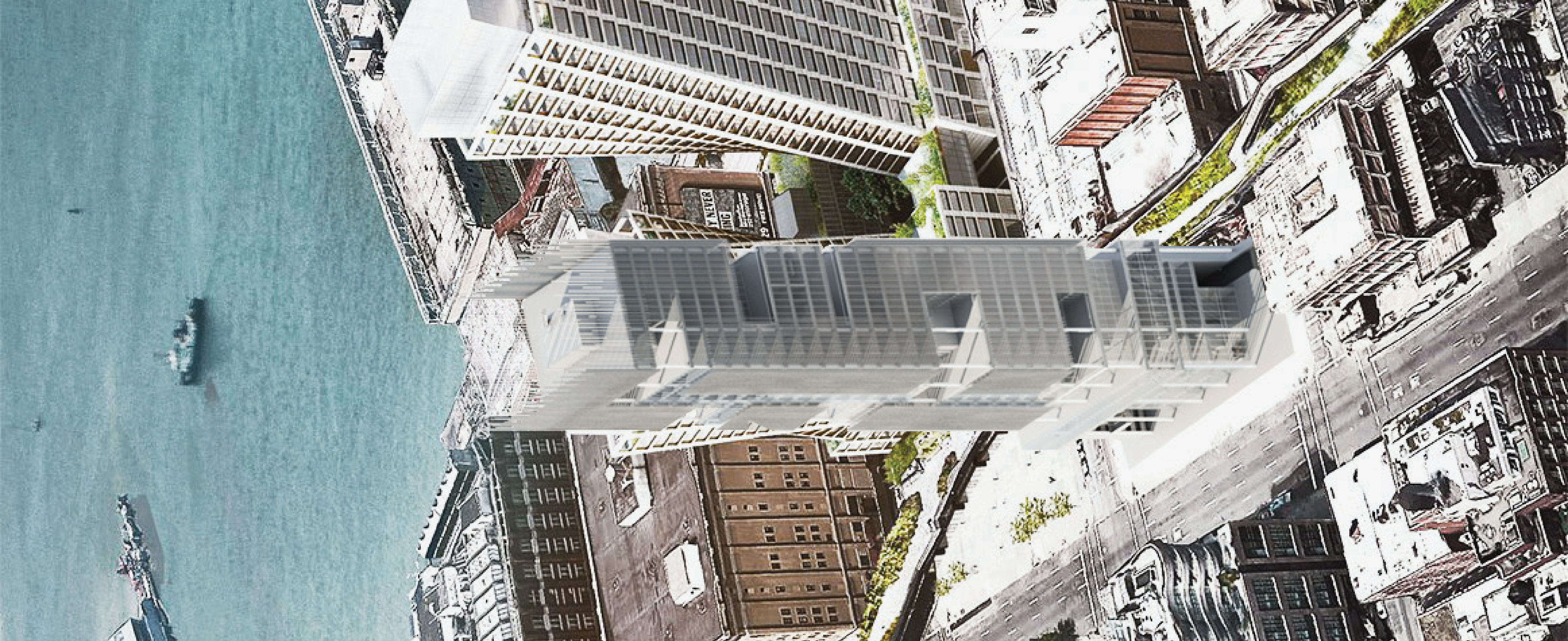


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ABSTRACT



URBAN REVITALIZATION IS A PROGRAM OF LAND DEVELOPMENT IN AREAS OF MODERATE TO HIGH DENSITY URBAN LAND USE. THE PROCESS HAS HAD A MAJOR IMPACT ON MANY URBAN AREAS TO THEIR ECONOMY, PROPERTY VALUE, REDUCES CRIME, AND HELPING THE CURRENT BUSINESS AND ATTRACTING NEW ONES.

MY PROJECT SITE IS LOCATED ALONG THE HIGH LINE, NEW YORK. THE HIGH LINE IS ONE OF THE MOST SUCCESSFUL URBAN REVITALIZATION PROJECTS. THAT INFLUENCED MANY OTHERS LIKE THE TRANSBAY TRANSIT CENTER IN SAN FRANCISCO. THE SITE IS LOCATED ON TENTH AVENUE AND 18TH STREET, ONE OF THE ONLY AREAS OF THE HIGH LINE WHERE IT INTERSECTS AN AVENUE AND IT IS APPROXIMATELY 96 FEET BY 174 FEET. ONE THING THE HIGH LINE LACKED WERE THE ENTRANCES FROM THE GROUND LEVEL TO THE HIGH LINE ARE HARD TO LOCATE AND IDENTIFY. FOR ME, IT WAS VERY HARD TO DISTINGUISH WHICH PART OF THE AREA HAD AN ENTRANCE.

MY PROJECT WILL BE A PROPOSAL AS A FINAL ENTRY TO THE HIGH LINE AND CELEBRATE ITS SUCCESS IN URBAN REVITALIZATION. COMBINING THE RESIDENTIAL AND COMMERCIAL AREAS. IT WILL BE A RESOLUTION FOR HOW TO PROPERLY TREAT THE GROUND LEVEL TO THE HIGH LINE LEVEL MAKING IT A BETTER ENTRY TO THOSE WHO VISITS THE AREA. ONE THING THE HIGH LINE STUDIED BEFORE ITS CONSTRUCTION WAS WHAT PLANTS GREW IN WHAT SEASON. TO KEEP THE PLANTS ALIVE. SUN PATH AND ENVIRONMENTAL POINTS WILL HELP ME THROUGH SHAPING THE BUILDING PROPERLY, AVOIDING MINIMAL PERMANENT SHADE FOR THE HIGH LINE.

THE HIGH LINE AREA IS VERY RESIDENTIAL BASED BUT THOUSANDS OF PEOPLE GO THROUGH THE PARK AS IT'S ONE OF THE ICONIC PLACES TO TRAVEL TO IN NEW YORK. ONE THING ABOUT THE CONSTRUCTION OF HIGH LINE WAS THE RESIDENTS WHO LIVE ALONG THE HIGH LINE DOESN'T FEEL LIKE THEY ARE AT HOME SINCE BUSINESS DO NOT TEND TO STAY BECAUSE THE AREA IS GETTING TOO EXPENSIVE. TO SOLVE THIS PROBLEM, MY BUILDING WILL BE A GATEWAY TO CONNECT THOSE WHO ARE PERMANENT RESIDENTS AND

THROUGHOUT THIS PROJECT, THE SURROUNDING SITE CONDITIONS WILL BE STUDIED IN DEPTH TO HELP THE RELATIONSHIP OF EXISTING AND NEW. THE OTHER AREAS OF ENTRY WILL BE EXPLORED TO BETTER THE DESIGN AND FUNCTION OF THE PROPOSED BUILDING. THIS PROJECT WILL SHOWCASE HOW TO USE ARCHITECTURE TO SERVE AS AN OPPORTUNITY FOR THE FUTURE ARCHITECTURAL AND CULTURAL DEVELOPMENT OF THE DISTRICT, AS WELL AS, OPENING UP THE PROJECT SITE TO THE EXISTING URBAN DEVELOPMENT SUCCESSFULLY SOME OF THE PRECEDENTS THAT WILL BE STUDIED WILL INCLUDE LUXURY RESIDENTIAL SPACES, HIGH LINE HISTORY, AND GATEWAY VARCHITECTURES. SOME EXAMPLES ARE, 432 PARK AVENUE, GRANDE ARCHE BY JOHANN OTTO, AND GATEWAY PARK IN TAICHUNG CITY. THESE WILL HELP GUIDE THE PROJECT TO A BETTER FUNCTION AND DESIGN.

THROUGH THE STUDIES OF HOW TO SUCCESSFULLY PRACTICE URBAN REVITALIZATION, THE END GOAL IS TO DESIGN AN ARCHITECTURAL GATEWAY TO CHANGE AND IMPROVE THE IDENTITY OF AN EXISTING AREA CONDITIONS.

PROJECT SITE



PROJECT SITE



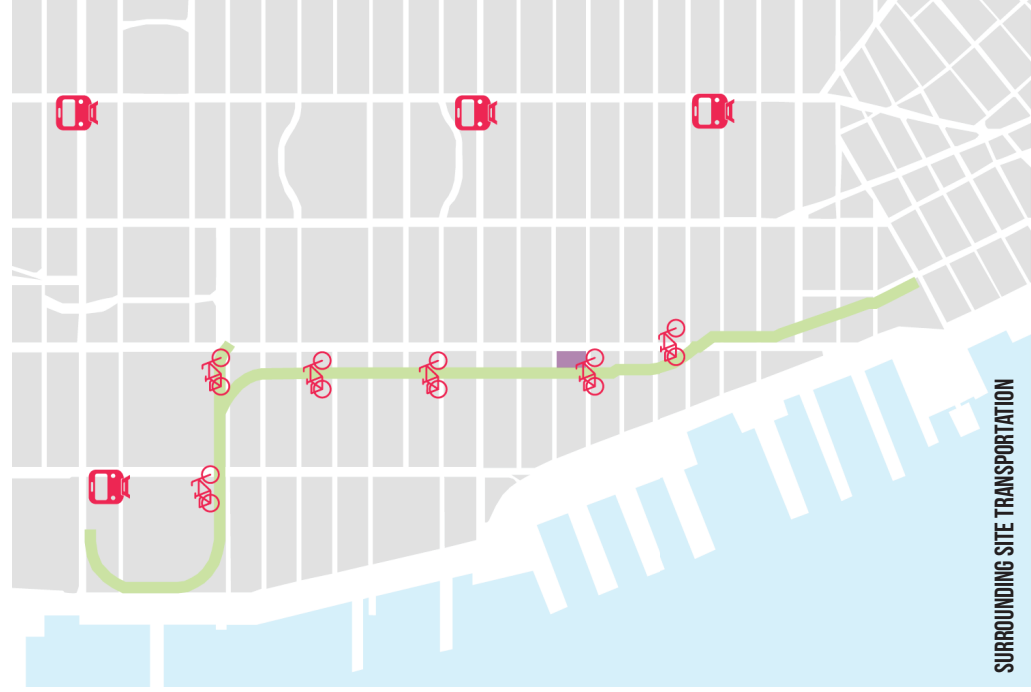
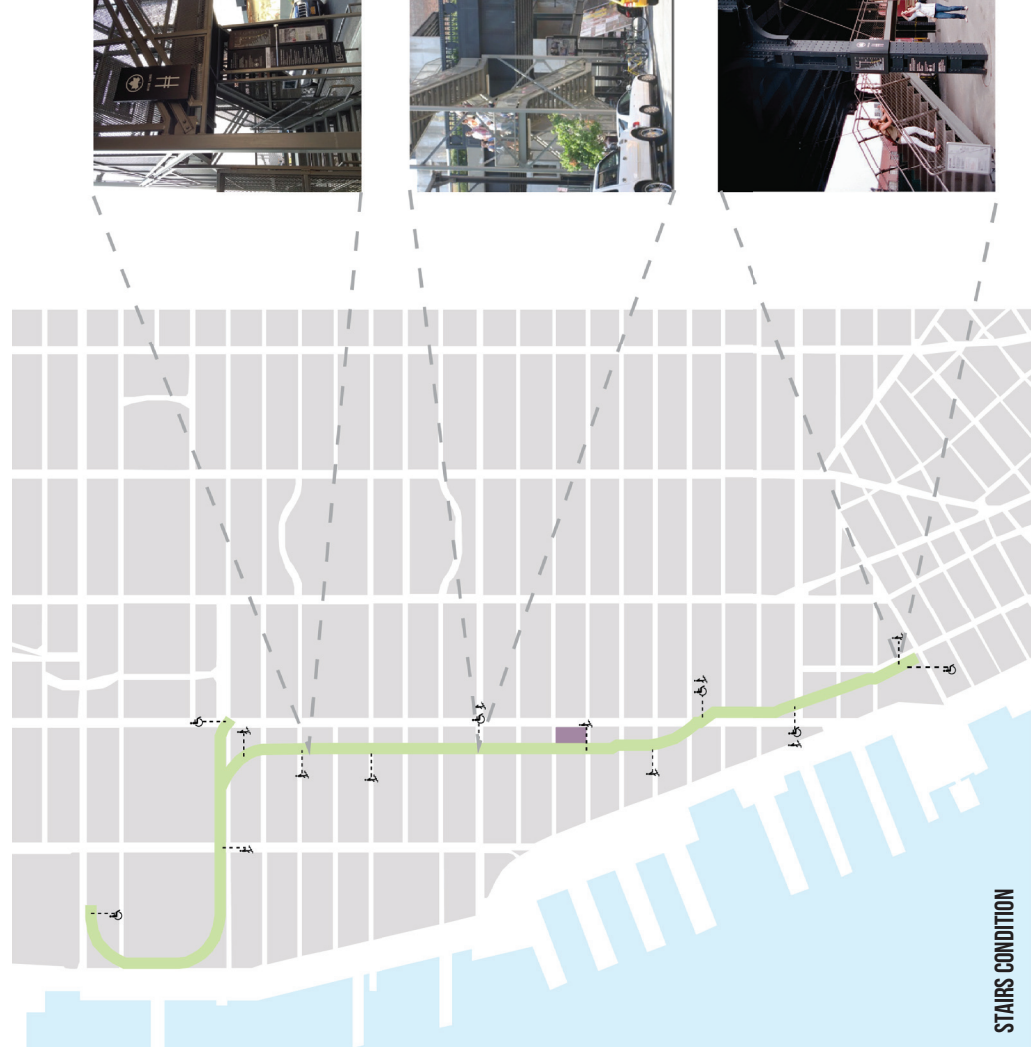
EXISTING CONDITIONS

MY PROJECT SITE IS LOCATED ALONG THE HIGH LINE, NEW YORK.

THE SITE IS LOCATED ON TENTH AVENUE AND 18TH STREET, ONE OF THE ONLY AREAS OF THE HIGH LINE WHERE IT INTERSECTS AN AVENUE, AND IT IS APPROXIMATELY 100 FEET BY 174 FEET.

THE HIGH LINE AREA IS VERY RESIDENTIAL BASED BUT THOUSANDS OF PEOPLE GO THROUGH THE PARK AS IT'S ONE OF THE ICONIC PLACES TO TRAVEL TO IN NEW YORK. ONE THING ABOUT THE CONSTRUCTION OF HIGH LINE WAS THE RESIDENTS WHO LIVE ALONG THE HIGH LINE DOESN'T FEEL LIKE THEY ARE AT HOME SINCE BUSINESS DO NOT TEND TO STAY BECAUSE THE AREA IS GETTING TOO EXPENSIVE. TO SOLVE THIS PROBLEM, MY BUILDING WILL BE A GATEWAY TO CONNECT THOSE WHO ARE PERMANENT RESIDENTS AND WORLD TRAVELERS.

THE HIGHLINE WAS ORIGINALLY A RAILROAD TRACK THAT WAS OPENED UP TO THE PUBLIC IN 1934. THE LAST TRAIN TO HAVE PASS THROUGH WAS IN 1980 AND THEN ABANDONED TILL 1990. THE HIGHLINE IS TWO BLOCKS AWAY FROM THE HUDSON RIVER AND HAVE AMAZING VIEWS TO THE EMPIRE STATE BUILDING AS WELL.



THE SUBWAY AROUND PROJECT SITE HAS THREE MAIN LINES. THERE'S ALSO A BUS STOP AT EVERY SUBWAY STATION. THE CITY HAS PUBLIC BIKE RACKS AROUND SITE WITH APPROXIMATELY ONE AT EVERY THREE BLOCKS FOR ANY VISITORS TO USE. PUBLIC RENTABLE BIKES (CITI BIKES) ARE ALSO AN OPTION TO USE AND BIKE RIKES ARE AVAILABLE FOR THOSE AS WELL.

ONE THING THE HIGH LINE LACKED WERE THE ENTRANCES FROM THE GROUND LEVEL TO THE HIGH LINE ARE HARD TO LOCATE AND IDENTIFY. FOR ME, IT WAS VERY HARD TO DISTINGUISH WHICH PART OF THE AREA HAD AN ENTRANCE.

SOME OF THE EXISTING PROGRAMS ON THE HIGHLINE INCLUDES 11 TOTAL ENTRIES AND ONLY ONE OF THEM IS LEVELED WITH THE HIGH LINE. THERE'S A TOTAL OF SIX ELEVATORS, 2 BATH-ROOMS, AND 1 SHOP TO ACCOMMODATE NEARLY 8 MILLION VISITORS PER YEAR.

EXISTING SITE



IWAN BAAH



IWAN BAAH





SITE DEVELOPMENT

AS MENTIONED BEFORE, MY PROJECT SITE IS APPROXIMATELY 100 FEET BY 174 FEET.

ONE OF THE PROBLEMS THAT CAME UP THROUGH THE BEGINNING STAGES OF THIS PROJECT WAS HOW TO SEPERATE THE COMMERCIAL AREAS FROM THE RESIDENTIAL AREAS.

THE SOLUTION FOR THIS PROBLEM WAS TO DIVIDE THE SITE INTO THREE DIFFERENT SECTIONS: PRIVATE, SEMI - PUBLIC, AND PUBLIC.

TO KEEP THE RESIDENTIAL AREAS PRIVATE, THE ADDITION OF A SEMI - PUBLIC TRANSITION SPACE WAS ADDED. THE RESIDENTS WILL HAVE THEIR OWN ENTRANCE FROM THE NORTH SIDE AND THEIR OWN PRIVATE ELEVATORS THAT ARE NOT ACCESSIBLE BY THE VISITORS WHO VISIT THE HIGH LINE. THE MAIN ENTRANCE FOR THE VISITORS WILL BE ON THE SOUTH SIDE.

PROGRAM DEVELOPMENT

THE BUILDING'S PROGRAM INCLUDES, A VERTICAL CIRCULATION FROM THE GROUND LEVEL TO THE HIGH LINE LEVEL AS A MAIN FEATURE.

THE BOTTOM FOUR FLOORS CONSIST OF HALF PUBLIC COMMERCIAL AREA WITH RETAIL AND RESTAURANTS THAT'S SEPARATED FROM HALF SEMIPUBLIC LOBBY AND OFFICE RENTAL AREAS.

THE UPPER LEVELS INCLUDE RESIDENTIAL UNITS, A BAR, A LOOKOUT DECK, PUBLIC GYM AND PRIVATE GYM, POOL, AND A SPA.

MY BUILDING HAS A CENTRAL CORE THAT HOUSES ALL THE MAIN INTERIOR CIRCULATION THAT'S ALSO THE MAIN STRUCTURAL CORE. THE FLOOR PLATES ARE DIVIDED INTO 4 SECTIONS AND EACH SECTION BEING A SIDE ALONG THE CENTRAL CORE.



BUILDING DEVELOPMENT



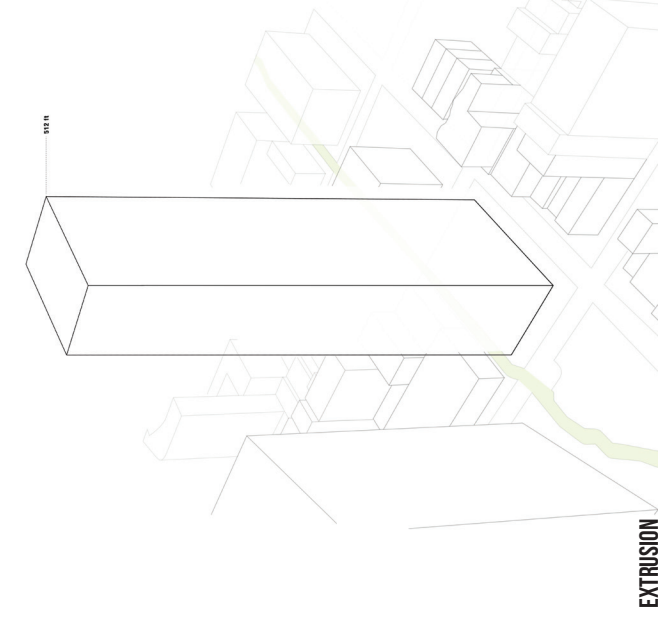
THE ORIGINAL CONCEPTUAL IDEA FOR MY PROJECT WAS USING MY HIGH RISE AS A NODE FOR THOSE WHO PASSES THROUGH. THIS WAS INSPIRED BY ONE OF MY PRECEDENT STUDIES, THE MATRIX GATEWAY COMPLEX.

THE USE OF ONE SPACE AS A PASSING POINT FOR ANOTHER, THIS CONCEPTUAL IDEA EVENTUALLY WAS GOING TO HAVE MY BUILDING GO OVER THE HIGH LINE PROVIDING A SHADED AREA, THEN THE QUESTION OF HOW TO MOVE A PERSON FROM HORIZONTAL CIRCULATION TO VERTICAL CIRCULATION CAME TO MIND.

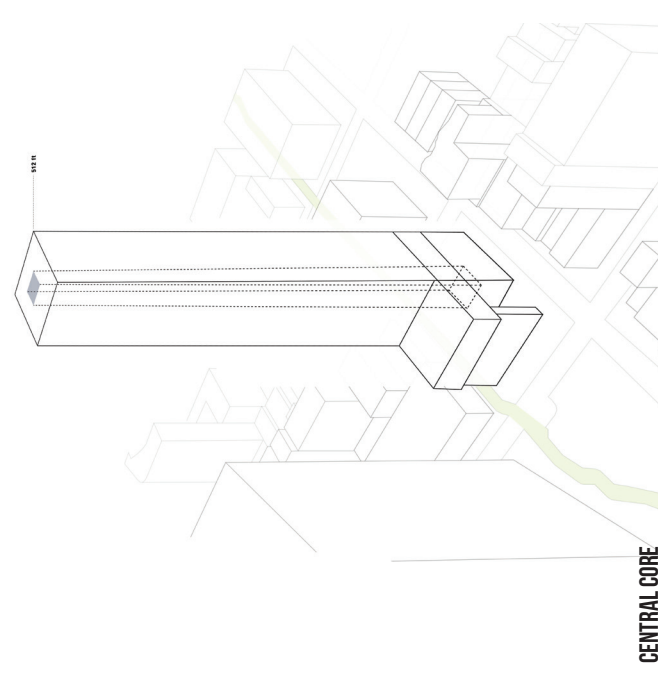
THE MAIN PROBLEM WITH THE HIGH LINE WAS THE LACK IN DISTINGUISHING AND THE CELEBRATION OF ITS ENTRANCES. WITH THIS QUESTION, WE DEVELOPED A COMBINATION OF STAIRS AND RAMPS TO BETTER THE ACCESS TO THE HIGH LINE FROM THE GROUND LEVEL. THIS SET OF STAIRS AND RAMPS IS COMBINED WITH PLATFORMS THAT WILL BE AN EXTRUSION THAT SERVES AS AN EXHIBITION AREA AND AN AREA OF LOCAL ARTISTS TO DISPLAY THEIR WORK. THESE PLATFORMS CAN BE ONLY ACCESSED BY WALKING UP THE RAMPS OR STAIRS. THIS WILL BETTER THE EXPERIENCE OF THIS CIRCULATION.

ON THE HIGH LINE LEVEL, WE HAVE ALSO CREATED AN ELEVATED EXTERIOR PLAZA THAT CONNECTS THE COMMERCIAL AREA OF THE BUILDING, THE RAMPS AND STAIRS, AND THE HIGH LINE TOGETHER. IT WILL SERVE AS A CENTRAL GATHERING PLACE, WITH A GLASS BOX POP UP/ DOWN RETAIL SPACE, ON THAT LEVEL IN THE BUILDING, IT WILL HAVE OFFICE RENTAL SPACES, HIGH LINE CAFE, AND A RETAIL RENTAL AREA. THE RAILING FOR

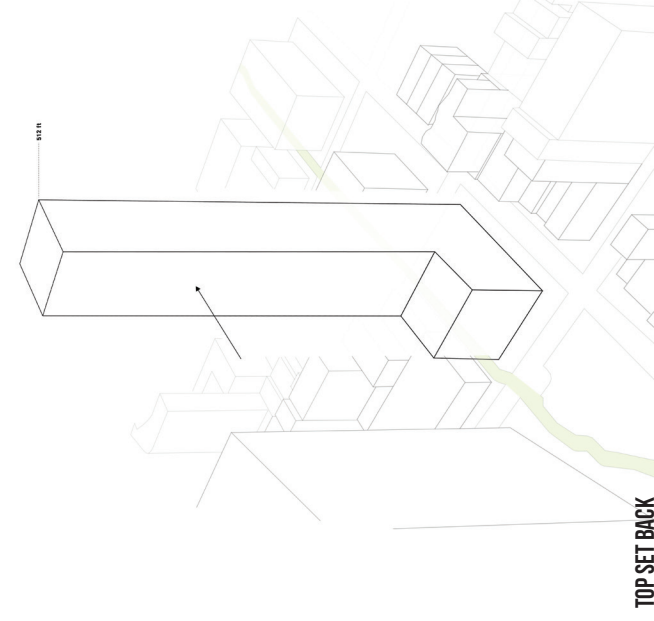
THE STAIRS AND RAMP WITH BE A CONDENSED MESH METAL AND THE WHOLE SECTION WILL BE "BOXED" WITH A LESS CONDENSED METAL TO SHOWCASE THE MOVEMENT THE VISITORS WILL CREATE. THE EXHIBIT AND DISPLAY BOXES WILL BE COMPLEX EXPOSED AND OPEN TO VIEW.



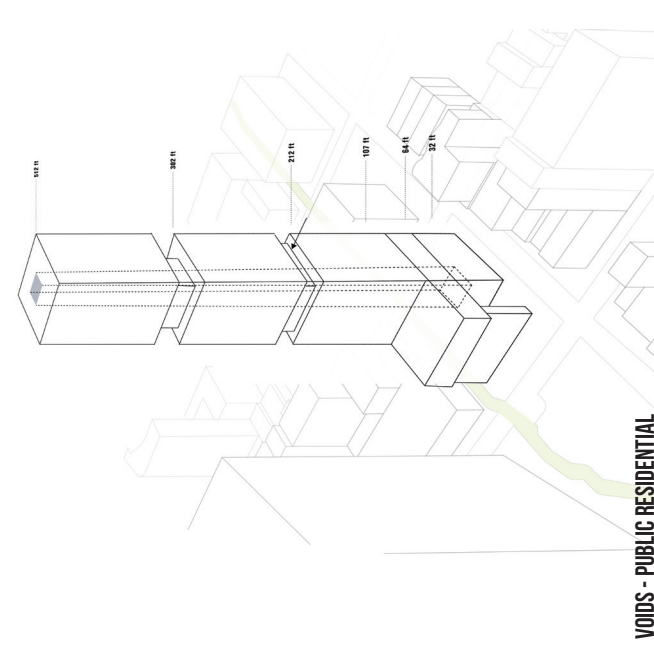
EXTRUSION



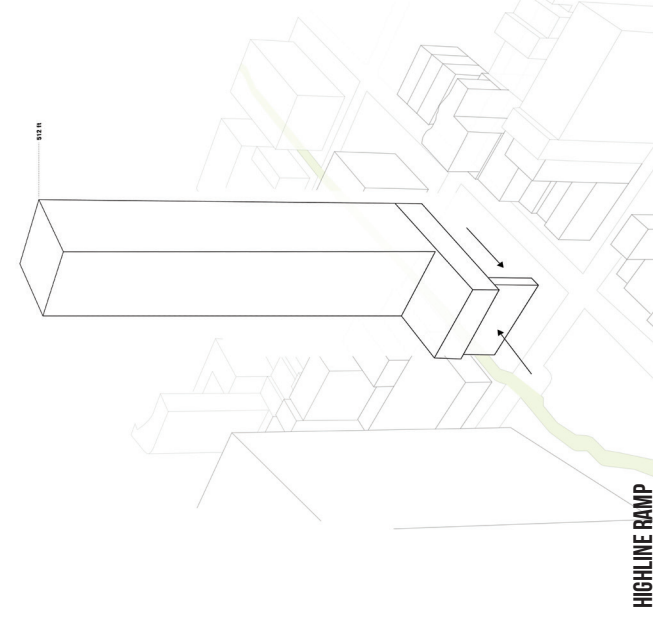
CENTRAL CORE



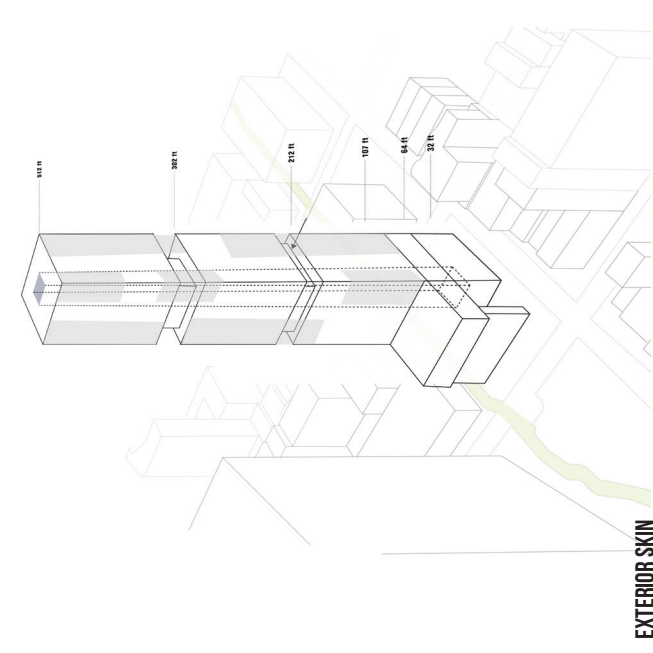
TOP SET BACK



VOIDS - PUBLIC RESIDENTIAL



HIGHLINE RAMP



EXTERIOR SKIN

FLOOR PLAN FLOOR PLAN DEVELOPMENT



THE PLAN IS ORGANIZED THROUGH FOUR DIFFERENT RINGS: CENTRAL CORE, CIRCULATION CORE, SERVICE CORE, AND LIVING CORE.

THE FIRST RING IS THE CENTRAL CORE AND IT HOUSES ALL THE MAIN CIRCULATIONS, INCLUDING FIRE EXITS, AND STORAGE UNITS.

THE NEXT RING IS THE CIRCULATION CORE FOR THE DIFFERENT APARTMENT UNITS AND THE CIRCULATION WITHIN THE UNITS TO ACCESS DIFFERENT PARTS OF THE APARTMENT.

THE THIRD RING IS THE SERVICE CORE, THAT IS WHERE ALL THE BATHROOMS AND CLOSETS ARE FOR EACH APARTMENT UNIT.

THE FINAL RING IS THE LIVING CORE, INCLUDING THE KITCHEN, LIVING ROOM, AND THE DIFFERENT BEDROOMS.

THE FLOORPLAN IS OPEN CONCEPT WITH THE LIVING RING ON THE EXTERIOR FOR MAXIMUM VIEW OF THE SURROUNDING AREAS. THE LIVING ROOMS ARE CONNECTED TO THE KITCHEN IN THE UNIT PLANS FOR AN OPEN CONCEPT.



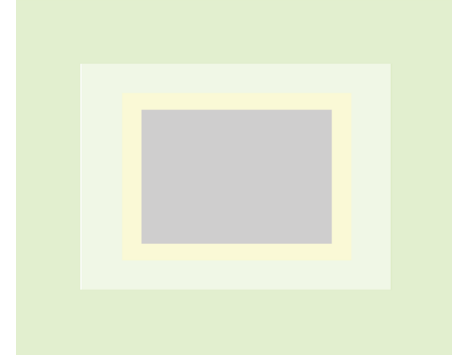
CENTRAL CORE



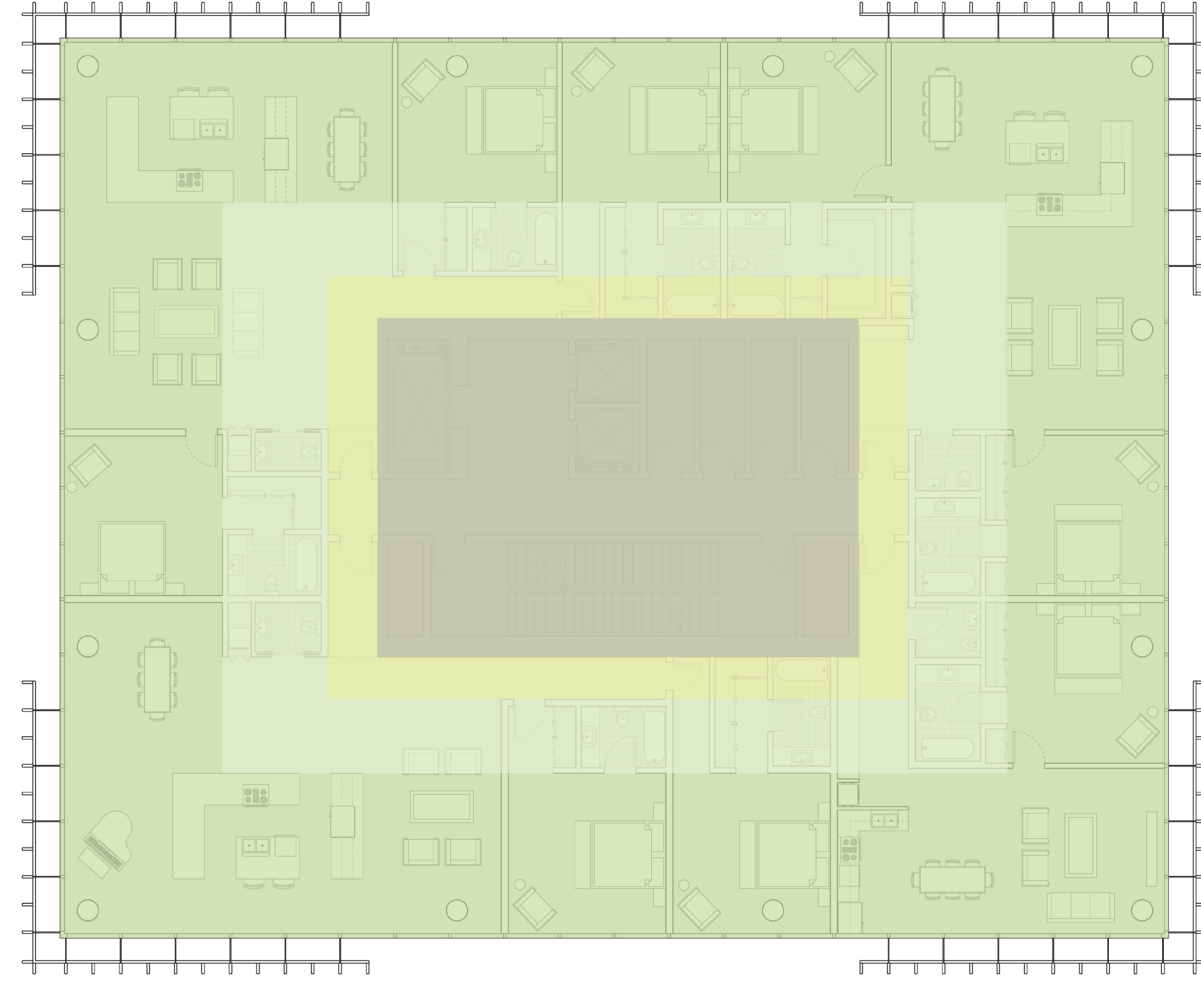
CIRCULATION CORE



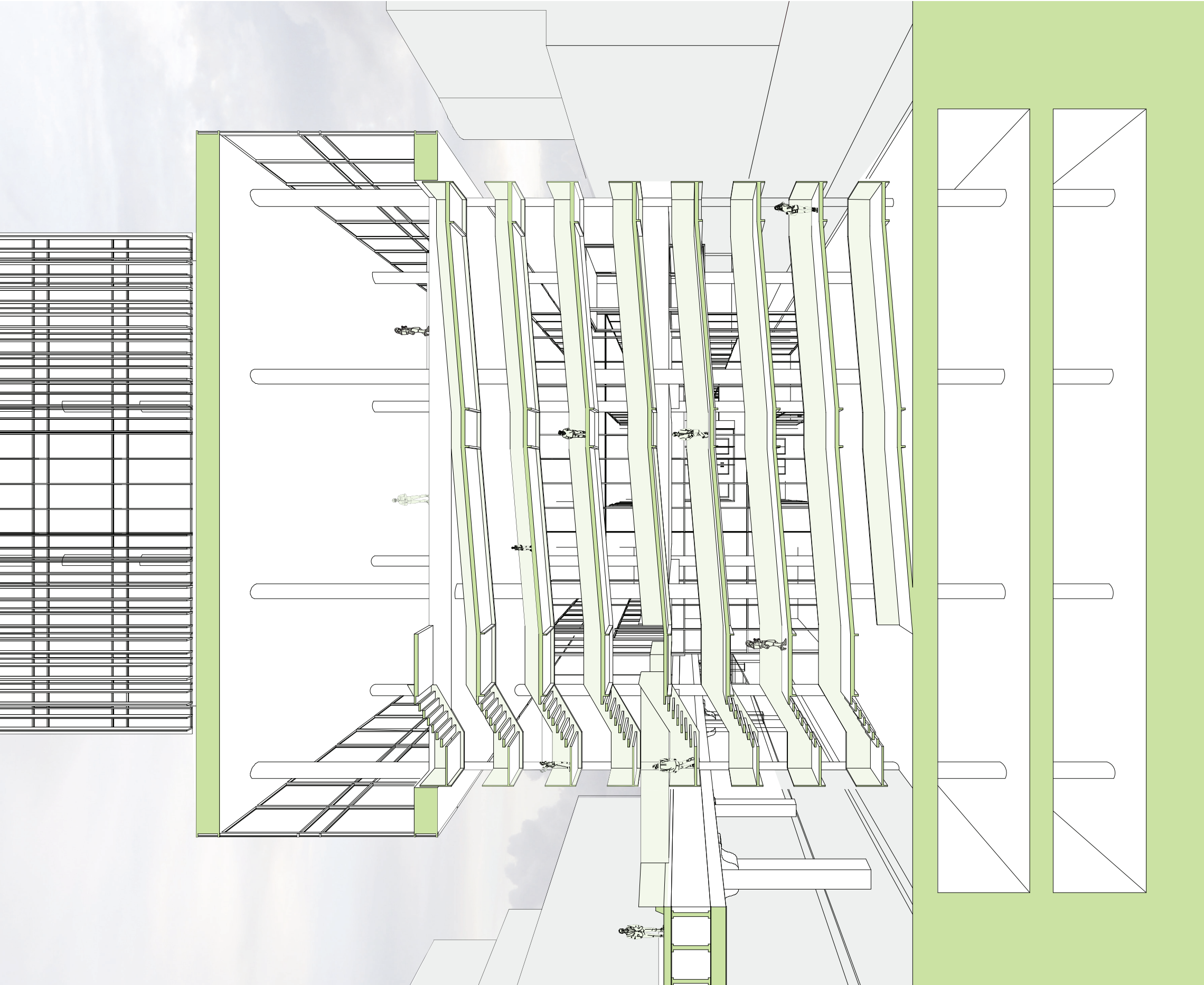
SERVICE CORE



LIVING CORE



VOIDS DEVELOPMENT



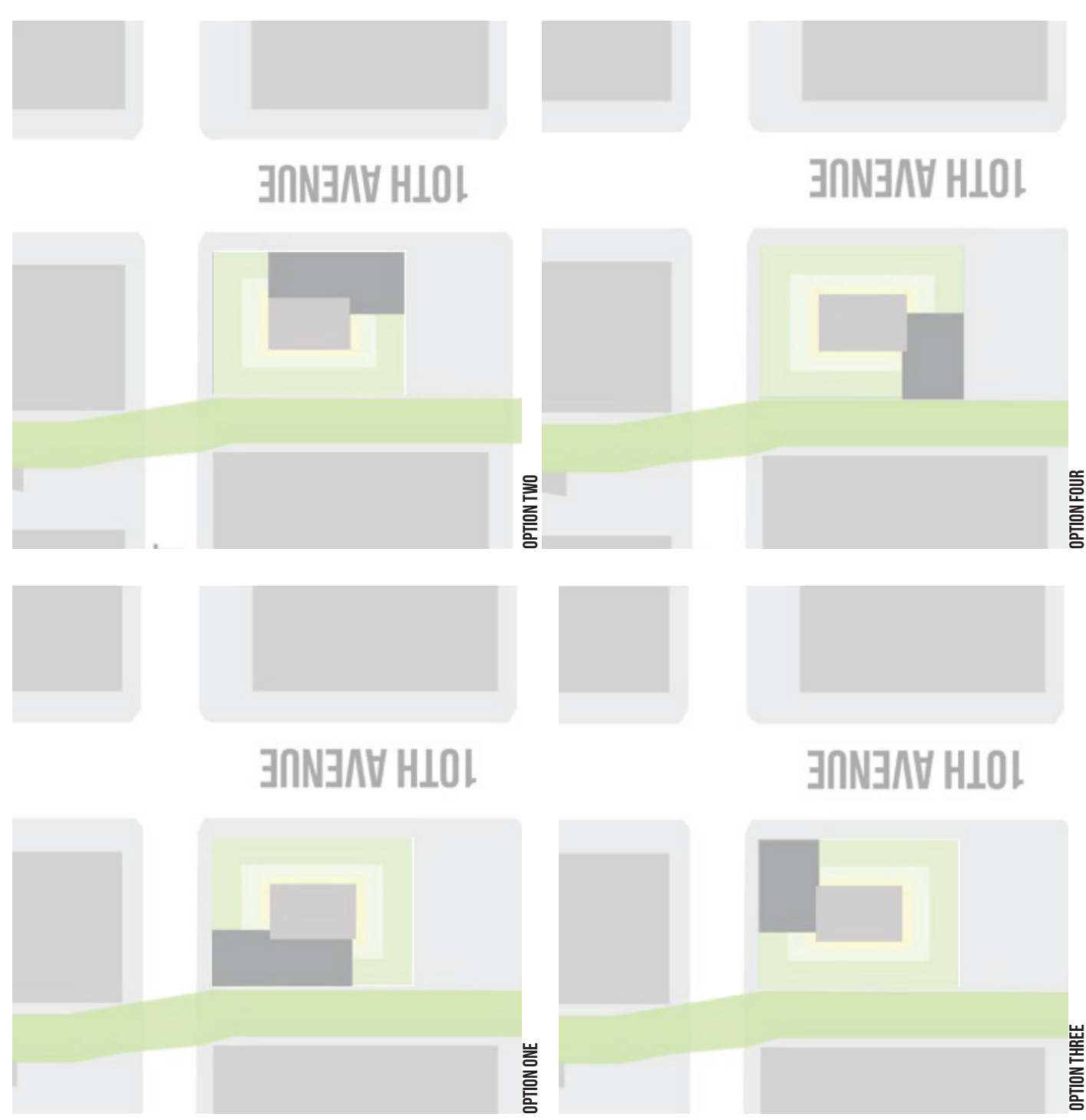
FOR THE RESIDENTIAL TOWER OF MY BUILDING, THE CONCEPTUAL IDEA OF A VERTICAL "CITY" WAS EXPLORED.

THROUGH THE PRECEDENT STUDIES, I HAVE INCORPORATED THE NEEDS OF A SEMI-PUBLIC INTERACTION AREAS INTO THE RESIDENTIAL UNITS TO BETTER THE FUNCTION OF THE BUILDING.

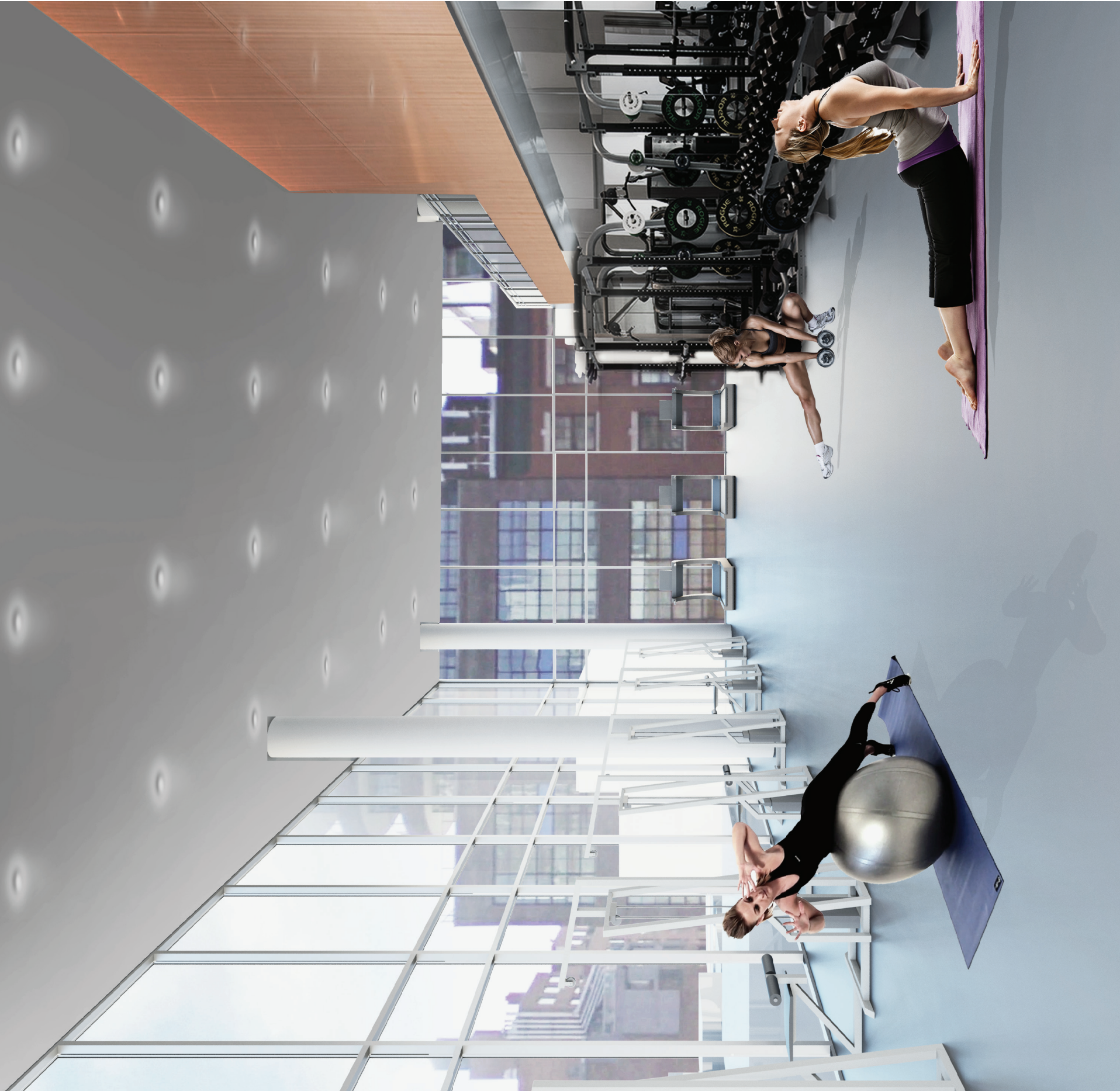
THROUGH THE BEGINNING STAGES OF THIS CONCEPTUAL IDEA, I HAVE LOOKED INTO THE DIFFERENT PLANTATIONS ALONG THE HIGH LINE. IN ORDER TO MINIMIZE THE CAUSE OF PERMEANT SHADING THAT IS CAUSED BY MY BUILDING, I HAVE STUDIED THE SUN PATH, WHICH THEN CREATED DIFFERENT VOLUME CUT OUTS THROUGHOUT MY BUILDING.

THEN, I STUDIED THE DIFFERENT PROGRAMS OF MY BUILDING, WHICH CREATED A SEPARATION THAT I HAVE CALLED "THE VOID" OF BUILDING TO HOUSE THE SEMIPUBLIC INTERACTION AREAS.

THIS "VOID" WILL BE THE HEIGHT OF TWO FLOORS BUT WILL BE FUNCTIONING AS ONE FLOOR. IT WILL HAVE RESIDENTIAL SEMI-PUBLIC PROGRAMS, SUCH AS, SPA, POOL, AND PRIVATE GYM, ETC.



UNITS MODULE



TO KEEP THE VOIDS UNIFORM AND BETTER PLANNING OF THE RESIDENTIAL TOWER, A UNIT MODULE WAS CREATED TO SOLVE THIS PROBLEM.

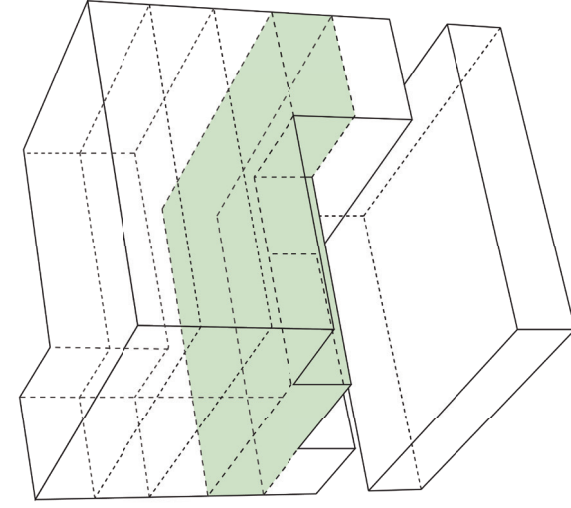
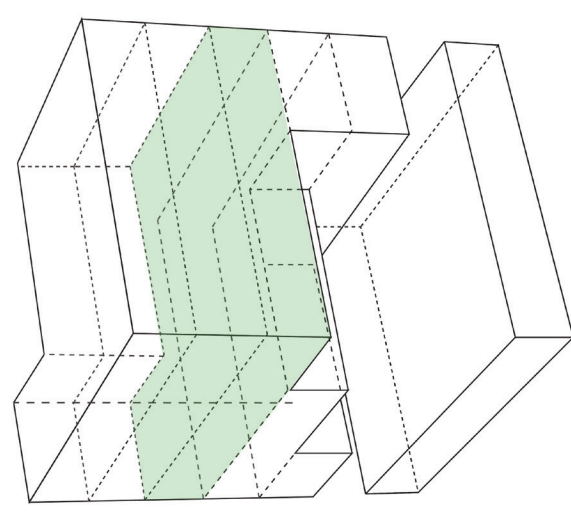
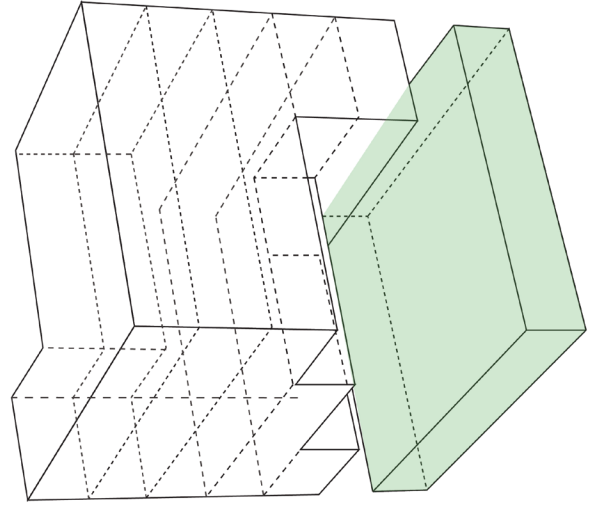
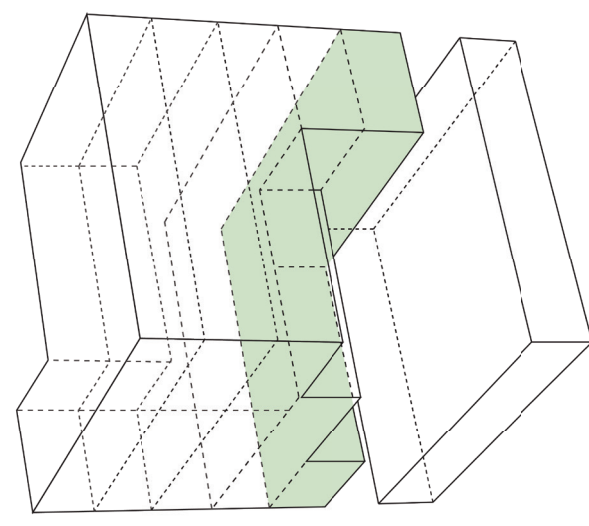
THE FIRST LEVEL OF THE MODULE IS A FULL FLOOR OF APARTMENT UNITS CONSISTING ONE BEDROOM, TWO BEDROOMS, AND THREE BEDROOMS UNITS.

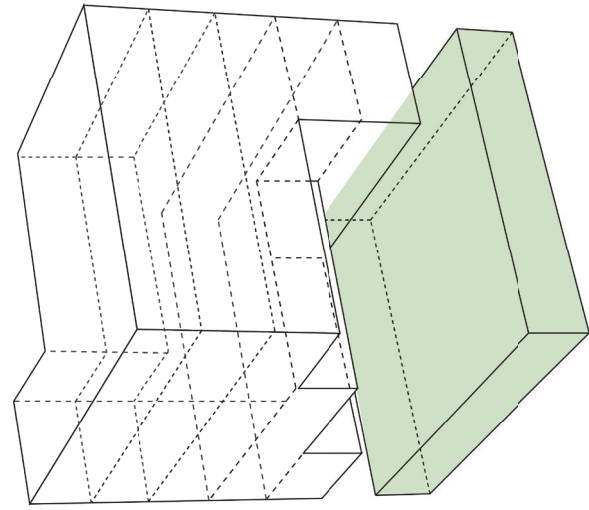
THE SECOND LEVEL OF THE MODULE IS THE PUBLIC AREA FOR THE RESIDENTIAL AREAS AS PUBLIC LOCATIONS.

THE THIRD LEVEL OF THE MODULE IS THE VOID OPTION CUT OUT CREATING A VIEW TO THE PUBLIC AREAS, AS WELL AS, THE CITY FROM THE APARTMENT UNITS.

THE FOURTH AND FIFTH LEVEL OF THE CUT OUT IS A SETBACK FROM THE THIRD LEVEL VOID TO CREATE VIEWS FOR THOSE APARTMENT UNITS ON THAT LEVEL.

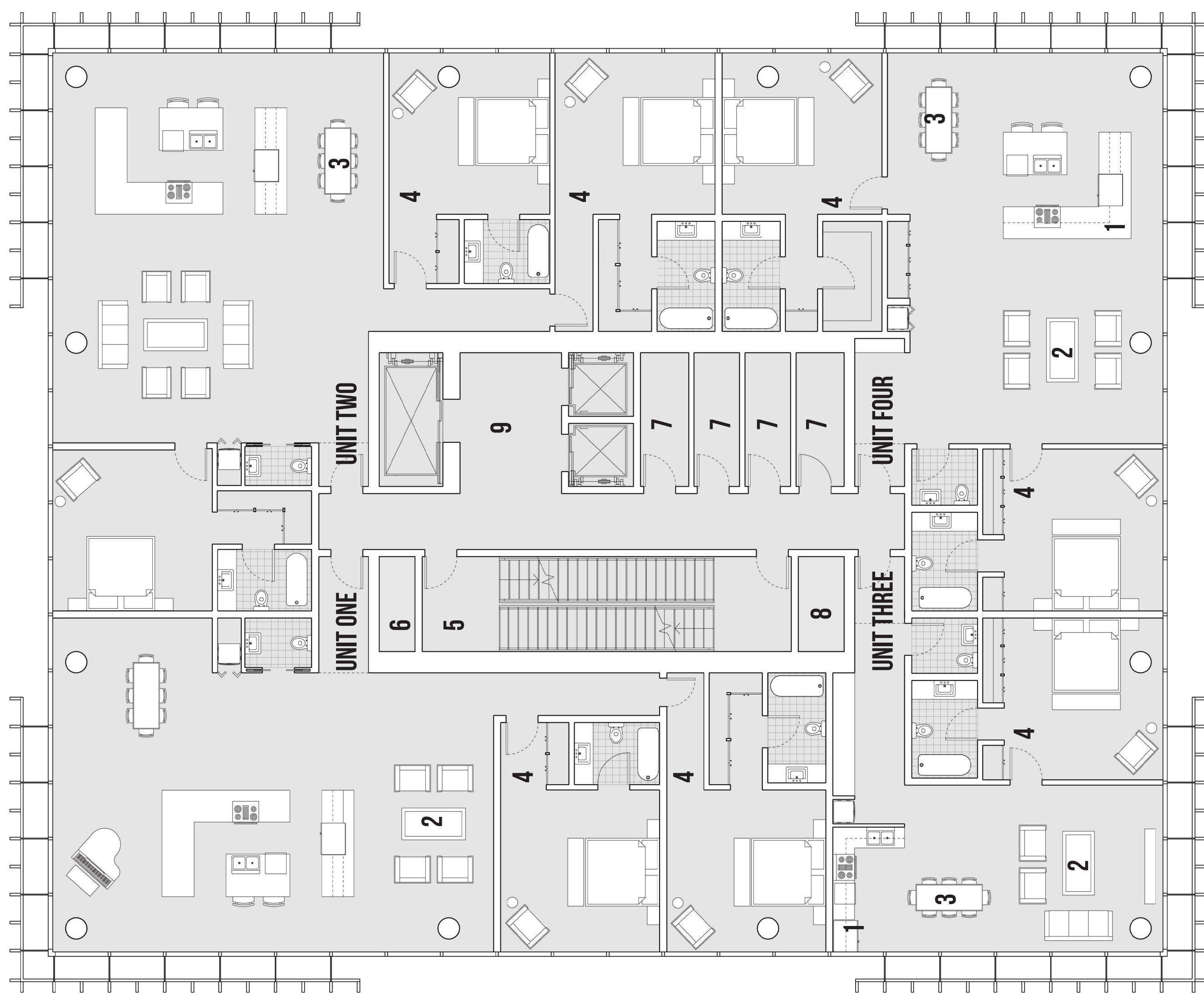
THROUGH THE CUT OUTS AND THE MODULE, A GRAND/ TALL SPACE IS CREATED FROM THOSE VOIDS.

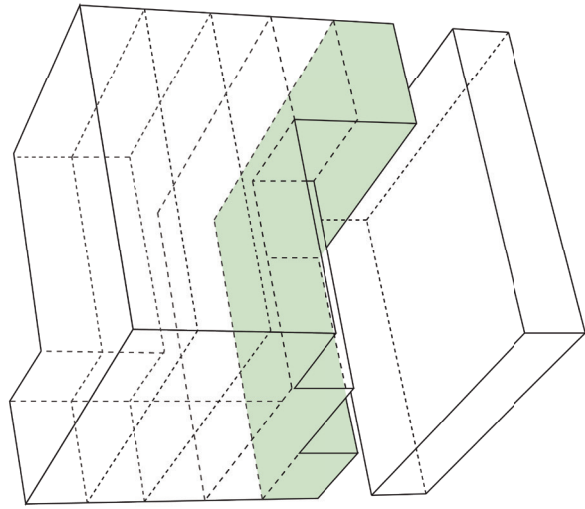




APARTMENT UNITS FLOORPLAN

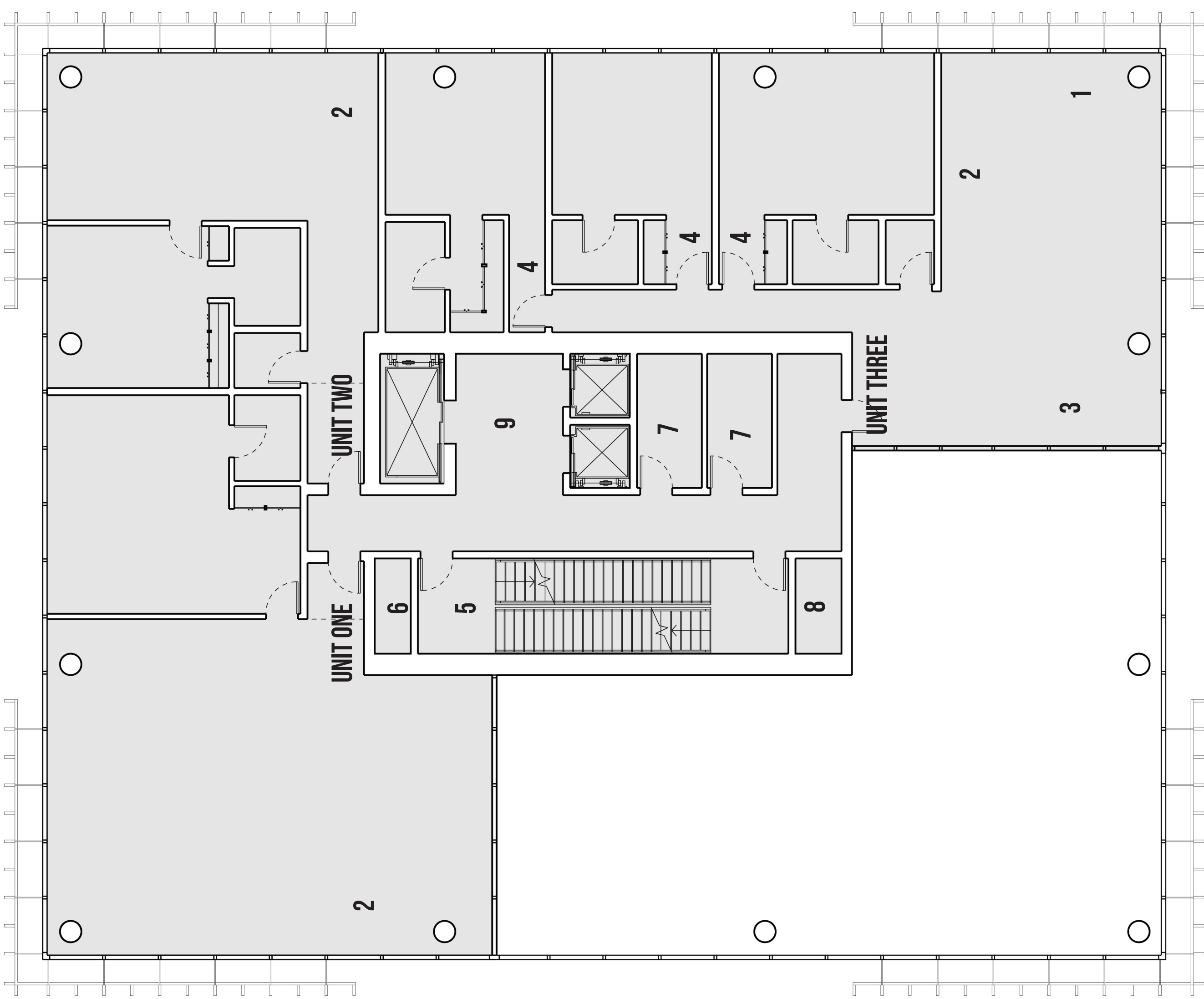
- 1. KITCHEN
- 2. LIVING ROOM
- 3. DINING ROOM
- 4. BEDROOM
- 5. FIRE EXIT STAIRS
- 6. TRASH CHUTE
- 7. UNITS STORAGE ROOM
- 8. MECHANICALS
- 9. ELEVATOR LOBBY

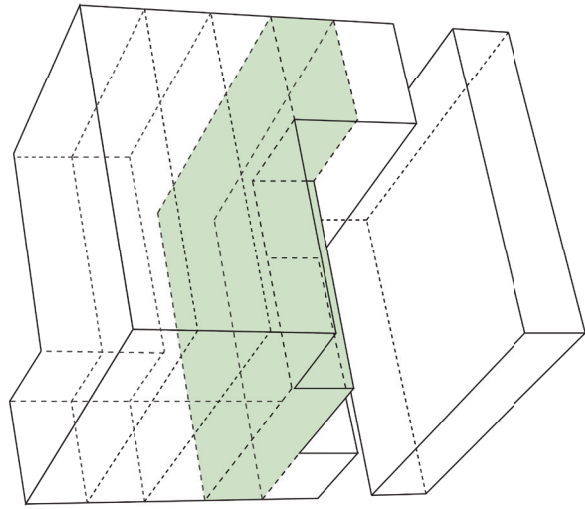




MODULE LEVEL ONE MODULE LEVEL ONE FLOOR PLAN

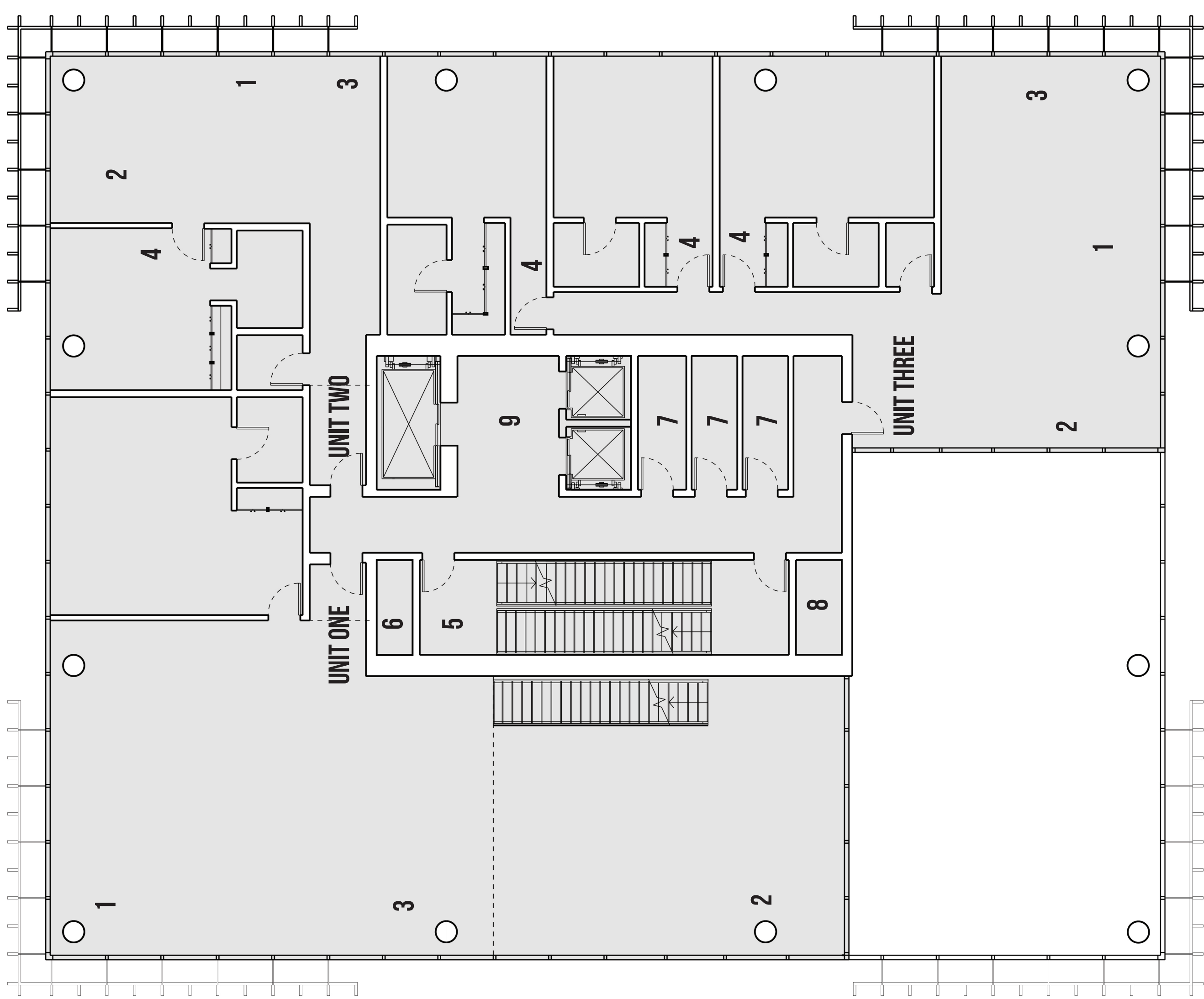
- 1. KITCHEN
- 2. LIVING ROOM
- 3. DINING ROOM
- 4. BEDROOM
- 5. FIRE EXIT STAIRS
- 6. TRASH CHUTE
- 7. UNITS STORAGE ROOM
- 8. MECHANICALS
- 9. ELEVATOR LOBBY

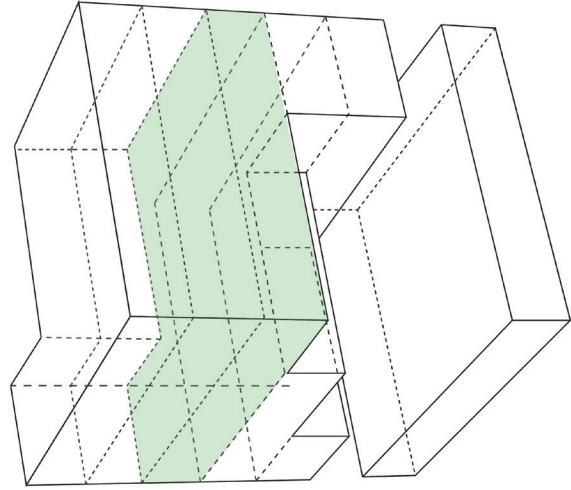




MODULE LEVEL TWO MODULE LEVEL TWO FLOOR PLAN

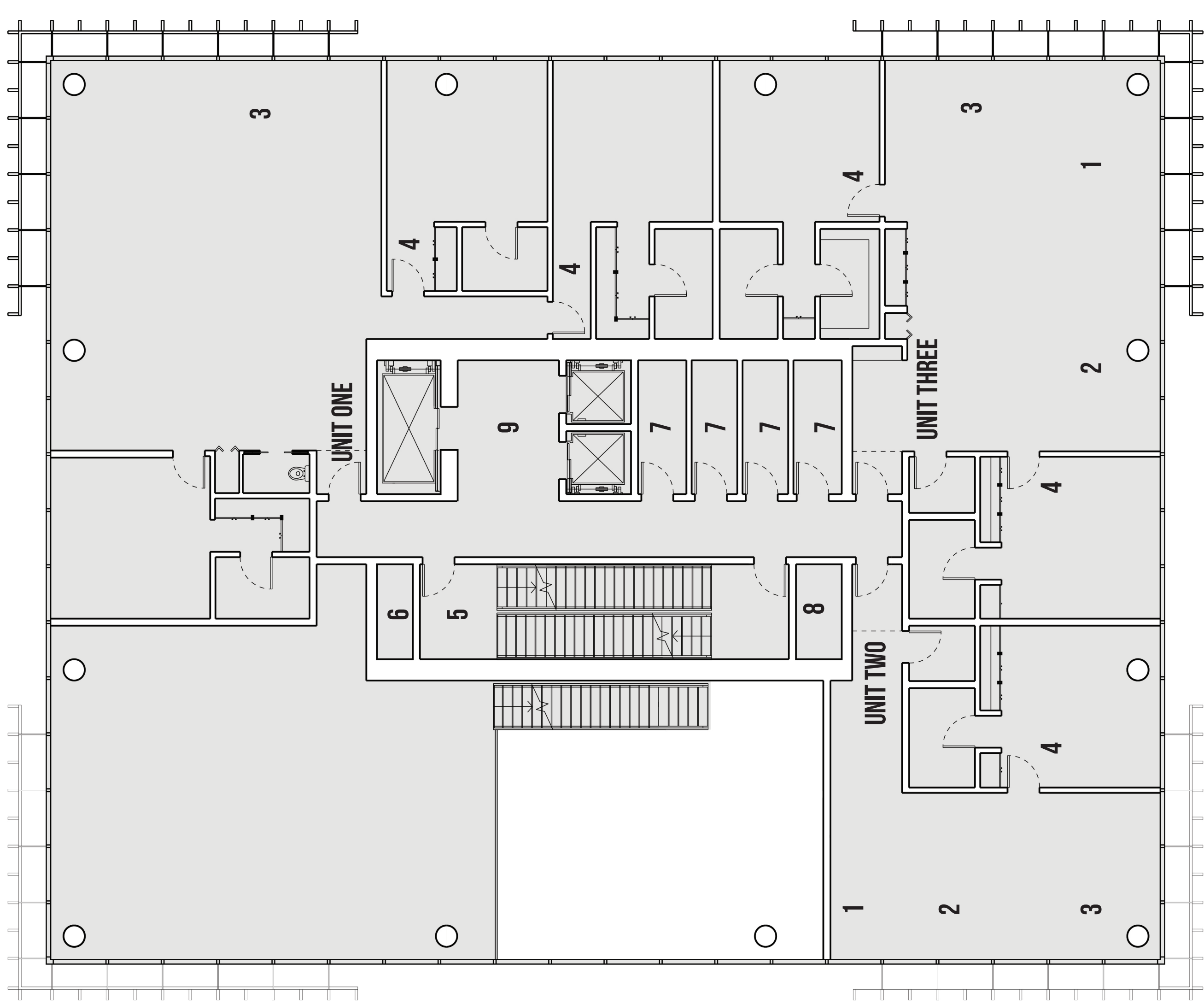
- 1. KITCHEN
- 2. LIVING ROOM
- 3. DINING ROOM
- 4. BEDROOM
- 5. FIRE EXIT STAIRS
- 6. TRASH CHUTE
- 7. UNITS STORAGE ROOM
- 8. MECHANICALS
- 9. ELEVATOR LOBBY





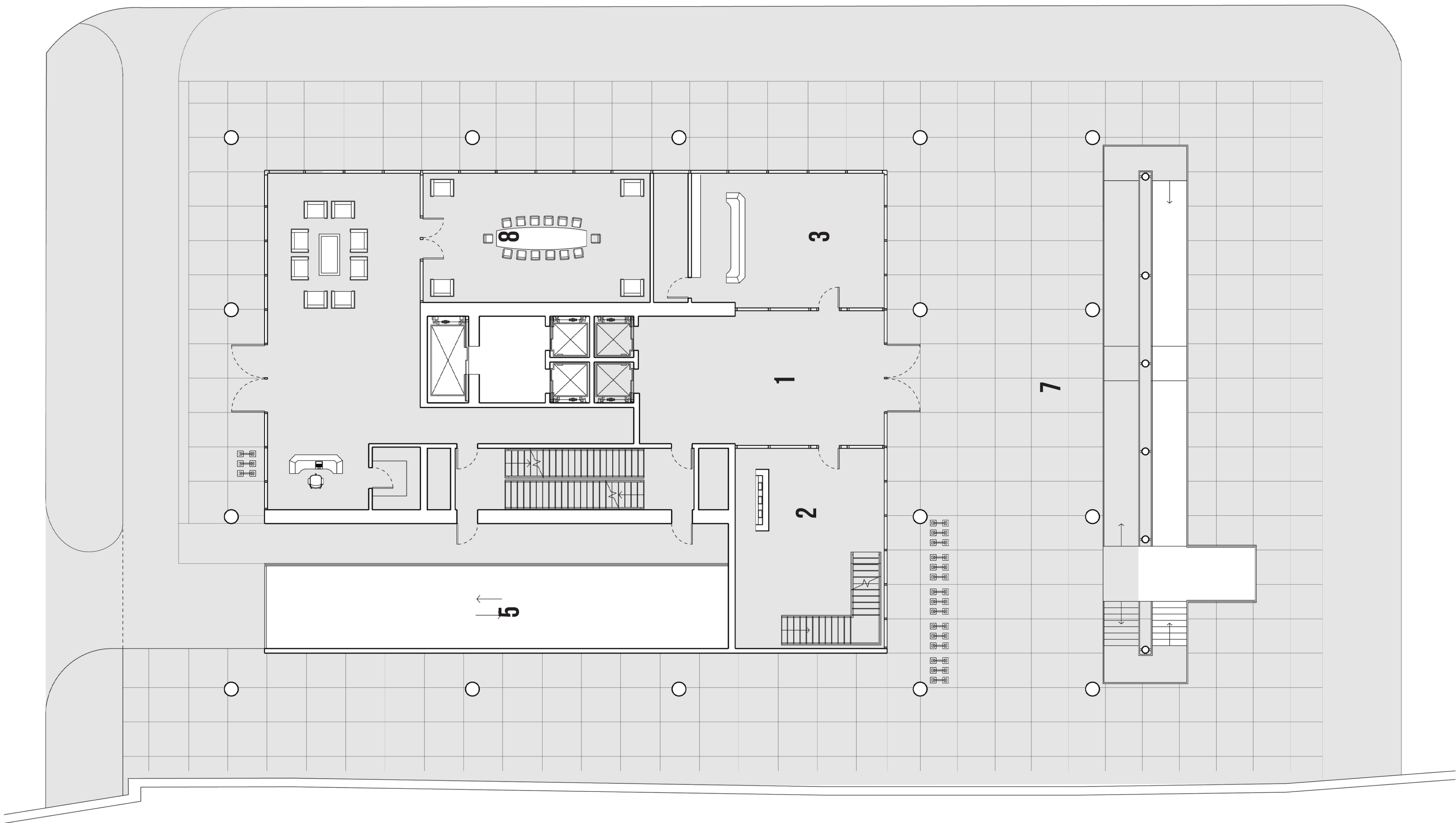
MODULE FLOOR PLAN THREE FLOOR PLAN

- 1. KITCHEN
- 2. LIVING ROOM
- 3. DINING ROOM
- 4. BEDROOM
- 5. FIRE EXIT STAIRS
- 6. TRASH CHUTE
- 7. UNITS STORAGE ROOM
- 8. MECHANICALS
- 9. ELEVATOR LOBBY



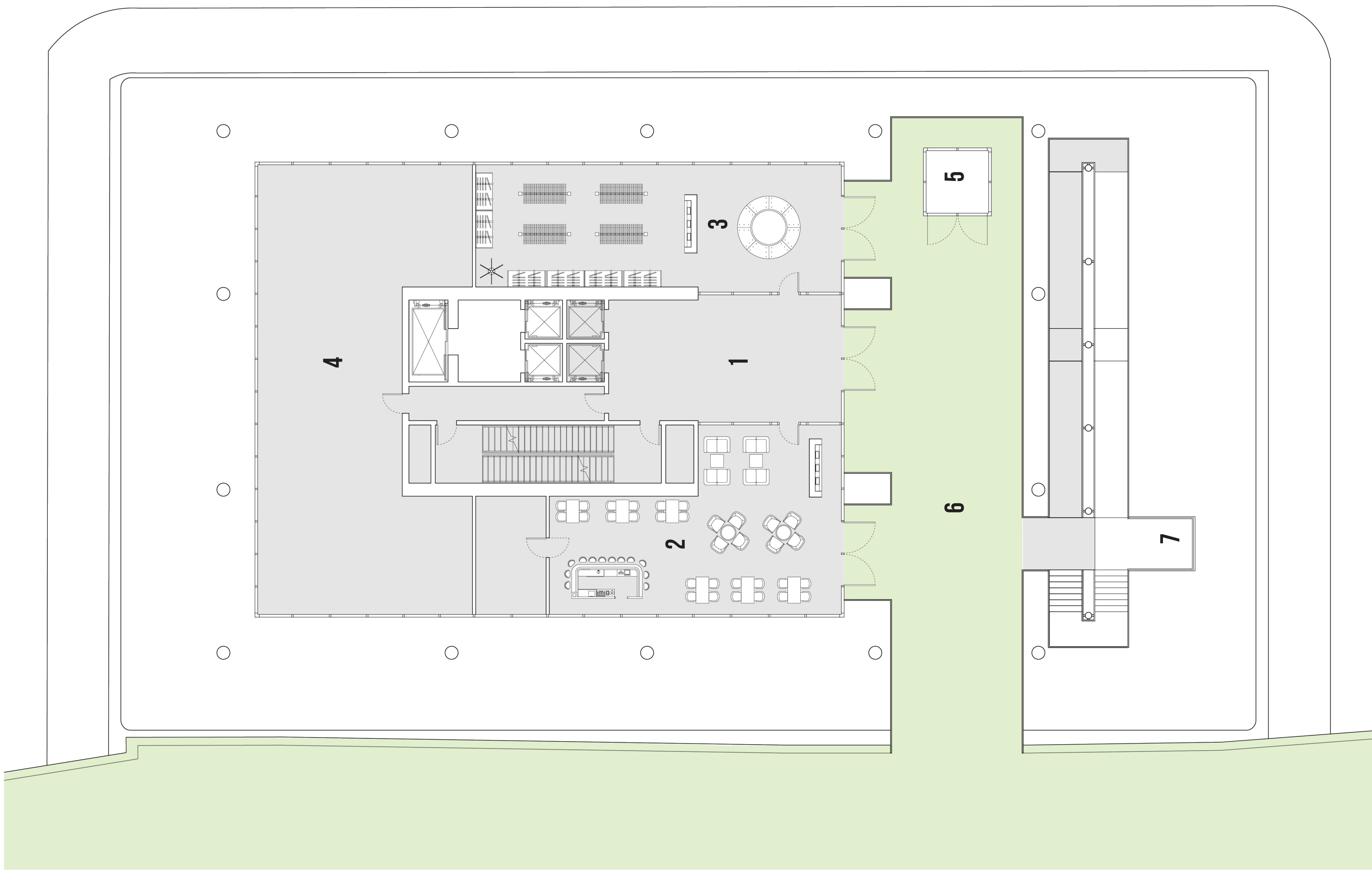
GROUND LEVEL FLOOR PLAN

- 1. PUBLIC VISITOR LOBBY
- 2. MUJI STORE
- 3. STARBUCKS
- 4. RESIDENTIAL PRIVATE LOBBY
- 5. RAMP TO PARKING GARAGE
- 6. MAIL SORTAGE UNIT
- 7. EXTERIOR PLAZA
- 8. CONFERENCE ROOM



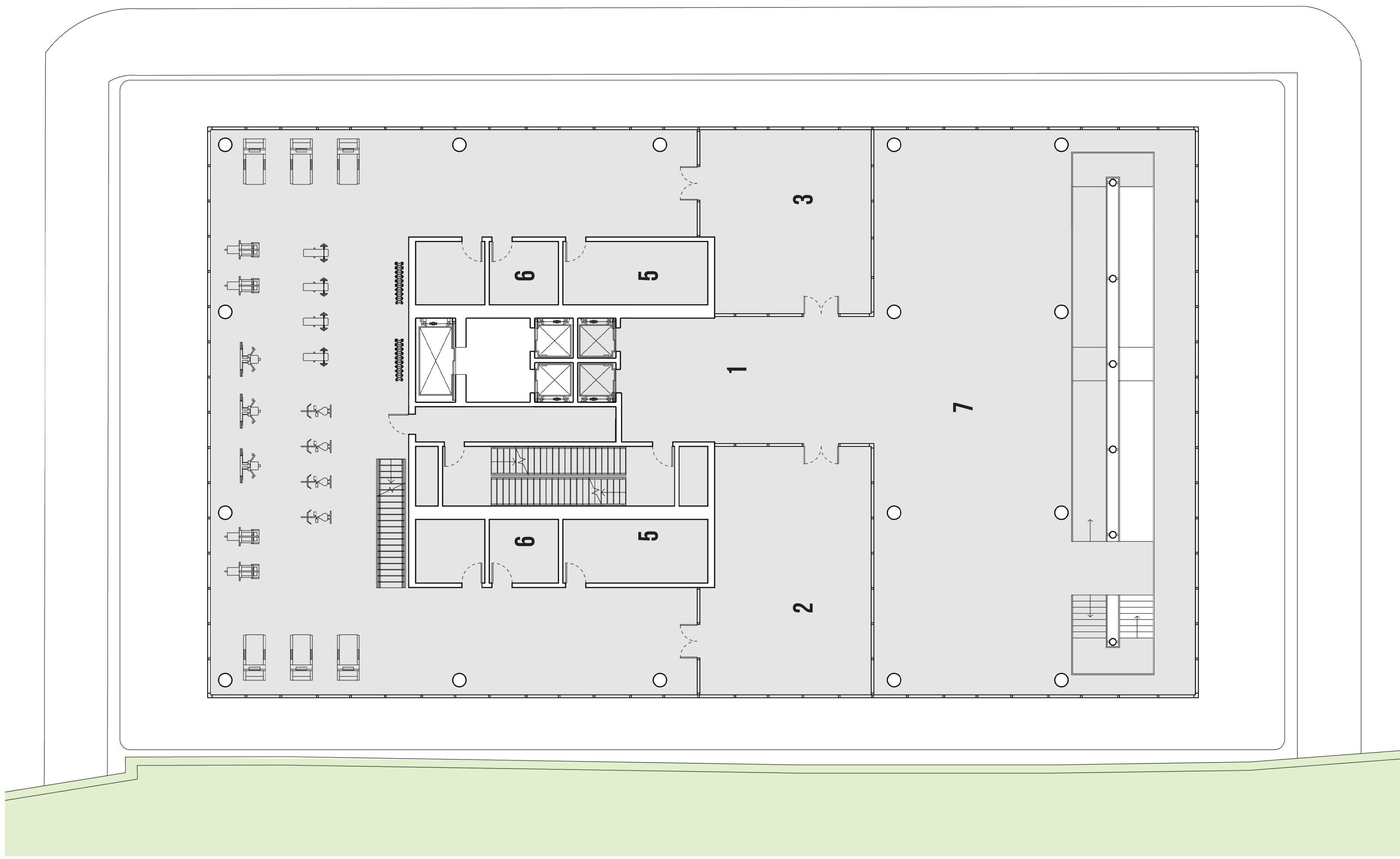
HIGH LINE LEVEL HIGH LINE LEVEL FLOORPLAN

- 1. LOBBY AREA
- 2. HIGH LINE CAFE
- 3. RETAIL SPACE
- 4. OFFICE RENTAL
- 5. POP UP/DOWN SHOP
- 6. HIGH LINE CONNECTION
- 7. OBSERVATION DECK

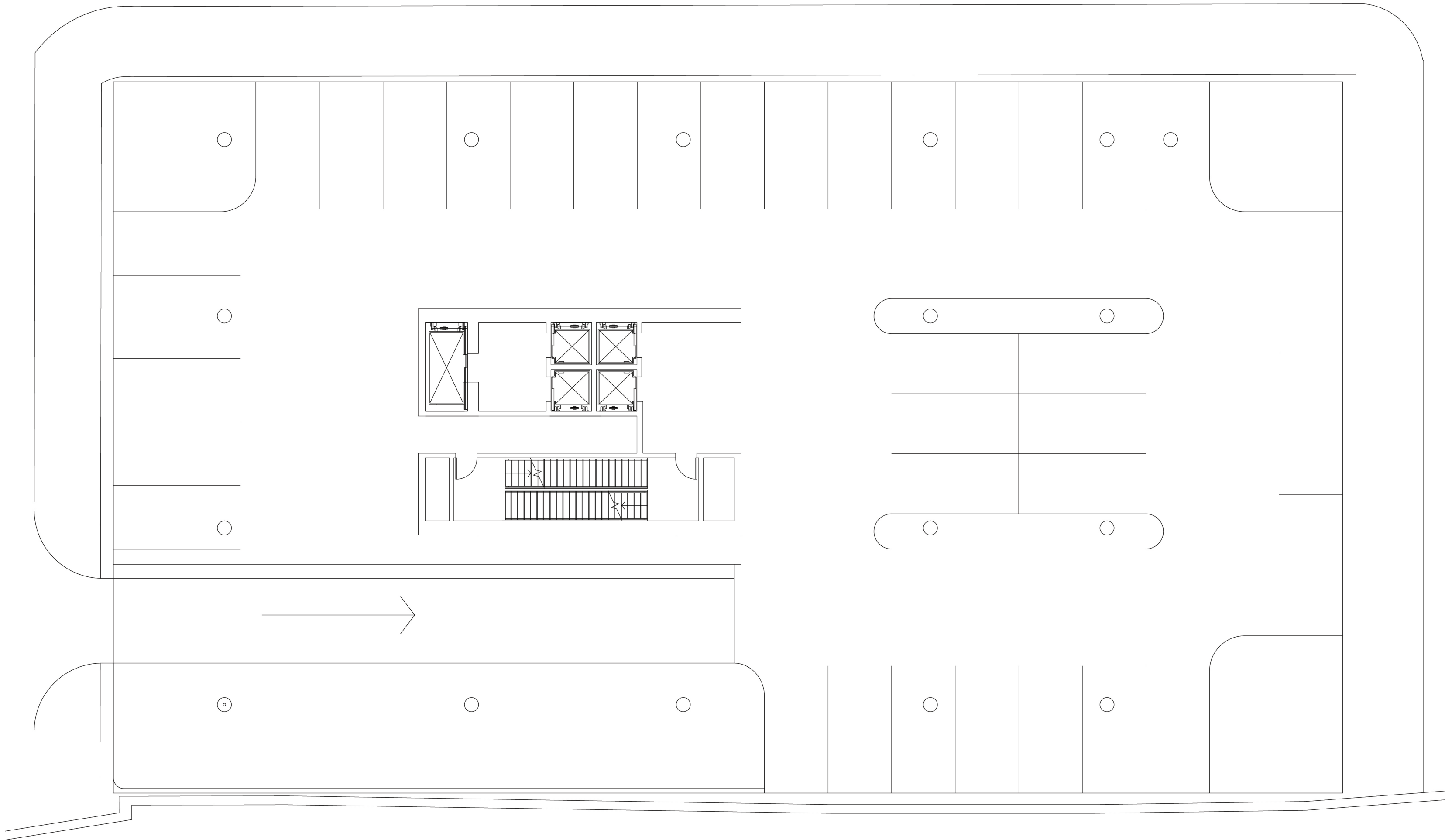


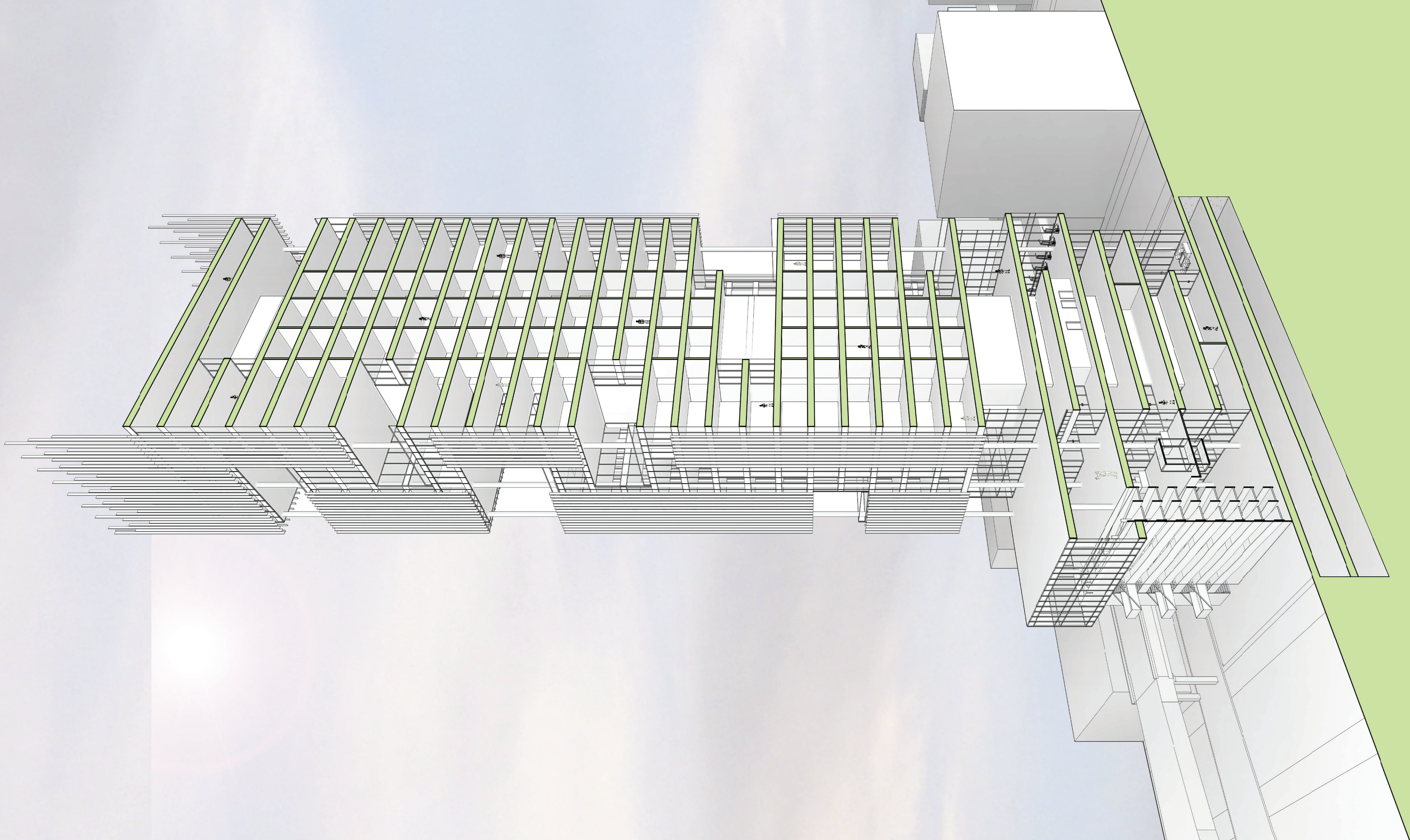
PUBLIC GYM / OBSERVATION DECK FLOORPLAN

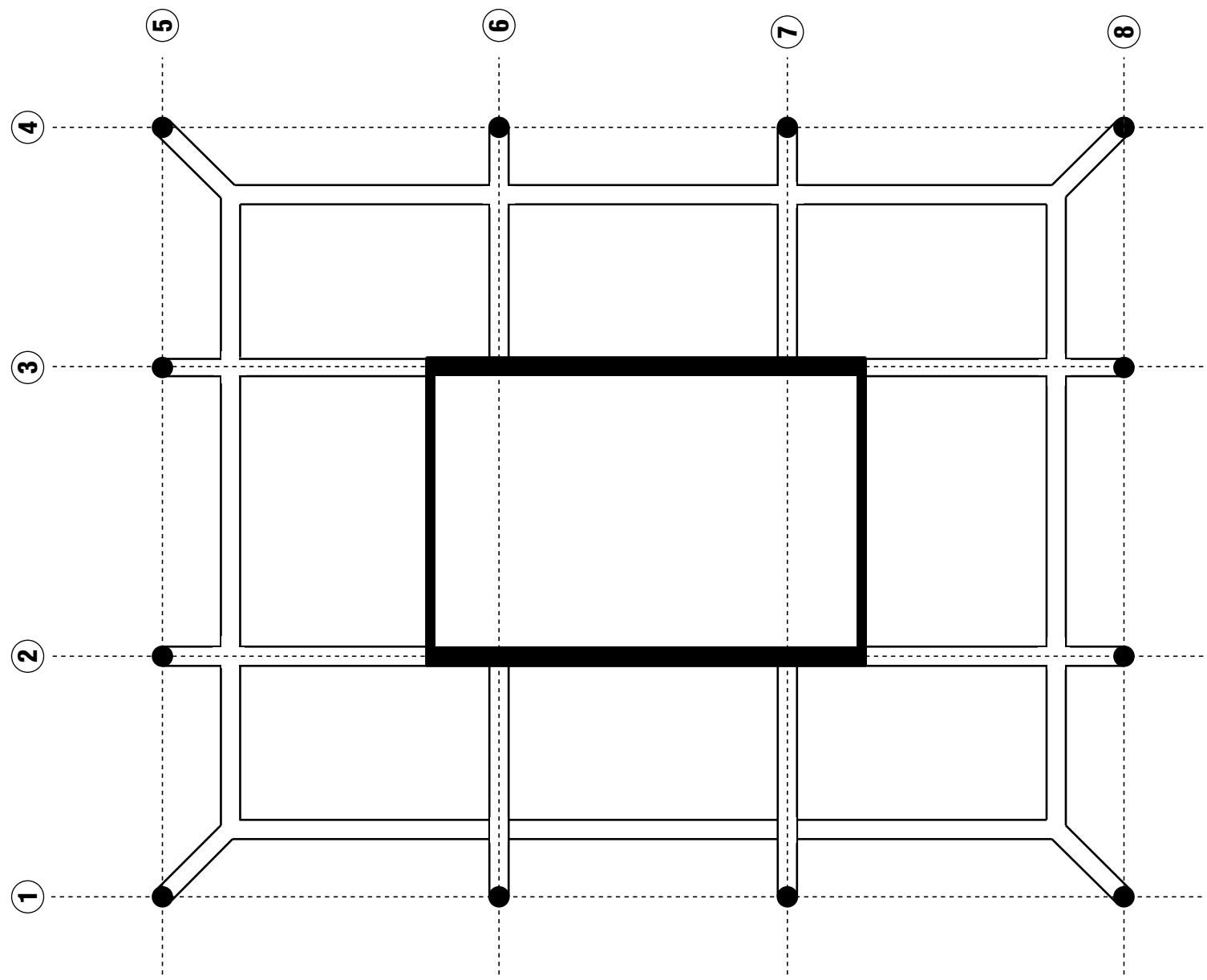
- 1. LOBBY AREA
- 2. GYM CAFE
- 3. RETAIL SPACE
- 4. PUBLIC GYM
- 5. LOCKER ROOM
- 6. RESTROOM
- 7. OBSERVATION DECK



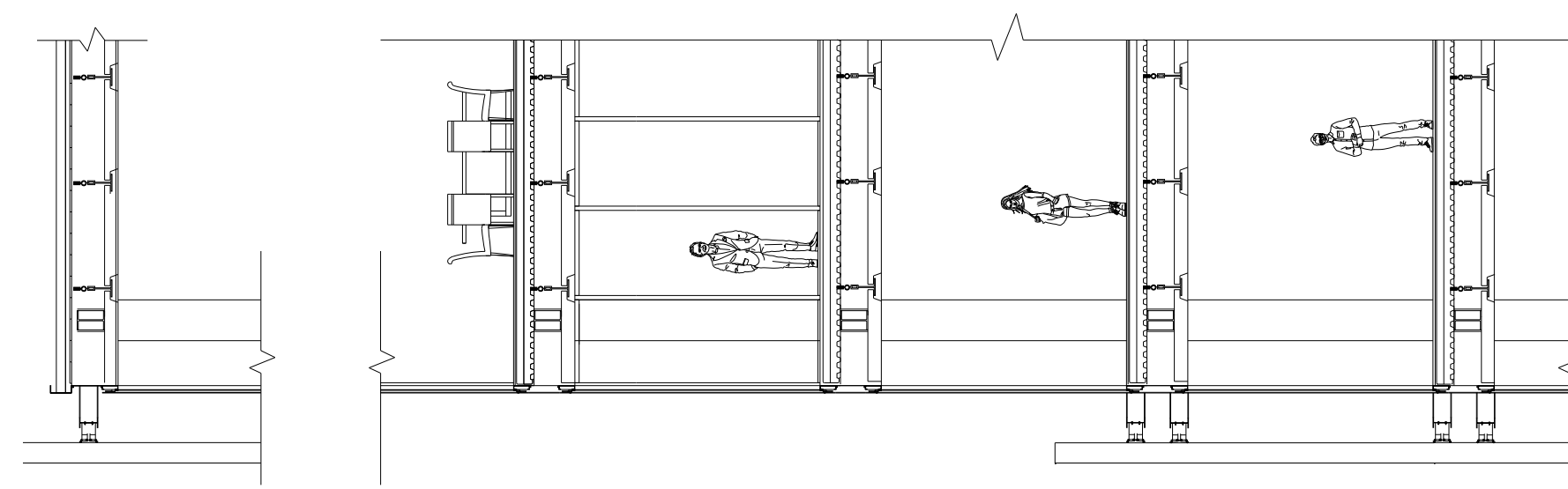
UNDERGROUND PARKING FLOOR PLAN



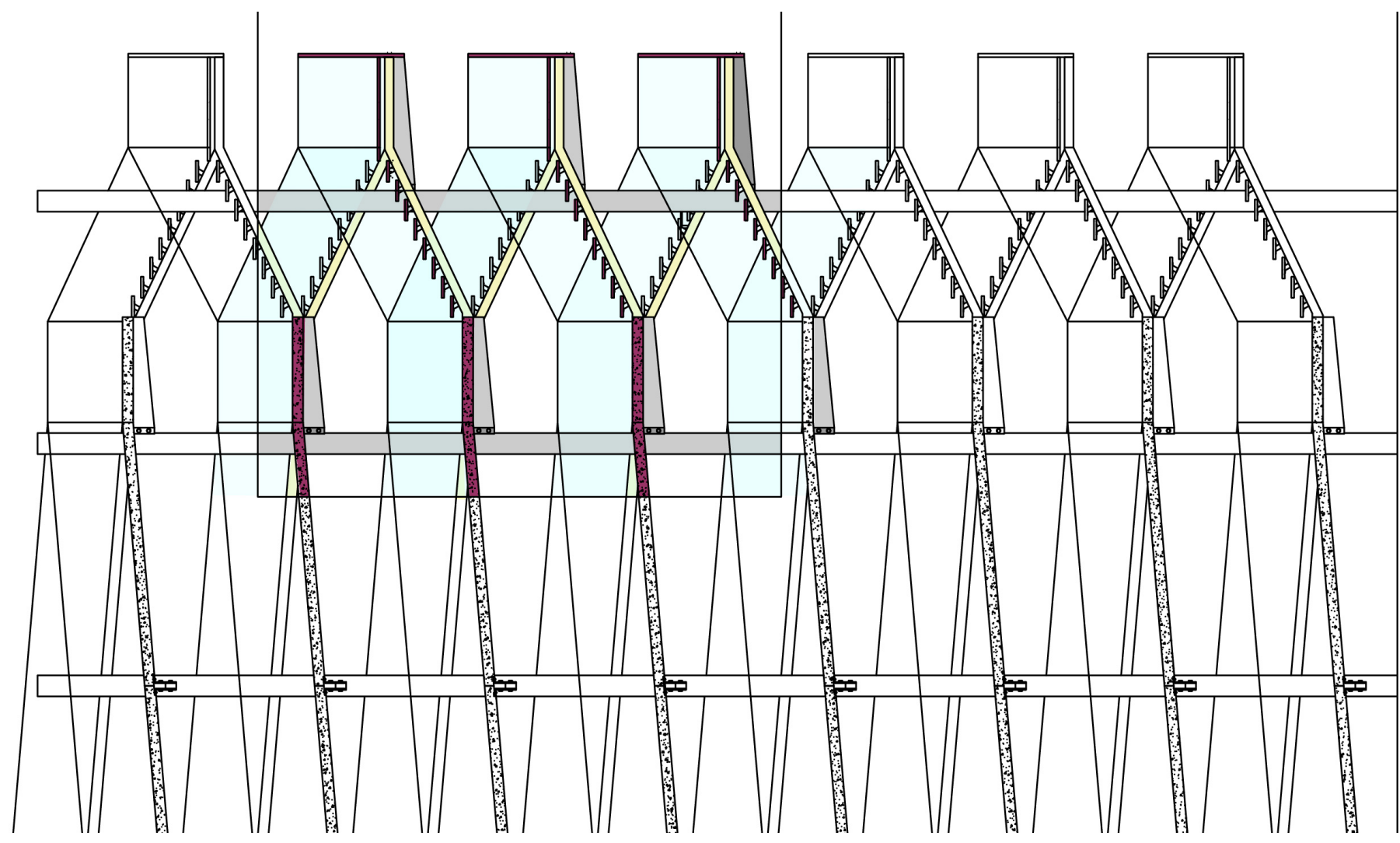




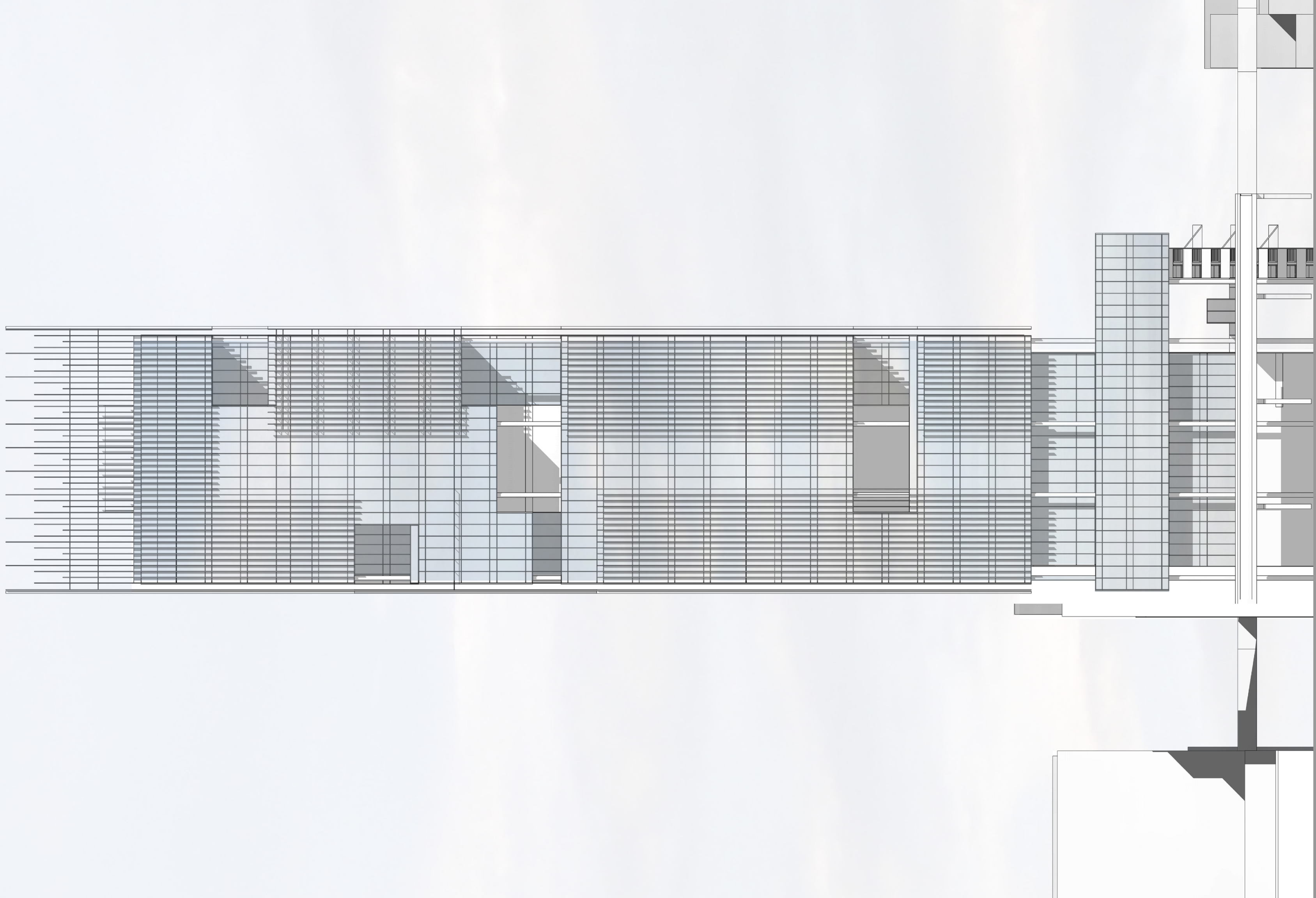
STRUCTURAL FRAMING PLAN

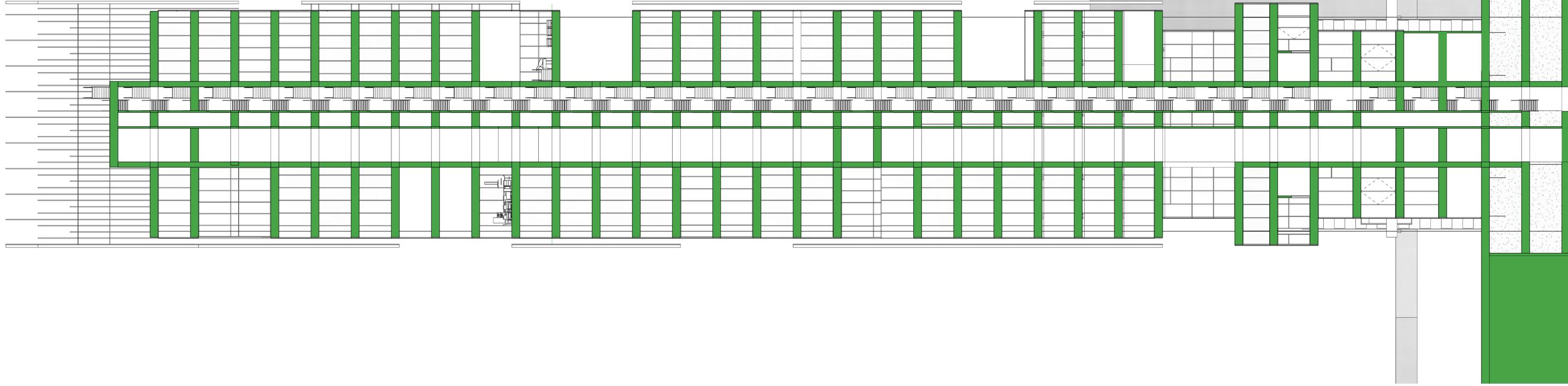


BUILDING DETAILED SECTION

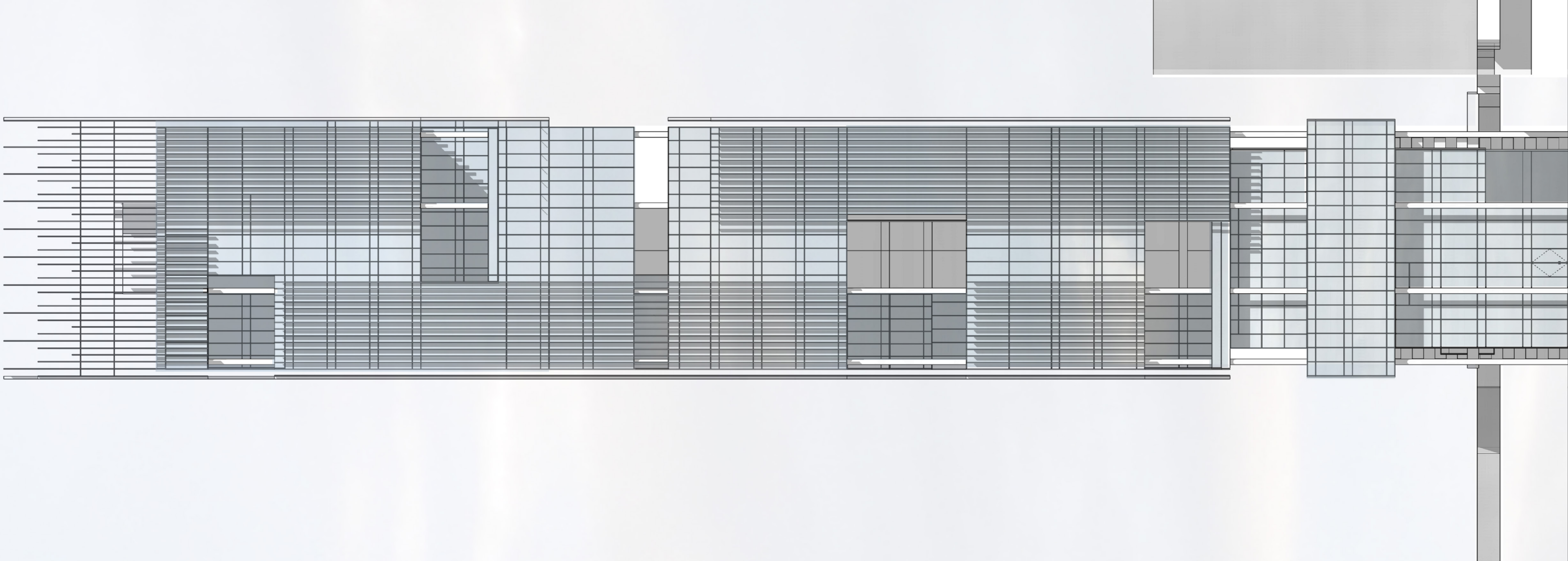


RAMP SECTION

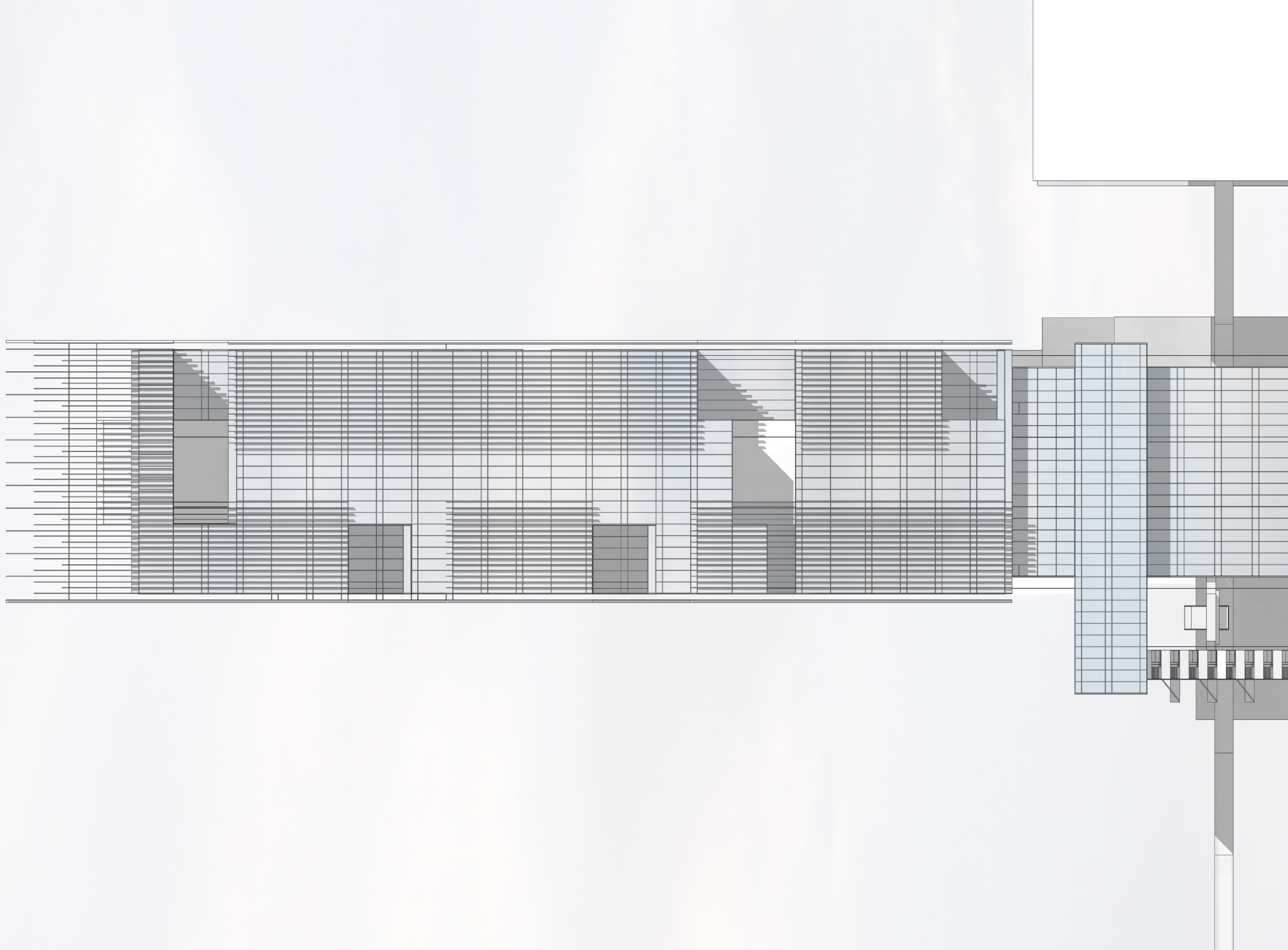


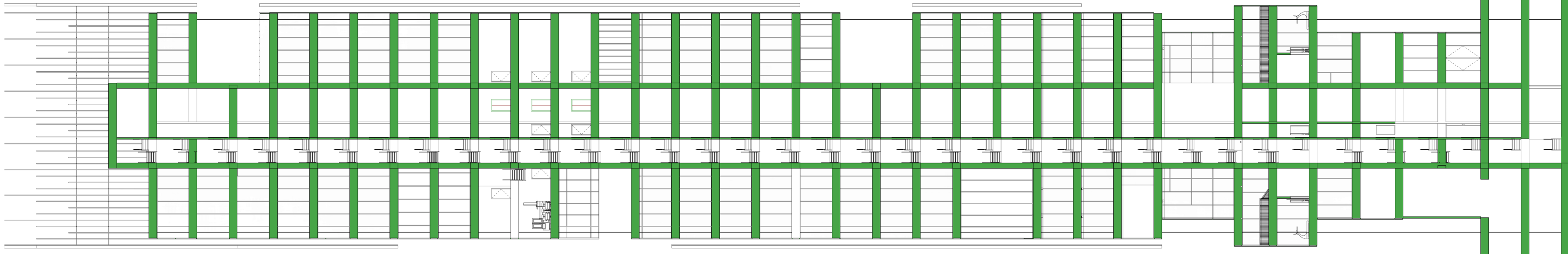


NORTH SECTION

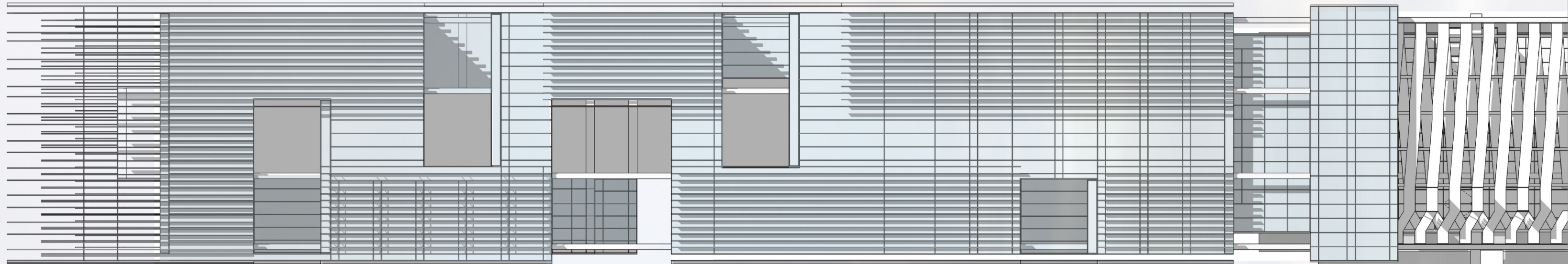


NORTH ELEVATION



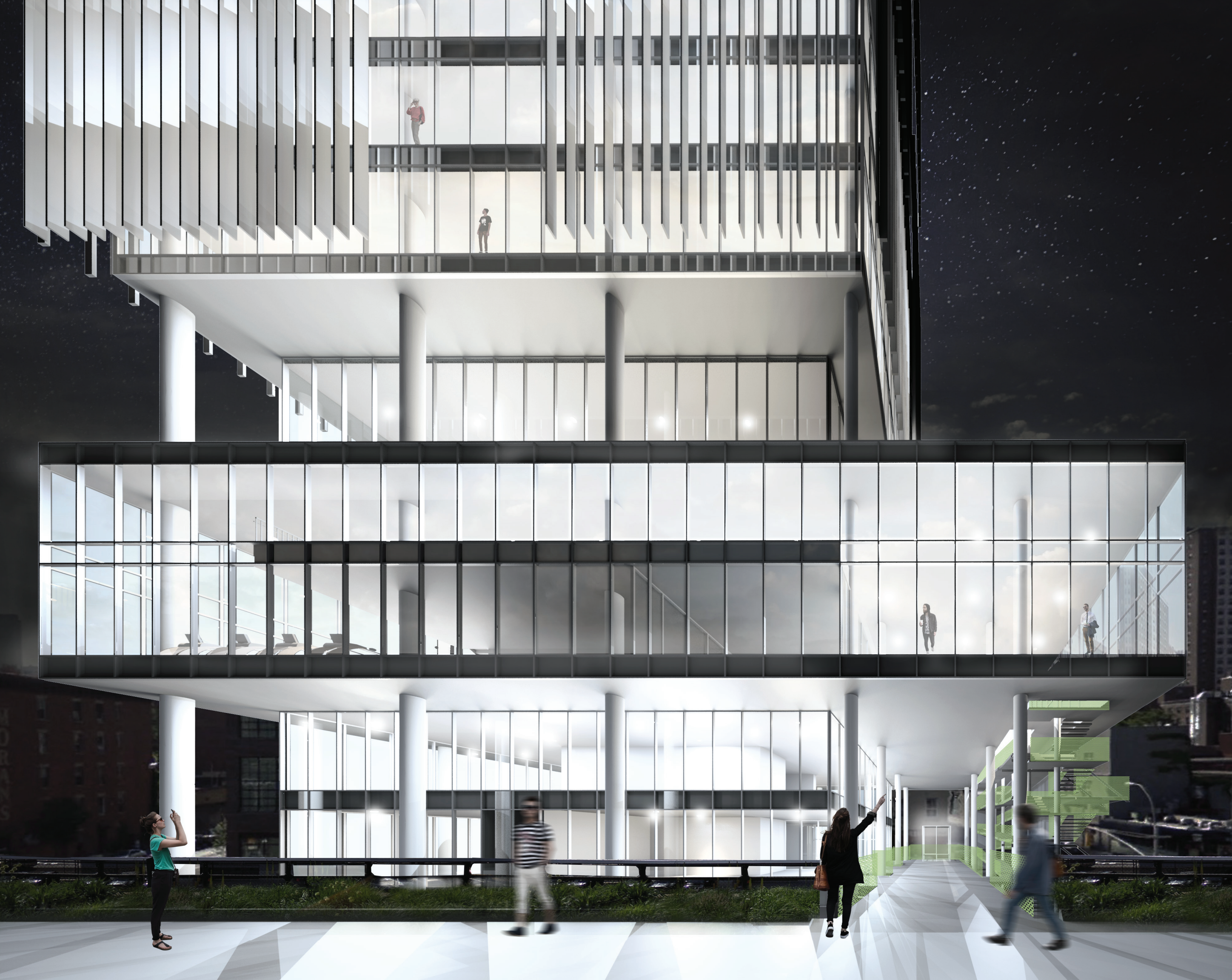


SOUTH SECTION



SOUTH ELEVATION





THIS PROJECT AS A WHOLE WILL THEN SERVE AS THE "URBAN PORTAL". THAT WILL PROVIDE A LINK FOR THE RESIDENTIAL AND COMMERCIAL AREAS OF THE HIGH LINE.

IT PROVIDES A BETTER CIRCULATION TO ACCESS THE HIGH LINE FROM A GROUND LEVEL PERSPECTIVE, WITH IT BEING MORE INTERESTING AND UNIQUE THAN THE OTHER ENTRANCES. THIS PROJECT HELPED ME EXPLORE HOW TO USE ARCHITECTURE AS A GATEWAY TO GET THE HUMAN BODY TO EXPLORE A SPACE IN A CERTAIN WAY.

THROUGH THIS PROJECT, I HAVE USED ARCHITECTURE TO IMPROVE AN EXISTING CONDITION FOR HIGH LINE ENTRANCES. IT IS MORE DISTINGUISHABLE AND A MORE INTERESTING EXPERIENCE FOR THE PROCESS OF GETTING TO THE HIGH LINE.

IN CONCLUSION, I HAVE EXPLORED MANY ASPECTS OF HOW TO DESIGN A SPACE THAT SERVES THE PUBLIC AND PRIVATE USERS. HOW TO SUCCESSFULLY DESIGN A CIRCULATION SPACE FROM HORIZONTAL TO VERTICAL CIRCULATION AND TO MAINLY DESIGN AN ARCHITECTURAL GATEWAY TO CHANGE AND IMPROVE AN EXISTING CONDITION.

ARCHITECTURE AS GATEWAY

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