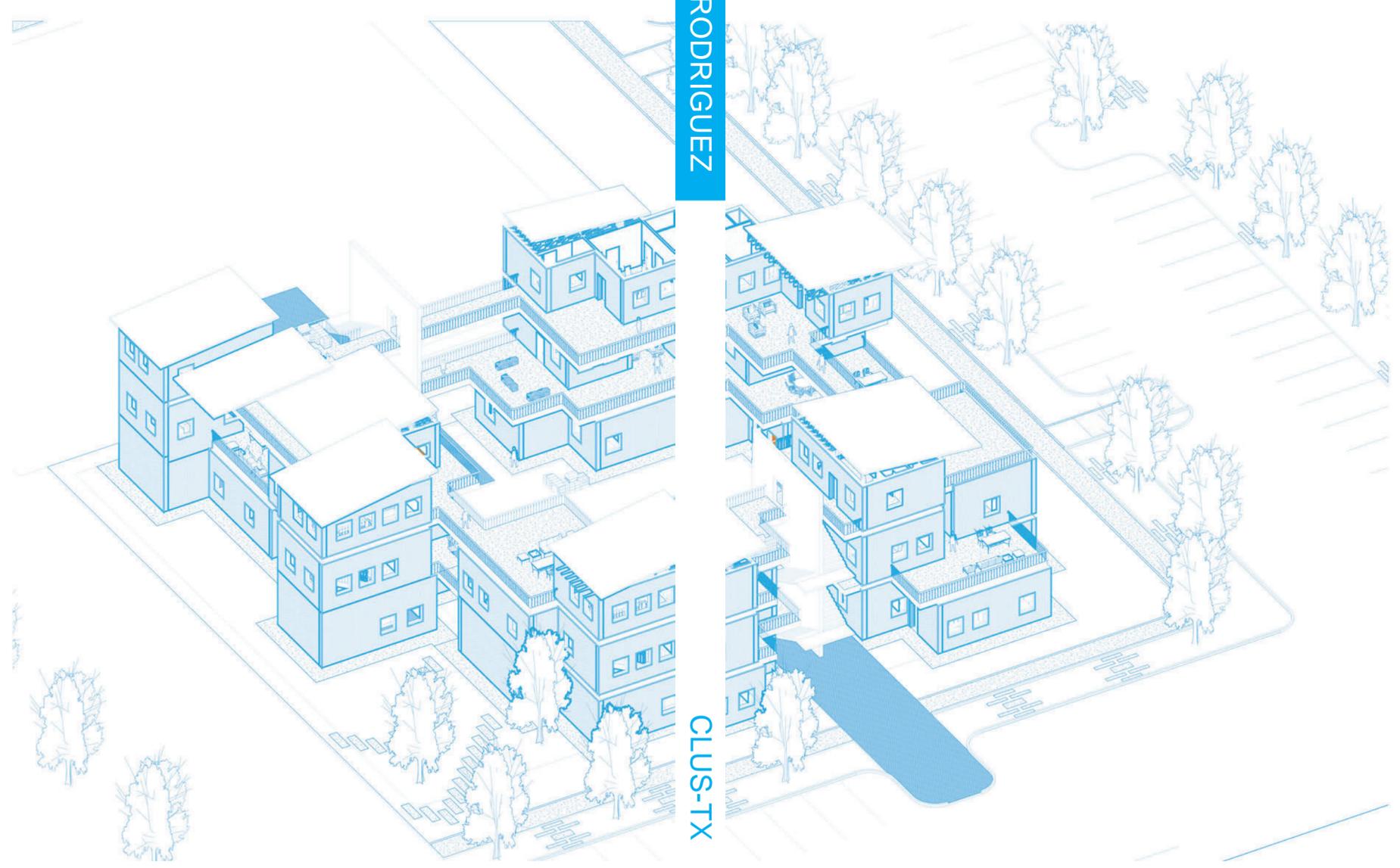


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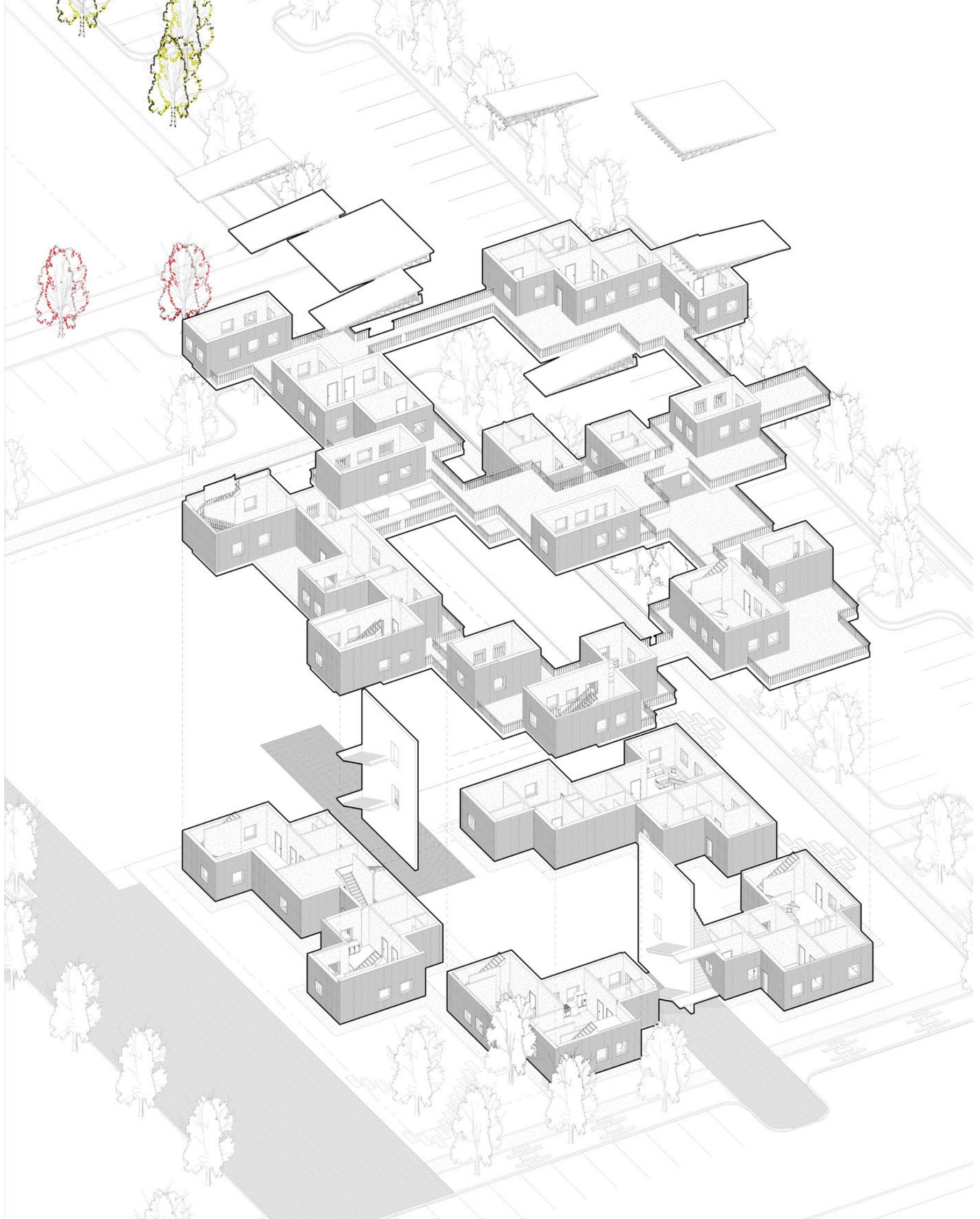


2022

LUIS ROBERTO RODRIGUEZ

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CHAPTER 1

RESEARCH

SUSTAINABILITY

AFFORDABILITY, SUSTAINABILITY AND DESIGN HAVE CHANGED THE WORLD AS WE KNOW. EVOLVING AND MAKING IT MORE COMPLEX FOR VIABLE WAYS TO GENERATE LOW COST RENTAL HOUSING UNITS. AS THE UNITED STATES CONTINUES TO INCREASE THEIR POPULATION NUMBERS AFFECTING THE DEVELOPMENT OF NEW OR REHABILITATED AFFORDABLE HOUSING.

SUSTAINABLE DESIGN CONSISTS OF THREE CONCEPTS: SIZE, ENERGY USE AND LIFESPAN. IN SIZE, EVERY SQUARE METER IT IS IMPORTANT TO UNDERSTAND THE ENERGY USE AND THE COSTS OF THE LIVING SPACE WHICH CONTRIBUTES TO THE COSTS OF THE LIVING SPACE. ENERGY CONSUMPTION IN WHICH THEY INCORPORATE DIFFERENT DESIGNS SUCH AS PASSIVE HAUS AND ZERO CARBON HOUSE PRINCIPLES WHICH DETERMINE THE ENERGY USE OF A HOUSE DURING AN OCCUPATION HOWEVER NOT IN CONSTRUCTION. THE LIFESPAN IN WHICH SUSTAINABILITY IS BUILT TO LAST. A STANDARD HOUSE LASTS AROUND 80 YEARS. A SUSTAINABLE HOUSE IS BUILT TO LAST MORE THAN 100 YEARS. ALTHOUGH IT DOES NOT LAST THAT LONG THERE IS ALWAYS A WAY TO REDUCE THE IMPACT AS MUCH AS POSSIBLE.

ON THE OTHER HAND, WE HAVE GREEN HOMES WHICH HELP REDUCE FOSSIL FUELS. THIS INCLUDES ENERGY EFFICIENCY LIGHTING, HEATING SYSTEMS, WATER SAVING LANDSCAPING, APPLIANCES, AND RENEWABLE ENERGY SYSTEMS: GEOTHERMAL HEATING OR SOLAR PANELS.

SUSTAINABILITY DESIGN IS BECOMING A TRENDING TOPIC WITHIN THE REALM OF ARCHITECTURE. OVER THE YEARS ARCHITECTURE HAS EVOLVED THROUGHOUT MODERNISM AND THE POST MODERNISM ARCHITECTURE HAS TAKEN PIVOTAL POINTS IN DESIGN SPACE AS WELL AS ITS HISTORY. IN THE 21ST CENTURY DESIGNERS AND ARCHITECTS PURSUE THE IDEA OF POST MODERNISM AND INCORPORATE THEIR DESIGN BASED ON CULTURE, HISTORY AND URBAN AREAS THAT HELP IMPROVE A SPACE. MANY DESIGNERS WORK WITH THE IDEA OF SUSTAINABILITY, AFFORDABLE HOUSING TO ACCOMMODATE MANY OF THE USERS. TO UNDERSTAND SUSTAINABILITY, AND AFFORDABLE HOUSING IT IS IMPORTANT TO UNDERSTAND THE END USER, THE WORKING FAMILIES WHERE THEY SPEND 60% OF HOUSEHOLD INCOME ON HOUSING AND TRANSPORTATION. ALSO, THE WORKING FAMILIES HAVE HOUSEHOLD EARNINGS OF \$20,000 TO \$35,000, SPENDING 70% OF THEIR INCOME ON HOUSING AND TRANSPORTATION.

OVER THE YEARS ARCHITECTURE HAS EVOLVED THROUGHOUT MODERNISM AND THE POST MODERNISM ARCHITECTURE HAS TAKEN PIVOTAL POINTS IN DESIGN SPACE AS WELL AS ITS HISTORY. IN THE 21ST CENTURY DESIGNERS AND ARCHITECTS PURSUE THE IDEA OF POST MODERNISM AND INCORPORATE THEIR DESIGN BASED ON CULTURE, HISTORY AND URBAN AREAS THAT HELP IMPROVE A SPACE. MANY DESIGNERS WORK WITH THE IDEA OF SUSTAINABILITY, AFFORDABLE HOUSING TO ACCOMMODATE MANY OF THE USERS.

AFFORDABILITY

AFFORDABLE HOUSING IS THE INFRASTRUCTURE IN WHERE SOCIETY OPERATES. THE UNITED STATES AND ITS COMMUNITIES HAVE DWINDLED ON LOW RENT YET HABITABLE HOUSING, SHORTAGE OF RENTAL ASSISTANCE. WITH THIS RESULTS IN EVICTIONS AND INCREASEMENT IN HOMELESSNESS UNDERMINING RESIDENTIAL STABILITY AND IMPOSE FISCAL AND SOCIETAL COSTS. ¹

AFFORDABLE HOUSING IS SCARCE IS BECAUSE IN A TYPICAL MARKET, THE APARTMENT COMPLEX HAVE RENT THAT IS AFFORDABLE FOR MIDDLE CLASS FAMILIES ON WHICH IT COSTS MORE TO BUILD THAN DEVELOPERS CAN RECOVER THROUGH RENTS. DEVELOPERS FIND IT HARD TO DEVELOP AN AFFORDABLE HOME FOR FAMILIES WITH THE AVERAGE MEDIAN INCOME. ¹

NEW HOUSING DOES NOT JUST REQUIRE LAND, MATERIALS AND LABOR, BUT HAS TO GET THROUGH APPROVAL, IN ADDITION TO THE DEVELOPEMENT COSTS THROUGH INTEREST ON PREDEVELOPEMENT LOANS. WHEN NEW DEVELOPEMENTS INTEND TO PROVIDE MULTIFAMILY OR AFFORDABLE HOUSING, APPROVALS ARE OFTEN CONTENTIOUS AND UNCERTAIN, ALLOWING TO REDUCE SUPPLY AND ADD COSTS. LOCAL AND STATE REGULATIONS ADDRESS THE HEALTH, THE ENVIRONMENT OR OTHER FACTORS THAT ADD TO HOUSING COSTS. ¹

HOUSING SUPPLIES ARE NOT JUST FACTORS FOR INCREASEMENT ON RENTS OR HOME PRICES BUT THEY ALSO CREATE A DRAG ON THE NATION'S ECONOMY AND INTENSIFY ICOME INEQUALITIES. BASED ON THE RESEARCH BY CHANG-TAI HSEIH AND ENRICO MORETTI, HOUSING IN HIGH PRODUCTIVITY CITIES WOULD INCREASE THE NATION'S GROSS DOMESTIC PRODUCT TO 9.7 PERCENT. ²

COMMUNITY

EVERY CITY RELIES ON A DIVERSE BLEND OF PEOPLE WHOSE INCOMES, AS WELL AS ASSETS AND CIRCUMSTANCES HAVE A RANGE OF HOUSING TYPES, DIFFERENT AFFORDABILITY LEVELS AND OTHER RELATED SERVICES. COMMUNITY BASED WORKERS NEED MODERATELY PRICED HOUSING NEAR WORK. AS WELL AS NEW FAMILIES OR EVEN GROWING FAMILIES NEED AFFORDABLE OPTIONS FOR AN EXPANDING HOUSING STOCK; NEEDED AND OPTION TO DOWN-SIZE OR LOOK FOR A CAR FREE NEIGHBORHOOD. PEOPLE IN CATEGORIES SUCH AS RETIREES, PEOPLE WITH TRAUMAS, PEOPLE WITH SUBSTANCE DISORDERS OR EVEN JUSTICE SYSTEM INVOLVEMENT NEED SUPPORTIVE AND STABLE HOUSING TO HELP THEM REGAIN THEIR FOOTING. ¹

THANKS TO RULES AND REGULATIONS, MANY COMMUNITIES CREATE BARRIERS THAT REDUCE THE HOUSING SUPPLY, INCREASE PRICES, AND MAKE IT DIFFICULT FOR PEOPLE TO ACCESS A STABLE AND AFFORDABLE HOME. ALTHOUGH, THERE IS FEDERAL INVESTMENTS TO HELP WITH RENTAL ASSISTANCE AND THE DEVELOPMENT AND PRESERVATION OF AFFORDABLE HOUSING IT IS NOT ENOUGH FOR MIDDLE AND LOW CLASS FAMILIES. ¹

CHAPTER 2

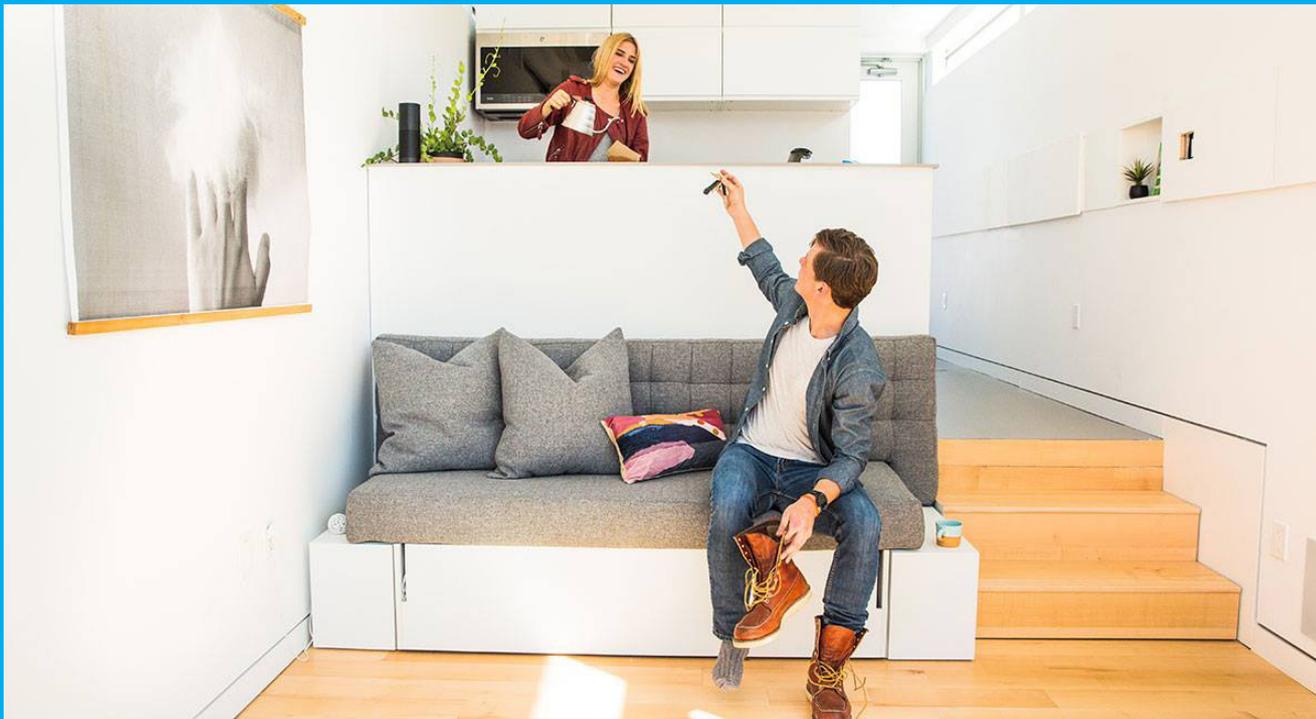
PRECEDENT

MICRO ESTATES

CONSTELLATION ATX



MICRO ESTATES BY CONSTELLATION ATX IS A PROJECT CONSISTING OF 82 TINY HOMES WHICH IS LOCATED ON 10330 & 10400 OLD MENCHACA ROAD OF A COMBINED OF 6,159 ACRES IN A UNDERDEVELOPED SITE IN SOUTH AUSTIN, THE PROGRAM RANGES FROM 400 SQ.FT. TO 700 SQ. FT. AND THE PRICE RANGE FOR THE MICRO ESTATES ARE FROM \$100,000 TO 150,000.³



MICRO ESTATES INCLUDE FEATURES SUCH AS A PATIO, A SPIRAL STAIRCASE TO A WINE PATIO. AN OPTION FOR TWO MASTER SUITES IN ONE HOME, ALONG WITH A LOFT THAT THE USER CAN STAND UP IN. A COMMUNITY POOL, FITNESS CENTER, HAVING AN OUTDOOR SETTING.

THIS PROJECT IS LOCATED IN A GROWING ENTERTAINMENT DISTRICT. THE PROJECT IS ONLY A HALF MILE FROM SOUTH OF SLAUGHTER LANE WITH A PROXIMITY TO MAJOR THOROUGHFARES.

THIS PROJECT IS LOCATED WITHIN 10 MILES FROM SOUTH DOWNTOWN AUSTIN. FOUR MILES EAST OF MOPAC INTERLOOP. THREE MILES FROM I-35 AND SOUTH PARK MEADOWS. LASTLY, 12 MILES FROM AUSTIN-BERGSTORM INTERNATIONAL AIRPORT.³

GANEI SHAPIRA

AFFORDABLE HOUSING



ARCHITECTS: DRIT MUHLBAUER EYAL
ARCHITECTS

YEAR: 2014

LEAD ARCHITECT: SHAI EPSTEIN

PROJECT MANAGEMENT: EZRA & BTZHARON |
ELI GINZBERG | MASKIT PEER |

MONICA MILONGHICK

CONTRACTOR: SHALOM & NATAN⁴



THE PROJECT ENCOMPASSES 69 APARTMENTS WHICH WILL BE AVAILABLE FOR RENT UNDER THE AFFORDABLE HOUSING SCHEME. 42 APARTMENTS ARE THREE BEDROOM SCHEMES (AROUND 80 SQ/M) | 27 APARTMENTS ARE FROM FOUR TO FIVE BEDROOM SCHEME (90 TO 120 SQ./M). THE CENTER OF THE PROJECT IS A COMMUNAL SPACE SERVING AS PATHWAY TO THE PARK AND THE ENTRY POINT TO APARTMENTS.

THE SPACE ALSO SERVES AS NATURAL CONTINUATION TO AND FROM ANY GREEN SPACES; ALLOWING THE RESIDENTS TO ACCESS DE MODINA GARDEN. THIS PROJECT HIGHLY BENEFITS THE SHAPIRA NEIGHBORHOOD BY ATTRACTING MIDDLE CLASS FAMILIES TO THE AREA.

GANEI SHAPIRA AFFORDABLE HOUSING SERVES AS AN OPPORTUNITY FOR BOTH AFFORDABLE HOUSING FOR THE MIDDLE CLASS AND AS A LEVER OF URBAN AND POPULATION RENEWAL OF THE SHAPIRA AREA. ⁴

QUINTA MONROY

ELEMENTAL



ARCHITECTS: ELEMENTAL
PROJECT: 2003
CONSTRUCTION: 2004
LEAD ARCHITECT: ALEJANDRO ARAVENA
PROGRAM: 93 HOUSES COMPLEX | INITIAL
BUILT AREA 36 M2 PER UNIT |
EXPANDED HOUSE: 70 M2
LOCATION: QUINTA MONROY, IQUIQUE, CHILE⁵



ALEJANDRO ARAVENA WORKED WITHIN THE FRAMEWORK OF A SPECIFIC PROGRAM OF MINISTRY OF HOUSING CALLED DYNAMIC SOCIAL HOUSING WITHOUT DEBT (VSDsD). THIS PROGRAM AIMED TO HELP THE POOREST IN SOCIETY, THOSE WITHOUT THE ABILITY TO BORROW, AND WHICH CONSISTS OF A SUBSIDY OF U.S. \$7,500 PER FAMILY TO PURCHASE THE LAND; THE URBANIZATION WORKS AND THE ARCHITECTURE MUST BE FINANCED. THE LOW AMOUNT IN THE BEST CASES, ALLOWS TO BUILD ONLY 30 M². THIS FORCES THE BENEFICIARIES TO BE THE ONES WHO DYNAMICALLY TRANSFORM THE MERE HOUSING SOLUTION INTO A HOME OVER TIME.

TO SOLVE THE EQUATION, IN TERMS OF ONE HOUSE IT EQUALS ONE LOT, EVEN WHEN IT USED THE SMALL LOTS OF SOCIAL HOUSING, FITTING 30 FAMILIES ON THE LAND. RESULTING IN THE TYPOLOGY OF ISOLATED HOUSES, CAUSING THE USE OF LAND TO BE INEFFICIENT. THEREFORE THE TENDENCIES IS TO LOOK FOR LAND ARE AFFORDABLE. ⁵

THIS TERRITORIES ARE NORMALLY ON THE PERIPHERIES, MARGINALIZED AND FAR FROM THE NETWORKS OF OPPORTUNITIES THAT A CITY OFFERS.

OVERALL, THIS PROJECT BY ALEJANDRO ARAVENA DEALS WITH THE IDEA OF REDUCING AND INCREASING SPACE IN A HOME. THIS EXPLORES THE IDEA OF COLLECTIVE SPACE BETWEEN THE PUBLIC SPACE (STREETS AND PATHWAYS) AND THE PRIVATE ONE (EACH HOME): A COMMON PROPERTY BUT WITH RESTRICTED ACCESS, ALLOWING THE CREATION OF SOCIAL NETWORKS, A KEY TO MECHANISM FOR SUCCESS OF SOCIAL ENVIRONMENTS. ⁵

VANDERPARK

RESIDENTIAL BUILDING



ARCHITECTS: DE ARCHITEKTEN CIE.

YEAR: 2019

AREA: 144,000 M2

LEAD ARCHITECT: PERO PULJI

STRUCTURAL ENGINEER: APEX PROJECT

BUREAU, MOSCOW

CONTRACTOR: BOES CONSTRUCTION

LANDSCAPE: WEST 8

PROJECT ARCHITECT: JAN-WILLEM BAIJENSE

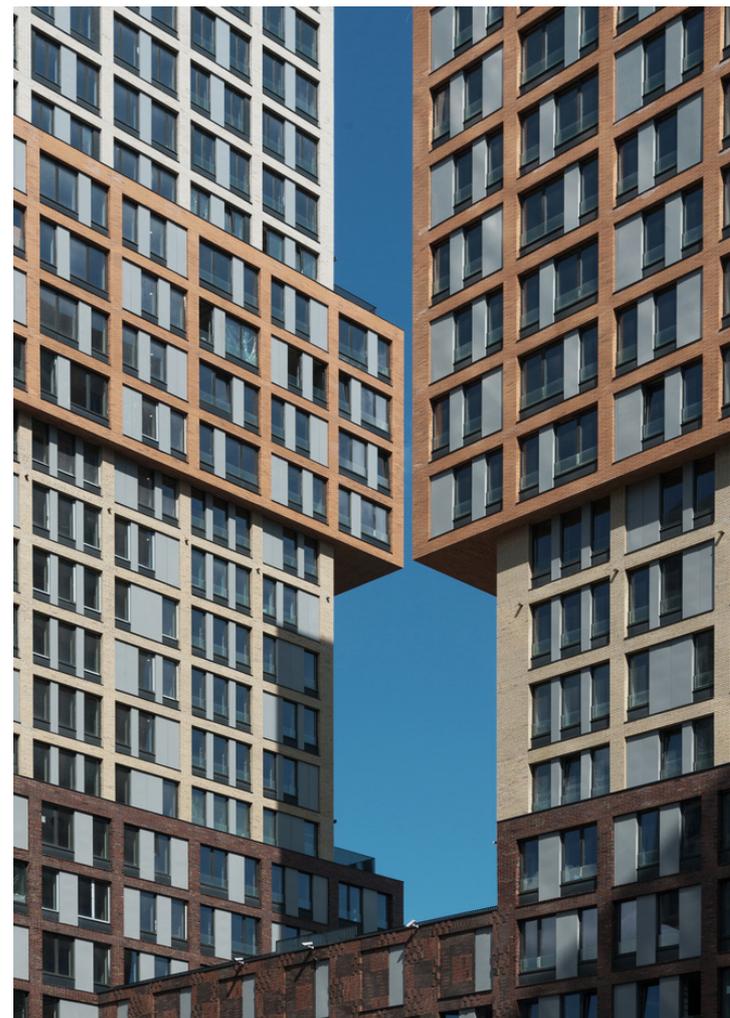
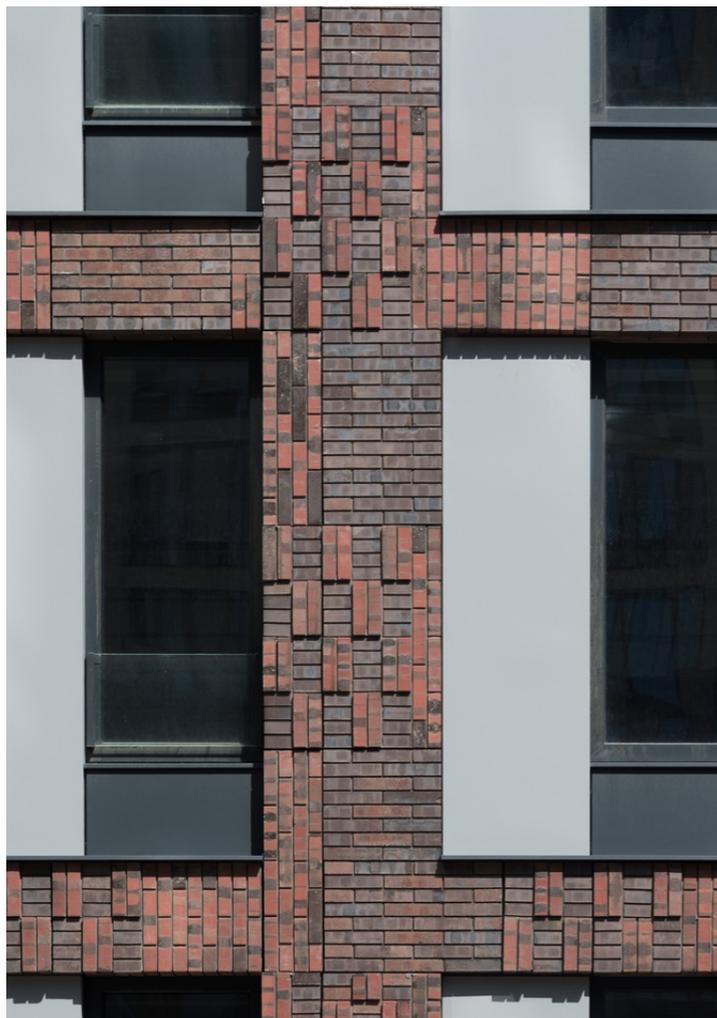
DESIGN TEAM: VLADIMIR SERGEEV | GRISHA

ZOTOV | DAVID GARCIA |

HANS HAMMINK |

WESSEL VREUGDENHILL

LOCATION: MOSCOW, RUSSIA⁶





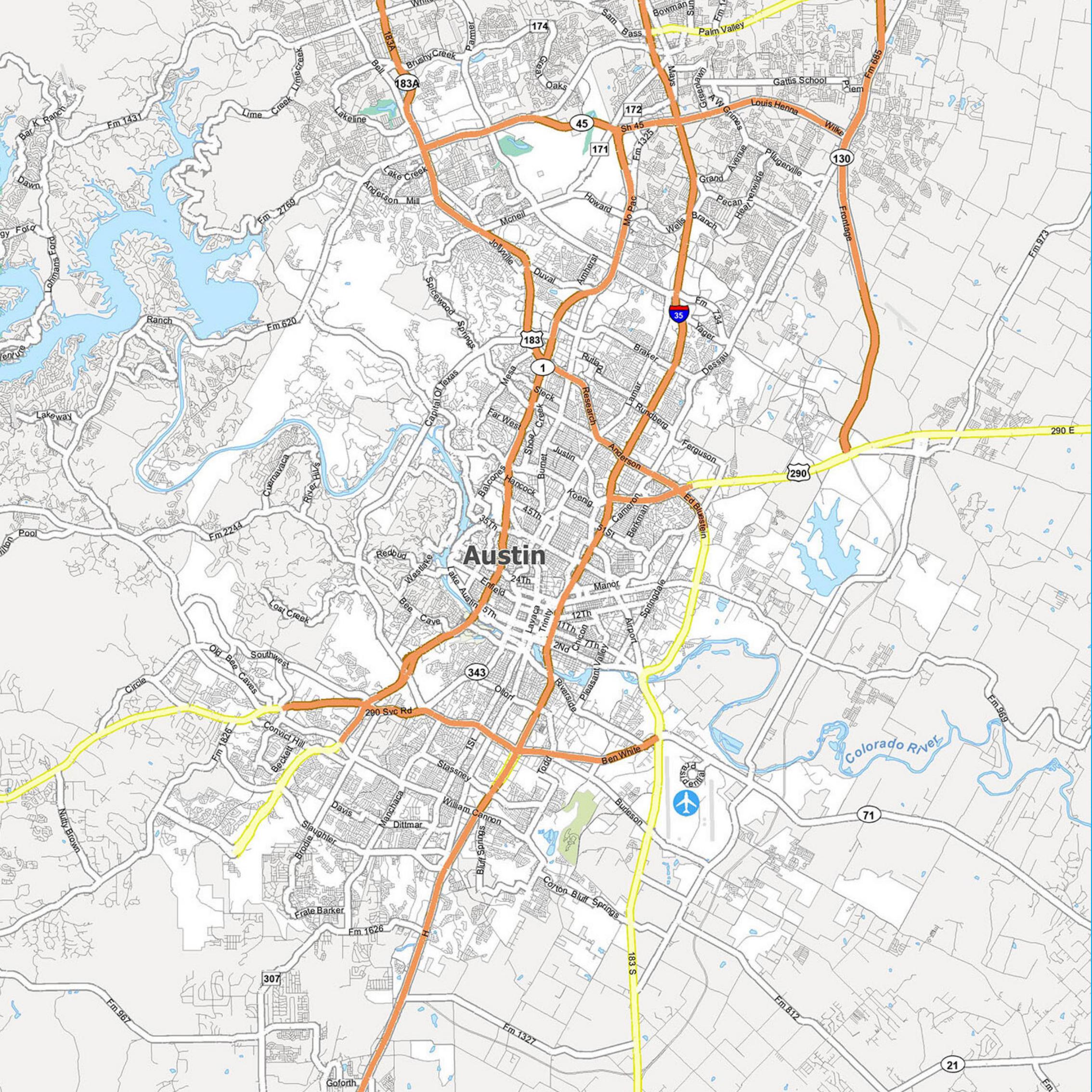
THIS FIRST REALIZED PROJECT OF THE ARCHITEKTEN CIE. IN MOSCOW, DESIGNED FOR THE RUSSIAN DEVELOPER PIK GROUP, COMPRISES NO LESS THAN 1000 APARTMENTS ON A SITE OF APPROXIMATELY 2.4 HECTARES. CONSEQUENTLY, DENSE AND HIGH-RISE CONSTRUCTION IS REQUIRED. TO MAINTAIN A HUMAN SCALE IN THE PROJECT. THIS PROJECT WAS APPROACHED AT A SCALE OF URBAN PLANNING AND DESIGNED THE COMPLEX AS A VERTICAL CITY IN THE CITY. THANKS TO THE MANY PASSAGEWAYS LEADING FROM THE STREET TO THE GARDEN COURT, THE COMPLEX IS CLOSELY CONNECTED TO THE SURROUNDING NEIGHBORHOOD. ⁶

VANDER PARK IS ORGANIZED AROUND A CENTRAL GARDEN COURT DEFINED BY A LOW PLINTH OF UP TO SIX LEVELS WITH EIGHT RESIDENTIAL TOWERS ON TOP. THESE TOWERS, 18 TO 26 STORIES HIGH, ARE DESIGNED AS SEQUENCES OF STACKED VOLUMES CLAD IN BRICKWORK OF DIFFERENT COLORS, A PLAYFUL COMPOSITION LENDING A DISTINCT IDENTITY TO VANDER PARK ON THE MOSCOW SKYLINE. ⁶

CHAPTER 3

SITE AND

CONTEXT



Austin

Colorado River



21

71

290

35

183

1

343

307

45

172

171

130

174

183A

Fm 1431

Fm 2769

Fm 620

Fm 2244

Old Bee Caves

Fm 1826

Fm 967

Fm 1626

Fm 1327

Fm 812

Fm 969

Fm 973

Fm 985

Sh 45

Fm 1325

Fm 724

183 S

Anderson Mill

Spicewood Springs

Capital Of Texas

Mesa

Balcones

Redbud

Westlake

290 Svc Rd

Convict Hill

Davis

Frate Barker

Goforth

Lakeline

Lake Creek

McNeil

Jollyville

Far West

35Th

Emfield

Ollort

Stassney

William Cannon

Bluff Springs

Corton Bluff Springs

Howard

Amherst

Braker

Ruilaa

Justin

Yoeng

Manor

12Th

11Th

10Th

Bluff Springs

Corton Bluff Springs

Mcneil

Amherst

Braker

Ruilaa

Justin

Yoeng

Manor

12Th

11Th

10Th

Bluff Springs

Corton Bluff Springs

Howard

Amherst

Braker

Ruilaa

Justin

Yoeng

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Bluff Springs

Corton Bluff Springs

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THE POPULATION IN SOUTH AUSTIN IS ABOUT 107,185 RESIDENTS, WITH A MEDIAN AGE OF 34. 55,199 (51.5%) OF THE POPULATION ARE MALES AND ABOUT 51,986 (48.5%) ARE FEMALES.

IN REGARDS TO EMPLOYMENT IN THE SOUTH AUSTIN AREA ARE DIVIDED IN TWO CATEGORIES WHICH ARE WHITE COLLAR AND BLUE COLLAR. IN WHICH THE WHITE COLLAR CATEGORY CONSISTS OF 52,937 (80.84%) AND BLUE COLLAR AT 12,546 (19.16%). SELF EMPLOYEES AT 6,586 PRIVATE COMPANIES AT 46,593 GOVERNMENTAL WORKERS 8,551

IN THE SOUTH AUSTIN AREA THERE IS A TOTAL OF 42,177 HOUSEHOLDS, MADE OF THREE MEMBERS. THE FAMILY ESTABLISHMENTS REPRESENT 50.43% OF THE SOUTH HOUSEHOLDS. IN THE NON-FAMILY UNITS THE REMAINING 49.57%. IN ADDITION, 26.48% OF HOUSEHOLDS HAVE CHILDREN AND 73.52% HOUSEHOLDS ARE WITHOUT CHILDREN. ⁶

THE AVERAGE ANNUAL HOUSEHOLD INCOME IN SOUTH AUSTIN IS \$83,886, WHILE THE MEDIAN HOUSEHOLD INCOME IS AT \$65,787 PER YEAR. RESIDENTS AGED 25 TO 44 EARN \$79,393, WHILE THOSE BETWEEN 45 AND 64 YEARS OLD HAVE A MEDIAN WAGE OF \$69,287. IN CONTRAST, PEOPLE YOUNGER THAN 25 AND THOSE OLDER THAN 65 EARN LESS, AT \$39,541 AND \$60,158, RESPECTIVELY. ⁶

THERE A TOTAL OF 45,098 HOUSING UNITS IN SOUTH AUSTIN. 42,177 OCCUPIED UNITS IN SOUTH AUSTIN, 40.69% ARE OWNED OCCUPIED WHILE 59.31% HAVE RENTERS LIVING. MEANWHILE, PROPERTIES WITH MORTGAGES ACCOUNT FOR 67.26% OF THE UNITS, MEDIAN VALUE OF A HOME MORTGAGE IS \$261,750. IN THE SOUTH AUSTIN AREA THE AVERAGE COSTS IS ABOUT \$1,297 MONTHLY. ⁶

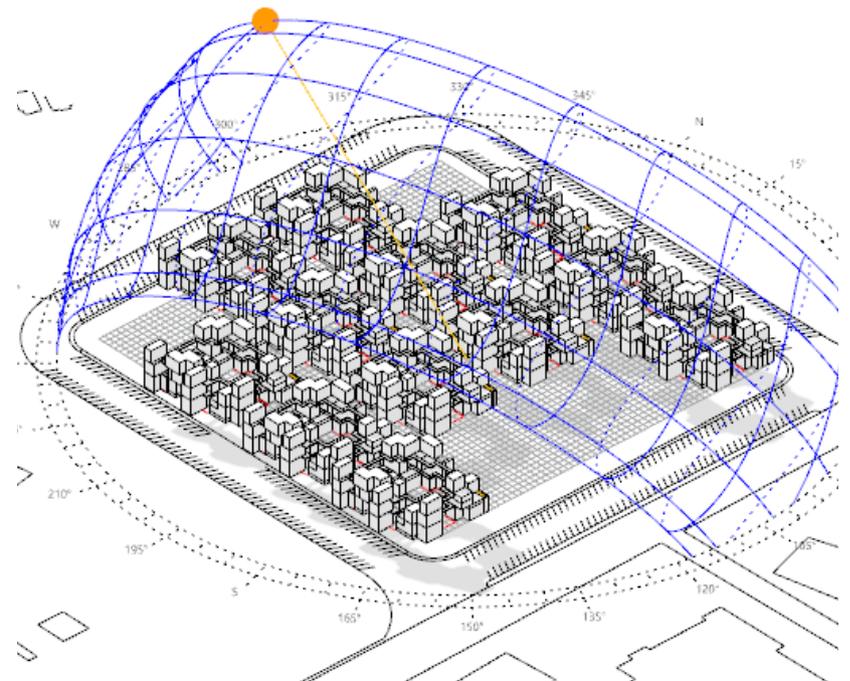
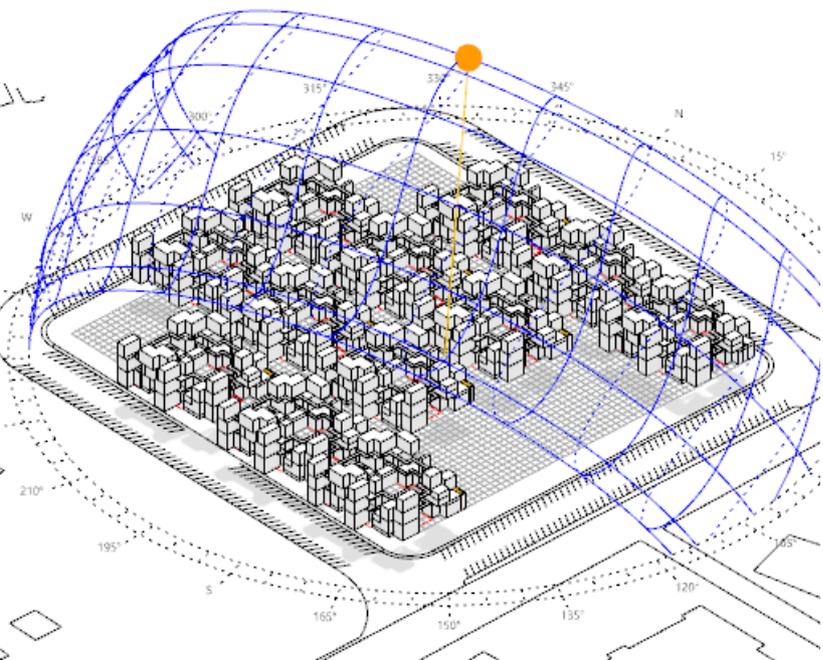
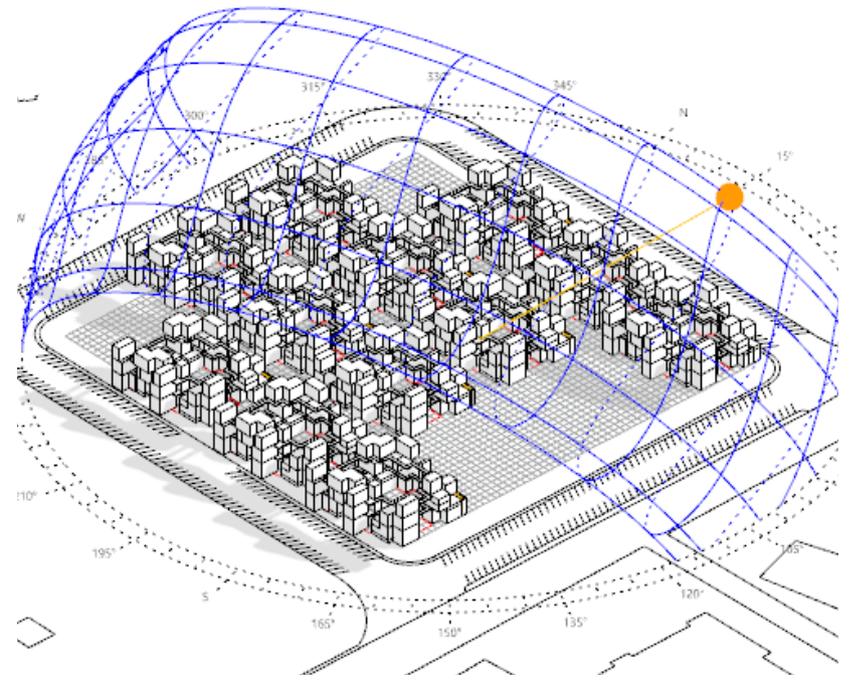
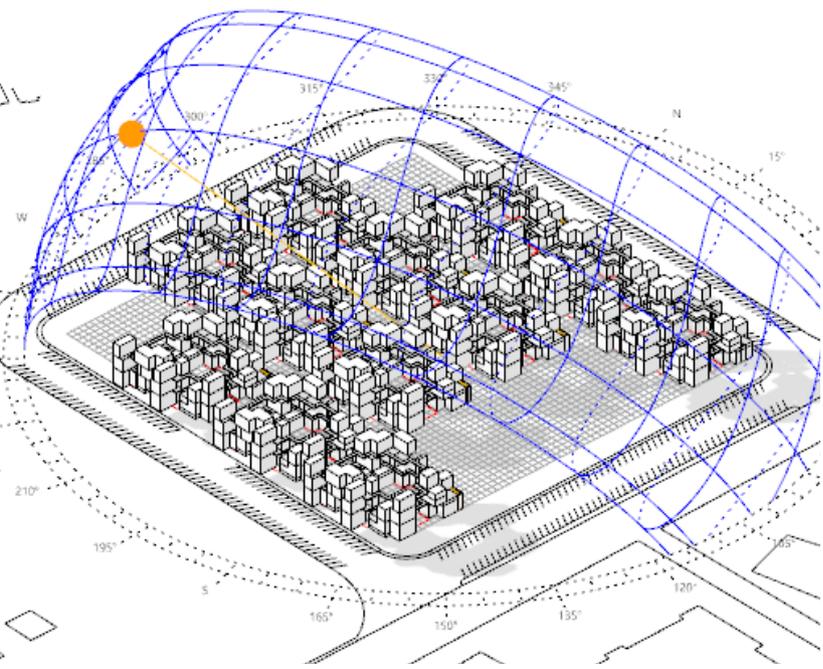
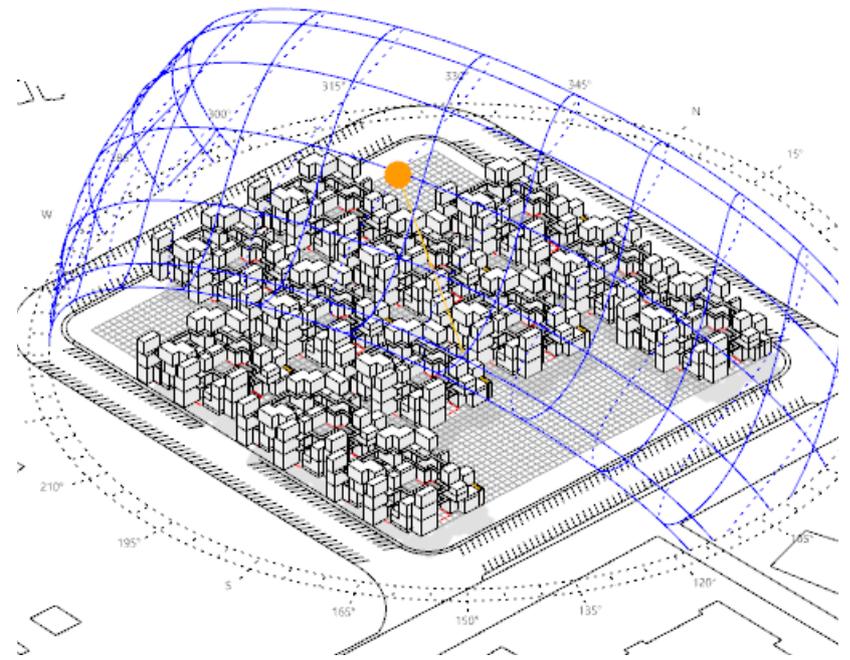
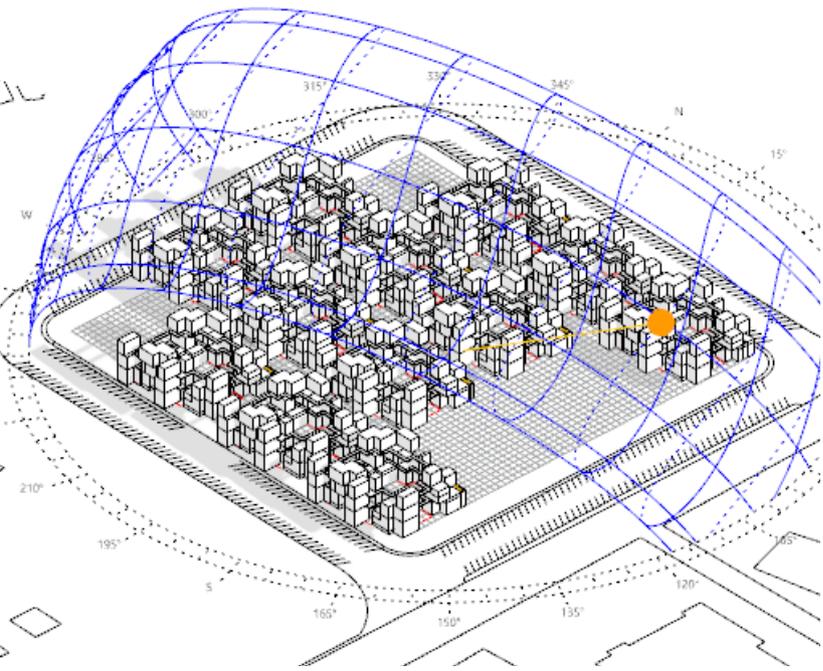


CHART A:
TEMPERATURE
RANGE

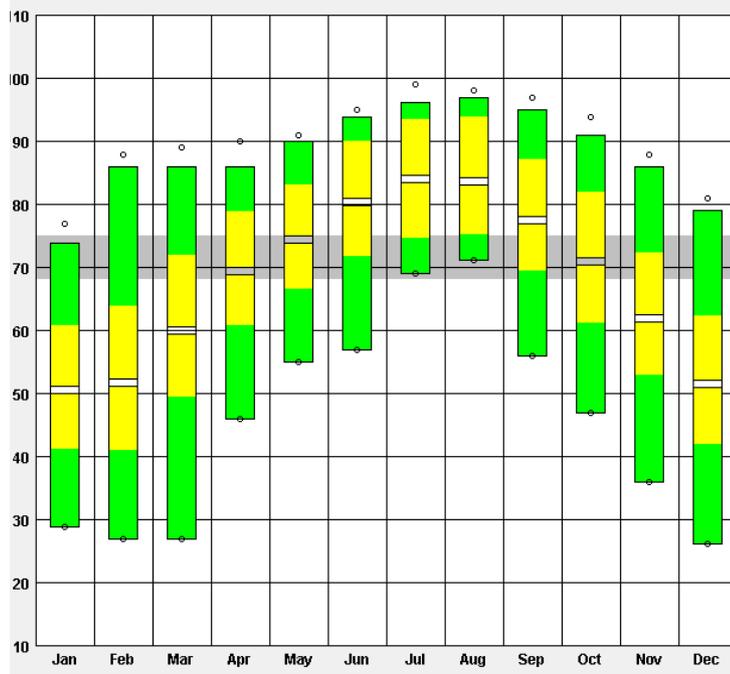


CHART B:
SUN SHADING CHART
DEC 21 TO JUNE 21

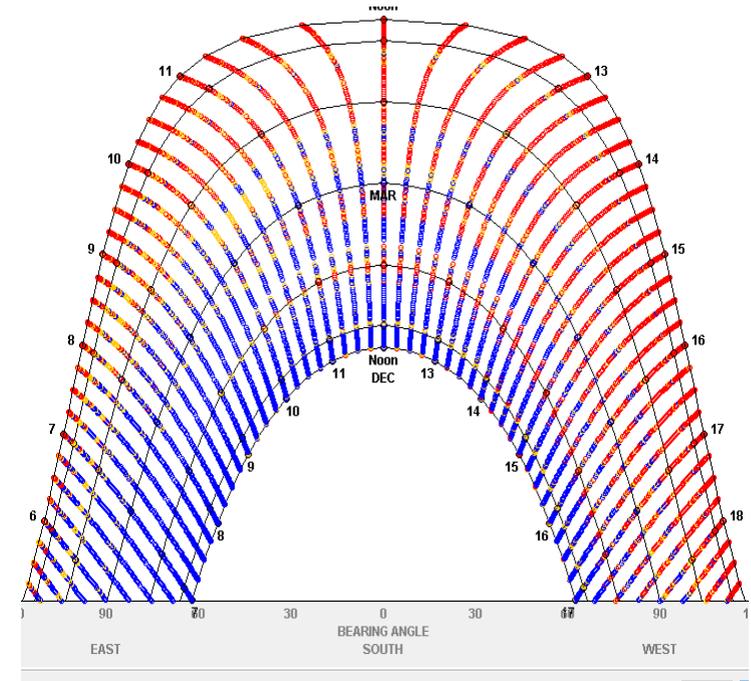


CHART C:
WIND
VELOCITY
RANGE

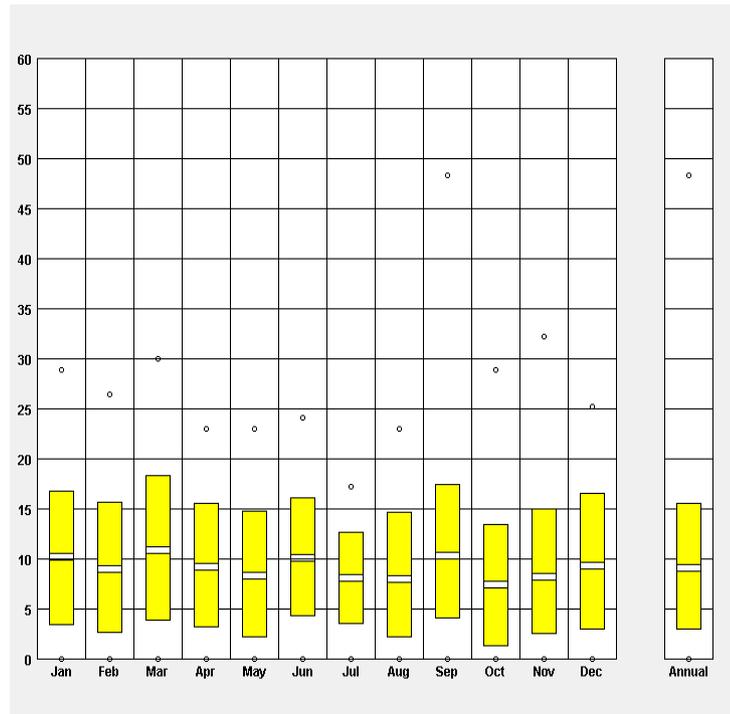
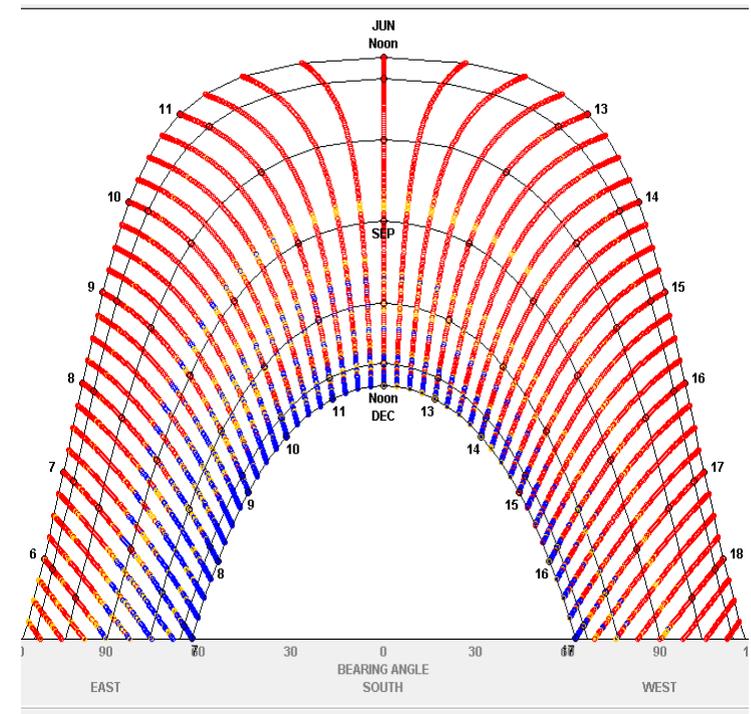


CHART D:
SUN SHADING CHART
JUN 21 TO DEC 21



ACCORDING TO SOFTWARES, CLIMATE STUDIO AND CLIMATE CONSULTANT, THESE TABLES WERE EXTRACTED TO ANALYZE THE CLIMATE IN THE CITY OF AUSTIN. ON THE MAPS TO THE LEFT, THE SUN PATH ARE TRANSCRIBED BASED ON SUMMER EQUINOX AND WINTER SOLSTICE AT DIFFERENT TIMES OF THE DAY.

CHART C REPRESENTS THE WIND VELOCITY RANGE ALL YEAR.

ON THIS PAGE, TABLE A REPRESENTS THE TEMPERATURE RANGE USING THE CALIFORNIA ENERGY CODE. ON TABLES B AND D ARE TABLES REPRESENTING SUN SHADING CHARTS. ON CHART B, IS THE SHADING CHART FROM DECEMBER 21 TO JUNE 21. ON CHART D, REPRESENTS THE SUN SHADING FROM JUNE 21 TO DECEMBER 21.



WITHIN A 10 MILE RADIUS THERE ARE DIFFERENT LANDMARKS IN THE AREA. ALL DEALS WITH AREAS AS RESTAURANTS, FOOD MARKETS, AND ENTERTAINMENT.

VARIOUS OF LANDMARK TYPES ARE IN THE AREA. ENTERTAINMENT SUCH AS GOLD'S GYM. RESTAURANTS SUCH AS LONGHORN STEAKHOUSE, THE FAR OUT LOUNGE & STAGE, TEXAS ROADHOUSE, PANDA EXPRESS, CHICK-FIL-A, GABRIELA'S SOUTH AUSTIN, IHOP ON THE OTHER SIDE OF I-35.

THE MAIN SUPERMARKETS ARE HEB, WALMART, SAM'S CLUB.

SOUTHPARK MEADOWS SERVES AS A THE MAIN RETAIL SPACE IN THE SOUTH AUSTIN, I-35 AREA. WITHIN SOUTHPARK MEADOWS THERE SHOPS SUCH AS MARSHALLS, HOBBY LOBBY, ROSS DRESS FOR LESS, BEST BUY, TARGET, DOLLAR TREE.

ALL THIS LANDMARKS SERVE THE PEOPLE'S NEEDS. MANY OF THESE PROVIDE A SERVICE FOR THE PEOPLE, IN WHETHER IT IS A WORK PLACE, A PLACE TO SPEND TIME WITH FRIENDS OR FAMILY,

- ENTERTAINMENT
- RESTAURANTS
- SUPER MARKETS
- RETAIL

LANDMARK

CHAPTER 4

PROJECT

PROPOSAL



275

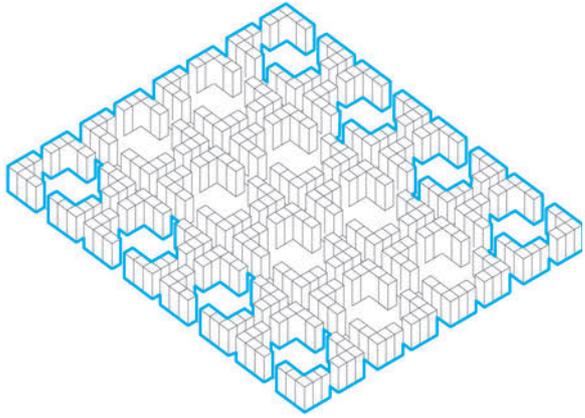
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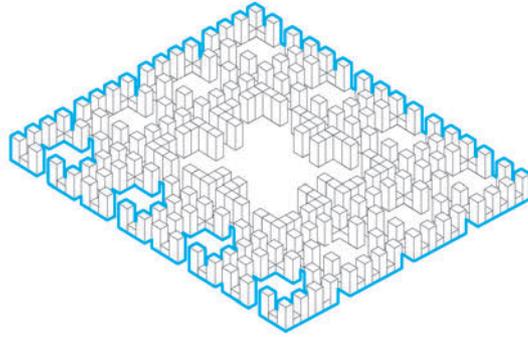
E Slaughter

CLUS-TX REVOLVES A SERIES OF 10 DIFFERENT CLUSTERS. IN WHERE THESE CLUSTERS WOULD BE ABLE TO PROVIDE HOUSING UNITS AT MULTIPLE LEVELS. THROUGHOUT THE BOOK A CLUSTER WILL BE DESIGNED BUT THE INTENTION FOR THAT IT ESTABLISHES A FOUNDATION FOR THE DESIGN ELEMENTS FOR THE OTHER CLUSTERS.

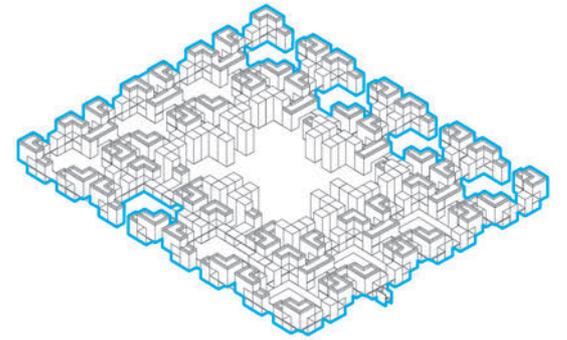
THE MAIN CIRCULATION ROAD IS SOUTH CONGRESS STREET IN WHICH THE END USER ENTERS A TWO WAY PARKING LOT, ALLOWING PEOPLE TO PARK IN BOTH DIRECTIONS OF THE AREA. TREES AS WELL AS ANY PLANT SERVE AS A MAIN HIGHLIGHT OF THE PATHWAY OF THE ENTIRE PARKING LOT. TO ACCESS THE CLUSTER PEOPLE WILL BE ABLE TO WALK THROUGH CONCRETE PAVER PATHWAYS LEADING UP TO THE MAIN CLUSTERS. THE CONCRETE PATHWAYS ARE DESIGNED TO ALLOW THE USER TO SELECT THEIR PATHWAY. WITHOUT TAKING AWAY FROM THE GREEN SPACE. AS IT CONTINUES THE USER REACHES A 4 FEET CONCRETE PATHWAY AROUND THE CLUSTER TO ALLOW PEOPLE TO ENTER THE UNITS ITSELF. THIS LEADS TO THE MAIN COURTYARD OF THE CLUSTER IN WHICH IT CAN HAVE DIFFERENT ACTIVITIES SUCH AS GROWING CROPS, OUTSIDE SPORT ACTIVITIES, HANGOUT COOKOUTS. THE MAIN FOCUS OF THE COURTYARDS IS TO ALLOW THE INHABITANTS TO HAVE ACTIVITIES THAT INVOLVE THE COMMUNITY. THE IDEA BEHIND THE DESIGN OF THE SITE IS TO HAVE COMMUNAL ACTIVITIES WITHIN THE CLUSTER AND THE OUTSIDE. HAVING PAVERS AS THE MAIN MATERIAL TO INDICATE THE PATHWAY AS WELL AS THE TREES INDICATING THE PATH.



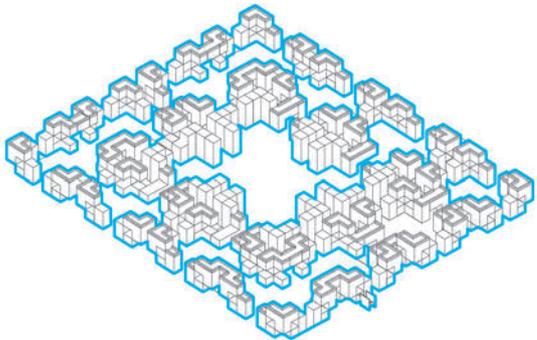
A



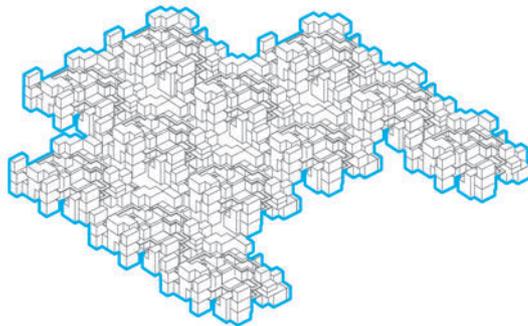
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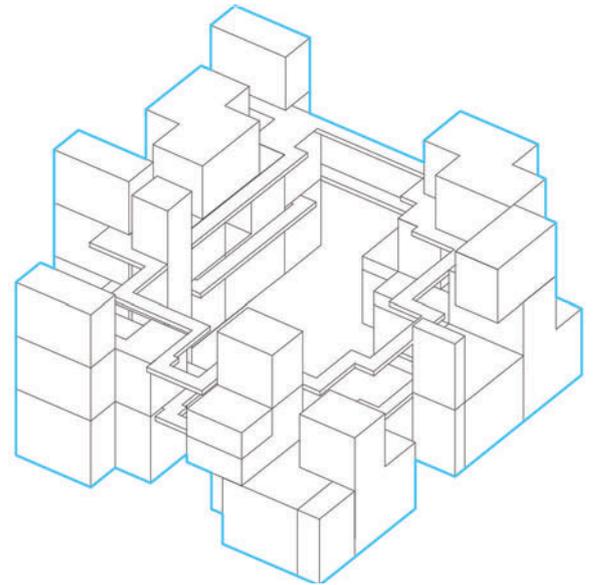
C



D



E



F

THE DESIGN CONCEPT STARTED WITH THE IDEA OF CREATING UNIT SPACES TO INCREASE OR DECREASE SQUARE FOOTAGE. IDEATIONS WERE DEVELOPED IN WHICH THEY INCREASED THE UNIT SIZE BUT ALSO THE INTERNAL COURTYARD. AS THE IDEATIONS WERE BEING CREATED SO WERE THE UNIT SPACES, THE UNIT SPACES INCREASING. IT WAS DEVELOPED TO ESTABLISH A 10' X 10' GRID TO HELP LAY THE UNITS.

IDEATION A: THE MAIN FOCUS WAS TO FOLLOW THE GRID PATTERN IN WHICH THE GRID ALLOWED VOLUMES TO BE CREATED. ALSO, HAVING A 4' X 4' GRID PATTERN SERVING AS A COMMON SPACE. THIS ALLOWED THE DESIGN TO HAVE VERTICAL UNITS.

IDEATION B: CREATES VOIDS WITHIN THE GRID PATTERN AND ALLOWS GROWTH WITHIN THE UNITS. THE LIMITATIONS TO THIS WAS ONLY ALLOWING ONE BEDROOM AND THREE BEDROOM SPACE. HAVING A CENTRAL CORE SYSTEM FOR MEMBERS OF THE COMMUNITY TO HAVE ACCESS TO COMMODITIES.

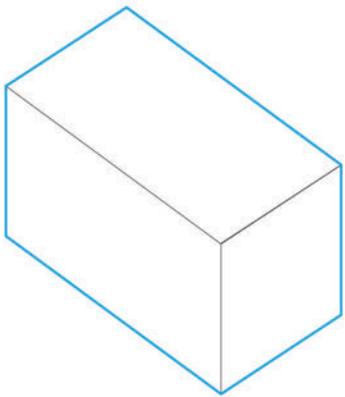
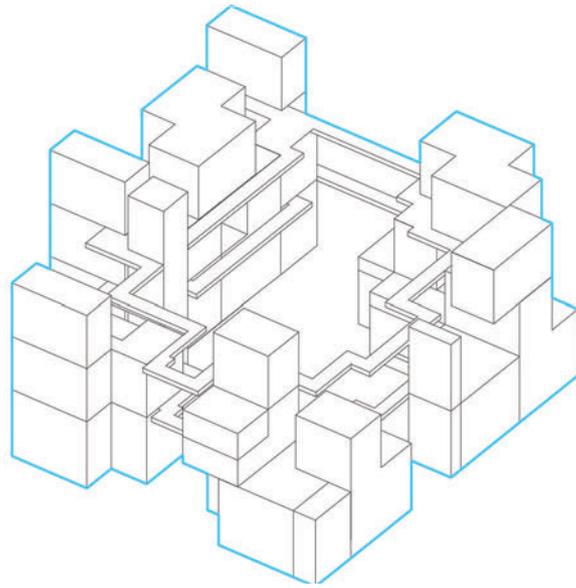
IDEATION C: THE DESIGN WAS HAVING DIFFERENT QUADRANTS IN WHICH IT FORMULATES 5 DIFFERENT TOTAL SPACES, IN WHICH FOUR SPACES SURROUND THE CORE ENTITY. WITHIN EACH CORNER THERE ARE CENTRAL COURTYARDS DESIGNED FOR FARMING, CULTURE SPACE, COMMON SPACE, PARK. IN EACH SPACE THE UNITS ARE ASSEMBLED TO HAVE A MIXTURE OF ONE, TWO AND THREE BEDROOM LIVING SPACES. THE INTRODUCTION TO VERTICAL CIRCULATION WITHIN THE UNIT ITSELF. ALSO, THE INTRODUCTION OF VERTICAL CIRCULATION FROM THE OUTSIDE SPACE TO ACCESS ALL UNITS IN THE SECOND AND THIRD FLOOR.

IDEATION D: ALL IDEATIONS COMBINED WITH ADDITIONS OF VERTICAL AND HORIZONTAL CIRCULATIONS. ADDITIONALLY, CONNECTION CIRCULATION FROM THE OUTSIDE OF THE BUILDING TO THE CORE. THIS ALLOWS THE UNITS TO BE ABLE TO EXPAND HORIZONTALLY AND VERTICALLY TO HAVE MORE SPACE IN THE UNITS.

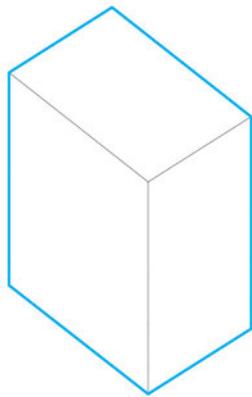
IDEATION E: IN IDEATION FIVE IT FOCUSES ON ALLOWING THE EXPANSION OF SPACE WITHIN ALL FLOORS, ALLOWING VERTICAL CIRCULATION AND HORIZONTAL CIRCULATION. HAVING AN INITIAL ENTRY GATEWAY SERVING AS THE COMMUNITY ACTIVITIES.

IDEATION F: FOCUSES ON ONE CLUSTER AND HOW ALL CIRCULATION SPACES WORK SUCH AS EXTERIOR AS WELL AS INTERIOR. IN IDEATION SEVEN IT CHANGES THE CORE CIRCULATION SPACES TO A LOAD BEARING STAIRCASE ON THE OUTSIDE ON THE WEST AND EAST ENTRY POINT. THIS ALLOWS FOR CONNECTION FROM THE EXTERIOR: PARKING LOT, OTHER CLUSTERS. THEREFORE BY MAKING THIS CHANGE IT ALSO ALLOWS THE MAIN CIRCULATION WITHIN THE SITE DESIGN ALLOWING FOR THE MATERIAL AND GREEN SPACES CREATING A PATH FOR CIRCULATION. IDEATION SEVEN LEADS TO THE CREATION OF THE SIX DIFFERENT TYPES OF UNITS.

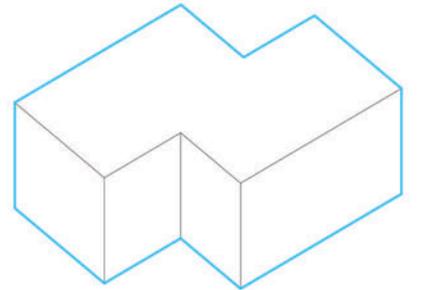
IDEATIONS



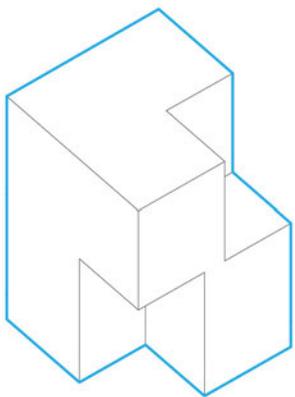
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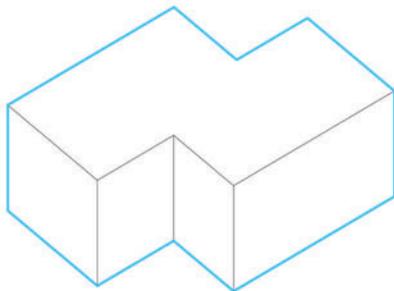
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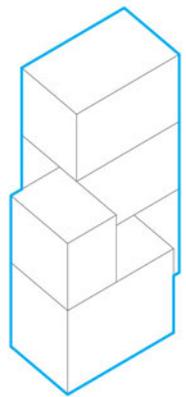
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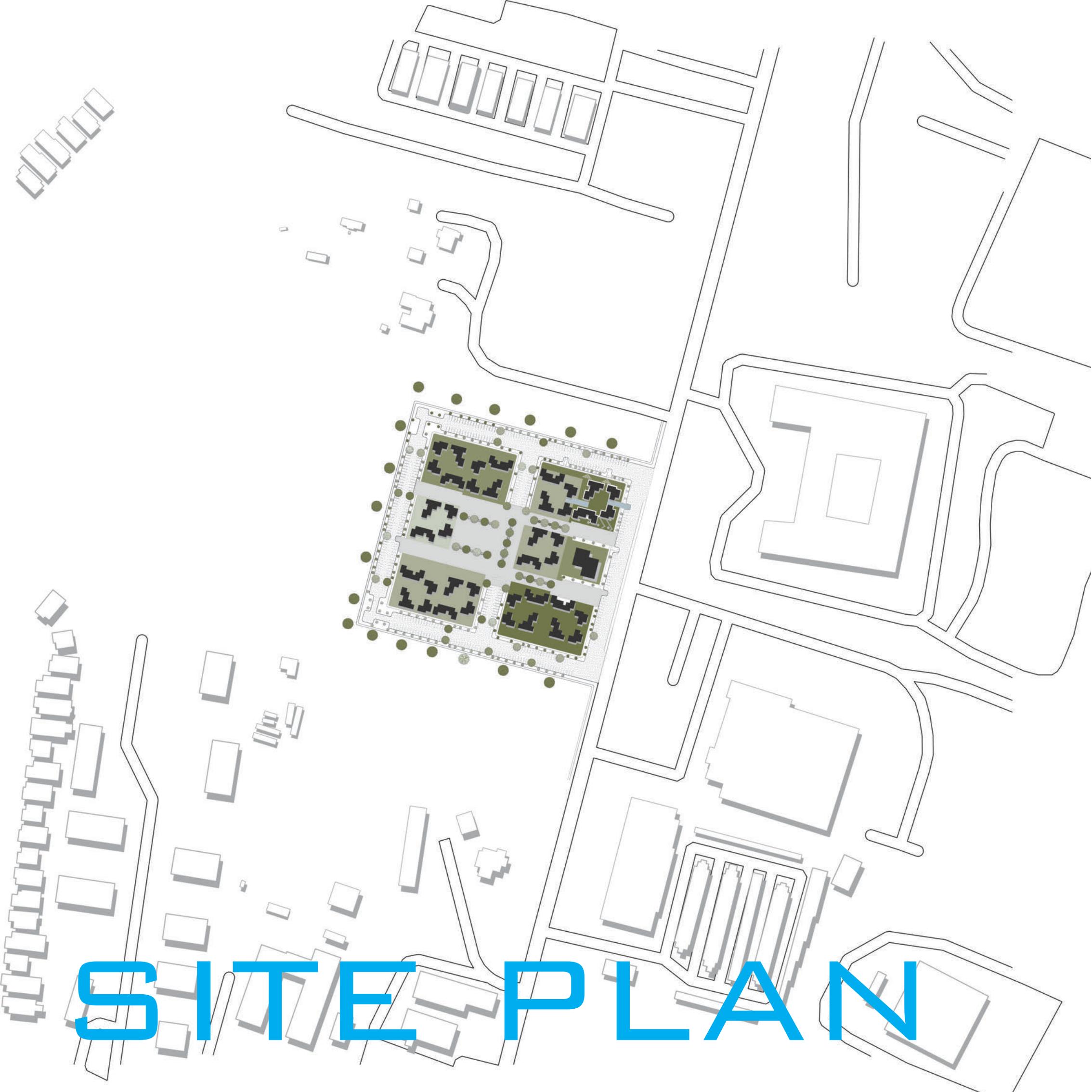


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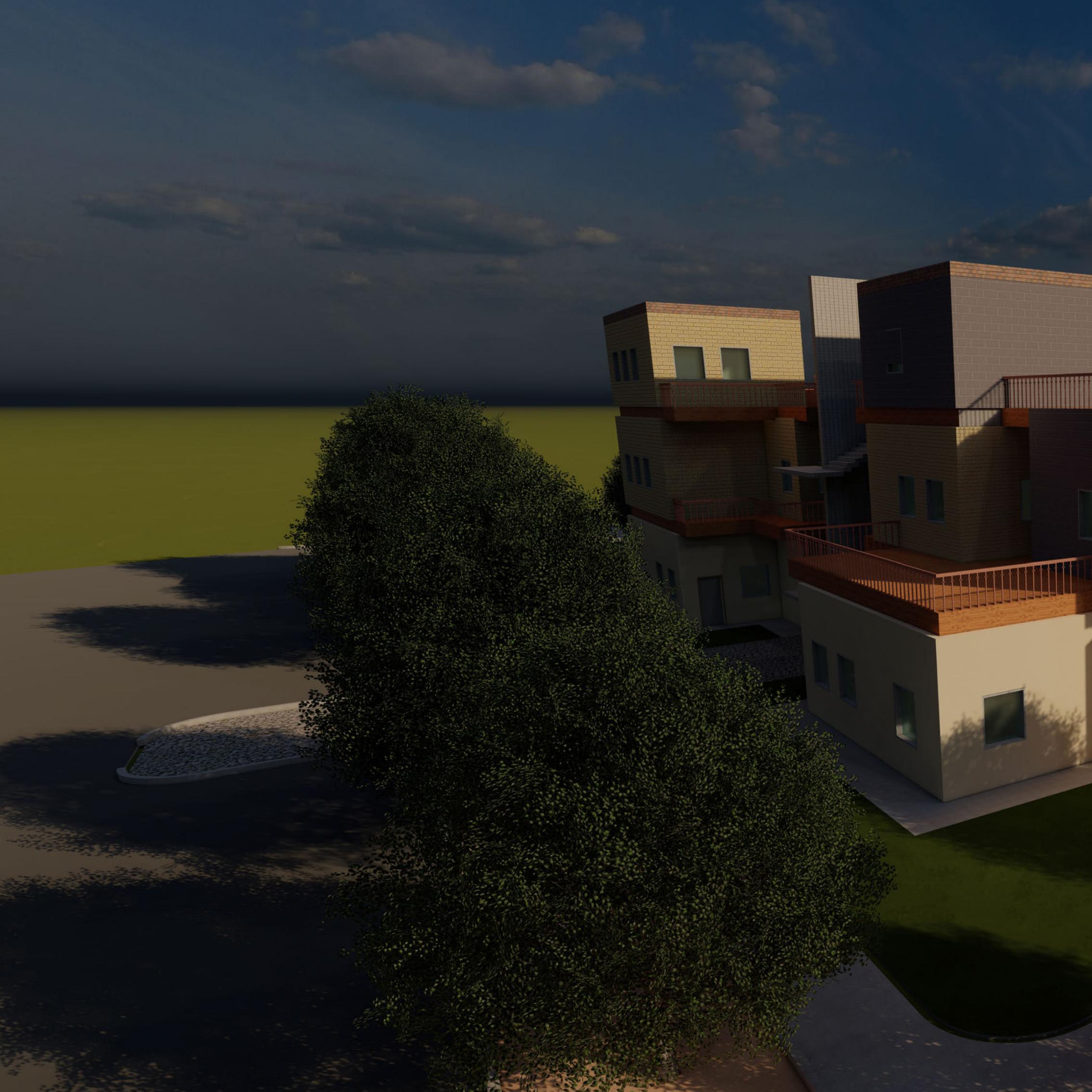


F

VOLUMES



SITE PLAN











EAST ELEVATION

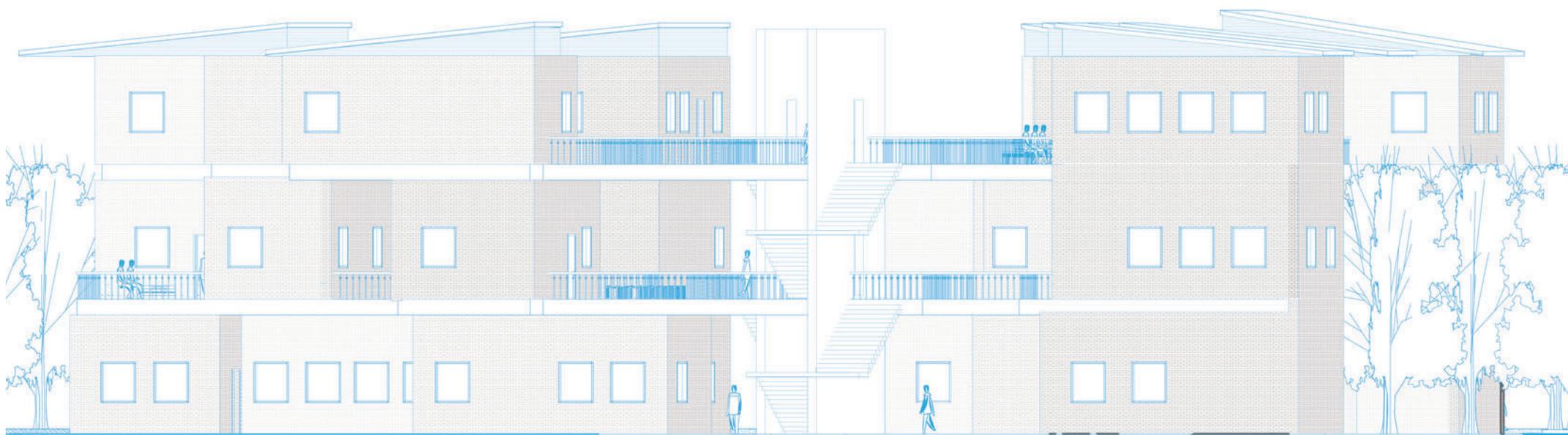


SOUTH ELEVATION

ELEVATION



NORTH ELEVATION



WEST ELEVATION



THE CLUSTERS ARE DESIGNED TO HAVE ONLY SIX UNITS BUT CAN BE REARRANGED IN DIFFERENT ORDER. THE MAIN PURPOSE OF THE UNITS IS TO CREATE DIFFERENT ARRANGEMENTS TO CREATE DIFFERENT SPACES BUT REMAINING WITH THE SAME ACTIVITIES. THERE SIX UNITS: UNIT A, B,C,D,E,F. UNIT A CONSISTS OF ONE BEDROOM HORIZONTAL. UNIT B CONSISTS OF ONE BEDROOM VERTICAL. UNIT C CONSISTS OF TWO BEDROOMS HORIZONTALLY. UNIT D CONSISTS OF A TWO BEDROOM VERTICAL. UNIT E CONSISTS OF A THREE BEDROOM HORIZONTAL. UNIT F CONSISTS OF A THREE BEDROOM VERTICAL. ALL THESE SIX UNITS ARE ARRANGED AT ALL THREE LEVELS OF THE CLUSTER. THE DIFFERENT MOMENTS OF THE UNITS HELPS CREATE VERTICAL AND HORIZONTAL CIRCULATION WITHIN THE CLUSTER. KNOWING THIS IS WOOD STUD CONSTRUCTION, THE FLOOR SUDS BECOME AN EXTENSION OF THE CIRCULATION PATHWAYS ON THE SECOND AND THIRD FLOOR.

THE PROJECT FOCUSES PRIMARILY ON THE DIFFERENT TYPES OF UNITS: SIX UNITS TO EXACT. THESE UNITS FORMULATE HORIZONTAL AND VERTICAL MOVEMENTS. HAVING A HORIZONTAL AND VERTICAL CIRCULATION ON THE EXTERIOR OF THE SITE, AND RESEMBLING THE SAME CONCEPT INSIDE THE UNITS. THE SIX DIFFERENT UNITS CONSIST OF ONE TO THREE BEDROOMS. HAVING THE ESSENTIAL NEEDS FOR THE END USER TO HAVE.

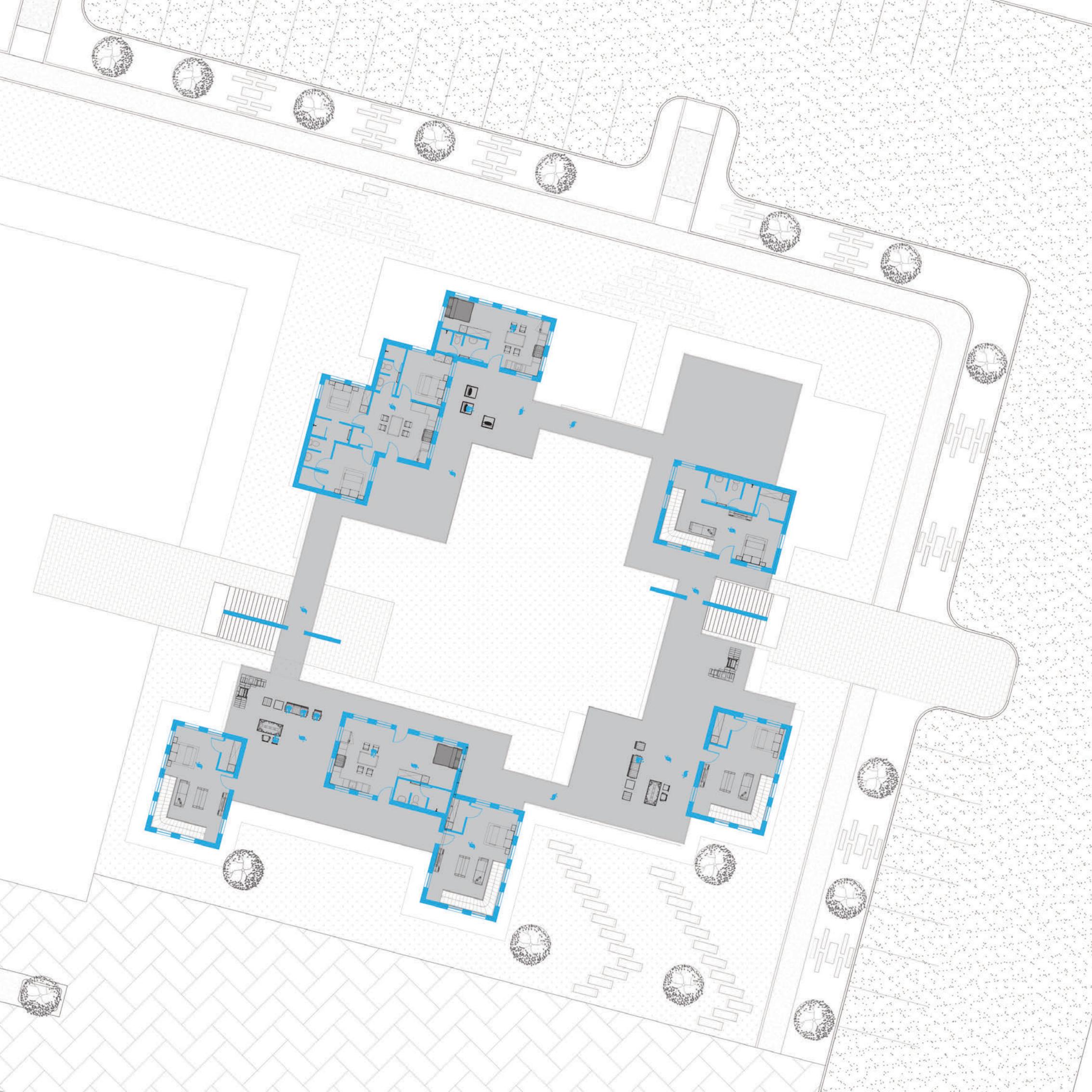
CLUS-TX WAS INTENDED TO EXPLORE THE SITE AND HOW IT FUNCTIONS WITH THE PARTICULAR CLUSTER. THE SITE HAS DIFFERENT ACCESS POINTS, PAVER PATH CONNECTION FROM THE PARKING LOT TO THE SITE DESIGN. IN THIS PROJECT THE SCOPE WAS TO CONNECT THOSE CIRCULATION SPACES TO THE CLUSTER. USING CONCRETE TO CREATE 3 X 6 BLOCKS AND CREATING A PATHWAY CONNECTION TO THE CLUSTER AS MENTIONED BEFORE. THIS PATHWAY CREATES THIS DIAGONAL FORM TO ADD DESIGN ELEMENTS TO THE SITE WITHOUT DISRUPTING THE CURRENT DESIGN.

1ST FLOOR

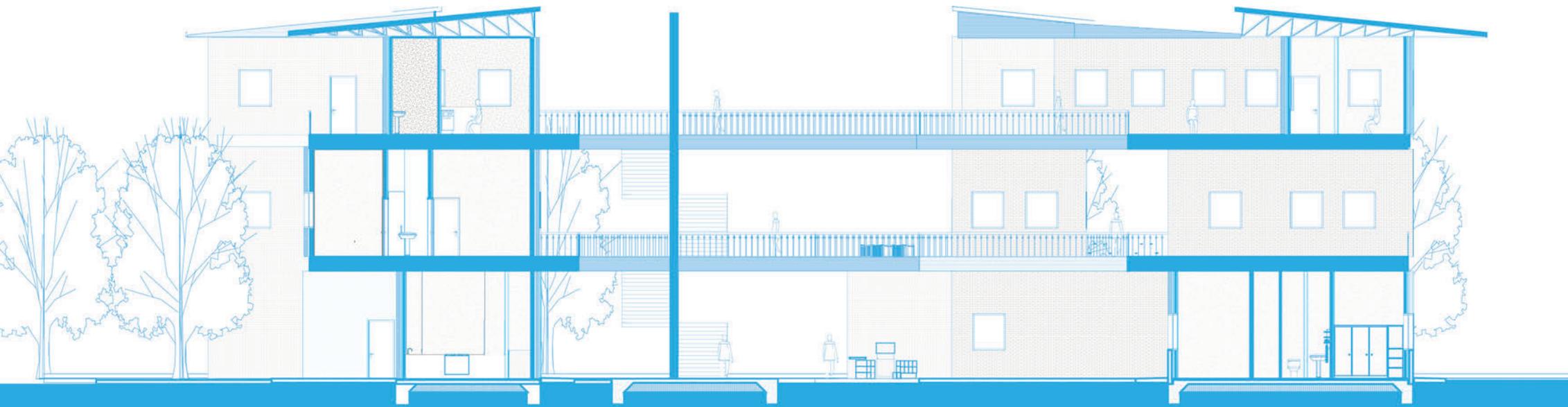


CLUS-TX FOCUSES ON THE DESIGN OF THE UNITS. THE ARRANGEMENT OF THE FURNITURE, FLOORING, STAIR CASE, KITCHEN OR ANY OTHER USER NEEDS. AS WELL AS THAT, THEY ARE RELATABLE AND COMPARABLE TO THE OTHER UNITS. IN THIS RELATION, SOME UNITS ARE CONNECTED TO OTHER UNITS AND IT IS IMPORTANT TO UNDERSTAND THE CONNECTION BETWEEN AND WHAT IS SURROUNDING THEM. EXPLORING IN THIS PROJECT BENEFITS THE EXTERNAL SPACE BECAUSE MANY UNITS SERVE AS WALKABLE SPACE WHERE IT CAN BE USED AS A COMMON USABLE SPACE FOR THE END USER. BY EXPLORING THIS PROJECT IT ALLOWED ENTRY POINTS TO THE UNITS AT DIFFERENT LOCATIONS REGARDING THE LEVEL OR TYPE OF UNIT. SOME UNITS WERE ABLE TO EXPLORE THE POSSIBILITY TO EXPAND AND INCLUDE AREAS SUCH AS RESTROOMS AND EXTRA GATHERING SPACES WITHIN THE UNITS. ALSO, THE GATHERING SPACES SERVE AS AN OPPORTUNITY TO MOVE OR SERVE FOR DIFFERENT PURPOSES DEPENDING ON THE USER. MATERIAL IS TAKEN INTO CONSIDERATION, THIS GIVES THE OPPORTUNITY TO EXPLORE WALL CONSTRUCTION MATERIALS, FLOOR MATERIALS AND FURNITURE SPACES.

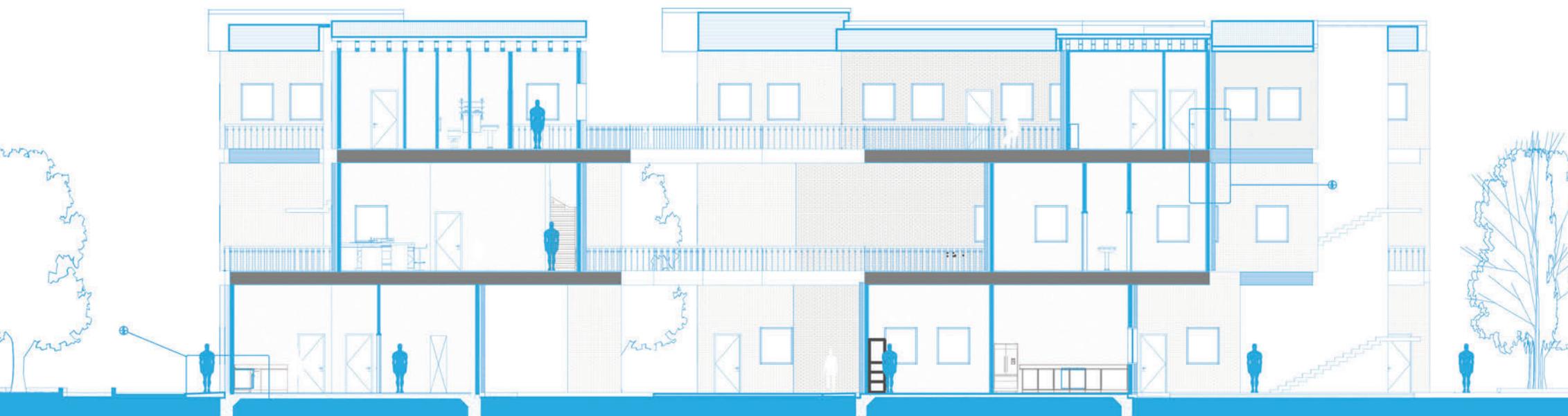
2ND FLOOR



3RD FLOOR



CLUS-TX SECTION A

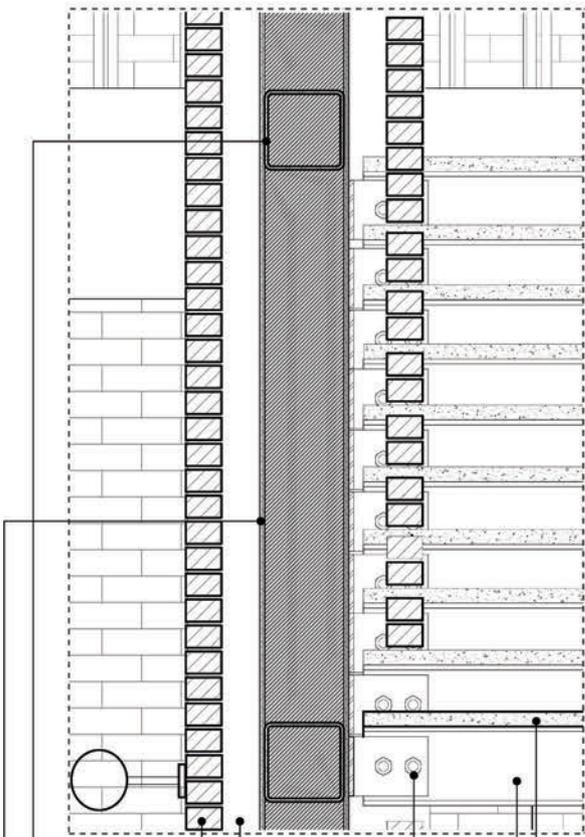


CLUS-TX SECTION B

THE MAIN STRUCTURE FOR CLUST-TX IS MADE OF 2X6 WOOD STUD FRAMING, ALSO HAVING FLOOR JOIST IN WHICH THIS MAKES THE EXTERNAL CIRCULATION. SUPPORTED BY THE 2X6 LOAD BEARING WALLS THIS ALLOWS THE FLOOR TO EXTEND AND BE USED AS A WALKABLE SPACE. TO SUPPORT 62' BRIDGE SPANS, TWO CENTRAL LOAD BEARING WALLS WERE CREATED. THIS ALSO SERVES AS THE STAIR CIRCULATION SPACE. THIS STAIRCASE IS COMPOSED OF A STEEL LOAD BEARING WALL. THREE STEEL COLUMNS AND HAVING A STEEL COLUMN DIAGONAL TO HAVE THE STAIR STEPS ATTACHED THERE. THE FACADE OF THE STAIR IS MADE OF BRICK TO COVER THE STRUCTURE COMPONENT OF THE LOAD BEARING WALL.

SECTIONS

STAIR VERTICAL CIRCULATION CALLOUT
| SCALE 1-1/2" = 1'-0"



VENTED AIR SPACE

BRICK VENEER

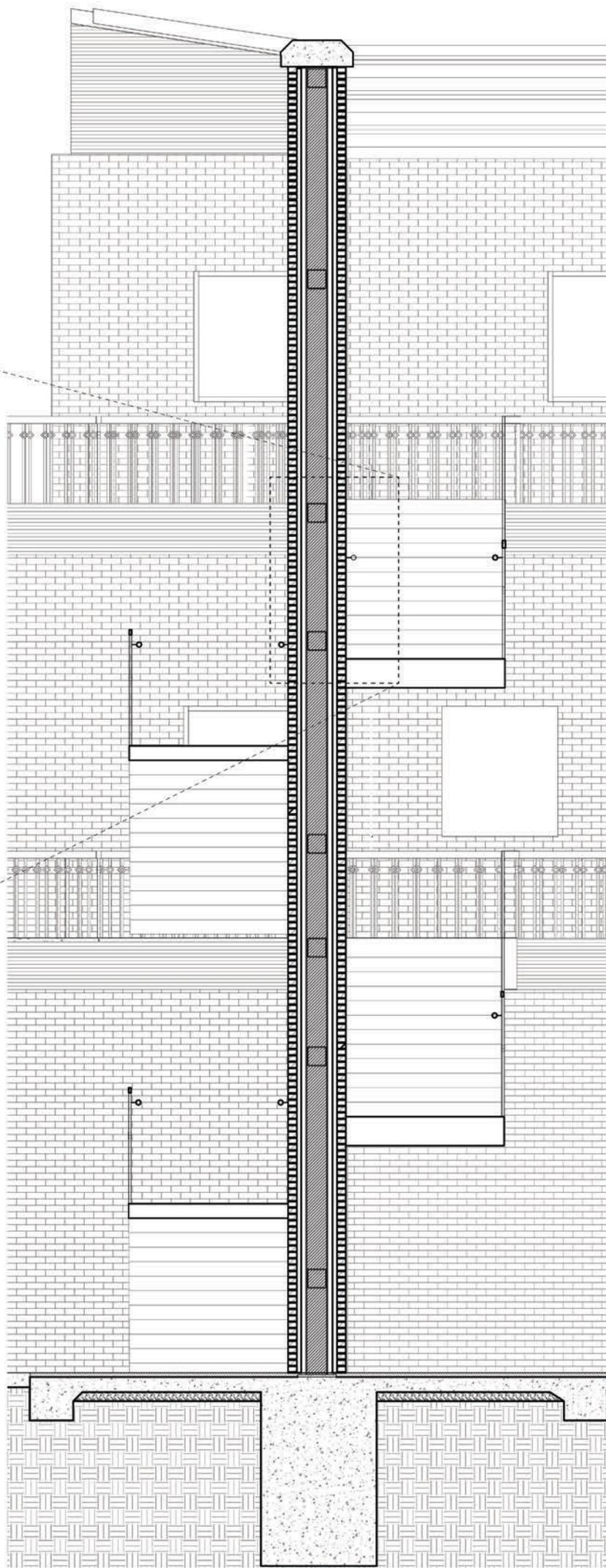
A307 BOLTS NUT "1"

**AISC CHANNEL SHAPE
C8x18.75**

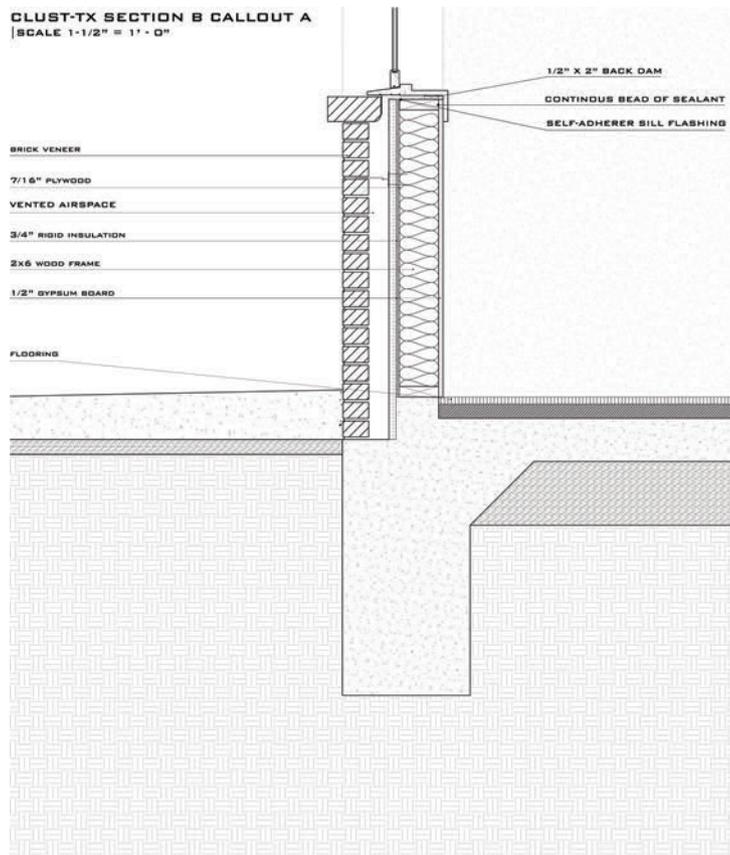
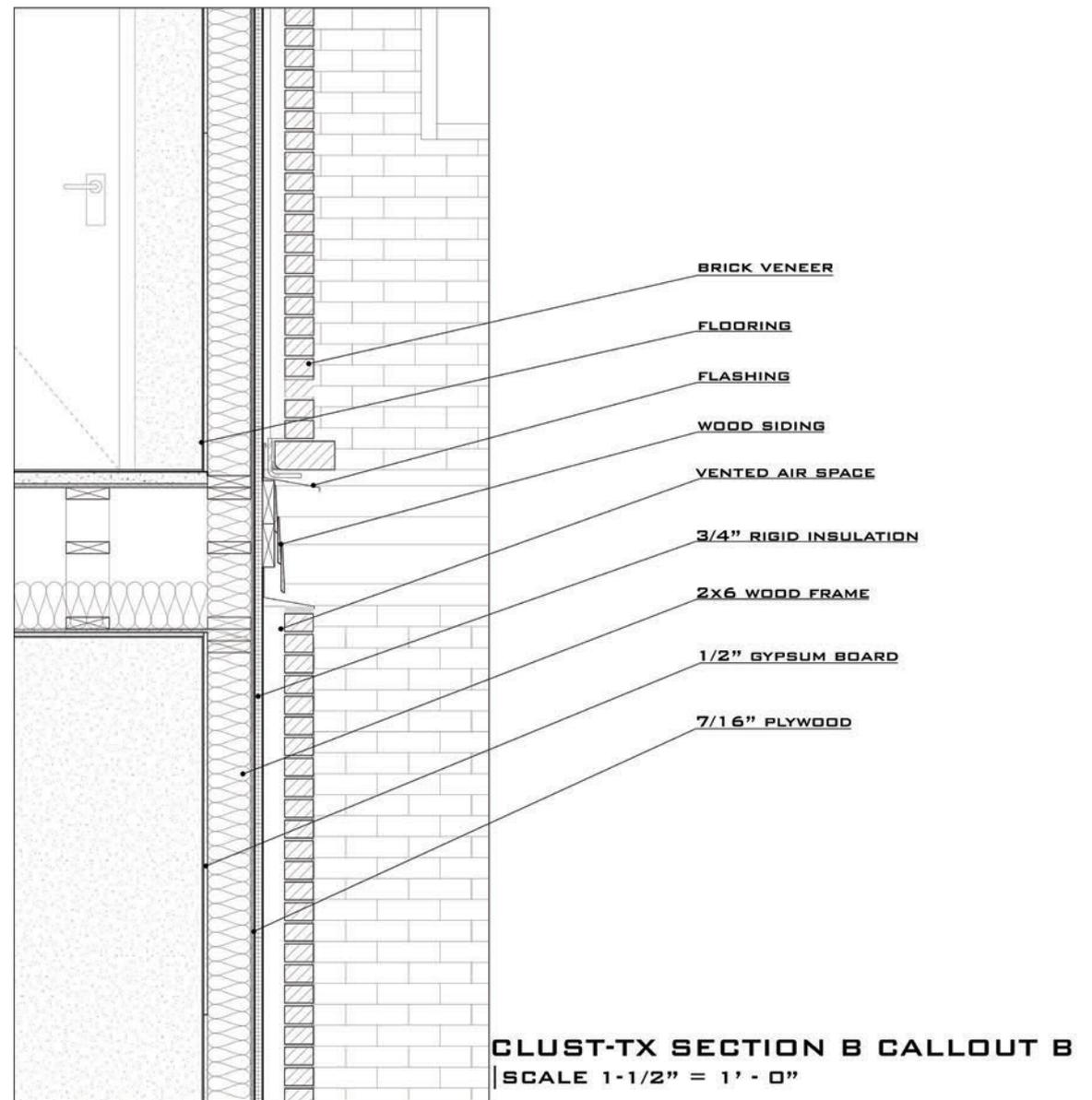
**AISC TUBE SHAPES
HSS 8x8x.375**

1/2" PLYWOOD

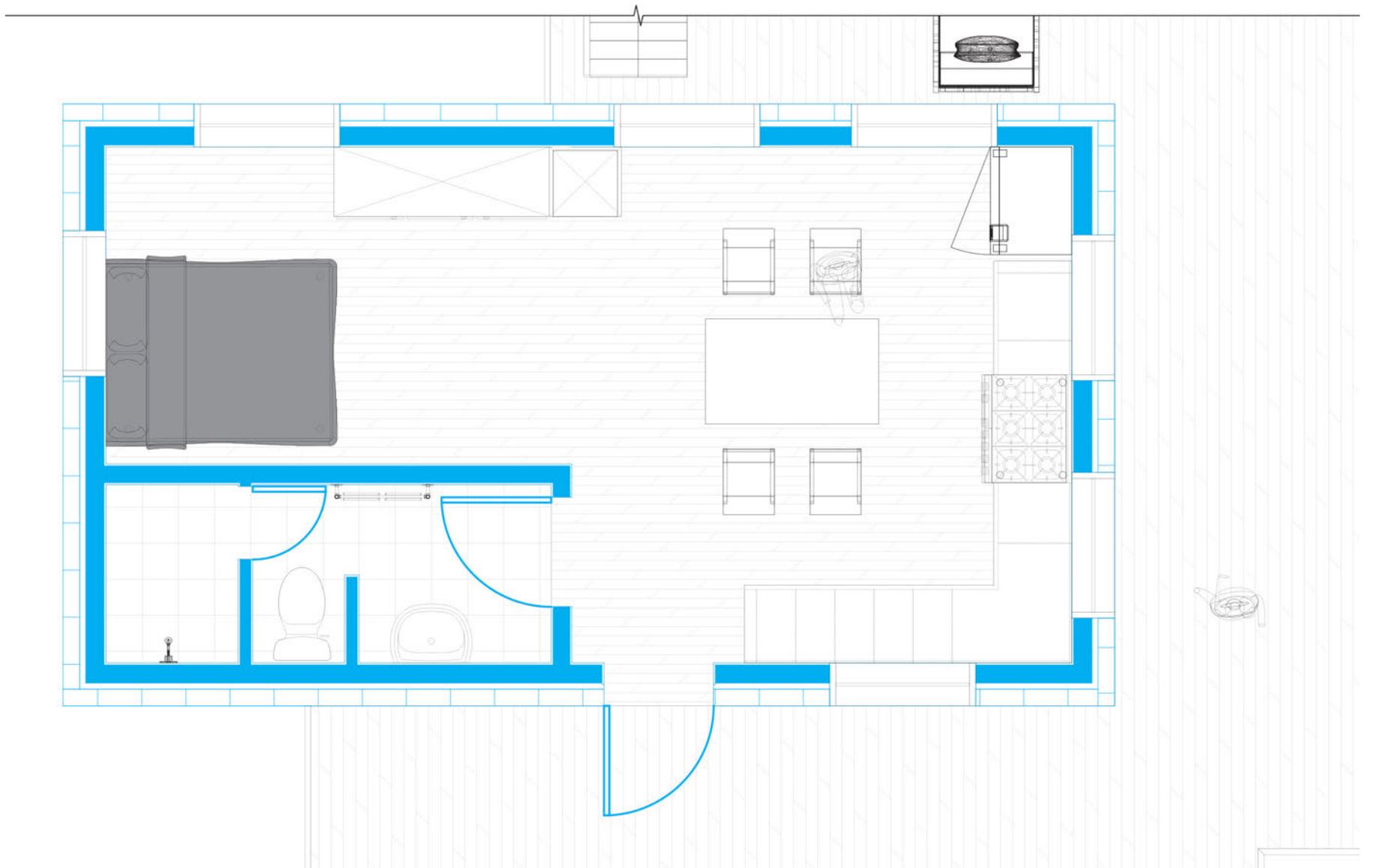
2" LIGHT CONCRETE



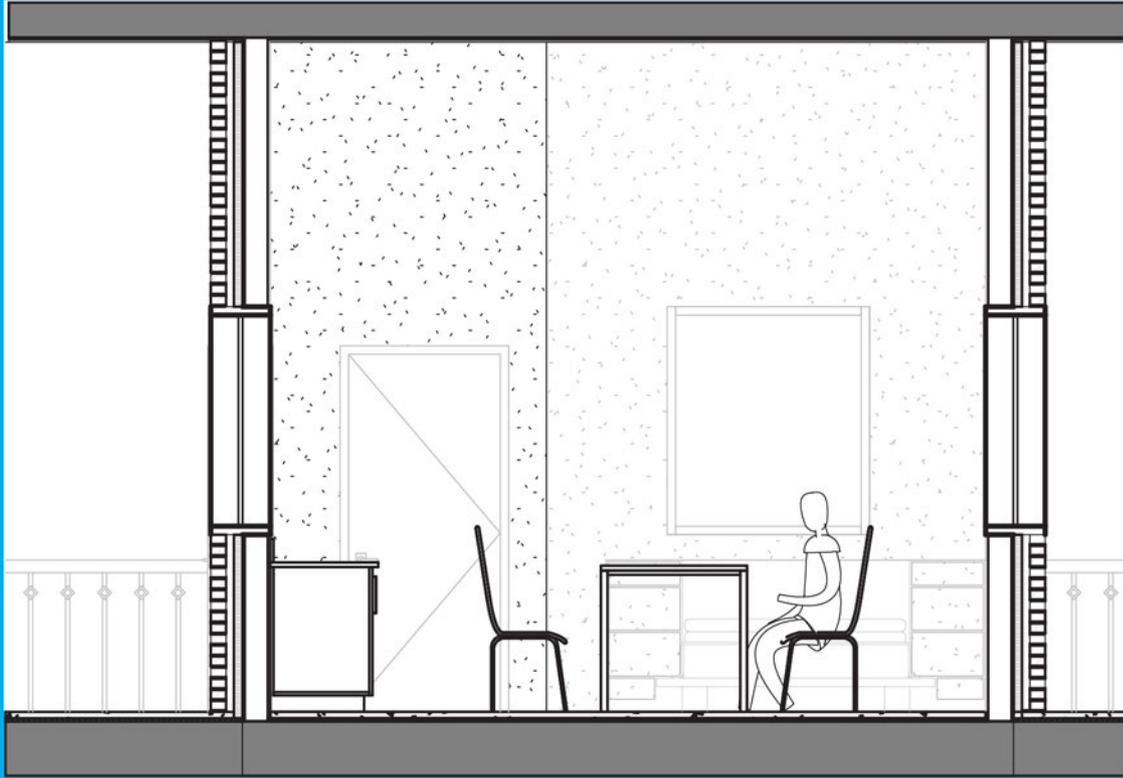
A MAIN CIRCULATION SPACE IS FOCUSED ON THE LOAD BEARING WALL STAIRCASE. IN WHICH HELPS WITH THE EXTERIOR CIRCULATION SPACE TO ACCESS EVERY LEVEL OF THE CLUSTER. THIS LOAD BEARING STEEL WALL IS DESIGNED TO SUPPORT 45' OF STAIR CASE IN WHICH THIS STAIR IS THE MIDPOINT TO THE 45' TO 60' SPAN BRIDGES. THIS PROJECT IS MADE OF STEEL, PLYWOOD, BRICK AND CONCRETE FOR THE STAIR STEPS. THIS ALLOWS CIRCULATION TO ALL LEVELS WITHIN THE CLUSTER.

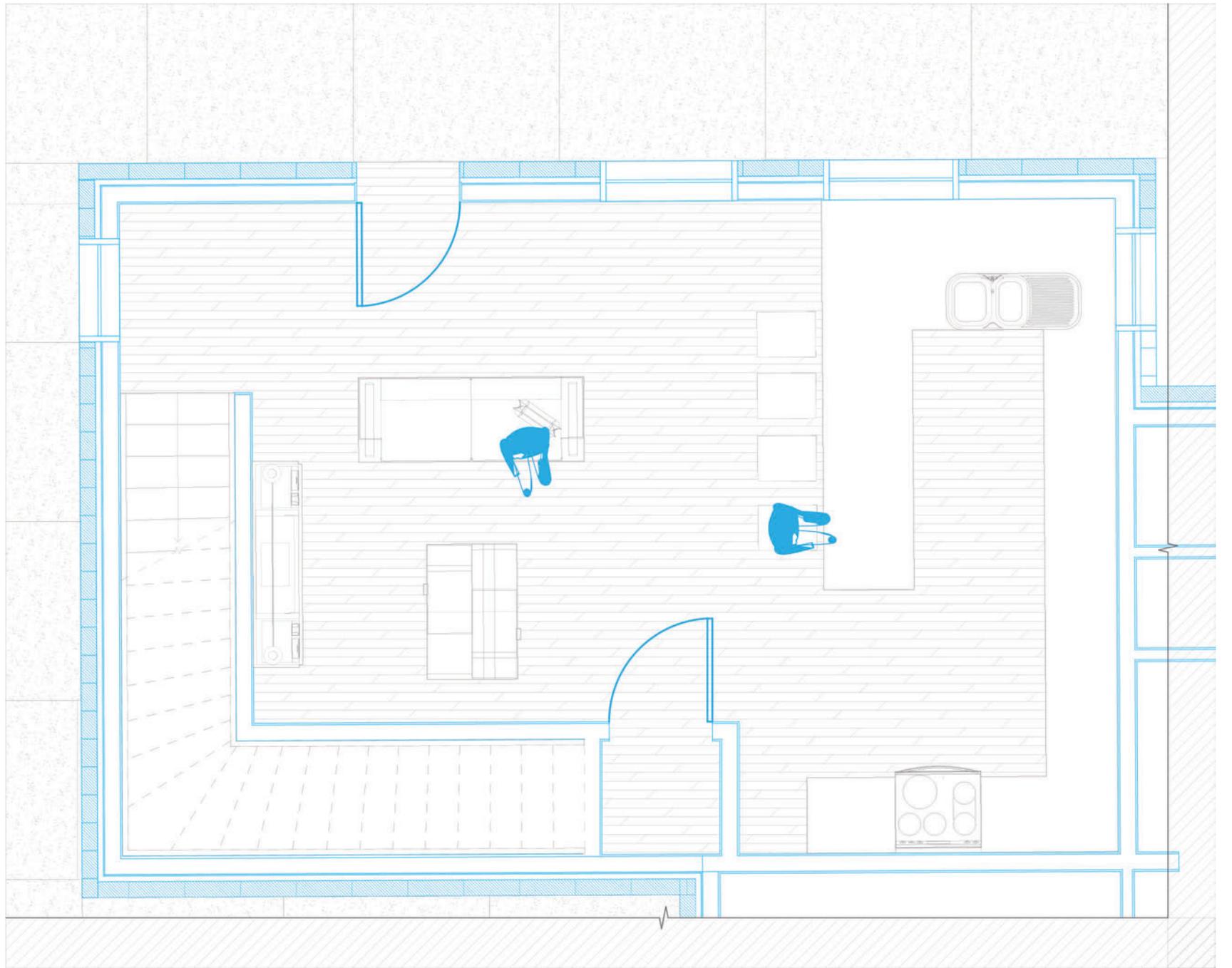


CALLOUTS

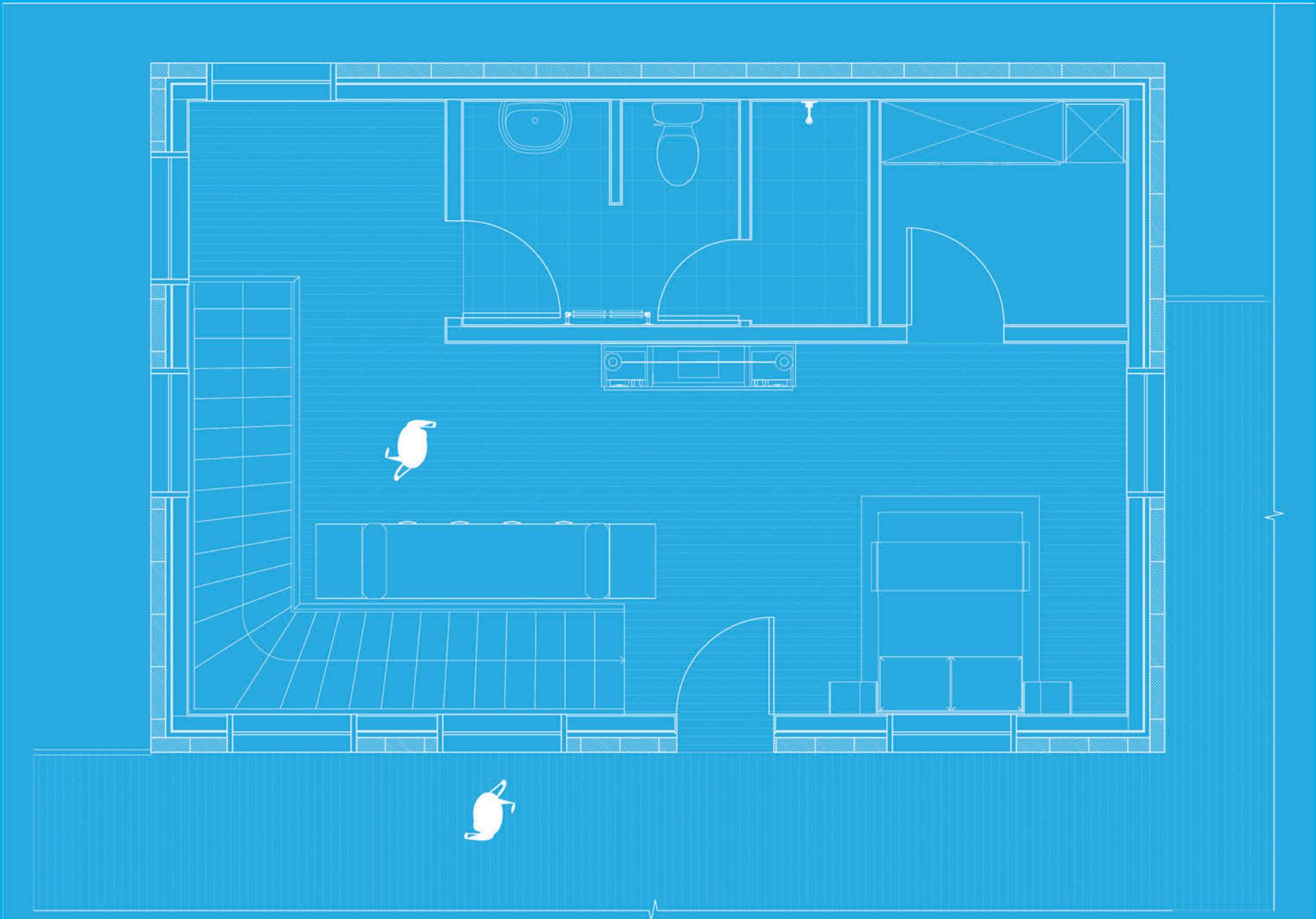


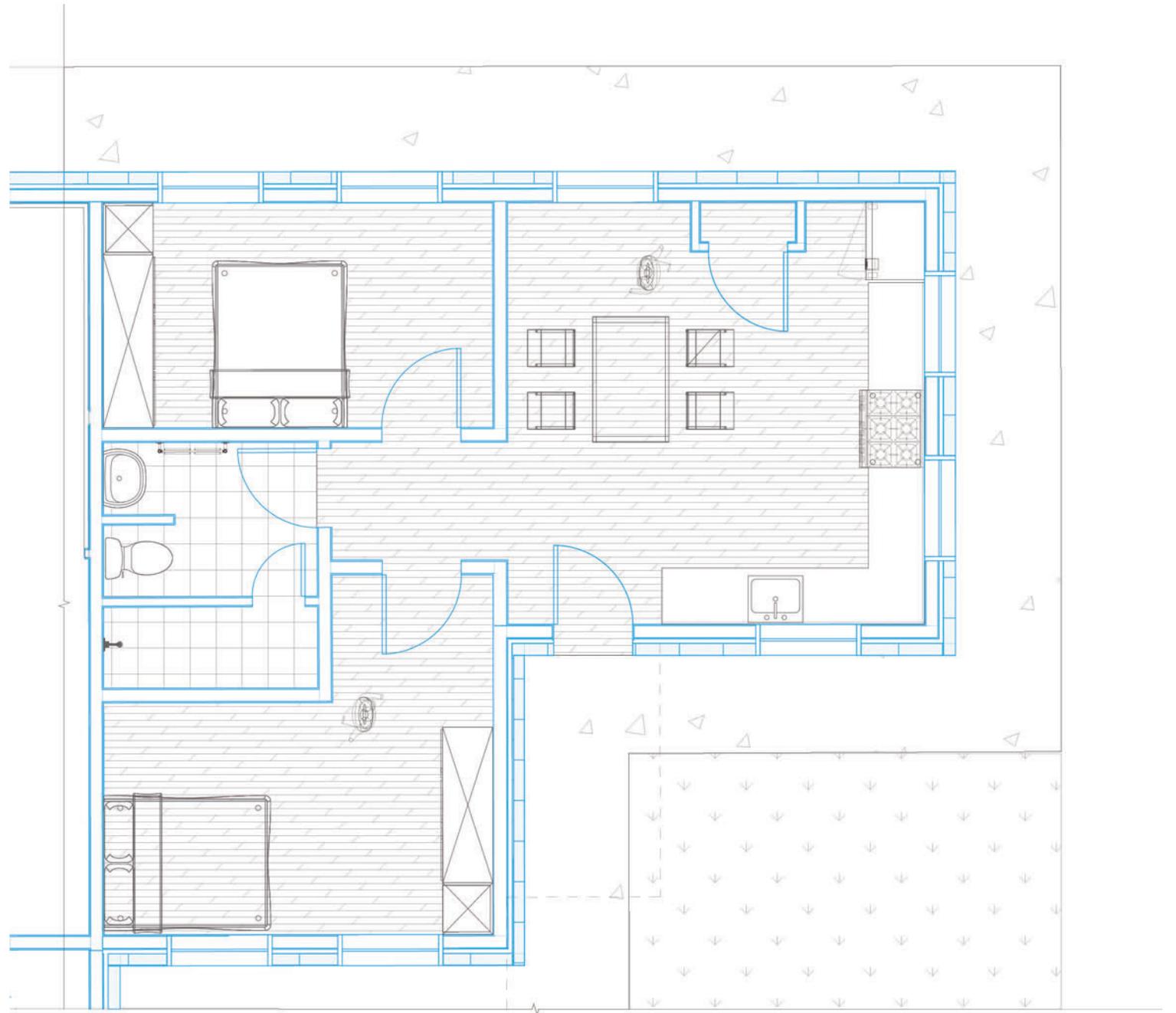
UNIT A



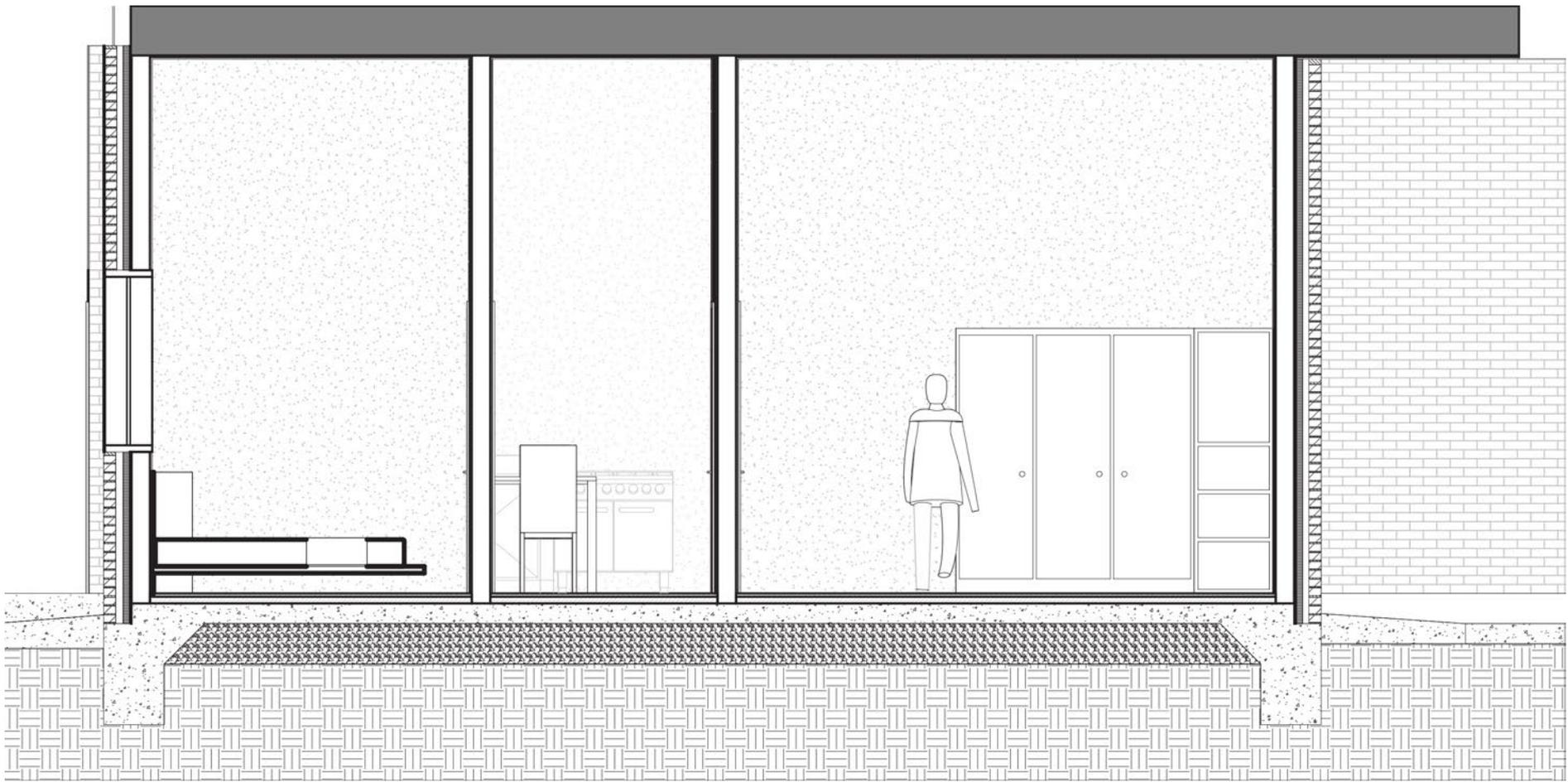


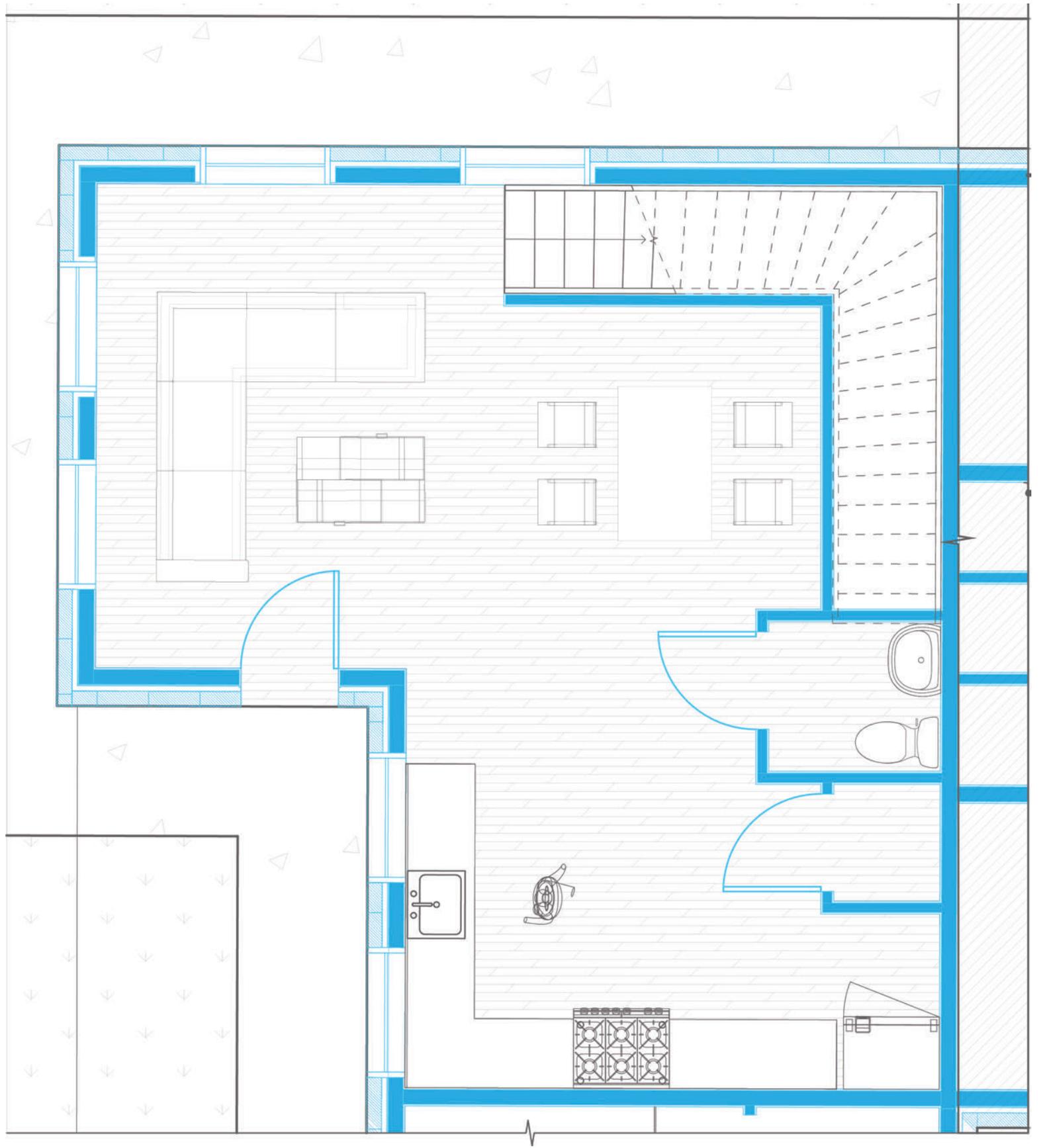
UNIT B



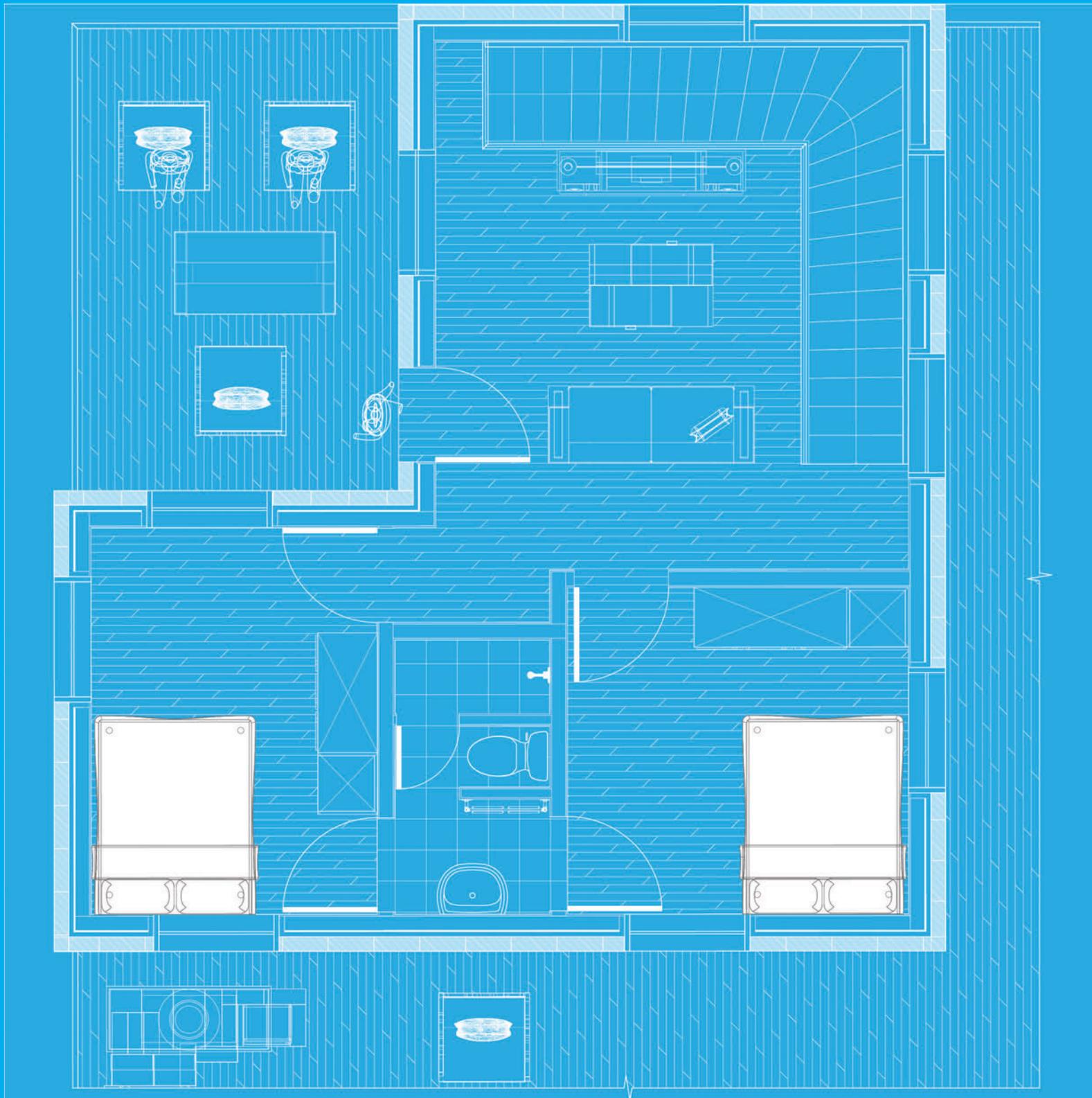


UNIT C

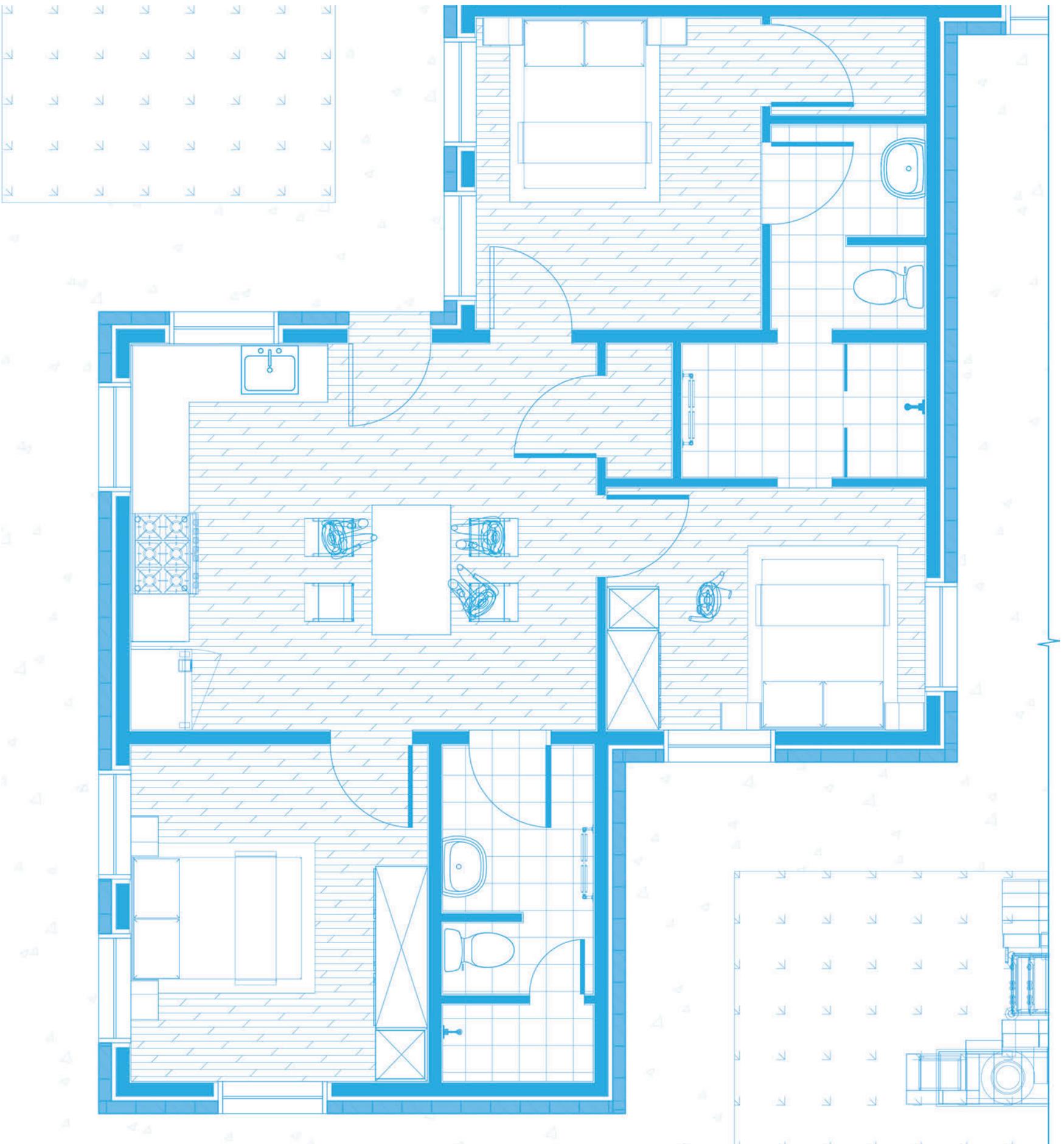


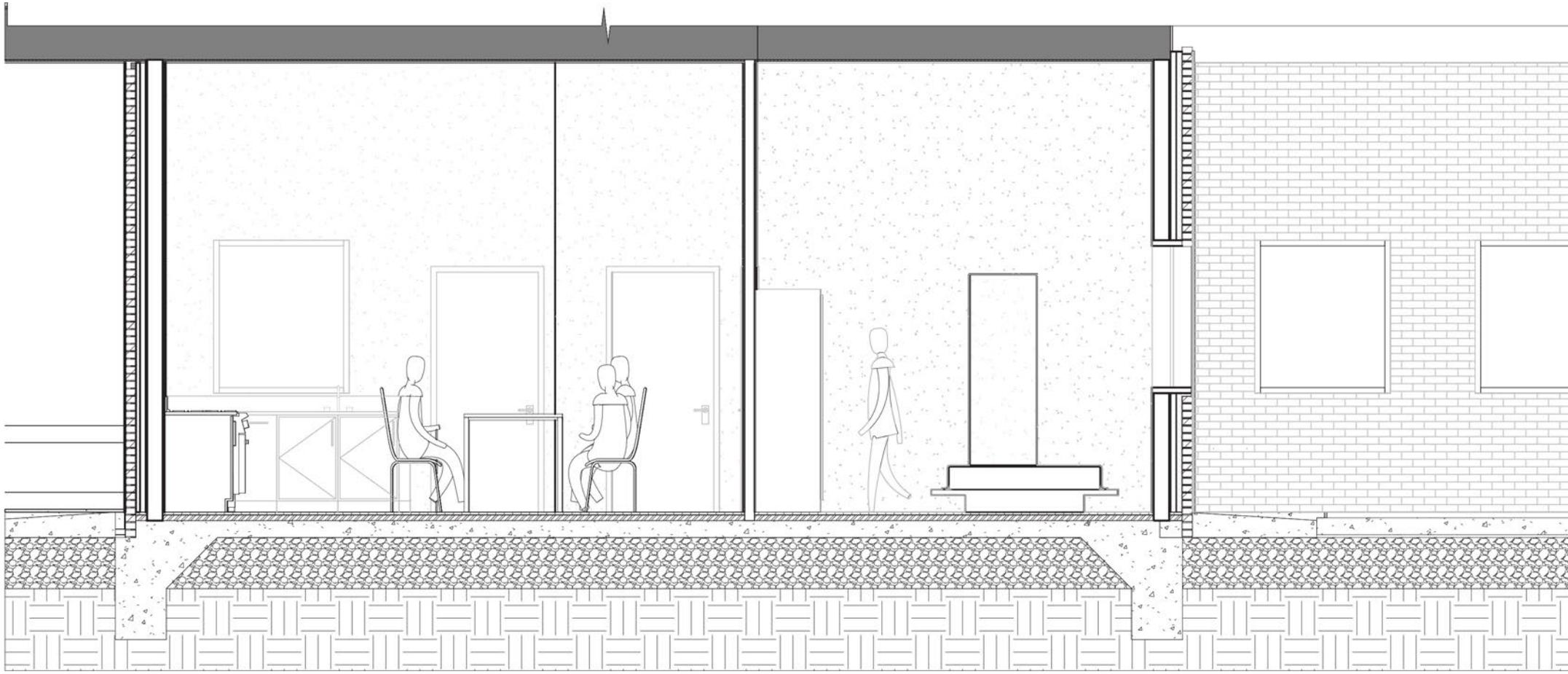


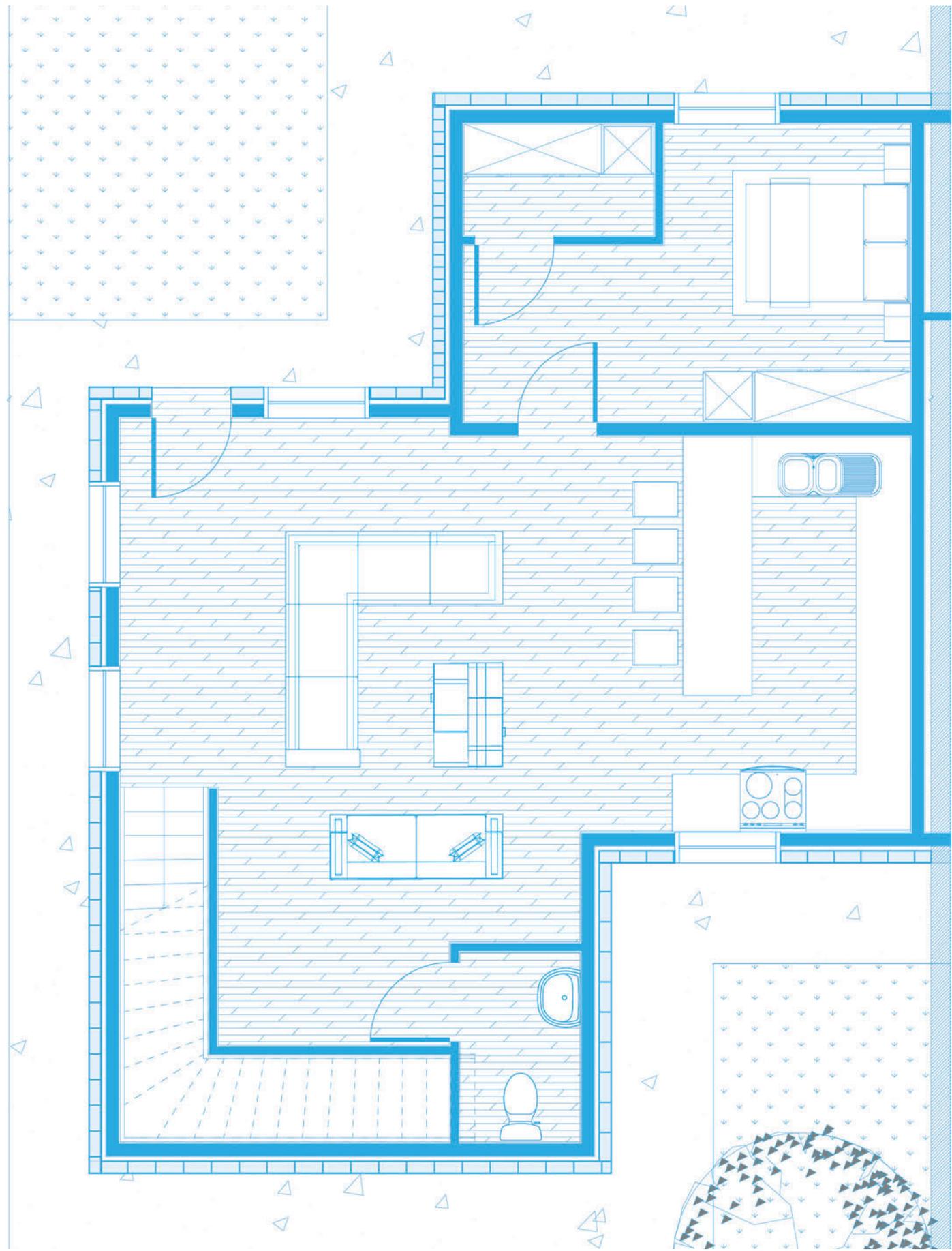
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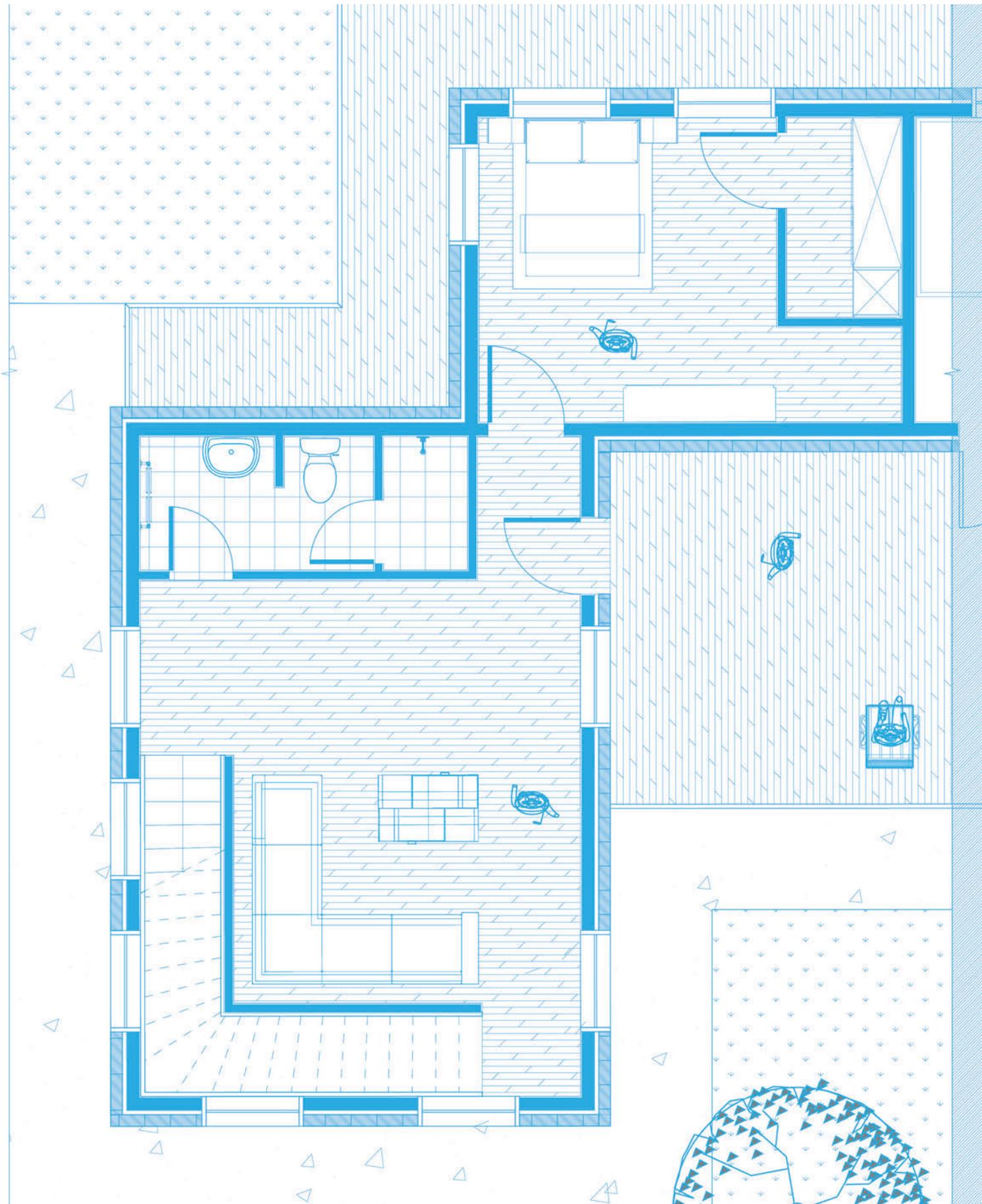
UNIT E

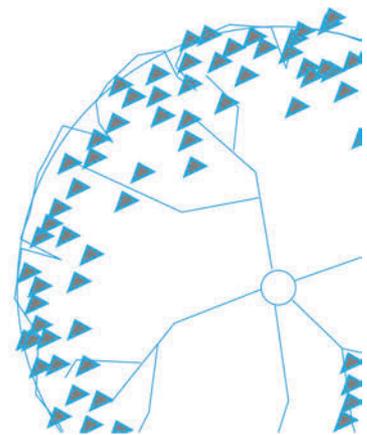


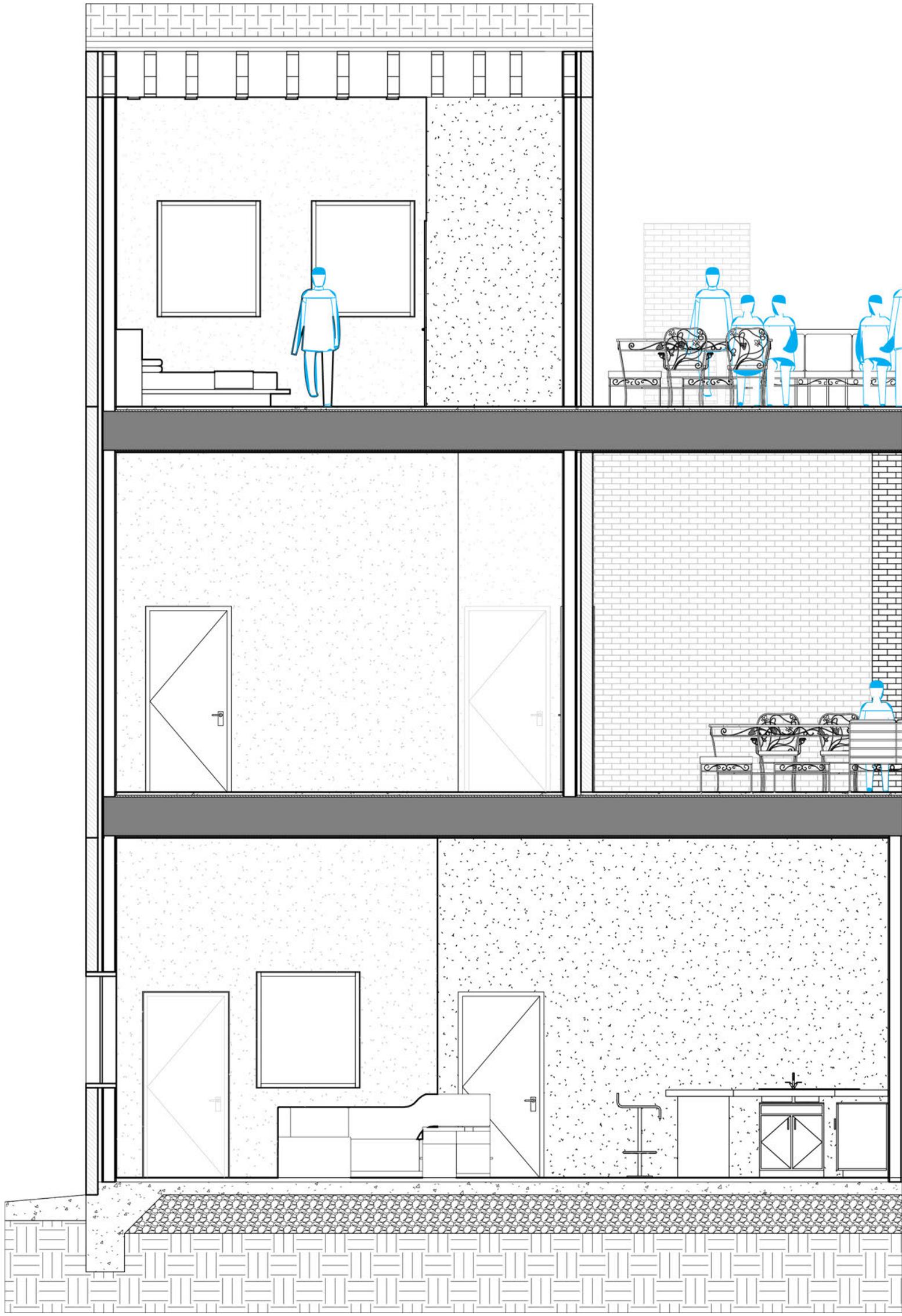




UNIT F







CONCLUSION

AFTER FURTHER ANALYSIS AND DESIGN CONCEPTS CLUS-TX IS A DESIGN CONCEPTS TO HELP INCREASE DENSITY WITHIN AN AREA WHERE IT IS INCREASING IN POPULATION. AUSTIN IS A CITY WHERE IT IS NOT CHEAP BUT ALLOWS FOR THE PEOPLE TO SEARCH OPPORTUNITIES FOR LIVING AND CLUS-TX OFFERS THAT. AFFORDABILITY, SUSTAINABLE AND COMMUNITY ALLOWS FOR OPPORTUNITY FOR GROWTH AND BRING PEOPLE'S NEEDS TO FLOURISH.

THE CONCEPT OF CLUSTERS ALLOWS FOR A MORE AFFORDABLE AND SUSTAINABLE DESIGN IN MASS PRODUCTION. HAVING VARIETIES OF UNITS TO TARGET DIFFERENT PEOPLE GROUPS.

CLUS-TX ALLOWED TO EXPLORE AREAS OF CIRCULATION, OPEN SPACE NOT JUST EXTERIOR SPACE BUT ALSO INSIDE THE UNITS ITSELF. CLUS-TX ALLOWS NOT JUST THE OPPORTUNITY FOR A PLACE OF LIVING BUT ALSO A PLACE WHERE NEIGHBORS WITHIN THE FACILITIES PARTICIPATE IN OUTDOOR OR GATHERING ACTIVITIES. IT IS IMPORTANT NOT JUST THE PLACE OF LIVING BUT ALSO THE ACTIVITIES IT CAN BE ACCHIEVED.

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