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## Living in the Spectrum: Autistic Children Center

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*Roger Williams University, jvillegas@gmail.com*

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# LIVING IN THE SPECTRUM

## AUTISTIC CHILDREN CENTER

JENNIFER VILLEGAS



ROGER WILLIAMS UNIVERSITY

MAY 2009

# LIVING IN THE SPECTRUM

## AUTISTIC CHILDREN CENTER

JENNIFER VILLEGAS  
B. ARCH CANDIDATE  
MAY, 2009

ROGER WILLIAMS UNIVERSITY  
SCHOOL OF ARCHITECTURE, ART, AND HISTORIC PRESERVATION

# LIVING IN THE SPECTRUM

## AUTISTIC CHILDREN CENTER

INDEPENDENT PROJECT SUBMITTED TO  
ROGER WILLIAMS UNIVERSITY,  
SCHOOL OF ARCHITECTURE, ART, AND HISTORIC PRESERVATION

IN FULFILMENT OF THE REQUIREMENTS OF THE  
B. ARCH DEGREE IN ARCHITECTURE  
MAY 2009

BY: \_\_\_\_\_  
JENNIFER VILLEGAS  
CLASS OF 2009

\_\_\_\_\_  
STEPHEN WHITE,  
DEAN,  
SCHOOL OF ARCHITECTURE, ART, AND HISTORIC PRESERVATION

\_\_\_\_\_  
HASAN-UDDIN KHAN  
ADVISOR,  
ADJUNCT PROFESSOR OF ARCHITECTURE

# LIVING IN THE SPECTRUM

## AUTISTIC CHILDREN CENTER

JENNIFER VILLEGAS  
MAY, 2009

**CONSULTANT**  
HASAN-UDDIN KHAN  
ASSOCIATE PROFESSOR OF ARCHITECTURE

**PROJECT PROPOSAL ADVISOR**  
HASAN-UDDIN KHAN  
ADJUNCT PROFESSOR OF ARCHITECTURE

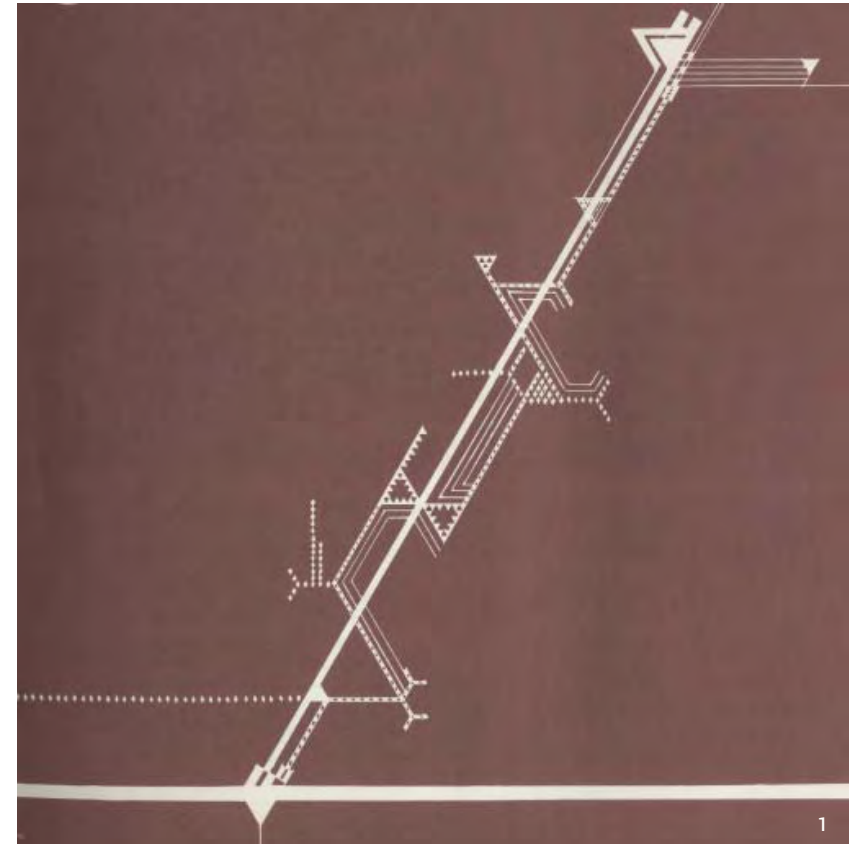
SPECTRUM (SPEK-TRAM):

A) A CONTINUUM OF COLOR FORMED WHEN A BEAM OF WHITE LIGHT IS DISPERSED (AS BY PASSAGE THROUGH A PRISM) SO THAT ITS COMPONENT WAVELENGTHS ARE ARRANGED IN ORDER.

B) ALSO KNOWN AS THE AUTISM SPECTRUM; IS A SPECTRUM OF PSYCHOLOGICAL CONDITIONS CHARACTERIZED BY WIDESPREAD ABNORMALITIES OF SOCIAL INTERACTIONS AND COMMUNICATION, AS WELL AS SEVERELY RESTRICTED INTERESTS AND HIGHLY REPETITIVE BEHAVIOR.

[WWW.MERRIAM-WEBSTER.COM](http://WWW.MERRIAM-WEBSTER.COM)

FRANK LLOYD WRIGHT BELIEVED THAT HE TRAVELED A DIFFERENT PATH FROM MOST PEOPLE. THIS SKETCH, DESCRIBES HIS PHILOSOPHY AND PERSPECTIVE OF HOW HIS LIFE DIFFERED FROM THE AVERAGE MAN'S. WRIGHT WHILE TRAVELING THROUGH A FIELD WITH HIS UNCLE ONE DAY, REALIZED THAT HIS UNCLE ONLY TOOK THE PATH THAT HE HAD KNOWN FOR YEARS AND WAS PAVED BEFORE HIM, WHICH WAS A STRAIGHT LINE. AT NO POINT DID HIS UNCLE VEER OR STRAY FROM THIS PATH. WRIGHT NOTICED THAT ALTHOUGH HE BEGAN AND ENDED IN THE SAME LOCATION AS HIS UNCLE, HE CREATED A MUCH DIFFERENT PATH. THIS PATH WAS UNIQUE AND ONLY KNOWN TO WRIGHT HIMSELF. ON THIS PATH HE WAS ABLE TO UNDERSTAND NATURE AT A NEW LEVEL AND HIS EXPERIENCE WAS MUCH DIFFERENT FROM HIS UNCLE'S. ALTHOUGH THE PATHS CROSSED AT CERTAIN POINTS, WRIGHT NEVER FELT THAT HE TOOK A PATH WHICH MAN HAD STEPPED FOOT ON. THIS METAPHOR DESCRIBES THE LIFE OF AN AUTISTIC CHILD. THEIR DISORDER FORCES THEM TO STRAY FROM THE NORMAL PATH AND CREATE A PATH OF THEIR OWN IN SEARCH FOR THEIR IDENTITY. SIMILAR TO WRIGHT'S PATH, THIS PATH MAY HAVE CROSSED THAT OF A NORMAL CHILD, BUT NEVER WERE THE TWO PATHS THE SAME. FOR AN AUTISTIC CHILD, SOMETHING VERY SIMPLE MIGHT TAKE A LOT LONGER, FOR THEIR PATH IS MUCH MORE COMPLICATED AND EXCITING.

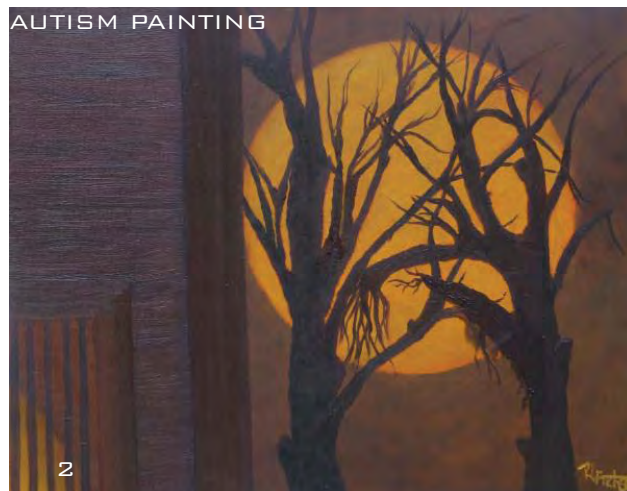


AS INDIVIDUALS DEVELOP, IN THEIR STRUGGLE FOR SELF-IDENTITY, THEY REQUIRE A CERTAIN LEVEL OF INTERACTION AND ATTENTION. SOME CHILDREN NEED MORE THAN OTHERS, ESPECIALLY THOSE WITH DISABILITIES SUCH AS AUTISM. VARIOUS INSTITUTIONS SPECIALIZE IN THE DEVELOPMENT OF STUDENTS WITH DISABILITIES, BUT AS LIFE BECOMES MORE COMPLICATED AND DEMANDING, IT IS DIFFICULT TO FIND HELP FOR THESE YOUNG CHILDREN. HADDONFIELD, NEW JERSEY IS ONE OF THE SMALL COMMUNITIES WHICH HAVE NOT BEEN COMPLETELY DISRUPTED BY THIS NEW FAST-PACED MODERN AGE; THEY STILL FIND TIME TO HELP ONE ANOTHER.

WITHIN HADDONFIELD EXISTS A SMALL INSTITUTION DEVOTED TO THE DEVELOPMENT OF CHILDREN WITH AUTISTIC DISORDERS. BANCROFT NEURO-HEALTH IS A FACILITY THAT RESEARCHES

AND TEACHES THESE STUDENTS. AS MORE STUDENTS APPLY, THIS INSTITUTION STRUGGLES TO FIND SUPPORT. THE PROPOSED PROJECT WILL INCLUDE A SCHOOL SPECIFICALLY FOR CHILDREN WITH AUTISM AND THE PROGRAM WILL PROMOTE THE RESEARCH AND HEALTHY DEVELOPMENT OF THESE STUDENTS.

AUTISTIC CHILDREN NEED MORE THAN SIMPLY ATTENTION TO DISCOVER THEIR SELF-IDENTITY. THIS PROJECT ENDEAVORS TO FIND THE POTENTIAL RELATIONSHIP BETWEEN ARCHITECTURE AND LEARNING. CAN A CHILD WITH AUTISM LEARN OR EXPLORE THROUGH ARCHITECTURE? WILL A POSITIVE ENVIRONMENT PROMOTE A HEALTHY DEVELOPMENT? THESE THEMES ALONG WITH THE INTEGRATION OF NATURE WILL BE EXPLORED THROUGHOUT THIS PROPOSAL.





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ARCHITECTURE IS BOTH A PHYSICAL AND VISUAL REPRESENTATION OF THE IDEAS OF ARCHITECTS AND DESIGNERS. IT IS AN INTERESTING FIELD THAT COMBINES SCIENCE AND ART INTO A HABITABLE PLACE OR SPACE. THROUGH DESIGN, ARCHITECTS ARE NOT ONLY ABLE TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THE GENERAL PUBLIC AND THE USERS OF THE BUILDINGS, BUT THEY ALSO HAVE THE OPPORTUNITY TO LEAVE AN IMPRESSIONABLE EXPERIENCE ON ITS OCCUPANTS. THROUGH EXPERIMENTING WITH THE BASIC BUILDING BLOCK OF ARCHITECTURE; LIGHT, SPACE, MOVEMENT AND FORM, ARCHITECTS ARE ABLE TO IMPACT (OR DIRECT) THE LIVES OF THE INDIVIDUALS WHO USE THE BUILDING. ARCHITECTURE HAS A VERY POWERFUL PRESENCE ON A COMMUNITY AND IT IS THE RESPONSIBILITY OF THE ARCHITECT TO RESOLVE THIS PRESENCE BASED ON THE IDENTITY OF THE PUBLIC.

AUTISTIC CHILDREN LEARN THROUGH EXPERIENCE AND VISUAL DEMONSTRATION WHILE STRUGGLING TO GRASP CONCEPTUAL IDEAS AND PHILOSOPHY. CHILDREN WITH SPECIAL NEEDS ARE GREATLY AFFECTED BY THEIR SURROUNDINGS AND THE INTERACTION WITH THEIR ENVIRONMENT. THESE TYPES OF ENVIRONMENTS INFLUENCE THEIR DEVELOPMENT, LEARNING AND INTERACTING CAPABILITIES.

CHILDREN WITH AUTISM REQUIRE MORE FOCUS AND DIRECTION THAN OTHER CHILDREN,

INVOLVING A MORE INTIMATE SURROUNDING AWAY FROM THE CITY SCENE WHERE THEY MAY FEEL PRESSURED, INFERIOR AND LONELY. THE ATTENTION THESE CHILDREN NEED CAN ONLY BE FOUND AT CERTAIN INSTITUTES WHICH DEVOTE THE EFFORTS REQUIRED FOR THE NATURAL DEVELOPMENT OF THESE CHILDREN. THEY SHOULD NOT FEEL LIKE THEY ARE SEPARATE FROM THE WORLD AROUND THEM, BUT MORE OF AN INTEGRAL PART OF THEIR COMMUNITY. FORM, COLORS, SPACE AND LIGHT ARE ALL ELEMENTS WHICH MAKE UP ARCHITECTURE AND AFFECT AUTISTIC CHILDREN DIFFERENTLY THROUGHOUT THEIR DEVELOPMENT.

THIS PROJECT IS A PROPOSAL FOR AN AUTISTIC CENTER IN HADDONFIELD, NEW JERSEY. THE LOCATION WAS CHOSEN FOR ITS URBAN SCALE AND ITS SECLUSION FROM THE CITY. THE GOAL OF THIS PROJECT IS TO ENHANCE THE ABILITY OF AUTISTIC CHILDREN TO LEARN THROUGH THE NOTION OF SPACE AND EXPERIENCE. THE CHALLENGE IS TO ORGANIZE A SCHOOL THAT ALLOWS THESE CHILDREN TO BECOME INVOLVED MEMBERS OF THEIR SOCIETY, GIVING THEM AN IDENTITY AND PURPOSE, WHILE ALSO GIVING THEM THE SPACE AND ATTENTION REQUIRED FOR A NATURAL AND HEALTHY DEVELOPMENT. THE OBJECTIVE IS TO CREATE A SPACE THAT ACKNOWLEDGES THE NECESSITY FOR THE INTIMATE RELATIONSHIP BETWEEN TEACHER AND STUDENT WHILE ALSO ALLOWING THEM THE SPACE FOR SELF-DISCOVERY AND EXPLORATION.

## PROBLEM STATEMENT

CHILDREN WITH AUTISM REQUIRE HIGHER LEVELS OF DIRECT INTERACTION WITH TRAINED INDIVIDUALS AS PART OF THEIR NATURAL DEVELOPMENT. SINCE NEW JERSEY RANKS HIGH ON THE STATEWIDE AUTISTICS CHART, IT HAS BEEN THEIR PRIORITY TO GIVE THESE CHILDREN THE ATTENTION NECESSARY FOR THEIR GROWTH. THE TOWN OF HADDONFIELD HAS A SCHOOL DEVOTED TO THE DEVELOPMENT OF THESE CHILDREN, BUT THE SCHOOL IS NOT OPEN DIRECTLY TO THE PUBLIC. COMMUNITY KNOWLEDGE OF THIS TYPE OF CONDITION WOULD BENEFIT THE LIVES OF THESE CHILDREN AND ENRICH THE COMMUNITY AS A WHOLE. THE CAMPUS RESIDES NEXT TO THE TOWN HIGH SCHOOL WHICH WOULD ALLOW FOR OPPORTUNITIES FOR THE TWO SCHOOLS TO WORK TOGETHER TOWARDS A COMMON GOAL. THE FRIENDSHIPS AND RELATIONSHIPS WHICH HAVE THE POTENTIAL TO FORM COULD AFFECT THE LIVES OF THESE CHILDREN FOR GOOD.

THE DESIGN OF THE INDIVIDUAL BUILDING WITHIN THE CAMPUS WILL NEED TO SERVE BOTH INDEPENDENTLY AND DEPENDENTLY ON ITS SURROUNDINGS. WHILE IT MUST INTERACT WITH THE CAMPUS AND COMMUNITY AROUND, IT MUST ALSO ALLOW FOR INTIMATE SPACES WHICH PROMOTE THE ATTENTION NECESSARY IN THE CHILD'S SEARCH FOR THEIR IDENTITY. WHILE THE SITE PLAYS A MAJOR ROLE IN THE SECLUSION AND FILTRATION OF THE ENVIRONMENT AROUND, THE CHALLENGE IS CREATING AN ARCHITECTURAL VOCABULARY WHICH CAN HAVE A PROFOUND INFLUENCE ON THE EDUCATION AND



BANGCROFT HIGH SCHOOL

## PROJECT STATEMENT

FUNDAMENTALLY, THE INTENT OF THIS PROPOSAL IS TO EXPAND UPON THE BANCROFT NEURO-HEALTH FACILITY. THE EDUCATION AND DEVELOPMENT OF THESE STUDENTS IS CRUCIAL WITHIN THE COMMUNITY, AND MANY STUDENTS ARE SUFFERING DUE TO A LACK OF ATTENTION AND SUPPORT. BY INTRODUCING A FACILITY WITHIN THE BANCROFT NEURO-HEALTH INSTITUTION, AUTISTIC STUDENTS WILL RECEIVE THE ONE-ON-ONE ATTENTION THEY REQUIRE FOR THEIR HEALTHY AND NATURAL PROGRESSION. THE COMMUNITY IS AN IMPORTANT FACTOR IN THE STUDENT'S LIVES. A FACILITY THAT ALLOWS FOR AN INTIMATE ENVIRONMENT FOR LEARNING, WHILE STILL PROMOTING SPACES SPECIFICALLY FOR PUBLIC USE IS THE MAIN HOPE FOR THIS PROJECT. OTHER ELEMENTS WHICH WILL BE STUDIED ARE THE USE OF SPACE, STRUCTURE, LIGHT, COLOR AND NATURE TO PROVIDE FOR A RICH ENVIRONMENT CONDUCIVE TO THEIR LEARNING AND EDUCATION.

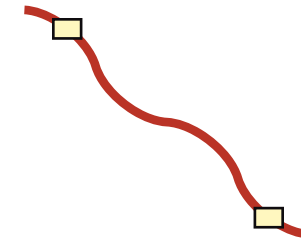


THE CHALLENGE OF ARCHITECTURE IS DESIGNING A UNIQUE SPACE WHICH SERVES THE FUNDAMENTAL PURPOSES OF SHELTER AND PROTECTION. THE INTERESTING FEATURE OF ARCHITECTURE IS THAT IT SATISFIES A MULTITUDE OF OTHER PURPOSES. ARCHITECTURE HAS BEEN AROUND FROM GENERATION UPON GENERATION AND WITH EACH PERIOD IT DEVELOPS TO CAPTURE THE ESSENCE OF THE CULTURE. WHAT EXACTLY IS IT THAT MAKES SPACE SO POWERFUL AND INVINCIBLE? SPACE IS A FUNCTION OF MANY VARIABLES. SIMILAR TO A MATHEMATICAL EQUATION, SPACE DEPENDS UPON A MULTITUDE OF DIFFERENT COMPONENTS WORKING TOGETHER TOWARDS A SIMILAR SOLUTION. THE EXPRESSION OF SPACE IS MORE THAN A SIMPLE DRAWING OR MODEL BUT AN INDIVIDUAL'S EXPERIENCE WHICH EXCEEDS THE IMPRESSIONS OF A THOUSAND DRAWINGS. VARIABLES SUCH AS LIGHT, COLOR, CLIMATE AND MATERIALITY CONTRIBUTE TO THE CHARACTER OF A SPACE. A SINGLE SPACE CAN BE EXPERIENCED DIFFERENTLY ON A STORMY DAY VERSUS A SUNNY DAY OR A SUMMER EVENING VERSUS A WINTER NIGHT. SPACE IS THE CULMINATION OF ALL OF THESE ELEMENTS WORKING TOGETHER TO PRODUCE AN ORGANIZED SYSTEM. IT IS THEN, ONCE THESE ELEMENTS HAVE BEEN ARRANGED IN SUCH A WAY, INCORPORATING THESE NATURAL CONDITIONS, THAT ARCHITECTURE HAS THE POTENTIAL TO REACH TRUE BEAUTY.

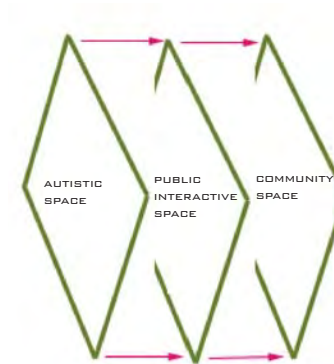


## ARCHITECTURAL INTENTIONS

**URBAN DESTINATION:** THE PRESENCE OF THIS PROJECT WITHIN THE CAMPUS AND LARGER COMMUNITY IS TO ACT AS A THRESHOLD WHICH INTEGRATES THE STUDENTS WITH SOCIETY. IT SERVES BOTH AS AN INDEPENDENT ENTITY AS IT FOCUSES ON THE DEVELOPMENT OF THE CHILDREN WHO USE IT, BUT ALSO SERVES AS A PIECE OF THE LARGER COMMUNITY AS IT FILTERS/GUIDES ITS USERS TO THE ENVIRONMENT IN WHICH IT IS A PART OF.

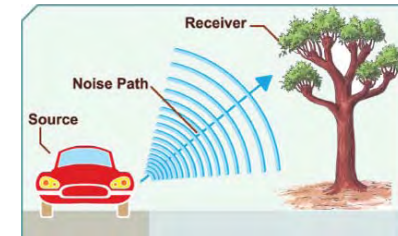


**SPACE:** SPACE WILL BECOME AN INTEGRAL PART OF THE COMMUNITY AND CAMPUS. BY MAKING THIS A MORE PUBLIC SPACE IT WOULD ALLOW MORE COMMUNITY ACCESS WHICH IN TURN WOULD STRENGTHEN THE RELATIONSHIP BETWEEN THE STUDENT WITHIN ITS COMMUNITY, AS WELL AS STRENGTHEN THE COMMUNITY AS A WHOLE, AS PEOPLE INTERACT AND LEARN ABOUT AUTISM. THIS RELATIONSHIP WOULD BE INCREDIBLY BENEFICIAL TO THE DEVELOPMENT OF THE STUDENT'S IDENTITY AND PERSONALITY. ALSO, INTERNALLY, THE DEVELOPMENT OF THE SPACE WILL REFLECT THE UNIQUE LEARNING ENVIRONMENT AND CONDITIONS WHILE SERVING TO TEACH THE CHILDREN IN AN INTIMATE SETTING, WHICH IS VITAL FOR THEIR DEVELOPMENT/PROGRESSION. THE BENEFITS OF INTIMATE SPACES WILL BE STUDIED TO GIVE THESE STUDENTS THE ATTENTION THAT THEY REQUIRE TO LEARN.

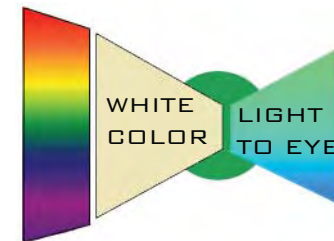


## ARCHITECTURAL INTENTIONS

**NOISE:** THIS IS A CRITICAL COMPONENT OF THE PROJECT. AUTISTIC CHILDREN ARE EASILY DISTRACTED AND AFFECTED BY NOISE. A MAJOR FACTOR IN THE LOCATION OF THE SITE IS THE SERENE ENVIRONMENT IN WHICH IT IS LOCATED. THE SITE IS SURROUNDED BY A REALM OF WOODS/TREES WHICH FILTER THE NOISE AND DISTRACTION ALLOWING A GREATER FOCUS ON THE DEVELOPMENT OF THE CHILDREN. BY FILTERING THE NOISE AND COMMOTION TO THE BUILDING, THE CHILDREN WILL HAVE A SPACE CONDUCIVE TO THEIR LEARNING AND DEVELOPMENT.



**LIGHT & COLOR:** HADDONFIELD IS A PLACE OF DENSE MOVEMENT WITHIN A MASSIVE URBAN CULTURE. THERE WILL BE A FOCUS ON LIGHTNESS OF STRUCTURE AND OPENNESS THROUGH BOTH SECTION AND PLAN. LIGHT EFFECTS AUTISTIC CHILDREN AND THEY REACT DIFFERENTLY TO COLOR. COLOR WILL BE STUDIED IN THE FORMS OF BOTH LIGHT AND MATERIALITY TO PROMOTE A POSITIVE LEARNING ENVIRONMENT AND TO AID IN THEIR DEVELOPMENT.

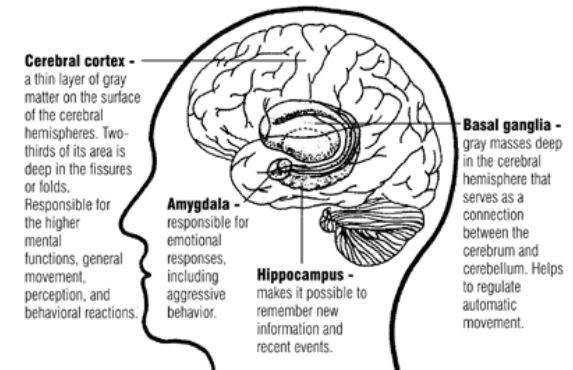


**MATERIALITY & STRUCTURE:** A FOCUS OF THIS PROJECT IS TO EXPLORE THE EFFECTS BETWEEN A CHILD WITH AUTISM AND ARCHITECTURE. ARCHITECTURE, IF DESIGNED CORRECTLY, COULD CREATE A POSITIVE LEARNING ENVIRONMENT FOR THESE CHILDREN. THEIR INTERACTION WITH MATERIAL, TEXTURE AND COLOR WILL ALL BE STUDIED TO REAP THE BENEFITS OF SPECIFIC CONDITIONS. ALSO, THE NOTION OF STRUCTURE IS IMPORTANT AS CHILDREN COULD POTENTIALLY INTERACT WITH THE STRUCTURE ITSELF.

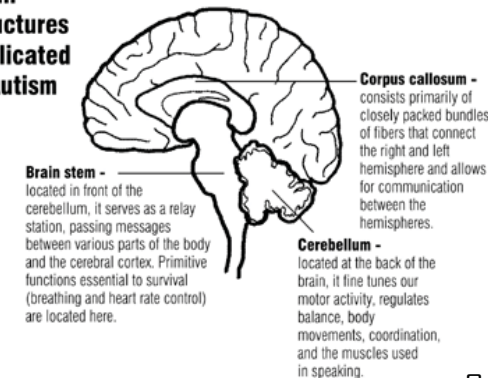


AUTISM IS A NEUROLOGICAL DEVELOPMENT DISORDER DISTINGUISHED BY IMPAIRED GROWTH AND DEVELOPMENT OF THE BRAIN OR CENTRAL NERVOUS SYSTEM. OVER THE PAST FEW DECADES, THIS DISORDER HAS BECOME INCREASINGLY MORE COMMON AMONG YOUNG CHILDREN UNDER THE AGE OF THREE. AUTISM AFFECTS A CHILD'S ABILITY TO DEVELOP BASIC MOTOR, COMMUNICATION, COORDINATION AND SOCIAL SKILLS. AUTISM IS CAUSED BY ONE OF TWO WAYS; EITHER A CHILD IS BORN WITH THE DEFECT OR MORE COMMONLY, THE DISORDER IS ASSOCIATED WITH GENE MUTATIONS IN THE EARLY STAGES OF DEVELOPMENT (WIKIPEDIA).

AUTISM IS EASILY MISTAKEN AS MANY OTHER DISORDERS FOR THEIR SIMILAR QUALITIES. IT IS PART OF A LARGER CLASSIFICATION OF DISORDERS WHICH SHARE COMPARABLE SYMPTOMS AND CHARACTERISTICS. AUTISM IS ONE OF THE FIVE KNOWN PERVASIVE DEVELOPMENTAL DISORDERS, WHICH ARE DEFINED BY PREVALENT DEVIATIONS FROM NORMAL COMMUNICATION, COORDINATION AND SOCIAL SKILLS. CHILDREN WITH AUTISM REQUIRE SPECIAL TREATMENT AND ATTENTION FROM PROFESSIONALS WHO ARE CERTIFIED AND ABLE TO TREAT THESE STUDENTS. SOME INSTANCES OF AUTISM CAN BE INCREDIBLY DIFFICULT TO INTERACT WITH. THERE ARE MANY DIFFERENT LEVELS OF AUTISM AND ALTHOUGH EACH HAS SIMILAR QUALITIES THE INTENSITY OF THE SYMPTOMS IS WHAT DISTINGUISHES THEM APART.



## Major Brain Structures Implicated in Autism



8



## WHAT IS AUTISM?

THE SYMPTOMS OF AUTISM INCLUDE PRIMARILY ABNORMALITIES REGARDING A CHILD'S ABILITY TO COMMUNICATE AND SOCIALIZE. A CHILD USUALLY HAS TROUBLE PERFORMING COMMON TASKS WHICH MANY CHILDREN ACHIEVE NATURALLY. SOCIALLY, A CHILD MAY RESPOND QUITE AWKWARDLY TO OTHER CHILDREN AND REMAIN UNRESPONSIVE IN A LARGER GROUP OF CHILDREN. MORE INTENSE CASES MAY AFFECT A CHILD'S ABILITY TO RESPOND TO THEIR OWN NAME OR MAY COMMUNICATE NON-VERBALLY. THIS SOMETIMES LEADS TO DESPAIR IN THESE CHILDREN, AS THEY USUALLY FEEL ALONE AND DEPRESSED. AGAIN, THESE CHILDREN STRUGGLE TO COMMUNICATE IDEAS AND WORDS FOR VARIOUS REASONS. FIRST, THEY FIND DIFFICULTY IN DEVELOPING ENOUGH DEEP NATURAL LANGUAGE TO EXPRESS THEMSELVES AND OFTEN BECOME FRUSTRATED WITH THEIR INABILITY TO COMMUNICATE. OTHERS ARE MORE TIMID AND BECOME SHY WHEN THEY TRY TO COMMUNICATE, WHICH OFTEN LEADS TO GESTURES AS SIGNS OF COMMUNICATION. INTENSE CASES OF AUTISM MAY DISPLAY REPETITIVE OR RESTRICTIVE BEHAVIOR. SOME REPETITIVE GESTURES CAN EXTEND FROM A MINOR HAND SPASM TO REOCCURRING COMPULSIVE MOOD SWINGS AND AGITATED STATES. SOME CHILDREN MAY EXPERIENCE RESTRICTIVE BEHAVIOR WHERE THEY ARE UNABLE TO FOCUS FOR EXTENDED PERIODS OF TIME OR LOSE INTEREST IN THEIR ACTIVITIES. UNFORTUNATELY, MANY OF THESE

INVOLUNTARY MOVEMENTS AND GESTURES LEAD TO BRUISES OR INJURIES ON THE CHILD.

ALTHOUGH THERE HAS NOT BEEN A CURE YET, SOME ARGUE THAT A CURE IS POSSIBLE. MANY SEEM TO BELIEVE THAT AUTISM IS A CONDITION RATHER THAN A DISORDER AND CANNOT BE CURED. THROUGH LONG AND EXTENSIVE PROCESSES, AN INDIVIDUAL MAY BE ABLE TO INTERACT NORMALLY AND SEEM TO FUNCTION HEALTHIER, BUT NEVER IS THE DISORDER COMPLETELY CURED.

THERE IS STILL HOPE FOR THESE INDIVIDUALS AND THIS PROPOSAL ENDEAVORS TO GIVE THESE CHILDREN THE OPPORTUNITIES THEY NEED TO DISCOVER THEIR IDENTITY AND SUCCEED IN THE WORLD.



# PROGRAM

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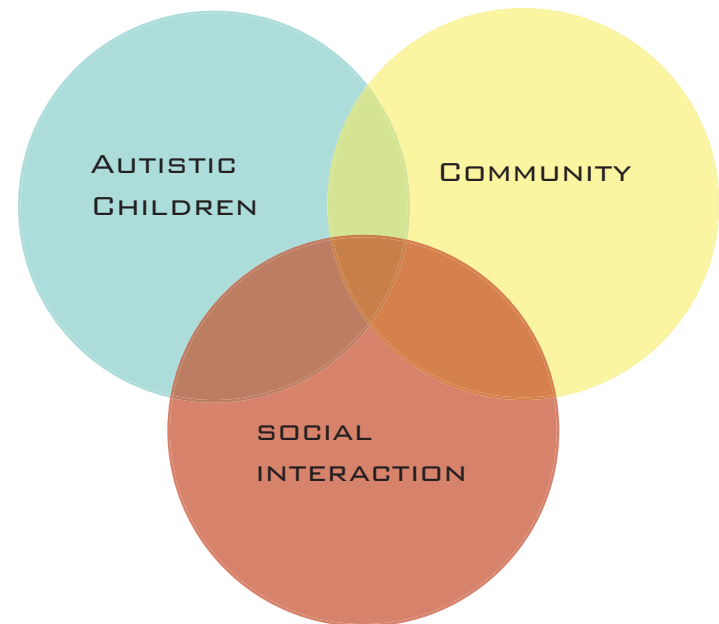


“SOCIAL ARCHITECTURE IS  
NOT ABOUT WHAT IT IS, BUT  
WHAT IT DOES TO PEOPLE’S  
LIVES”

~JOHN F. TURNER,  
HOUSING BY PEOPLE

## PROGRAM DESCRIPTION

BANCROFT NEURO-HEALTH SCHOOL HAS BEEN AN ESTABLISHMENT SINCE 1883 HELPING CHILDREN AND ADULTS WITH NEUROLOGICAL AND RELATED DISABILITIES LIVE THE MOST INDEPENDENT AND FULFILLING LIVES (BANCROFT NEURO-HEALTH). AS THE DENSITY WITHIN THE SCHOOL INCREASES A FURTHER EXPANSION IS REQUIRED TO GIVE THESE STUDENTS THE SPACE AND ATTENTION NEEDED FOR A HEALTHY DEVELOPMENT. THE MAIN FOCUS OF THE PROJECT IS TO GENERATE A DESIGN FOR A CHILDREN'S AUTISTIC CENTER WHERE STUDENTS WILL RECEIVE THE ATTENTION AND FOCUS THEY NEED, WHILE HELPING TO INFLUENCE THE TYPE OF ENVIRONMENT THESE CHILDREN ARE EXPOSED TO. THE PROGRAM WILL BE A MIXED USE TYPOLOGY, INTERLACING EDUCATION WITH RESEARCH TO PROVIDE THE BEST LIFE FOR THESE STUDENTS. THESE SPACES WILL ENCOURAGE STUDENTS TO INTERACT WITH THEIR ENVIRONMENT AND COMMUNITY BY INCLUDING OUTDOOR SPACES AND COMMUNITY SPACES WHICH ARE INTENDED TO STRENGTHEN THE ARCHITECTURE AS AN ICON WITHIN THE SOCIETY. THE USE OF SHELTERED SPACES WILL CONTRAST THE OPEN AREAS, BASED UPON THE LEVELS OF INTIMACY WHICH ARE REQUIRED FOR A HEALTHY DEVELOPMENT. THE FOLLOWING PAGES CONSIST OF AN OUTLINE OF THE SPACES REQUIRED AND THEIR SQUARE FOOTAGE.



## PROGRAM OUTLINE

ENTRANCE	4900 SF
LOBBY	900 SF
OPEN ATRIUM	2000 SF
SECURITY/INFORMATION	800 SF
RESTROOMS (MEN & WOMEN ON ALL LEVELS)	1200 SF
ADMINISTRATION	6940 SF
DIRECTOR	200 SF
STAFF	(18) 180 SF
FACILITIES MANAGEMENT	500 SF
CONFERENCE	(4) 400 SF
LOUNGE AREA	900 SF
STORAGE	500 SF
LECTURE FACILITIES	23,020 SF
CLASSROOMS	
SMALL ROOMS	(12) 300 SF
LARGE ROOMS	(12) 630 SF
STORAGE	(4) 200 SF
GYM/MULTIPURPOSE	7800 SF
AUDITORIUM	3260 SF
CAFETERIA	5820 SF
KITCHEN & SERVING	1320 SF
SEATING	3600 SF
STORAGE	400 SF
EXTERIOR DELIVERY/ GARBAGE AREAS	500 SF
LIBRARY	7600 SF
STACKS	(2) 2000 SF
READING ROOM	(2) 1500 SF
STORAGE	(2) 300 SF

INTERACTIVE SPACES	3000 SF
OCCUPATIONAL THERAPY/ PHYSICAL THERAPY	2200 SF
PLAYROOM	800 SF
EXTERIOR SPACES	4000 SF
PLAYGROUND	2000 SF
COURTYARD	2000 SF
THERAPEUTIC POOLS	2000 SF
FUTURE ADDITION	
STORAGE/SERVICES	3500 SF
BUILDING SERVICES	2000 SF
LOADING	1000 SF
WORKSHOP	500 SF

NET AREA: 60,780

MECHANICAL/CIRCULATION, ETC  
(10% OF TOTAL): 6,078

**GROSS AREA: 66,858 SF**

## SPATIAL DESCRIPTION

### ENTRANCE

THE ENTRANCE OF THE BUILDINGS MARKS THE TRANSITIONS FROM THE EXTERIOR TO THE INTERIOR SPACES. ALTHOUGH IT IS A MOMENT ON THE OVERALL EXPERIENCE, IT IS NOT THE BEGINNING OF THE JOURNEY. THE JOURNEY STARTS FAR BEYOND THE BOUNDARIES OF THE PROJECT SITE OR EVEN THE CAMPUS EDGES. THE JOURNEY BEGINS WITHIN THE REALM OF THE HADDONFIELD COMMUNITY. SINCE THE LOBBY WILL BE EXPERIENCED BY BOTH STUDENTS AND THE GENERAL PUBLIC, IT SHOULD CELEBRATE THE SIGNIFICANCE OF THE ARCHITECTURE BUT RECOGNIZE ITS PURPOSE IN THE COMMUNITY. THIS AREA WILL REMAIN OPEN TO PROVIDE FOR A DYNAMIC SPACE WHICH UNITES THE DIFFERENT PROGRAMMATIC ELEMENTS INTO A HARMONIOUS ARCHITECTURE.

### ADMINISTRATION

THE ADMINISTRATION SERVES TO REGULATE AND OVERSEE THE ENTRANCE AND LOBBY SPACE. IT IS THE FILTER TO THE OUTSIDE COMMUNITY AND HAS AN INCREDIBLE INFLUENCE ON THE DEVELOPMENT OF THE STUDENTS. IT WILL BE IMPORTANT TO FORMALLY STRESS THE SIGNIFICANCE THIS PROGRAMMATIC ELEMENT HAS WITHIN THE BUILDING. THIS AREA WILL HOUSE THE FACULTY OFFICES AND OTHER ADMINISTRATIVE FUNCTIONS. THE ADMINISTRATION WILL ALSO FUNCTION AS THE LINK BETWEEN THE DIFFERENT PORTIONS OF THE CAMPUS.

### LECTURE FACILITIES

THE CLASSROOMS ARE THE TRUE HEART OF THIS PROJECT. THEY INCLUDE THE SPACES WHERE STUDENTS RECEIVE THE ATTENTION THEY NEED AS PART OF THEIR DEVELOPMENT. THESE SPACES ARE WHERE THE CRUCIAL LEARNING AND ADVANCEMENT OF THE STUDENT'S WRITING, VERBAL AND COMMUNICATION SKILLS OCCUR. IT IS IMPORTANT NOT TO FORGET THE RELATIONSHIP THESE ELEMENTS SHOULD HAVE WITHIN THE COMMUNITY. THESE CLASSROOMS, ALTHOUGH INCREDIBLY INFLUENTIAL CANNOT HELP THESE STUDENTS ALONE. IT IS A TEAM EFFORT, MEANING THESE ROOMS NEED TO WORK CLOSELY WITH THE COMMUNITY AND ADMINISTRATION TO ASSURE THAT THESE STUDENTS RECEIVE THE PROPER EDUCATION THEY REQUIRE. IN ADDITION, THESE SPACES WILL INTERMINGLE WITH THERAPISTS TO PROVIDE AS WELL-ROUNDED OF AN EDUCATION AS POSSIBLE.

## SPATIAL DESCRIPTION

### CAFETERIA

THIS SPACE IS INTENDED TO GIVE THE STUDENTS A COMFORTABLE OPPORTUNITY TO MINGLE WITH EACH OTHER AND THE COMMUNITY ON A MORE PERSONAL LEVEL. IT IS ANTICIPATED TO BE AN OPEN, DOUBLE-HEIGHT SPACE WHICH ACCOMMODATES THE STUDENTS, FACULTY AND MEMBERS OF THE COMMUNITY. IT COULD BECOME A SPACE FOR FACULTY TO OBSERVE AND GAUGE STUDENT'S ABILITY TO INTERACT ON A SOCIAL LEVEL AND BECOME A CRUCIAL PART OF THE STUDENT'S DEVELOPMENT PROCESS.

### LIBRARY

THE LIBRARY IS AN AREA USED BY BOTH THE PUBLIC AND BY THE STUDENTS BASED SOLELY TO EDUCATE AND INFORM. AS THIS PROJECT INTENDS TO DESIGN A RESEARCH AND DEVELOPMENT FACILITY, THE LIBRARY WOULD HOUSE UPDATED INFORMATION AND WOULD BECOME A KEY COMPONENT WITHIN THE BUILDING AND THE COMMUNITY. STUDENTS COULD ENJOY A QUITE LEARNING ENVIRONMENT WHILE THEY READ AND BEGIN TO LEARN THROUGH THE POWER OF BOOKS. THE LIBRARY ALSO FUNCTIONS AS ONE OF THE STRONGEST INTERACTIONS TO THE COMMUNITY AS IT SERVES AS THEIR SOURCE FOR INFORMATION PERTAINING TO AUTISM.

### INTERACTIVE SPACES

THESE SPACES SERVE SIMILAR PURPOSES AS THE EXTERIOR SPACES, EXCEPT INDOORS. STUDENTS WOULD BE ALLOWED TO PLAY ON THE FLOOR AND ON MATS AND PHYSICAL ACTIVITY WOULD BE A PRIORITY IN THESE SPACES. A FOCUS ON THE DEVELOPMENT OF LOGICS AND COORDINATION WOULD OCCUR AS CHILDREN BEGIN TO PLAY WITH TOYS AND GAMES. THESE SPACES WOULD ALSO ALLOW FOR THE FACULTY TO OBSERVE THE CHILDREN AND INTERACT WITH THEM ON A DIFFERENT LEVEL.

## SPATIAL DESCRIPTION

### EXTERIOR SPACES

THIS REFERS TO A VARIETY OF UNIQUE SPACES WHICH SERVE TO ENCOURAGE STUDENTS TO INTERACT AND PLAY. NATURE IS VERY VITAL TO CHILDREN BECAUSE IT ALLOWS THEM TO EXPERIMENT AND DEVELOP SPECIFIC MOTOR SKILLS AND VARIOUS COORDINATION SKILLS. THESE OUTDOOR ENVIRONMENTS WOULD ALSO PROMOTE INTERACTION WITH NATURE. THE CLOSE PROXIMITY OF THE WOODS, POND AND RIVER COULD ALLOW FOR DAILY INTERACTIONS WITH ENVIRONMENTS WHICH THEY WOULD NOT NORMALLY BE EXPOSED TO. SINCE THEY ARE UNDER THE SUPERVISION OF PROFESSIONALS, THESE EXPERIENCES COULD BE EXTREMELY INFLUENTIAL ON THEIR DEVELOPMENT AS CHILDREN.

### MEDICAL RESEARCH

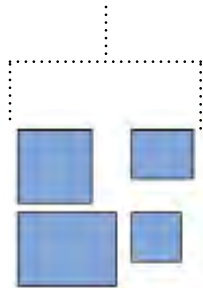
THIS IS ANOTHER CRUCIAL ELEMENT OF THE PROGRAM. IT CREATES A SPACE WHICH IS DEDICATED TO THE STUDY OF AUTISM AND ITS DEVELOPMENT. IT COULD BECOME A MAJOR RESEARCH FACILITY WHICH PUBLISHES DATA AND INFORMATION THAT THE COMMUNITY IS ABLE TO ACCESS AND LEARN FROM. THIS SPACE LINKS THE PROGRAM TO A MUCH LARGER ENTITY AS INFORMATION LEARNED OR DISCOVERED BY THIS WORK COULD LEAD TO A BETTER DEVELOPMENT FOR AUTISTIC CHILDREN WORLD-WIDE.

### STORAGE/SERVICES

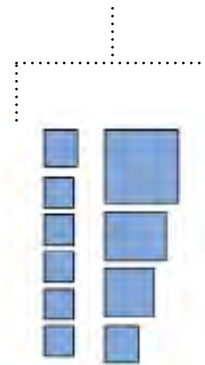
THESE SPACES WOULD STORE ALL INFORMATION AND FILES ON THE STUDENTS AND MEDICAL RESEARCH DATA. THIS PORTION WOULD ALSO INCLUDE STORAGE FOR THE CAFETERIA AND LOAD/UNLOADING OF ALL GOODS FOR THE MEDICAL RESEARCH FACILITIES.

# PROGRAMMATIC ELEMENTS

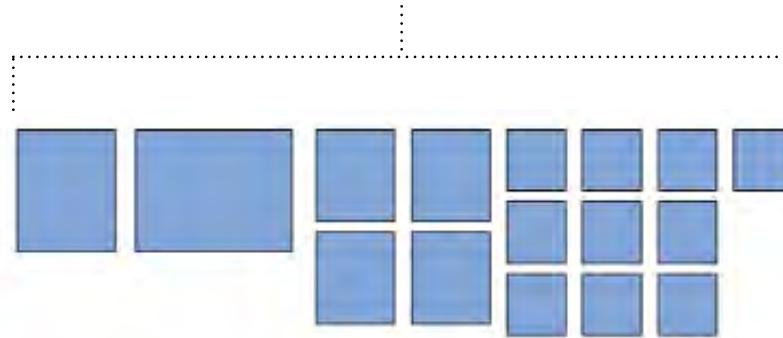
ENTRANCE



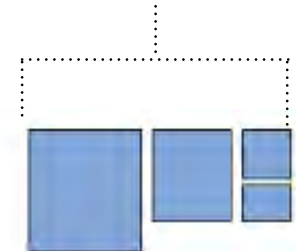
ADMINISTRATION



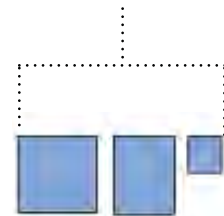
LECTURE FACILITIES



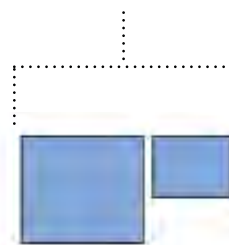
CAFETERIA



LIBRARY



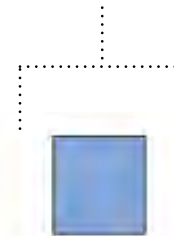
INTERACTIVE SPACES



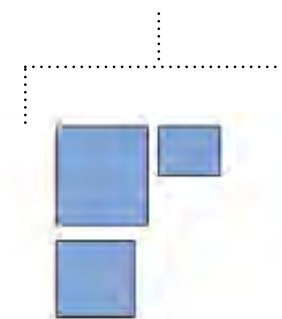
EXTERIOR SPACES



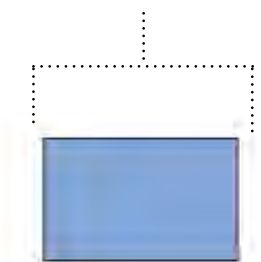
MEDICAL RESEARCH



STORAGE/SERVICES



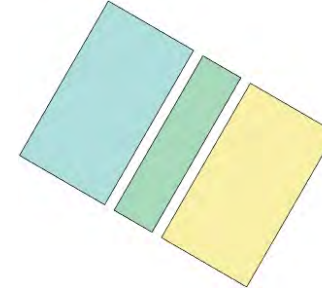
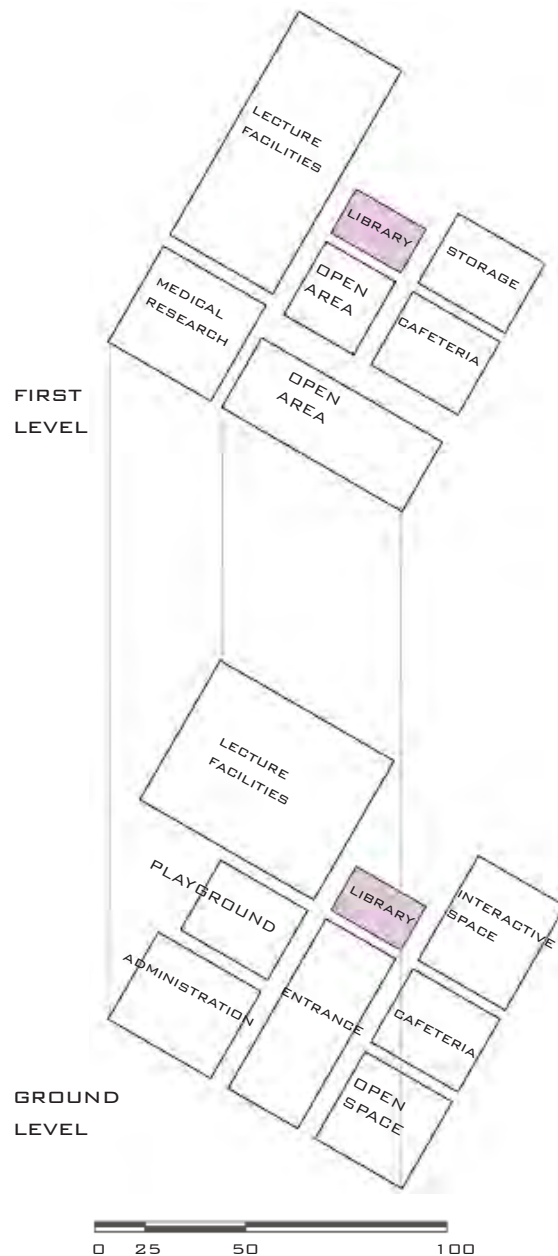
CIRCULATION/MECHANICAL





## LAYOUT OPTION

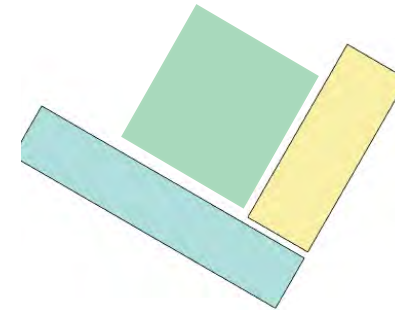
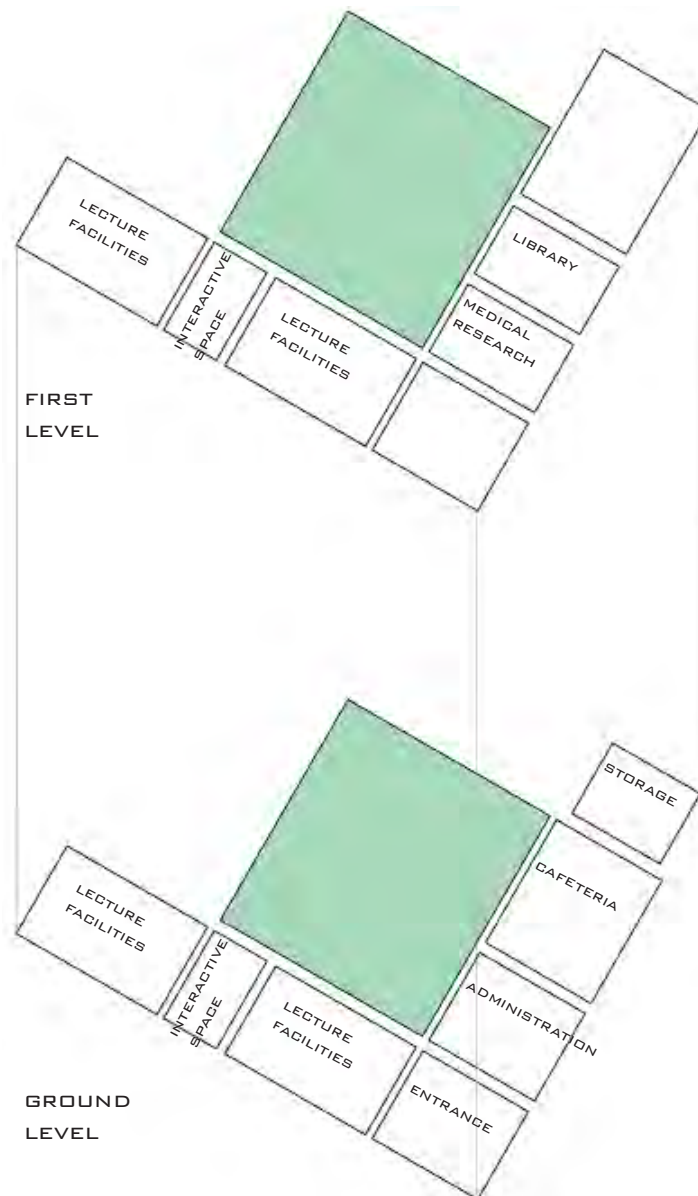
-SCHEME 1-



THIS FIRST SCHEME REPRESENTS THREE DIFFERENT BARS. THE THREE BARS FORMALLY REPRESENT THE VARIOUS FUNCTIONS THE BUILDING SERVES. ONE BAR SERVES AS THE DEVELOPMENT AND RESEARCH SECTION OF THE BUILDING. THE PORTION OF THE PROGRAM WHICH FOCUSES ON THE STUDENTS AND ALLOWS THEM THE ATTENTION THEY NEED. THE SECOND BAR HOUSES THE MORE PUBLIC SPACES AND ALLOWS FOR INTERACTION BETWEEN THE STUDENTS AND THE PUBLIC. THE MIDDLE BAR IS THE PIECE WHICH UNITES THESE TWO PROGRAMS. IT CONTAINS THE ENTRY SPACE AND LOBBY WHICH IS SHARED BY BOTH THE USERS AND BY THE PUBLIC. THE ICON OF THIS BUILDING WHICH IS ALSO IN THE MIDDLE BAR IS THE LIBRARY. THE LIBRARY ACTS AS THE GLUE WHICH TRULY LINKS THE STUDENTS WITH THE COMMUNITY. AS THE LIBRARY SERVES TO INFORM AND TEACH THE COMMUNITY ABOUT AUTISM AND THESE CHILDREN, THE LIBRARY SERVES AS A LEARNING ENVIRONMENT FOR THESE CHILDREN. IT IS SINGLE HANDEDLY ONE OF THE MOST CRUCIAL MOMENTS THROUGHOUT THIS PROPOSAL.

## LAYOUT OPTION

### -SCHEME 2-



THE SECOND SCHEME CONTAINS TWO L-SHAPED BARS. THE DESIGN INTENTION WITHIN THE PROJECT IS BASED OFF OF THE SEPARATION OF PUBLIC AND PRIVATE SPACES. THE BARS REPRESENT THE EXPRESSION OF A FORMAL DISTINCTION BETWEEN EACH OTHER. THE CONTINUITY OF THE BARS REPRESENT AN OPEN FLEXIBLE PLAN. BOTH BARS CONTINUE OUT IN EITHER DIRECTION AND ARE LINKED AT THE HINGE; A DOUBLE HEIGHT SPACE WHICH ALLOWS LIGHT TO PENETRATE DEEP WITHIN THE BUILDING ALLOWING A SPECIAL INTERRELATIONSHIP BETWEEN THE TWO PROGRAMS. THE GREEN SPACE IS NESTLED IN BETWEEN THESE TWO BARS. THE BENEFIT ABOUT THIS LAYOUT IS THAT IT DIRECTS ITS USERS AWAY FROM THE COMMOTION OF THE TOWN AND INTO THE SERENITY OF THE WOODS AND THE POND. THIS ALLOWS THE STUDENTS TO EXPERIENCE NATURE AND EXPLORE TERRITORY WHICH THEY MAY NEVER HAVE EXPERIENCED BEFORE.

# SITE



## IDENTIFICATION

“YOUNG PEOPLE BEGIN LEARNING THROUGH THEIR SENSE OF CURIOSITY. CURIOSITY LEADS TO EXPERIENCES WHICH CAN LEAVE A PROFOUND IMPRESSION ON THEM. EDUCATION IS MORE THAN SIMPLY TEACHING, BUT IT IS ABOUT ALLOWING CHILDREN TO INTERACT WITH THEIR ENVIRONMENT. SOCIETY AND NATURE CAN HAVE A CRUCIAL IMPACT ON THE DEVELOPMENT OF A CHILD’S INDIVIDUAL CHARACTER/IDENTITY...”

~ANONYMOUS

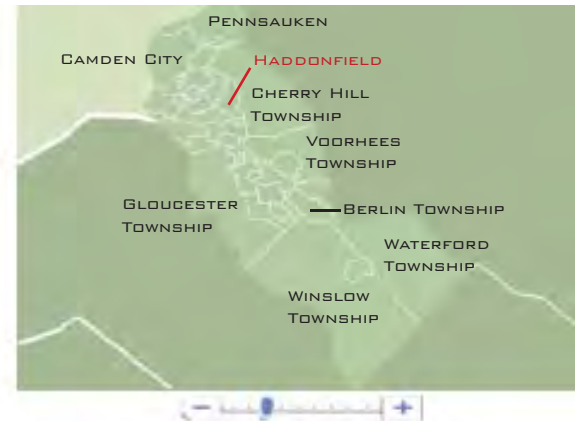
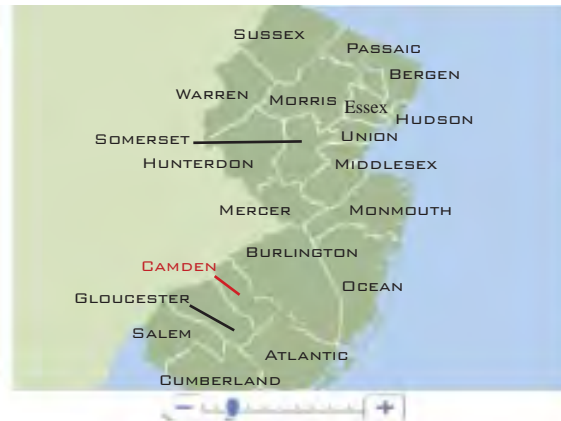
## SITE SELECTION

HADDONFIELD IS A SMALL BOROUGH LOCATED IN NORTHERN CAMDEN COUNTY, NEW JERSEY. ITS VICTORIAN SETTING CREATES A COMPELLING STYLE AND ILLUSTRATES THE HARMONIC CHARACTER OF THE TOWN. ACCORDING TO THE UNITED STATES CENSUS BUREAU, THE TOWN IS JUST 2.9 SQUARE MILES, OF WHICH 0.04 SQUARE MILES IS WATER (1.05%). INTERESTINGLY ENOUGH, THE SELECTED SITE IS BORDERED BY HOPKINS POND AND THE COOPER RIVER, TWO OF HADDONFIELD'S MAJOR BODIES OF WATER. THE COOPER RIVER, WHICH CREATES THE SEPARATION BETWEEN HADDONFIELD AND ITS NEIGHBOR CHERRY HILL, RUNS THE ENTIRE LENGTH OF HADDONFIELD, ESTABLISHING A STRONG PHYSICAL RELATIONSHIP TO THE REST OF HADDONFIELD. THE TOTAL POPULATION OF HADDONFIELD IS APPROXIMATELY 11,660. AS NEW JERSEY RANKS FOURTH IN THE UNITED STATES FOR THEIR RATIO OF AUTISTIC CHILDREN; 1 OUT OF EVERY 115 CHILDREN, IT SEEMED A GOOD PLACE TO DESIGN A DEVELOPMENT AND RESEARCH FACILITY FOR STUDENTS WITH AUTISM. HADDONFIELD, BANCROFT NEURO-HEALTH HAS ESTABLISHED A SCHOOL WHICH HAS BEEN HELPING STUDENTS WITH AUTISM AND OTHER NEUROLOGICAL DISABILITIES SINCE 1883. THE SITE IS LOCATED IN A FORMER PARKING LOT WITHIN THE BANCROFT NEURO-HEALTH CAMPUS. THE SITE IS SURROUNDED ON THREE SIDES BY A HIGHLY WOODED REALM, WHICH BORDERS THE COOPER RIVER AND HOPKINS POND. THERE ARE BEAUTIFUL VIEWS TO EACH OF THESE BODIES OF WATER FROM THE SITE, WHICH ENHANCES THE OVERALL SITE CHARACTER. THE SITE WILL BE MADE INTO A SCHOOL SPECIFICALLY FOR CHILDREN WITH AUTISM AS BANCROFT NEURO-HEALTH IS LOOKING TO EXPAND THEIR SCHOOL. AS OF RIGHT NOW THERE ARE NO MASTER PLANS OF ANY KIND, BUT IT IS BEING KEPT IN MIND FOR THE FUTURE. THE SITE WAS ALSO CHOSEN FOR ITS SERENE QUALITY AS THE TREES PROVIDE THE OPPORTUNITIES TO FILTER SURROUNDING NOISE AND DISTRACTIONS. PLACING A NEW AUTISTIC CENTER IN THIS SITE IS BENEFICIAL TO THE CAMPUS AND TO THE COMMUNITY. IT WILL LET THE COMMUNITY BE PART OF THE SCHOOL AND BE ABLE TO LEARN AND INTERACT WITH MANY OF THESE CHILDREN. IT WILL ALSO GIVE AUTISTIC CHILDREN A QUIET PLACE TO LEARN AS THEY BEGIN TO DEVELOP THEIR OWN IDENTITY.





# SITE CONTEXT



## SITE LOCATION

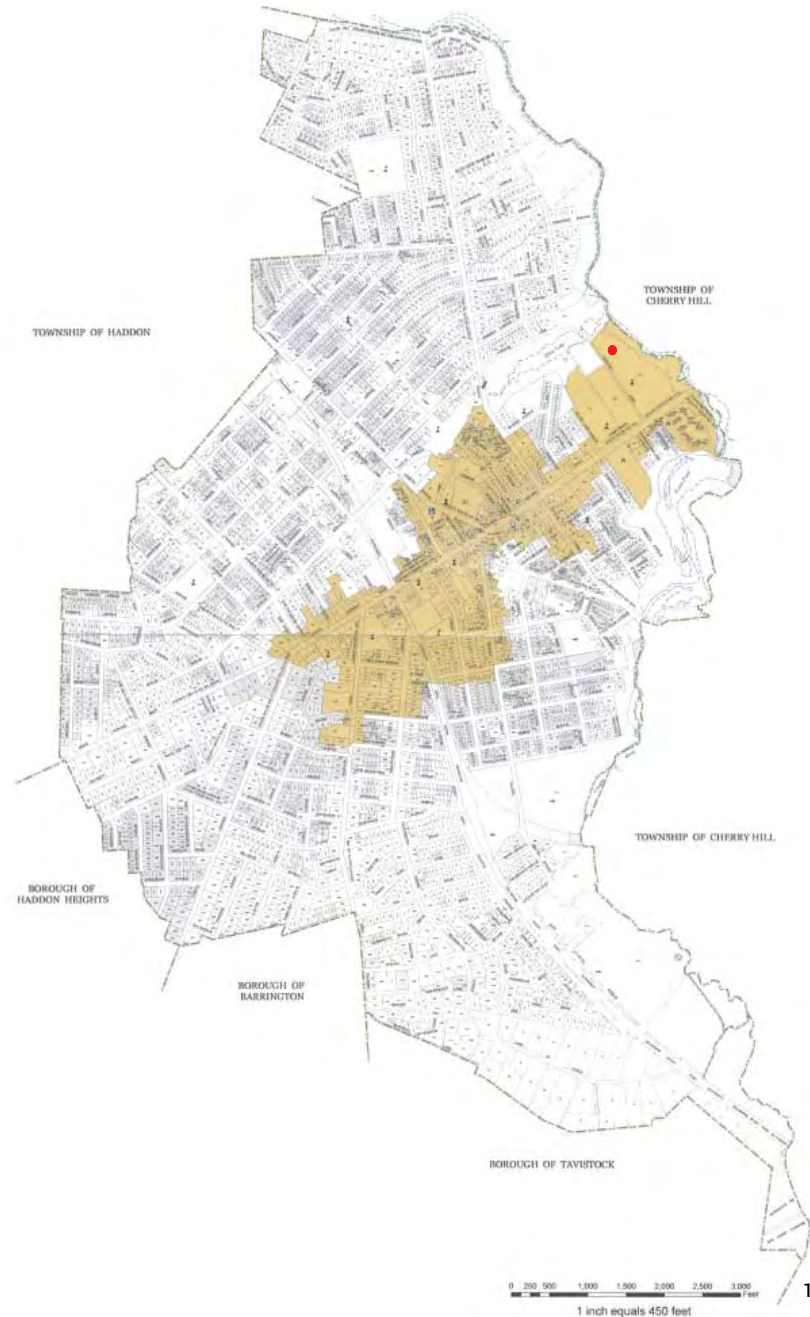


THE SITE IS LOCATED ON THE BANCROFT NEURO-HEALTH CAMPUS, WHICH IS IN HADDONFIELD NEW JERSEY. THE SITE IS SURROUNDED BY TREES AND WATER WHICH PROVIDE A SERENE QUALITY FOR THE NEW PROPOSED SCHOOL.





## HISTORIC DISTRICT MAP

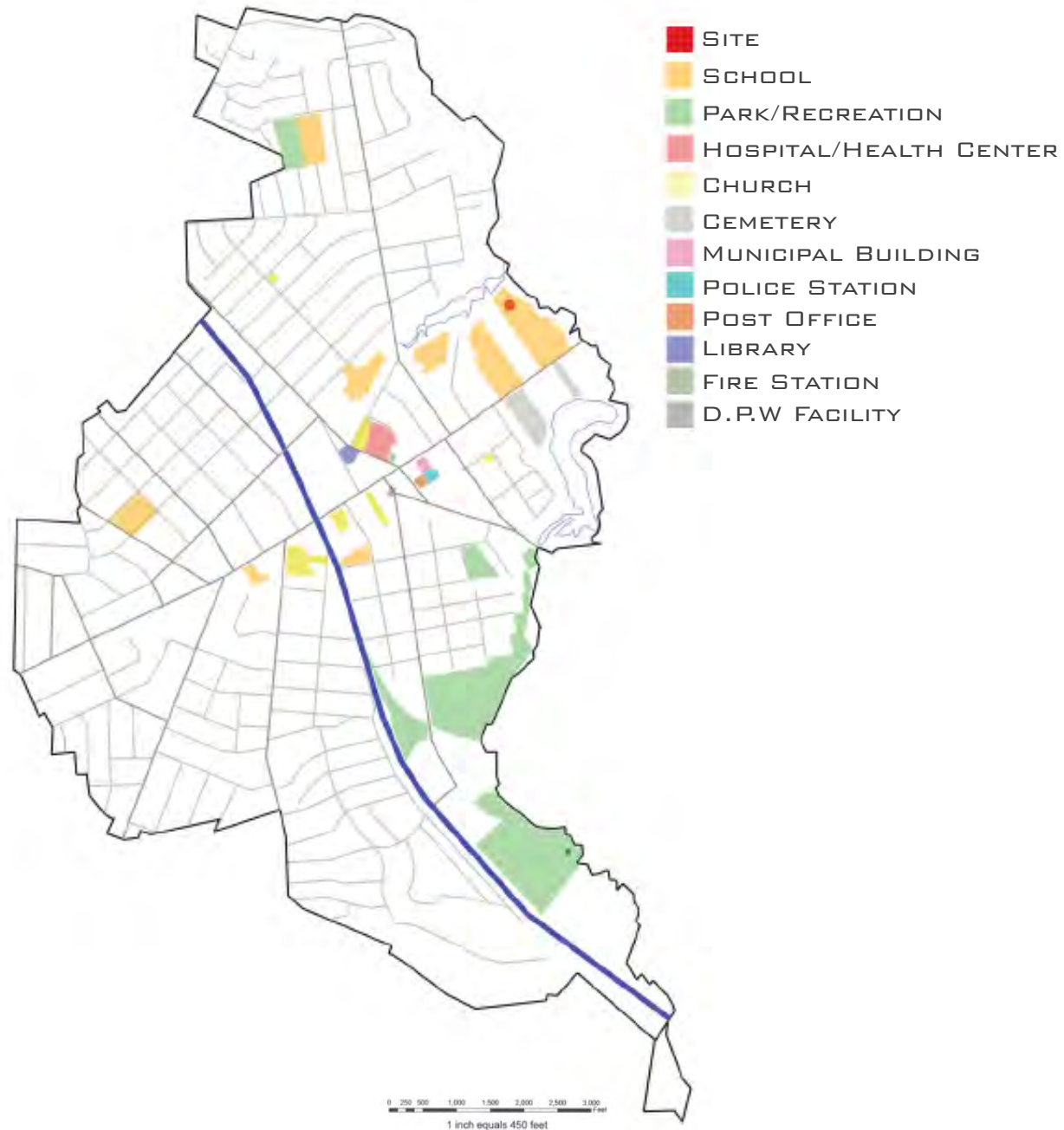


SETTLED BY EUROPEANS MORE THAN 300 YEARS AGO HADDONFIELD, NEW JERSEY, IS ONE OF NORTH AMERICA'S OLDEST TOWNS. IT IS LOCATED A SHORT DISTANCE EAST ACROSS THE DELAWARE RIVER FROM PHILADELPHIA, AND IT IS ALSO ONE OF THE METROPOLITAN AREA'S MOST AFFLUENT COMMUNITIES. FORMS, SPACES AND BUILDINGS ARE ALL LINKED BY AN UNDERLYING VICTORIAN STYLE WHICH IS MARKED BY THE HISTORIC DISTRICT. THIS DISTRICT IS COMPRISED BY INDIVIDUAL ELEMENTS LINKED BY ASSOCIATION AND HISTORY. EVEN MODERN BUILDINGS WHICH HAVE INTRODUCED NEW ELEMENTS WITHIN THIS COMMUNITY STILL HAVE A FOUNDATION IN THE VICTORIAN STYLE.

[WWW.LEVINS.COM/HADDON.HTML](http://WWW.LEVINS.COM/HADDON.HTML)

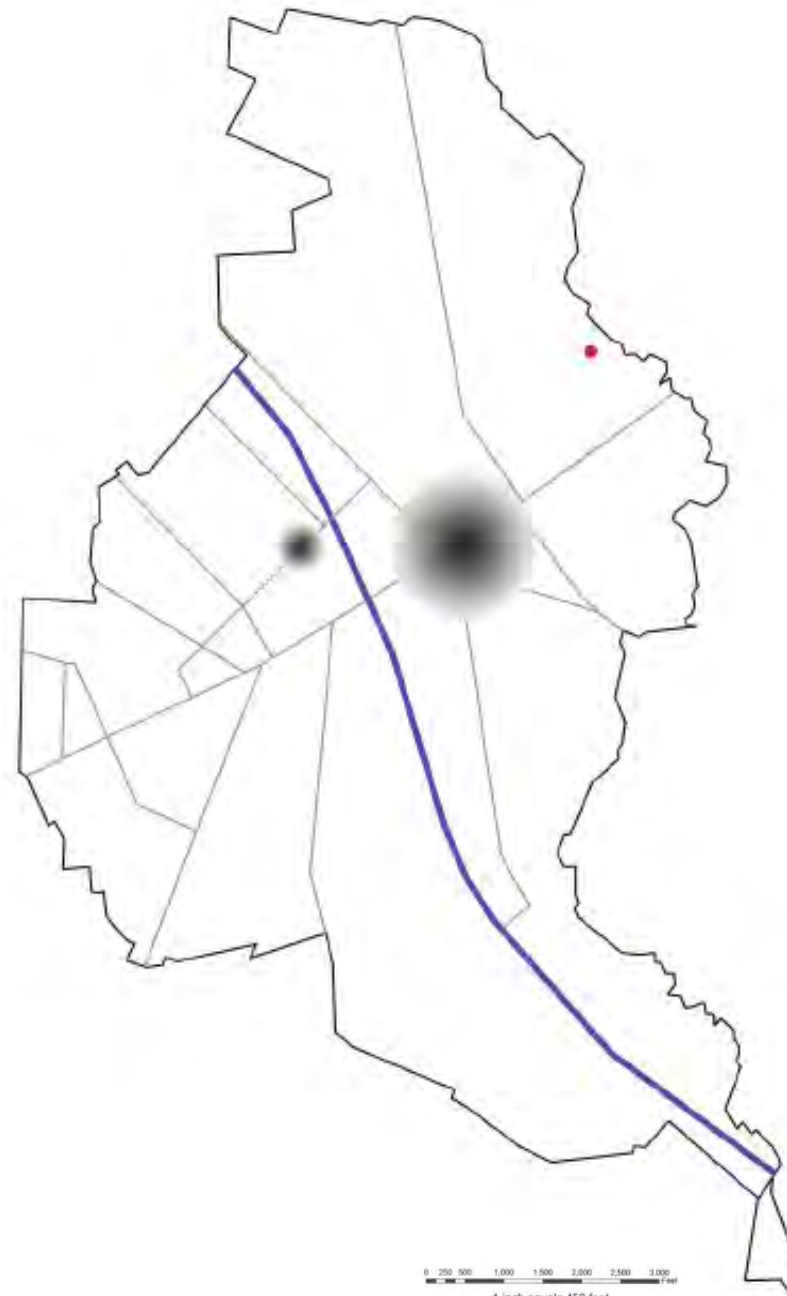


## PUBLIC LANDMARK





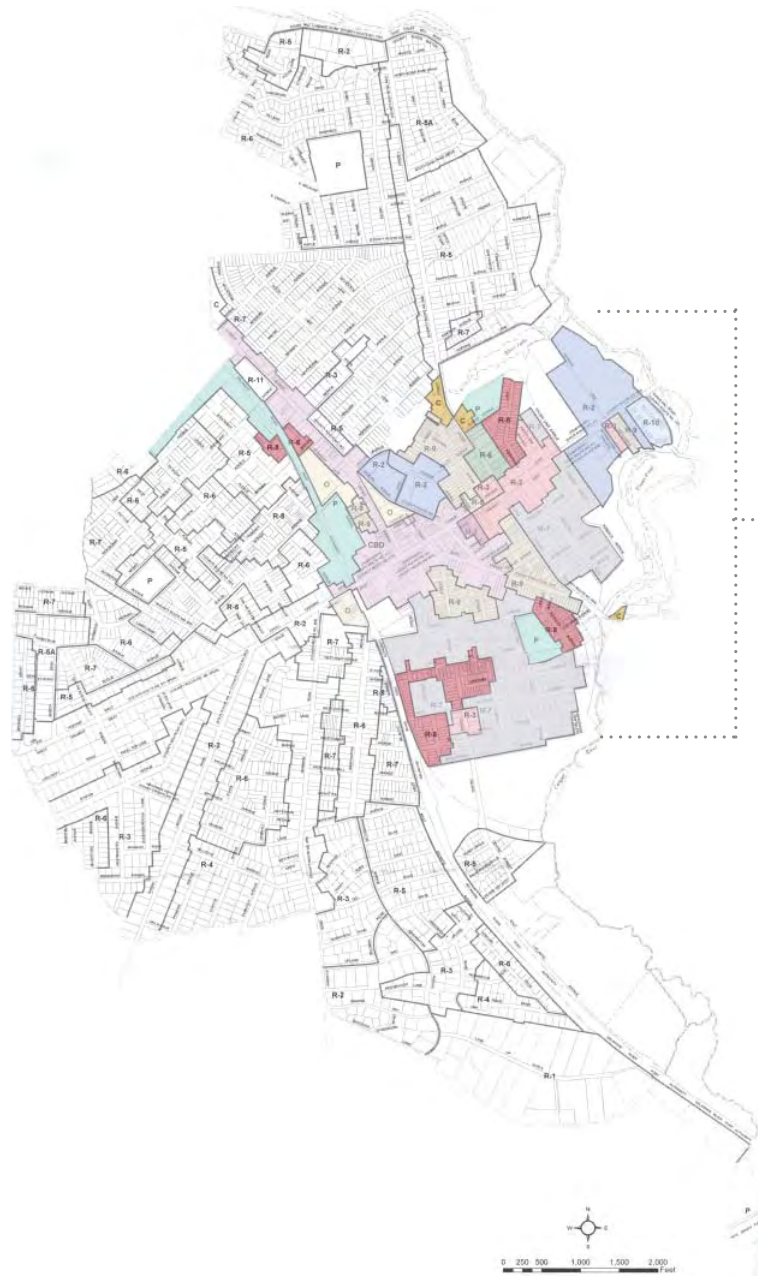
## DENSITY DIAGRAM














DENSITY OF THE MAP  
ALLOWS US TO SEE WHERE  
MOST OF THE POPULATION  
WITHIN HADDONFIELD  
IS LOCATED. THE  
BIGGER DENSITY  
BUBBLE REPRESENTS  
HADDONFIELD'S  
DOWNTOWN/HANGOUT  
SPOT. THE SMALLER  
BUBBLE REPRESENTS THE  
TRAIN STATION AND THE  
RED SPOT REPRESENTS  
THE SITE. IT SHOWS  
THE SECLUSION OF THE  
PROJECT SITE TO THE  
DOWNTOWN AREA.



## BUILDING TYPOLOGY



	R-2	RESIDENTIAL SINGLE-FAMILY
	R-3	RESIDENTIAL SINGLE-FAMILY
	R-6	RESIDENTIAL SINGLE-FAMILY
	R-7	RESIDENTIAL SINGLE-FAMILY
	R-8	RESIDENTIAL SINGLE-FAMILY
	R-9	RESIDENTIAL SINGLE-FAMILY
	R-10	RESIDENTIAL TOWNHOUSES
	P	PUBLIC USE
	C	COMMERCIAL
	O	OFFICE
	CBD	CENTRAL BUSINESS

## SITE BOUNDARY



THE SITE IS ON THE BORDER OF HADDONFIELD AND CHERRY HILL. THEIR IMMEDIATE PROXIMITY TO THE SITE ALLOWS FOR THE USE OF BOTH TOWN'S ARCHITECTURAL ELEMENTS TO BE INTEGRATED INTO THE DESIGN.



## FIGURE GROUND

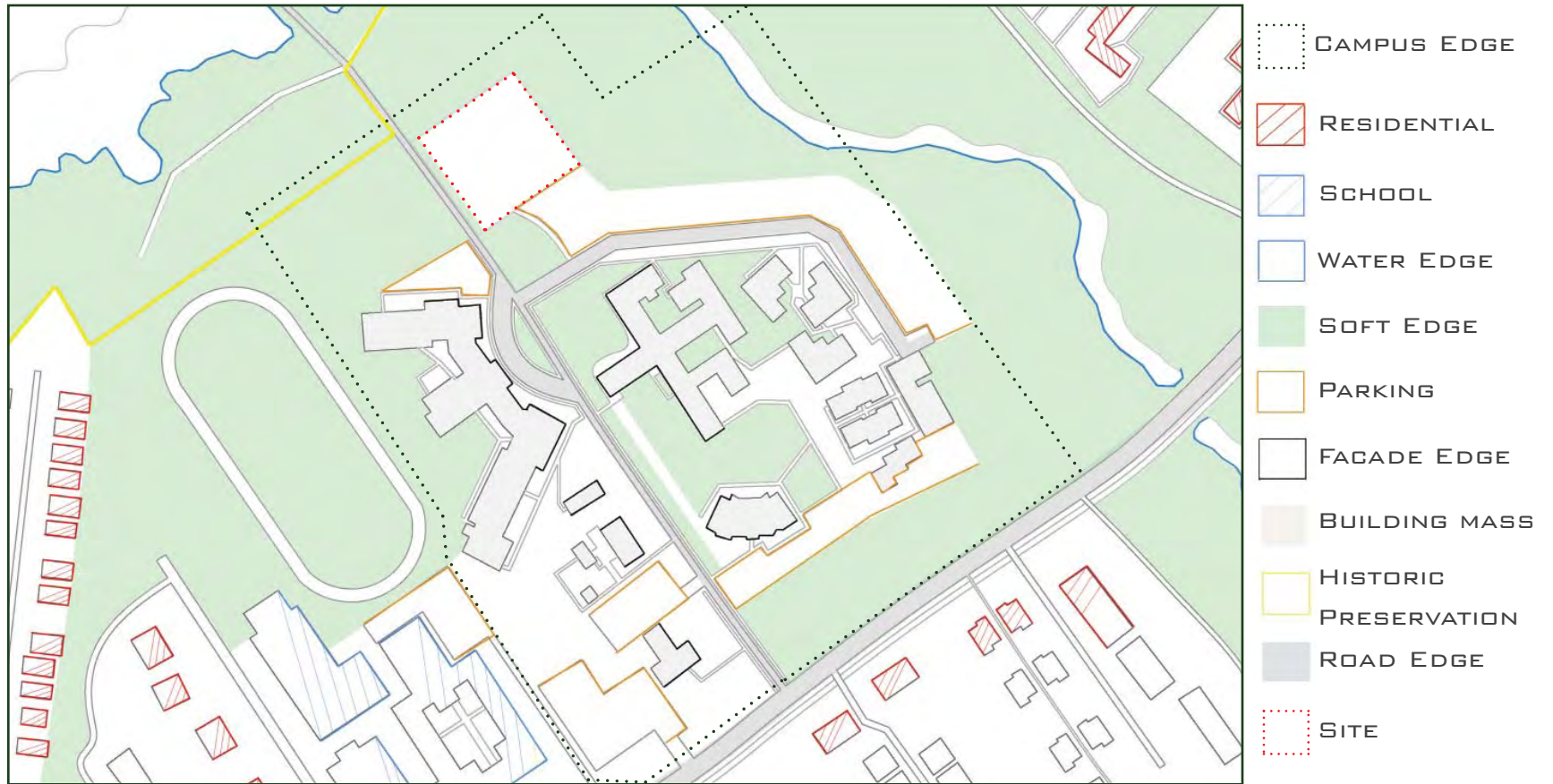


THE SOUTH SIDE OF THE SITE IS COMPRISED OF LOW SCALE BUILDINGS, HISTORIC HOUSES, PARKING LOTS, AND OPEN SITES.



THIS DIAGRAM IS AN ATTEMPT TO EXPLAIN THE RELATIONSHIP BETWEEN SITE AND EXISTING BUILDINGS TO THE SPACES WHICH ARE CREATED BETWEEN THE BUILDINGS.

## BOUNDARY & EDGE

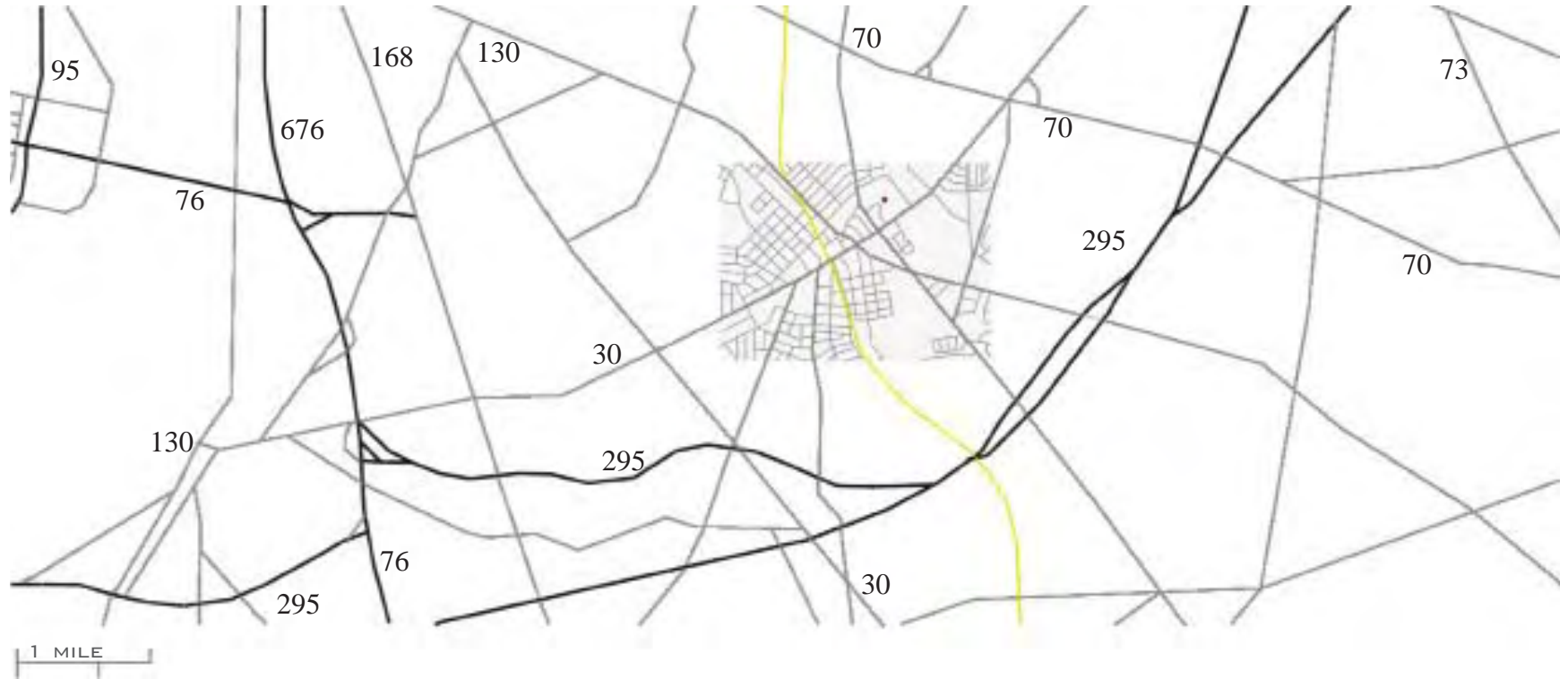


THIS DIAGRAM MAPS THE SITE AND PROJECT BOUNDARIES IN RELATION TO EDGES OF CERTAIN LANDSCAPE ELEMENTS AND THE SURROUNDING BUILDINGS.





## DESTINATION MAP



THIS DIAGRAM DEMONSTRATES THE RELATIONSHIP BETWEEN THE MAIN HIGHWAYS, ROADS AND THE TRAIN STATION OF HADDONFIELD, NEW JERSEY, THAT SURROUND THE SITE.



## VEHICULAR/PEDESTRIAN PATHS



.....  
: **VEHICULAR PATH:** BEGINS TO DEFINE  
: OPENINGS WITHIN THE URBAN GRID. IT  
: ALSO SHOWS ACCESS POINTS TOWARDS  
: AND AROUND THE SITE.  
: .....

.....  
: **PEDESTRIAN PATH:** THE MOVEMENT IN  
: THE VICINITY OF THE BANCROFT NEURO-  
: HEALTH SCHOOL SITE. THE DIAGRAM  
: PROVES THAT THE CIRCULATION IS VERY  
: CONCENTRATED THROUGHOUT THE  
: CAMPUS.  
: .....





## LANDSCAPE ELEMENTS



 SITE  
 TREES

 VEHICULAR PATH  
 PEDESTRIAN PATH

 FIELD/DIRT ROADS  
 WATER FEATURE

 GRASS  
 PAVEMENT

## NOISE BARRIER

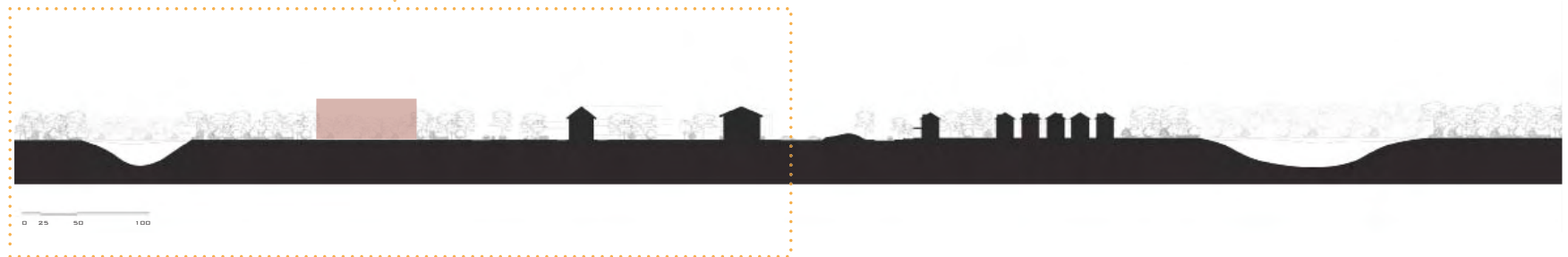


THE PLACEMENT OF THE SITE AND THE PROXIMITY OF THE SURROUNDING TREES ACT AS A NOISE BARRIER FROM VEHICULAR TRAFFIC. THIS IS IDEAL WHEN IT COMES TO PROTECTION AND DEVELOPMENT OF AUTISTIC CHILDREN.

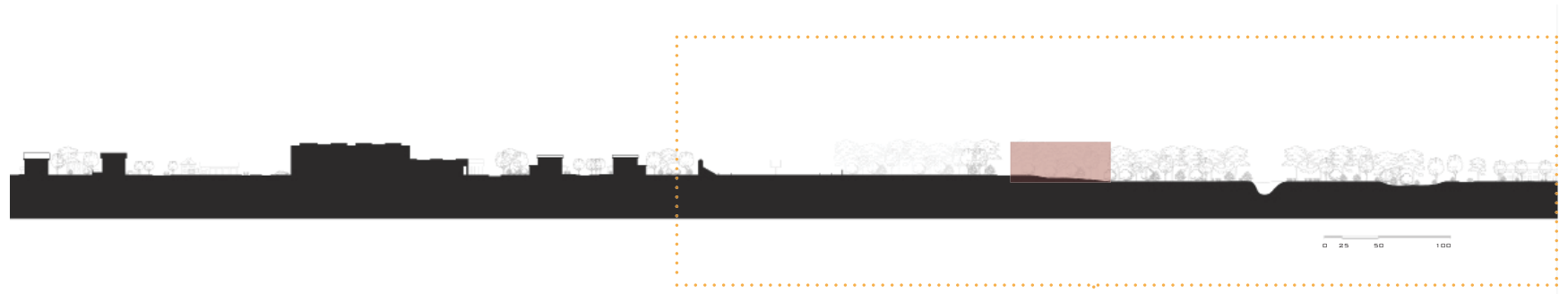




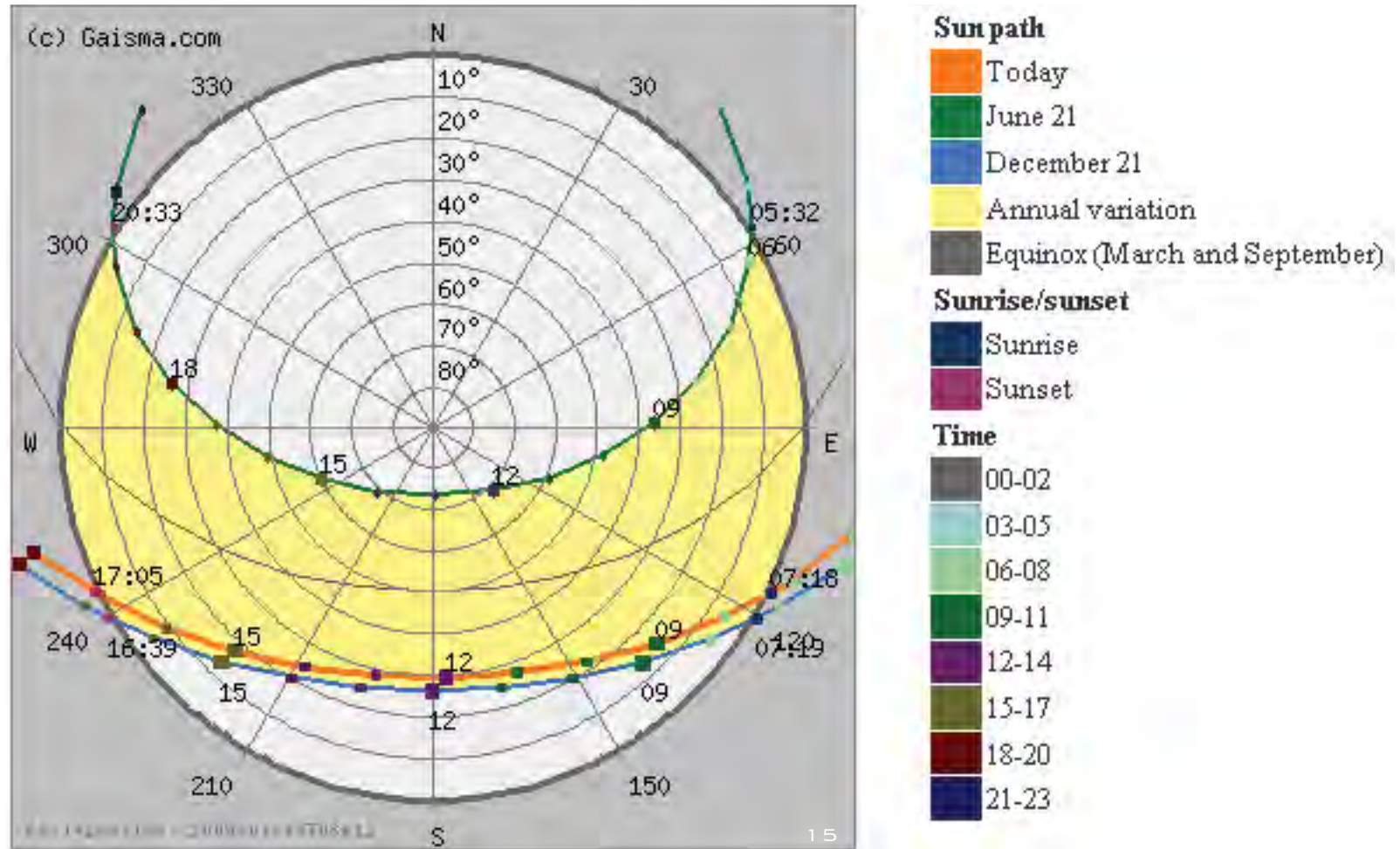
## SITE SECTIONS



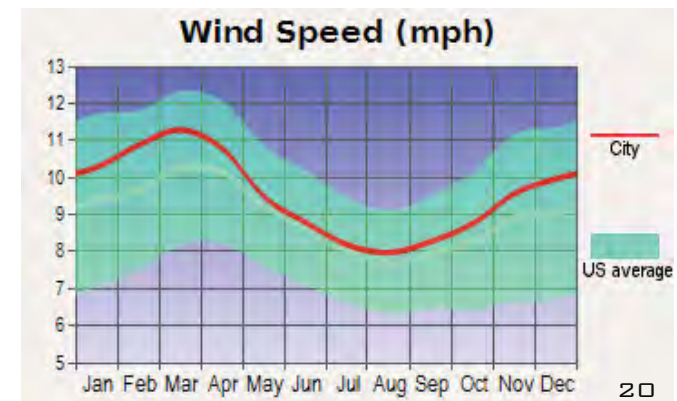
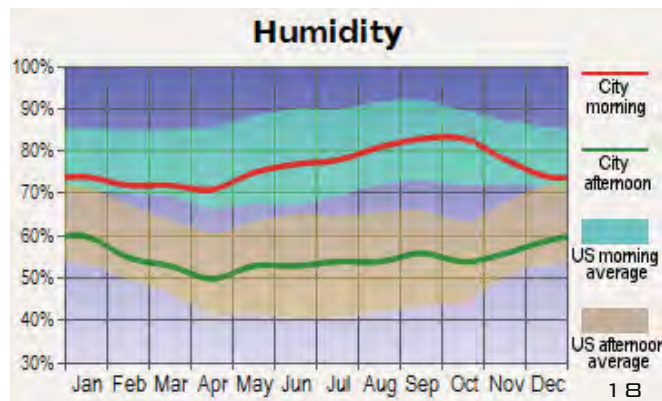
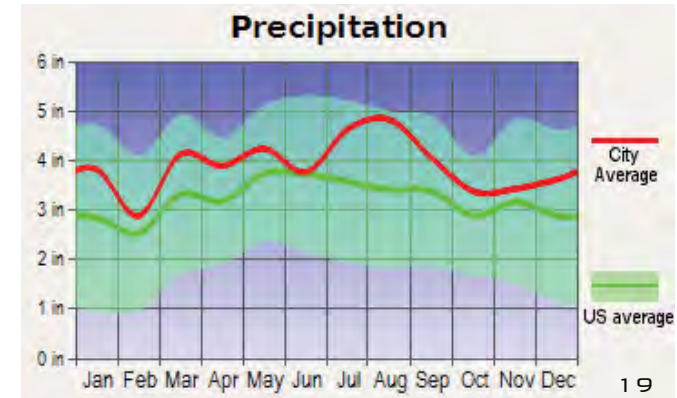
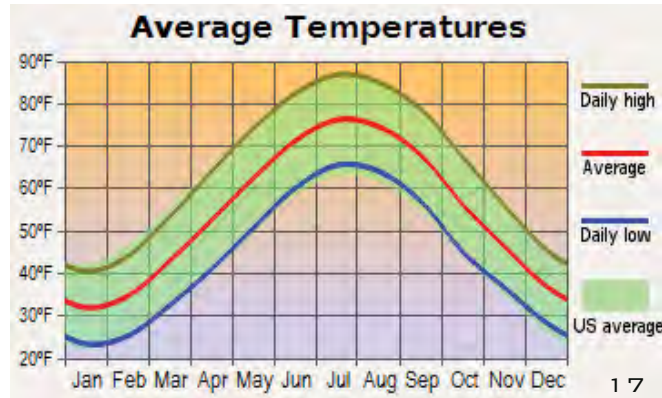
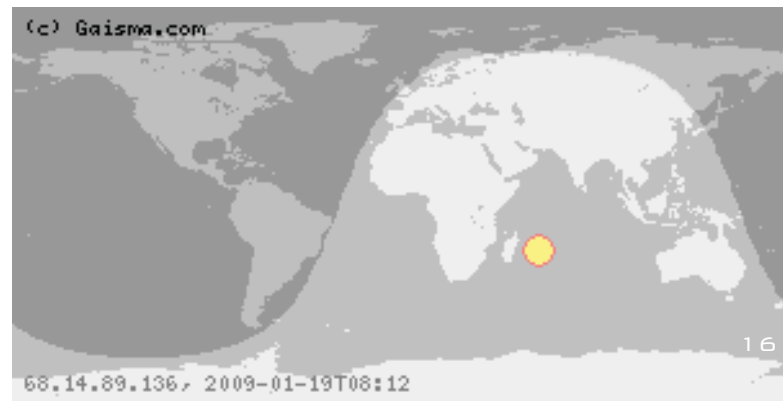
## SITE SECTIONS



## NEW JERSEY'S SUN PATH DIAGRAM

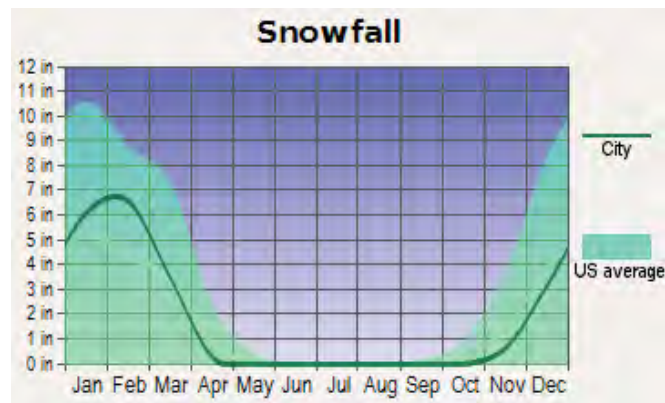


## AVERAGE CLIMATE

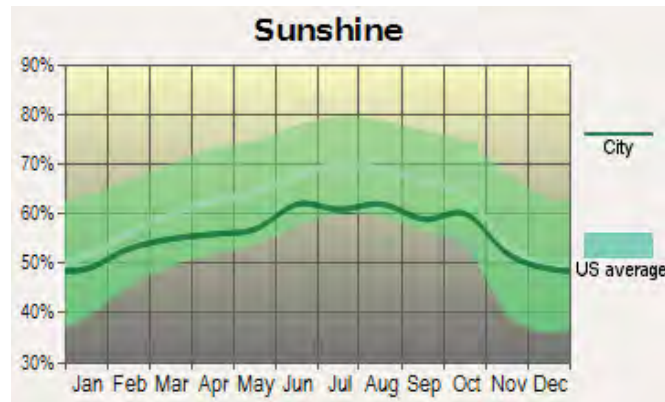




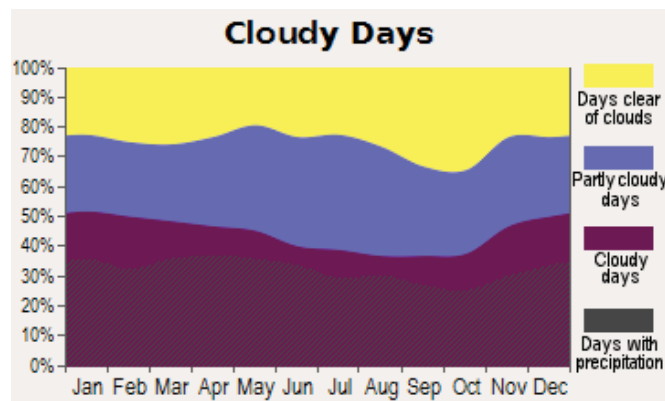
## AVERAGE CLIMATE



21



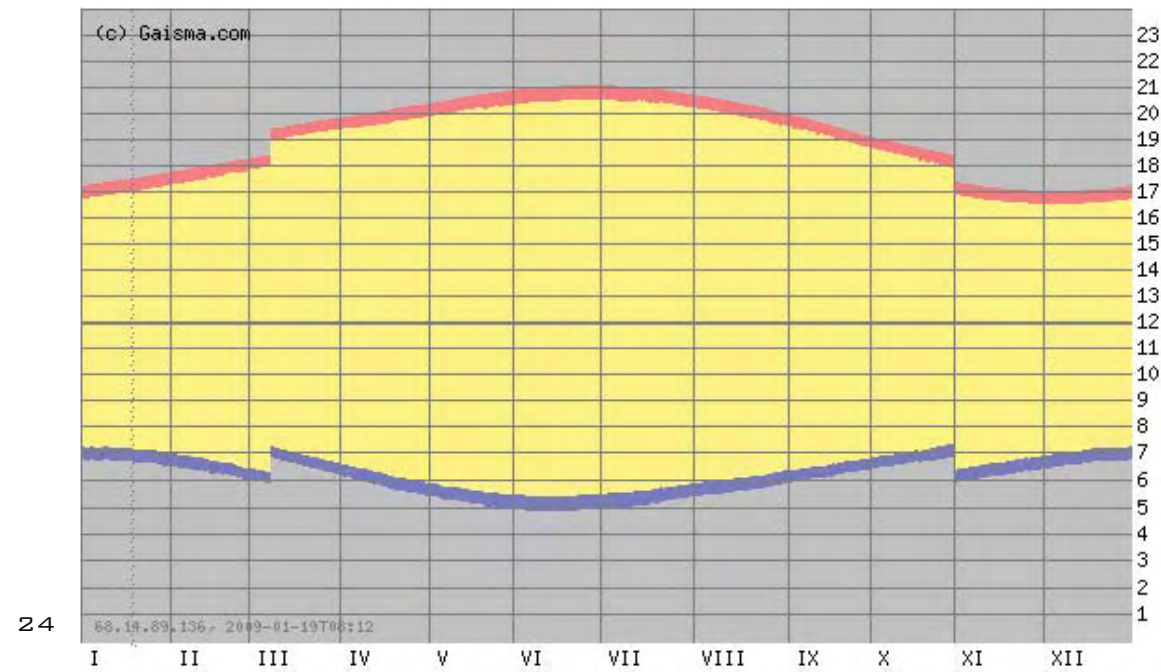
22



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HADDONFIELD, NEW JERSEY HAS A VERY TYPICAL NEW ENGLAND WEATHER CLIMATE. WITH SNOW IN THE WINTER MONTHS AND HOT TEMPERATURES IN THE SUMMER, HADDONFIELD HAS A VERY PATTERNED WEATHER CYCLE. THIS IS IMPORTANT BECAUSE WITH DIFFERENTIATING CONDITIONS THE SITE TENDS TO HAVE UNIQUE QUALITIES AND CHARACTERISTICS. DURING WINTER MONTHS WHEN THE LEAVES BEGIN TO FALL, THE VIEW TO THE WATER IS MIRACULOUS. DURING THE SUMMER MONTH THE THICK TREES PROVIDE LIMITED OR FRAMED VIEWS TO THE WATERS EDGE WHICH CREATES ADDS ANOTHER QUALITY TO TH SITE. WEATHER CONDITIONS ARE IMPORTANT BECAUSE ARCHITECTURE LOOKS DIFFERENT UNDER DIFFERENT CIRCUMSTANCES. A BUILDING LOOKS COMPLETELY DIFFERENT ON A CLOUDY DAY RATHER VERSUS A SUNNY DAY. IT IS IMPORTANT TO UNDERSTAND TH WEATHER CONDITION OF THE SITE SO THAT ALL OF THESE DIFFERENT CIRCUMSTANCES CAN BE TAKEN INTO CONSIDERATION FOR THE FINAL DESIGN.

## AVERAGE CLIMATE



Date	Sunrise	Sunset	Length	Change	Dawn	Dusk	Length	Change
Today	07:18	17:05	9:47		06:49	17:34	10:45	
+1 day	07:18	17:06	9:48	00:01 longer	06:48	17:35	10:47	00:02 longer
+1 week	07:14	17:13	9:59	00:12 longer	06:45	17:42	10:57	00:12 longer
+2 weeks	07:08	17:21	10:13	00:26 longer	06:39	17:50	11:11	00:26 longer
+1 month	06:49	17:40	10:51	01:04 longer	06:22	18:08	11:46	01:01 longer
+2 months	07:04	19:13	12:09	02:22 longer	06:37	19:40	13:03	02:18 longer
+3 months	06:17	19:43	13:26	03:39 longer	05:48	20:12	14:24	03:39 longer
+6 months	05:49	20:25	14:36	04:49 longer	05:17	20:56	15:39	04:54 longer

25



# GEOLOGIC MAP OF NEW JERSEY

- SEDIMENTARY ROCKS**
- CENOZOIC**
- Holocene: beach and estuarine deposits
  - Tertiary: sand, silt, clay
- MESOZOIC**
- Cretaceous: sand, silt, clay
  - Jurassic: siltstone, shale, sandstone, conglomerate
  - Triassic: siltstone, shale, sandstone, conglomerate
- PALEOZOIC**
- Devonian: conglomerate, sandstone, shale, limestone
  - Silurian: conglomerate, sandstone, shale, limestone
  - Ordovician: shale, limestone
  - Cambrian: limestone, sandstone

## IGNEOUS AND METAMORPHIC ROCKS

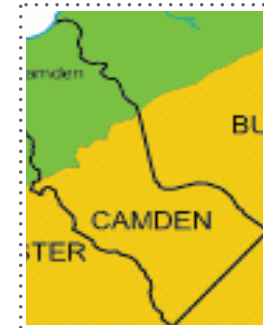
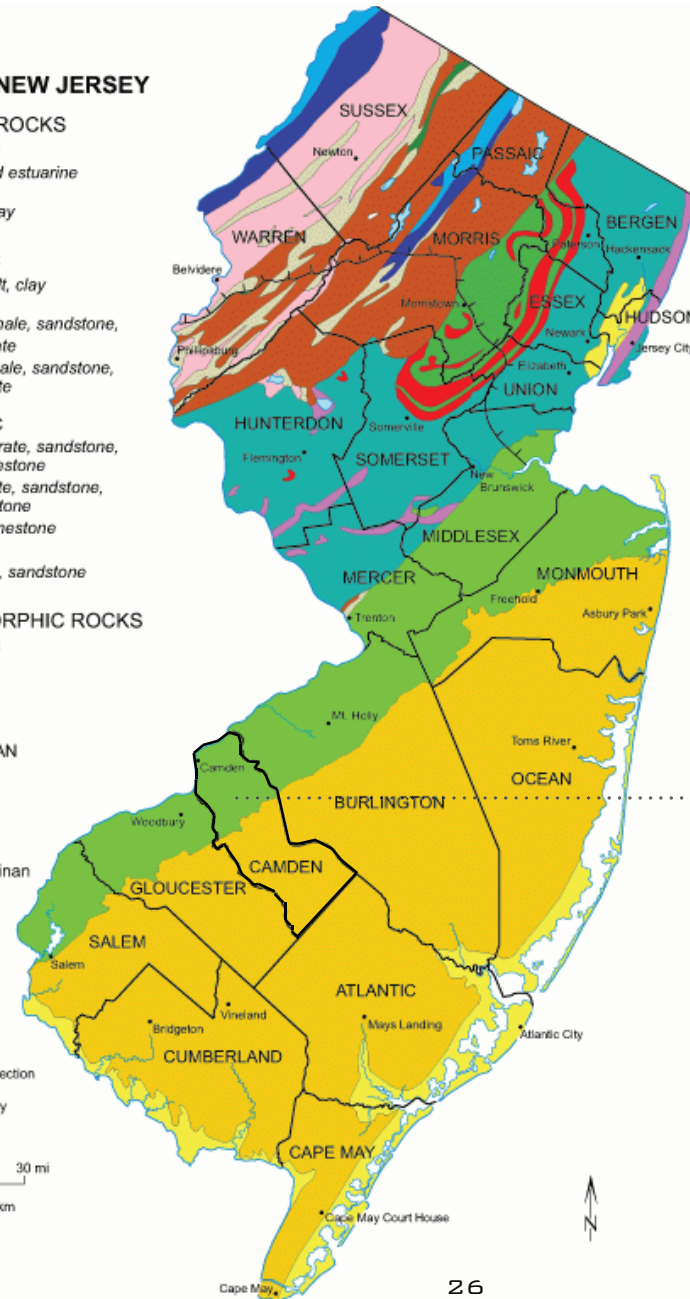
- MESOZOIC**
- Jurassic: basalt
  - Jurassic: diabase
- PRECAMBRIAN**
- marble
  - gneiss, granite

Limit of late Wisconsinan glaciation

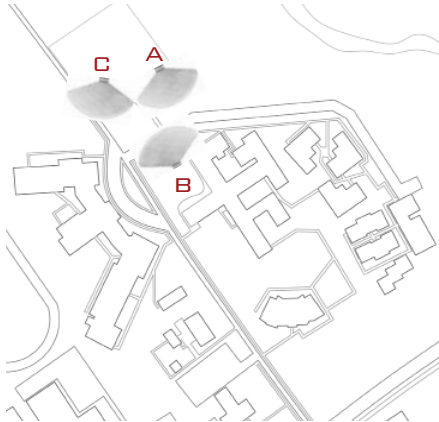
Department of Environmental Protection  
Land Use Management  
New Jersey Geological Survey  
2005

0 5 10 15 20 25 30 mi  
0 10 20 30 40 km

SCALE 1:1,000,000



## SITE VIEWS



- A VIEW FROM PROJECT SITE TO BANCROFT HALL
- B VIEW FROM BANCROFT HALL TO PROJECT SITE
- C VIEW FROM PROJECT SITE TO COOLEY SCHOOL





## SITE VIEWS



- A** VIEW FROM HOPKINS LANE TO HOPKINS POND
- B** HOPKINS POND
- C** VIEW FROM HOPKINS LANE TO HOPKINS POND

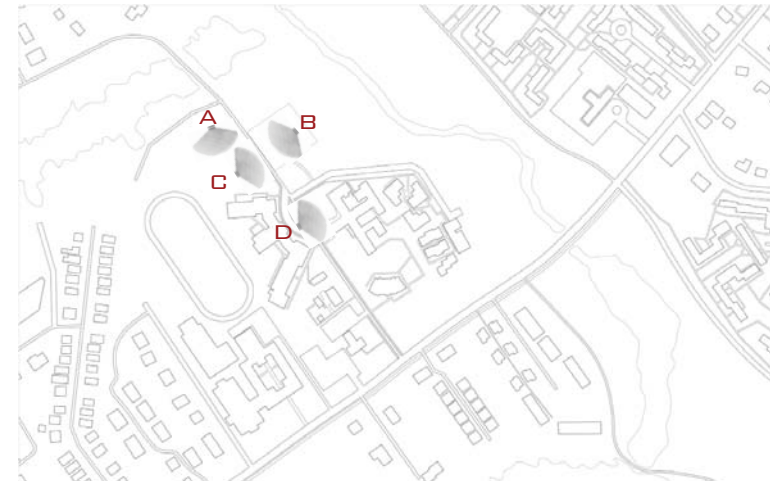




## SITE VIEWS



- A** VIEW FROM PARKING LOT TO COOLEY SCHOOL
- B** VIEW FROM PROJECT SITE TO PARKING LOT & PLAYGROUND
- C** VIEW FROM PARKING LOT TO ENTRANCE OF THE PROJECT SITE
- D** VIEW FROM SCHOOL TO BANGCROFT HALL





## SITE VIEWS



- A VIEW OF THE GREEN HOUSE
- B VIEW OF THE CARRIAGE HOUSE
- C UP CLOSE VIEW OF THE BANGCROFT HALL

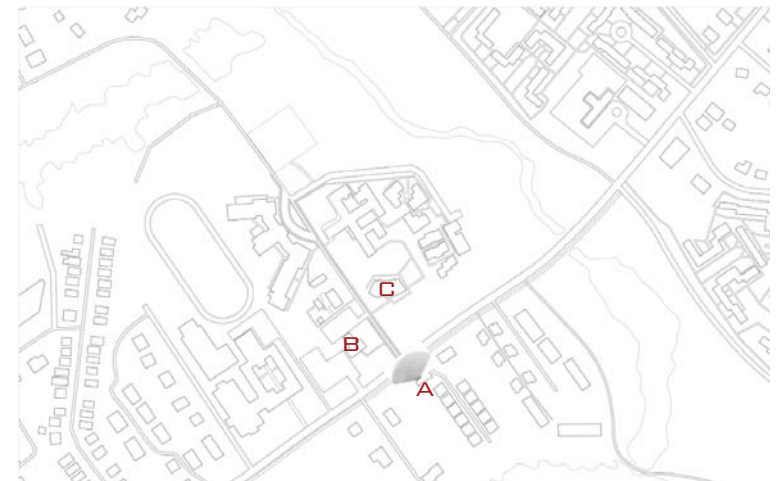




## SITE VIEWS



- A VIEW FROM KINGSWAY HIGHWAY TO  
ENTRANCE OF BANCROFT SCHOOL
- B VIEW OF LULLWORTH HALL
- C FRONT OF FARRINGTON HALL



## 1682-FRANCIS COLLINS

ELIZABETH HADDON, THE MOST ILLUSTRIOUS NAME IN HADDONFIELD HISTORY, IS CREDITED WITH FOUNDING HADDONFIELD. HOWEVER, FRANCIS COLLINS WAS ITS FIRST WHITE SETTLER. BORN IN 1635, A MEMBER OF THE RELIGIOUS SOCIETY OF FRIENDS, HE EMIGRATED FROM ENGLAND WITH HIS FAMILY TO BURLINGTON, THEN THE CAPITOL OF WEST JERSEY.

BY 1682, HE, AS A MASTER BRICKLAYER, COMPLETED THE CONSTRUCTION OF A MARKET HOUSE AND A COURT BUILDING IN THE CAPITOL. THE LEGISLATURE COMPENSATED HIM FOR HIS SERVICES WITH A GRANT OF LAND. COLLINS CHOSE A SERIES OF PARCELS WHICH INCLUDE THE PRESENT DAY HADDONFIELD. ONE OF THESE GAVE HIM FRONTAGE ON COOPER'S CREEK WHICH WAS THEN NAVIGABLE, PROVIDING TRANSPORTATION TO PHILADELPHIA AND BURLINGTON. COLLINS BUILT HIS OWN HOME ON A NEARBY PARCEL. THE BRICK HOUSE WHICH HE NAMED MOUNTWELL WAS LOCATED NEAR THE CORNER OF WHAT IS NOW CENTRE STREET AND COTTAGE AVENUE. MOUNTWELL WAS DESTROYED BY FIRE ABOUT APRIL 15, 1872.

FRANCIS COLLINS WAS A DISTINGUISHED CITIZEN WHO PLAYED AN IMPORTANT ROLE IN THE COMMUNITY'S EARLY GOVERNMENT. IN 1683 HE WAS ELECTED TO THE PROVINCIAL ASSEMBLY AND APPOINTED TO THE GOVERNOR'S COUNCIL. IN 1685, AS A COMMISSIONER OF HIGHWAYS, HE WAS RESPONSIBLE FOR LOCATING NEW ROADS, A TASK WHICH HAD IMPLICATIONS FOR THE FUTURE DEVELOPMENT OF THE STATE.

VIEYRA, DANIEL I. HISTORIC HOUSES IN HADDONFIELD: A PRESERVATION GUIDE. HADDONFIELD

## 1713-ELIZABETH HADDON

POEMS AND STORIES, SOME FACT, SOME MYTH, HAVE BEEN WRITTEN ABOUT THE ROMANTIC FIGURE OF THE YOUNG ELIZABETH ARRIVING IN THE NEW COUNTY IN 1701 AT THE AGE OF NINETEENTH TO TAKE UP HER FATHER'S LANDS. IN 1702 SHE MARRIED JOHN ESTAUGH, A QUAKER PREACHER, AND IN 1713 THEY BUILT THEIR FIRST HOME ON HER FAMILY'S LAND WITHIN THE BOUNDARIES OF PRESENT DAY HADDONFIELD AT THE SITE OF 201 WOOD LANE. SHE NAMED IT NEW HADDONFIELD (HADDON HEIGHTS) AFTER HER FATHER, THUS GIVING THE TOWN ITS NAME.

IN 1721, JOHN HADDON DEEDED A PIECE OF LAND NEAR KING'S HIGHWAY AND HADDON AVENUE TO THE RELIGIOUS SOCIETY OF FRIENDS WHERE THEY CONSTRUCTED A MEETING HOUSE AND CEMETERY. HADDON AVENUE, AT THAT TIME A WELL TRAVELED INDIAN TRAIL, WAS AN IMPORTANT ARTERY WHICH RAN NORTH TO THE DELAWARE RIVER AND PHILADELPHIA, THE CENTER OF COMMERCE. THUS, HADDONFIELD DEVELOPED AS A REGIONAL CENTER FOR WORSHIP AND TRANSPORTATION, BOTH IMPORTANT FACTORS IN THE GROWTH OF THE VILLAGE.

IN 1724 THE ESTAUGHS BOUGHT THE PART OF THE COLLINS TRACT ON THE NORTH SIDE OF KING'S HIGHWAY BETWEEN TANNER STREET AND AVONDALE AVENUE. IN DOING SO, THIS CREATED A PROPERTY BOUNDARY ALONG THE PRESENT DAY KING'S HIGHWAY, SPURRING RESIDENTIAL DEVELOPMENT ALONG THIS ROUTE. THIS FIXED THE FUTURE STREET PLAN OF THE TOWN AND LAID THE FOUNDATION FOR WHAT IS NOW KING'S HIGHWAY TO BE EXTENDED THROUGH HADDON HEIGHTS, MOUNT EPHRAIM AND OLD GLOUCESTER CITY, AS IT DEVELOPED INTO ONE OF THE COUNTY'S MAJOR THOROUGHFARES.

ELIZABETH HADDON ESTAUGH, BY HER FORCEFUL PERSONALITY AND GOOD WORKS LEFT AN INDELIBLE MARK ON HER COMMUNITY. SHE DIED AT THE AGE OF EIGHTY-TWO AND IS BURIED IN THE HISTORIC FRIENDS CEMETERY ON HADDON AVENUE. THE ESTAUGH HOME WAS DESTROYED BY FIRE IN 1842.

VIEYRA, DANIEL I. HISTORIC HOUSES IN HADDONFIELD: A PRESERVATION GUIDE. HADDONFIELD



## DEVELOPMENT OF THE VILLAGE

BY THE TIME OF THE REVOLUTIONARY WAR, HADDONFIELD HAD DEVELOPED INTO THE LARGEST VILLAGE AND TRADE CENTER IN THE AREA. ITS SITE POSSESSED ALL THE ESSENTIAL INGREDIENTS FOR THE GROWTH OF A COLONIAL VILLAGE: TIDAL WATER FOR TRANSPORTATION BY BOAT, A FORDING PLACE FOR ROADS, AND STREAMS THAT WOULD BE DAMMED TO PROVIDE WATER POWER FOR MILLS.

FROM THE FIRST SETTLEMENT IN 1682 TO THE REVOLUTIONARY WAR, VIRTUALLY ALL TRANSPORTATION OF GOODS WAS BY MEANS OF FLATBOATS FLOATING ON THE TIDAL STREAMS. PUBLIC LANDINGS WERE ESTABLISHED NEAR THE HEAD OF TIDEWATER WHERE PRODUCTS WERE BROUGHT FROM INLAND FOR SHIPMENT. THE COMMERCIAL BENEFITS TO THE AREA ADJACENT TO THESE LANDINGS AND THE SURROUNDING VILLAGE DEVELOPED AS COMMERCE GREW AND THE POPULATION INCREASED. THE ERECTION OF MILLS, USING THE POWER OF FLOWING STREAMS ABOVE TIDEWATER, FURTHER ADVANCED THE COMMERCIAL ADVANTAGES OF HADDONFIELD. AREA SETTLERS CAME TO ITS SAWMILLS FOR LUMBER AND TO GRISTMILLS TO HAVE GRAINS GROUND INTO MEAL OR FLOUR. THE FORDING PLACE OF THE COOPER RIVER WAS JUST ABOVE THE HEAD OF TIDEWATER. INDIAN TRAILS CONVERGED HERE TO CROSS THE WATERWAY, THEN BRANCHED OUT AGAIN IN VARIOUS DIRECTIONS.

ONE TRAIL FROM THE FORD RAN NORTHWARDLY TO THE DELAWARE RIVER WHERE CAMDEN IS TODAY. THIS TRAIL, NOW KNOWN AS HADDON AVENUE, STILL FOLLOWS ITS ORIGINAL ROUTE. LEADING TO COOPER'S FERRY, THE MOST CONVENIENT CROSSING PLACE ALONG THE DELAWARE, THIS TRAIL PROVIDED ACCESS TO PHILADELPHIA MARKETS. PHILADELPHIA, BY THE MID-1700S, HAD BECOME THE LARGEST BUSINESS AND CULTURAL CENTER IN GREAT BRITAIN'S AMERICAN COLONIES, PROVIDING A SUBSTANTIAL MARKET FOR ALL LOCAL PRODUCTS.

THE SECOND TRAIL HEADED WEST AND TERMINATED AT TODAY'S GLOUCESTER. THIS BRANCH IS NOW CALLED KING'S HIGHWAY, A NAME IT ACQUIRED EARLY IN THIS CENTURY. THE TRAIL FROM HADDONFIELD WAS USED AS PART OF THE ROUTE OF THE GREAT ROAD FROM BURLINGTON TO SALEM LAID OUT IN 1681 BY THE GENERAL ASSEMBLY OF WEST JERSEY AND COMPLETED FIVE YEARS LATER.

VIEYRA, DANIEL I. HISTORIC HOUSES IN HADDONFIELD: A PRESERVATION GUIDE. HADDONFIELD

## THE INDIAN KING

THE FOCAL POINT OF HADDONFIELD'S COLONIAL HISTORY IS THE INDIAN KING TAVERN O KING'S HIGHWAY, NOW PRESERVED AS A STATE MUSEUM. BUILT IN 1750 BY MATTHIAS ASPDEN, A WEALTHY PHILADELPHIA MERCHANT, IT HAD THE MOST ILLUSTRIOUS HISTORY OF THE FIVE TAVERNS BUILT IN HADDONFIELD BEFORE 1800.

IN 1777, NEW JERSEY LEGISLATORS, ROUTED FROM ONE MEETING PLACE TO ANOTHER BY THE ONSLAUGHT OF THE BRITISH ARMY, SELECTED HADDONFIELD AS A SAFE PLACE TO CONVENE. BEFORE ADJOURNING TO PRINCETON ON SEPTEMBER 24TH, THE LEGISLATURE DEBATED REFORM OF THE MILITIA LAWS, RAISED TROOPS, AND GRANTED DRAFT EXEMPTIONS TO IRON WORKERS CASTING MUNITIONS AT BATSTO FURNACE. TWO MOMENTOUS STEPS TOWARD FULL STATEHOOD OCCURRED HERE. AT THE INDIAN KING ON MAY 10TH, THE LEGISLATURE ADOPTED THE GREAT SEAL OF NEW JERSEY. ON SEPTEMBER 20TH, IT ENACTED A LAW SUBSTITUTING THE WORD "STATE" FOR "COLONY" IN ALL COMMISSIONS, WRITS AND INDICTMENTS. THE COUNCIL OF SAFETY, FORMED TO EXAMINE PERSONS ARRESTED AS TORRIES OR SUSPECTED OPPONENTS OF THE PATRIOT CAUSE ALSO MET AT THE INDIAN KING IN 1777.

REVOLUTIONARY HADDONFIELD WAS MORE THAN A REBEL SANCTUARY. LOCATED ON WEST JERSEY'S MAJOR NORTH-SOUTH ROAD ACROSS FROM THE FERRY TO PHILADELPHIA, HADDONFIELD RESIDENTS WITNESSED THE PASSAGE OF NUMEROUS UNITS FROM BOTH AMERICAN AND BRITISH ARMIES. AMONG THE WAR HEROES WHO QUARTERED IN HADDONFIELD WERE GENERAL NATHANIEL GREENE, ANTHONY WAYNE, COUNT PULASKI, THE MARQUIS DE LAFAYETTE AND "LIGHT HORSE" HARRY LEE.

ANOTHER LUMINARY FREQUENTING THE TAVERN WAS DOLLEY PAYNE OF PHILADELPHIA, A NIECE OF INNKEEPER HUGH CREIGHTON. SHE VISITED AND DANCED AT HER UNCLE'S INN BEFORE SHE MARRIED JAMES MADISON IN 1784 AND BECAME ONE OF HISTORY'S MOST CELEBRATED FIRST LADIES.

THE INDIAN KING CLOSED IN 1873 WHEN HADDONFIELD ELECTED TO PROHIBIT THE SALE OF LIQUOR, A LAW IN FORCE TO THIS DAY. REOPENING AS THE "AMERICAN HOUSE" THE BUILDING BECAME A BOARDING HOUSE AND ICE CREAM PARLOR. IN 1902 IT WAS PURCHASED BY THE STATE OF NEW JERSEY WHICH OPERATES IT AS A MUSEUM INTERPRETING THIS VITAL CHAPTER IN HADDONFIELD'S AND THE STATE'S HISTORY.

VIEYRA, DANIEL I. HISTORIC HOUSES IN HADDONFIELD: A PRESERVATION GUIDE. HADDONFIELD

## THE NINETEENTH CENTURY

DURING THE NINETEENTH CENTURY, THE INDUSTRIAL REVOLUTION TRANSFORMED TOWNS AND CITIES ACROSS THE UNITED STATES. THE CHANGES IN HADDONFIELD MIRRORED THIS NATIONAL TREND. CARRIAGE-BUILDERS, WAGON MAKERS, SHOEMAKERS, TANNERS, AND POTTERY MAKERS AND OTHER TRADES WERE CARRIED ON, MAKING HADDONFIELD THE CENTER OF COMMERCE.

ANOTHER MAJOR EVENT THAT HAD AN EFFECT ON THE GROWTH OF HADDONFIELD WAS THE ADVENT OF THE CAMDEN AND ATLANTIC RAILROAD IN 1852. IT RAN THROUGH HADDONFIELD ON A ROUTE CONNECTING CAMDEN WITH ATLANTIC CITY BRINGING ECONOMICAL AND UP TO DATE TRANSPORTATION TO THE AREA.

A NUMBER OF PROSPEROUS MERCHANTS AND NOTABLE PROFESSIONALS BUILT ELEGANT HADDONFIELD RESIDENCES THE DESIGN OF WHICH REFLECTED THEIR OWNERS' SUCCESS AND STATUS. QUITE A FEW OF THESE VICTORIAN MANSIONS SURVIVE. THE WORK OF EMINENT ARCHITECTS SUCH AS SAMUEL SLOAN AND BUILDERS SUCH AS JACOB CLEMENT AND WILLIAM COFFIN SHINN, ENRICH THE ARCHITECTURAL HERITAGE OF HADDONFIELD. A WELL KNOWN EXAMPLE IS THE HOUSE DESIGNED BY SAMUEL SLOAN AT 200 WASHINGTON AVENUE BUILT BY WILLIAM COFFIN SHINN FOR WILLIAM MASSEY, A WEALTHY PHILADELPHIAN AND FOUNDER AND PRESIDENT OF THE CAMDEN AND ATLANTIC RAILROAD.

IN 1861 HADDONFIELD CONTAINED ABOUT ONE HUNDRED FIFTY DWELLINGS, FOUR HOUSES OF PUBLIC WORSHIP, FIVE MERCANTILE STORES, TWO GRIST MILLS, TWO TANNERIES AND A LARGE WOOLEN FACTORY. ON APRIL 6, 1875 THE VILLAGE OF HADDONFIELD OFFICIALLY BECAME A BOROUGH. THE NEW BOROUGH HAD A POPULATION OF APPROXIMATELY ONE THOUSAND TWO HUNDRED PEOPLE.

TODAY HADDONFIELD'S POPULATION OF TWELVE THOUSAND FIVE HUNDRED LIVES IN 4,500 HOUSEHOLDS MAKE UP THE COMMUNITY. THROUGH THE PROTECTION AFFORDED BY THE HADDONFIELD HISTORIC DISTRICT ORDINANCE THE COMMUNITY HAS INCLUDED PRESERVATION AS A VITAL PART OF ITS PLANNING PROCESS, INSURING THAT HADDONFIELD'S HISTORIC CHARACTER WILL BE PRESERVED FOR THE FUTURE.

VIEYRA, DANIEL I. HISTORIC HOUSES IN HADDONFIELD: A PRESERVATION GUIDE. HADDONFIELD

# REGULATORY ENVIRONMENT



“THE ARCHITECT SHOULD STRIVE CONTINUALLY TO SIMPLIFY; THE ENSEMBLE OF THE ROOMS SHOULD THEN BE CAREFULLY CONSIDERED THAT COMFORT AND UTILITY MAY GO HAND IN HAND WITH BEAUTY.”

~FRANK LLOYD WRIGHT

[HTTP://WWW. QUOTES: THINKEXIST.COM](http://www.quotes.thinkexist.com)

THIS PROJECT SITE IS LOCATED AT 563 HOPKINS LANE, ON THE BANGROFT NEURO-HEALTH CAMPUS. THE SITE SITS OPPOSITE FROM COOLEY HALL AND ADJACENT TO THE MARGARET HOUSE. THE SITE IS WITHIN THE R2 (RESIDENTIAL 2 DISTRICT).

THE AREA OF THE PROJECT SITE IS A PRE-EXISTING PARKING LOT. THE SITE CONTAINS AROUND 25,000 SQUARE FEET AND IS THE NORTHERN MOST LOT ON THE CAMPUS. THE BOUNDARIES OF THE SITE ARE ALL LINEAR AND THE SITE ITSELF IS SURROUNDED ON THREE SIDES BY TREES. THE NORTHERN, EASTERN AND SOUTHERN BOUNDARIES ARE MARKED BY AND EDGE OF TREES. THE NORTH AND EAST SIDES GIVE CLEAR VIEWS TO THE WATER THAT SITS RIGHT ON THE OTHER SIDE OF THE WOODS. THE WESTERN SIDE OF THE SITE GIVES ACCESS TO THE MAIN ROAD, WHICH DEFINES THE WESTERN EDGE.

## CONSTRUCTION CODES:

### A.

THERE IS HEREBY ESTABLISHED IN THE BOROUGH OF HADDONFIELD A STATE UNIFORM CONSTRUCTION CODE ENFORCING AGENCY, TO BE KNOWN AS THE “HADDONFIELD CONSTRUCTION CODE OFFICE,” CONSISTING OF A CONSTRUCTION CODE OFFICIAL, BUILDING SUBCODE OFFICIAL, PLUMBING SUBCODE OFFICIAL, FIRE SUBCODE OFFICIALS FOR SUCH ADDITIONAL SUBCODES AS THE CONSTRUCTION COMMISSION OF THE DEPARTMENT OF COMMUNITY AFFAIRS, STATE OF NEW JERSEY, SHALL HEREINAFTER ADOPT AS PART OF THE STATE UNIFORM CONSTRUCTION CODE. THE CONSTRUCTION CODE OFFICIAL SHALL BE THE CHIEF ADMINISTRATOR OF THE ENFORCING AGENCY.

### B.

EACH OFFICIAL POSITION CREATED IN SUBSECTION A HEREOF SHALL BE FILLED BY A PERSON QUALIFIED FOR SUCH POSITION PURSUANT TO N.J.S.A. 52:27D-119 ET SEQ., AND THE REGULATIONS PROMULGATED PURSUANT THERETO, PROVIDED THAT, IN LIEU OF ANY PARTICULAR SUBCODE OFFICIAL, AN ON-SITE INSPECTION AGENCY MAY BE RETAINED BY CONTRACT PURSUANT TO THE AFOREMENTIONED REGULATIONS. MORE THAN ONE SUCH OFFICIAL POSITION MAY BE HELD BY THE SAME PERSON, PROVIDED THAT SUCH PERSON IS QUALIFIED PURSUANT TO N.J.S.A. 52:27D-119 ET SEQ, AND THE REGULATIONS PROMULGATED THEREUNDER, TO HOLD EACH SUCH POSITION.

### C.

THE PUBLIC SHALL HAVE THE RIGHT TO DO BUSINESS WITH THE ENFORCING AGENCY AT ONE OFFICE LOCATION EXCEPT FOR EMERGENCIES AND UNFORESEEN OR UNAVOIDABLE CIRCUMSTANCES.



## SECTION 305 ~ EDUCATIONAL GROUP E

305.1 EDUCATIONAL GROUP E

EDUCATIONAL GROUP E OCCUPANCY INCLUDES, AMONG OTHERS, THE USE OF A BUILDING OR STRUCTURE, OR A PORTION THEREOF, BY SIX OR MORE PERSONS AT ANY ONE TIME FOR EDUCATIONAL PURPOSES THROUGH THE 12TH GRADE. RELIGIOUS EDUCATIONAL ROOMS AND RELIGIOUS AUDITORIUMS, WHICH ARE ACCESSORY TO PLACES OF RELIGIOUS WORSHIP IN ACCORDANCE WITH SECTION 508.3.1 AND HAVE OCCUPANT LOADS OF LESS THAN 100, SHALL BE CLASSIFIED AS A-3 OCCUPANCIES.

305.2 DAY CARE

THE USE OF A BUILDING OR STRUCTURE, OR PORTION THEREOF, FOR EDUCATIONAL, SUPERVISION OR PERSONAL CARE SERVICES FOR MORE THAN FIVE CHILDREN OLDER THAN 2 1/2 YEARS OF AGE, SHALL BE CLASSIFIED AS A GROUP E OCCUPANCY.

## SECTION 404 ~ ATRIUMS

401.1 GENERAL

IN OTHER THAN GROUP H OCCUPANCIES, AND WHERE PERMITTED BY EXCEPTION 5 IN SECTION 707.2, THE PROVISIONS OF THIS SECTION SHALL APPLY TO BUILDINGS OR STRUCTURES CONTAINING VERTICAL OPENINGS DEFINED AS "ATRIUMS".

401.1 DEFINITION

THE FOLLOWING WORD AND TERM SHALL, FOR THE PURPOSES OF THIS CHAPTER AS USED ELSEWHERE IN THIS CODE, HAVE THE MEANING SHOWN HEREIN.

ATRIUM

AN OPENING CONNECTING TWO OR MORE STORIES OTHER THAN ENCLOSED STAIRWAYS, ELEVATORS, HOISTWAYS, ESCALATORS, PLUMBING, ELECTRICAL, AIR-CONDITIONING OR OTHER EQUIPMENT, WHICH IS CLOSED AT THE TOP AND NOT DEFINED AS A MALL. STORIES, AS USED IN THIS DEFINITION, DO NOT INCLUDE BALCONIES WITHIN ASSEMBLY GROUPS OR MEZZANINES THAT COMPLY WITH SECTION 505.

#### 404.2 USE

THE FLOOR OF THE ATRIUM SHALL NOT BE USED FOR OTHER THAN LOW FIRE HAZARD USES AND ONLY APPROVED MATERIALS AND DECORATIONS IN ACCORDANCE WITH THE INTERNATIONAL FIRE CODE SHALL BE USED IN THE ATRIUM SPACE.

EXCEPTION:

THE ATRIUM FLOOR AREA IS PERMITTED TO BE USED FOR ANY APPROVAL USE WHERE THE INDIVIDUAL SPACE IS PROVIDED WITH AN AUTOMATIC SPRINKLER IN ACCORDANCE WITH SECTION 903.3.1.1.

#### 404.3 AUTOMATIC SPRINKLER PROTECTION

AN APPROVED AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED THROUGHOUT THE ENTIRE BUILDING.

EXCEPTIONS:

1. THAT AREA OF A BUILDING ADJACENT TO OR ABOVE THE ATRIUM NEED NOT BE SPRINKLERED, PROVIDED THAT PORTION OF THE BUILDING IS SEPERATED FROM THE ATRIUM PORTION BY NOT LESS THAN A 2-HOUR FIRE RESISTANCE RATED FIRE BARRIER OR HORIZONTAL ASSEMBLY, OR BOTH.
2. WHERE THE CEILING OF THE ATRIUM IS MORE THAN 55 FEET (16764 MM) ABOVE THE FLOOR, SPRINKLER PROTECTION AT THE CEILING OF THE ATRIUM IS NOT REQUIRED.

#### 404.3 SMOKE CONTROL

A SMOKE CONTROL SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 909.

EXCEPTION:

SMOKE CONTROL IS NOT REQUIRED FOR ATRIUMS THAT CONNECT ONLY TWO STORIES.

#### 404.5 ENCLOSURE OF ATRIUMS

ATRIUM SPACES SHALL BE SEPARATED FROM ADJACENT SPACES BY A 1-HOUR FIRE BARRIER CONSTRUCTED IN ACCORDANCE WITH SECTION 706 OR A HORIZONTAL ASSEMBLY CONSTRUCTED IN ACCORDANCE WITH SECTION 711, OR BOTH.

## EXCEPTIONS:

1. A GLASS WALL FORMING A SMOKE PARTITION WHERE AUTOMATIC SPRINKLERS ARE SPACE 6 FEET OR LESS ALONG BOTH SIDES OF THE SEPARATION WALL, OR ON THE ROOM SIDE ONLY IF THERE IS NOT A WALKWAY ON THE ATRIUM SIDE, AND BETWEEN 4 INCHES AND 12 INCHES AWAY FROM THE GLASS AND DESIGNED SO THAT THE ENTIRE SURFACE OF THE GLASS IS WET UPON ACTIVATION OF THE SPRINKLER SYSTEM WITHOUT OBSTRUCTION. THE GLASS SHALL BE INSTALLED IN A GASKETED FRAME SO THAT THE FRAMING SYSTEM DEFLECTS WITHOUT BREAKING (LOADING) THE GLASS BEFORE THE SPRINKLER SYSTEM OPERATES.
2. A GLASS-BLOCK WALL ASSEMBLY IN ACCORDANCE WITH SECTION 2110 AND HAVING A 3/4-HOUR FIRE PROTECTION RATING.
3. THE ADJACENT SPACES OF ANY THREE FLOORS OF THE ATRIUM SHALL NOT BE REQUIRED TO BE SEPARATED FROM THE ATRIUM WHERE SUCH SPACES ARE INCLUDED IN THE DESIGN OF THE SMOKE CONTROL SYSTEM.

### 404.6 STANDBY POWER

EQUIPMENT REQUIRED TO PROVIDE SMOKE CONTROL SHALL BE CONNECTED TO A STANDBY POWER SYSTEM IN ACCORDANCE WITH SECTION 909.11.

### 404.7 INTERIOR FINISH

THE INTERIOR FINISH OF WALLS AND CEILINGS OF THE ATRIUM SHALL NOT BE LESS THAN CLASS B WITH NO REDUCTION IN CLASS FOR SPRINKLER PROTECTION.

### 404.8 TRAVEL DISTANCE

IN OTHER THAN THE LOWEST LEVEL OF THE ATRIUM, WHERE THE REQUIRED MEANS OF EGRESS IS THROUGH THE ATRIUM SPACE, THE PORTION OF EXIT ACCESS TRAVEL DISTANCE WITHIN THE ATRIUM SPACE SHALL NOT EXCEED 200 FEET.

# PRECEDENT ANALYSIS



"A SCHOOL BUILDING HAS NO MEANING EXCEPT IN TERMS OF THE LIFE GIVEN IT BY CHILDREN AND TEACHERS, PARENTS AND CITIZENS. THE DESIGN OF A SCHOOL BEGINS WITH THE DESIGN OF THE THINGS THAT TAKE PLACE IN IT. THE PATTERN OF ACTIVITIES TAKES ITS SHAPE FROM THE DESIRES OF SOCIETY FOR ITS YOUNG DESIRES COMPOUNDED OUT OF HOPES AND LOVE OF PARENTS, THE THINKING OF PHILOSOPHERS AND THE SPOKESMAN OF SOCIETY, THE UNDERSTANDINGS OF HUMAN BEINGS GAINED BY SCIENTISTS, AND THE EXPERIENCE AND INSIGHTS OF TEACHERS".

PLANNING ELEMENTARY SCHOOL  
BUILDINGS

# MONTESSORI CHILDREN'S SCHOOL

MARYANN THOMPSON ARCHITECTS  
STAMFORD, CT  
COMPLETION: 2008  
KINDERGARTEN/PRESCHOOL/EARLY  
EDUCATION/NURSERY, AGES 2-8  
CAPACITY: 120





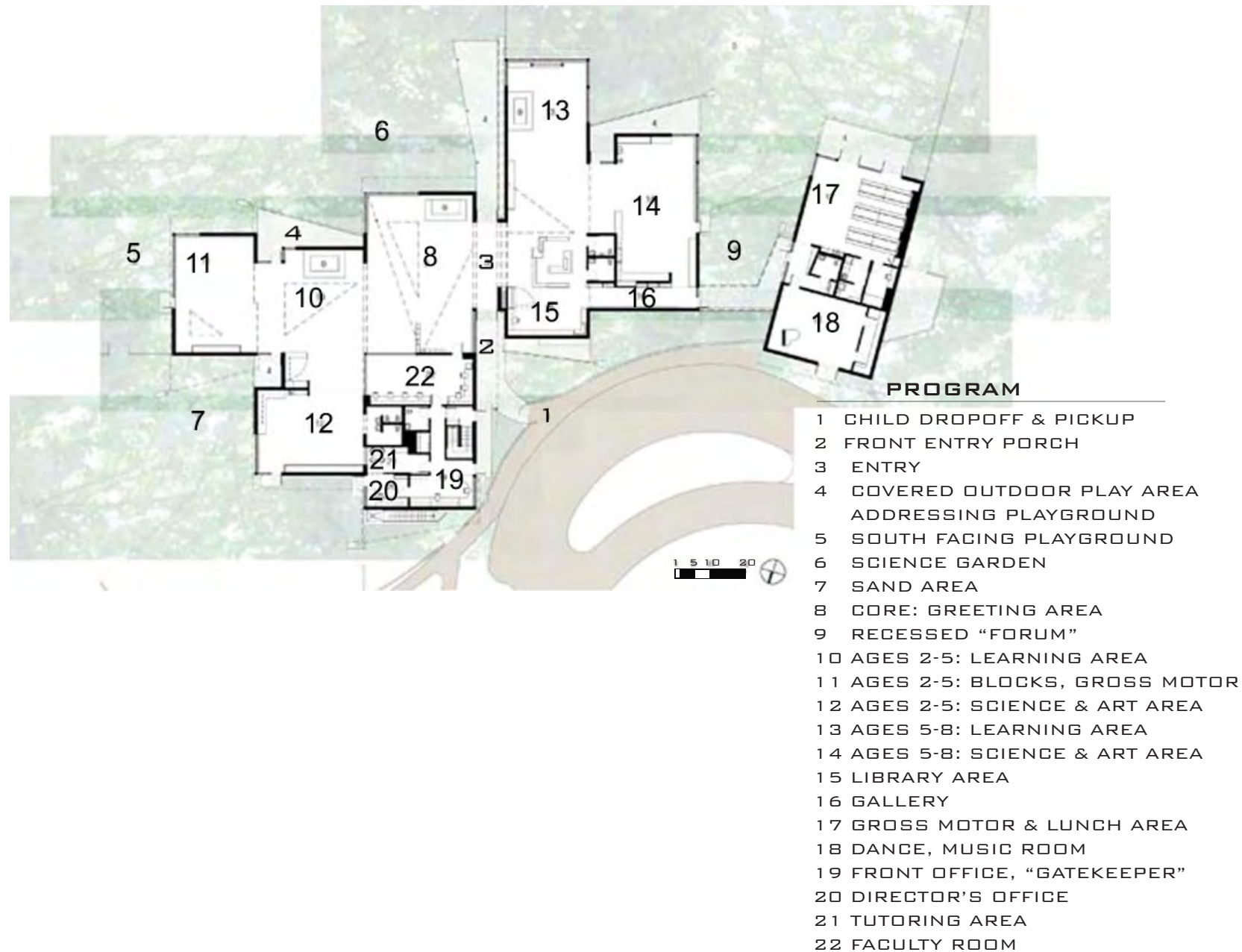
# MONTESSORI CHILDREN'S SCHOOL



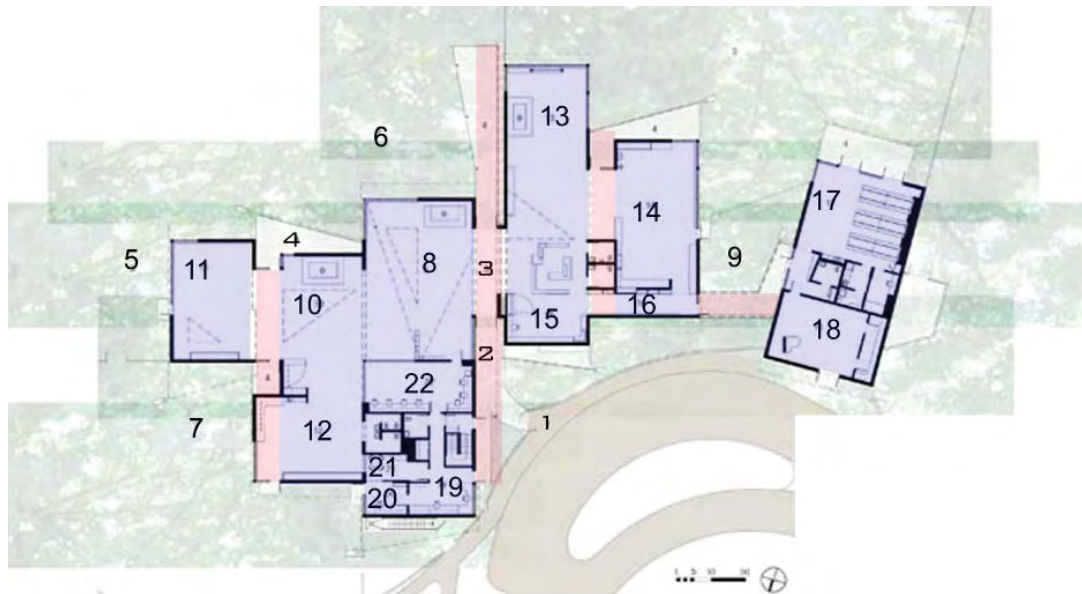
## SITE PROGRAM

- 1 EXISTING HOUSE-SMALL MEETING ROOMS
- 2 EXISTING HOUSE ADMINISTRATIVE OFFICES
- 3 VISITOR PARKING
- 4 STAFF PARKING
- 5 LINE UP AREA
- 6 DROP OFF/PICK UP
- 7 PREVIOUS SCHOOL LOCATION
- 8 ART BARN
- 9 SAND AREA
- 10 SCIENCE GARDEN

# MONTESSORI CHILDREN'S SCHOOL

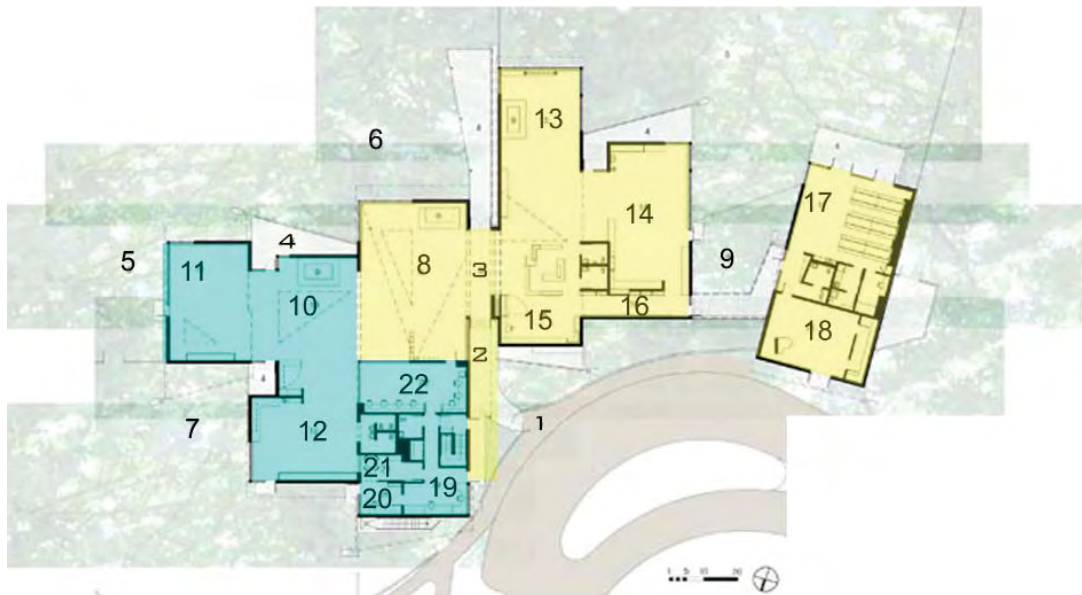


# MONTESSORI CHILDREN'S SCHOOL



RED: MAIN CIRCULATION

BLUE: VOLUME GRID

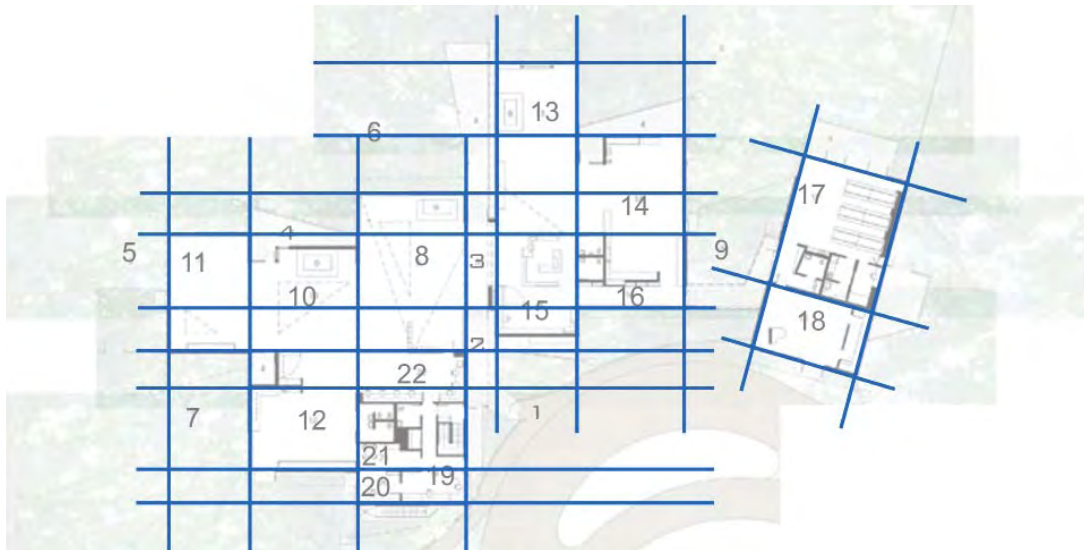


PRIVATE VS PUBLIC

# MONTESSORI CHILDREN'S SCHOOL



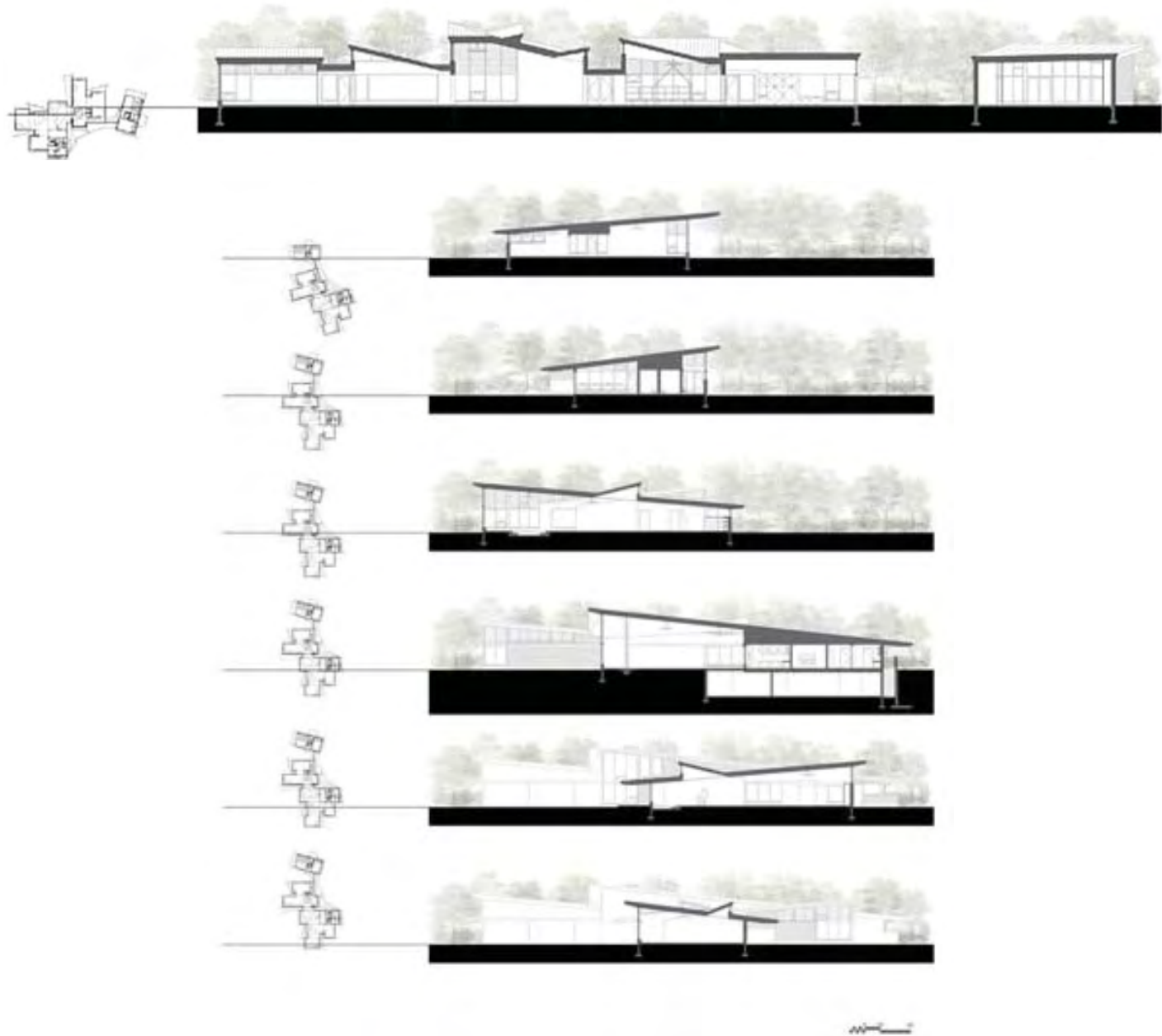
GREEN SPACES



STRUCTURAL GRID



# MONTESSORI CHILDREN'S SCHOOL





# MONTESSORI CHILDREN'S SCHOOL





# MONTESSORI CHILDREN'S SCHOOL



# NETLEY AUTISTIC UNIT AND COMMUNITY CENTRE



**HAVERSTOCK ASSOCIATES**  
**CAMDEN, NJ**  
**COMPLETION: SEPTEMBER, 2003**

# NETLEY AUTISTIC UNIT AND COMMUNITY CENTRE



- PROGRAM**
- ENTRANCE/LOBBY
  - COMMUNITY ROOM
  - CLASSROOMS
  - MULTIPURPOSE SPACES
  - OFFICE SPACES
  - RESTROOMS
  - STORAGE



AUTISTIC UNIT VS  
COMMUNITY CENTRE



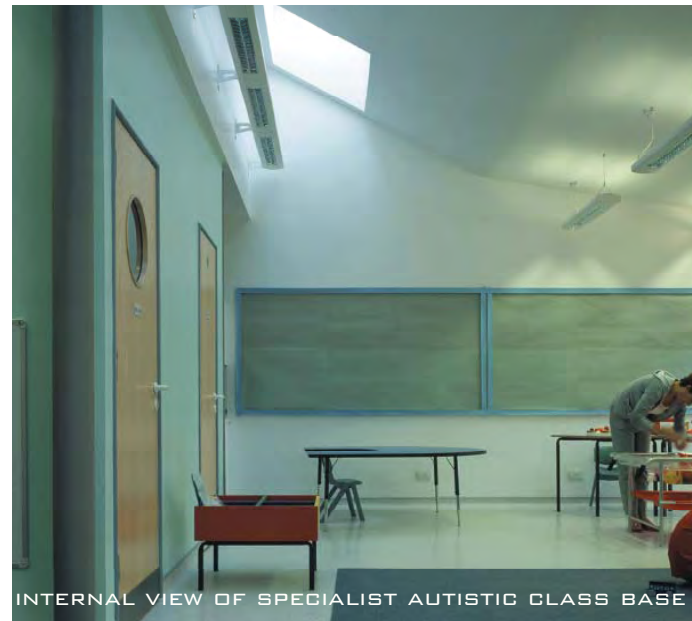
# NETLEY AUTISTIC UNIT AND COMMUNITY CENTRE



AUTISTIC CHILDREN CENTER



INTERNAL VIEW OF CIRCULATION  
IN COMMUNITY CENTRE



INTERNAL VIEW OF SPECIALIST AUTISTIC CLASS BASE



## PRESCHOOL IN VIENNA



**HEINZ LUTTER ARCHITECTS**

VIENNA, AUSTRIA

COMPLETION: 2008

AREA: 4100 SQ FT

COMPLETION: 1997



Upper floor



Ground floor

## PRESCHOOL IN VIENNA



## PRESCHOOL IN VIENNA



AUTISTIC CHILDREN CENTER



78 PRECEDENT ANALYSIS



## PRESCHOOL IN VIENNA



# DESIGN PROCESS



LIFE IS RICH, ALWAYS CHANGING, ALWAYS CHALLENGING, AND WE ARCHITECTS HAVE THE TASK OF TRANSMITTING INTO WOOD, CONCRETE, GLASS AND STEEL, OF TRANSFORMING HUMAN ASPIRATIONS INTO HABITABLE AND MEANINGFUL SPACE.

- ARTHUR ERICKSON

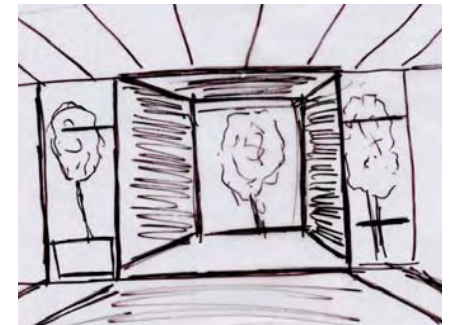
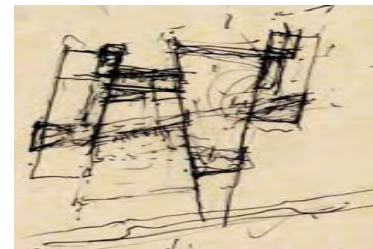


## CONCEPTUAL IDEAS

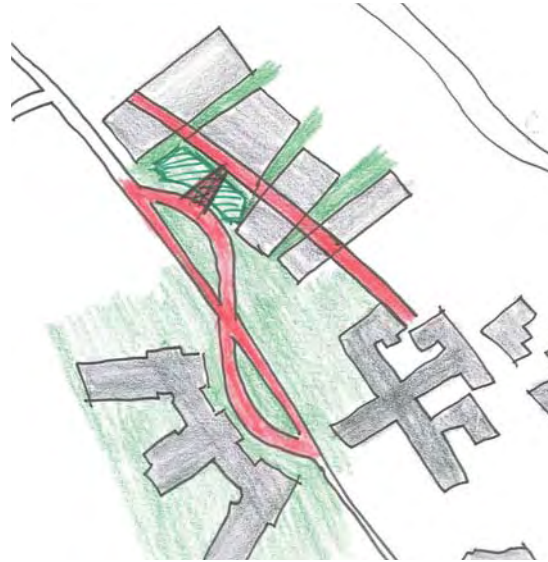
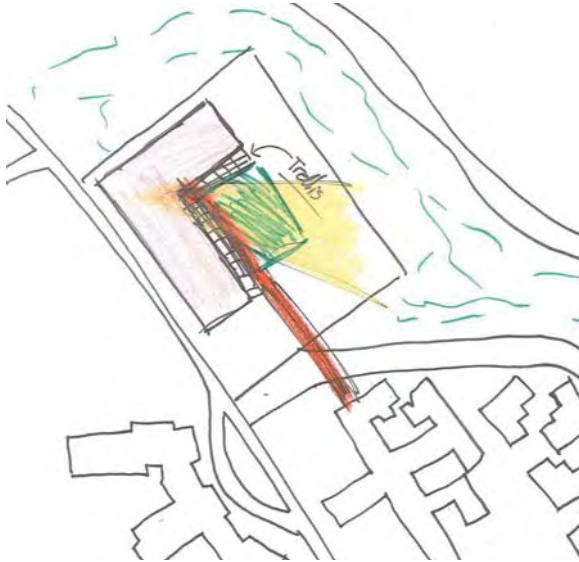
THROUGHOUT THE BEGINNING OF MY RESEARCH ONE OF THE MOST EVIDENT OBSERVATIONS THAT I MADE WAS THE FACT THAT THERE WAS A BOUNDARY BETWEEN THE COMMUNITY AND THE AUTISTIC CHILDREN IN HADDONFIELD, NEW JERSEY.

A NON-SOCIAL INTERACTION BETWEEN EACH OTHER UNLESS YOU WERE RELATED. IT CREATED A DYNAMIC ON HOW PEOPLE WERE INTERACTING; AT A PRIVATE AND PUBLIC LEVEL.

BY MAKING A CONNECTION BETWEEN PATHS OF THE COMMUNITY TO THE BUILDING A SOCIAL INTERACTION WOULD PROGRESS. TO DO THIS THE USE OF DIFFERENT TYPES OF MATERIALS WILL BE TAKEN INTO THE DESIGN PROCESS. SPATIAL RELATIONSHIPS WILL BE TAKEN INTO ACCOUNT AND THE USE OF THE SURROUNDING NATURE WILL BECOME A DESIGN FEATURE TO ALLOW WIND AND SUN TO THE BUILDING IN A CONSIDERATE WAY SO AS TO PROTECT THESE CHILDREN.



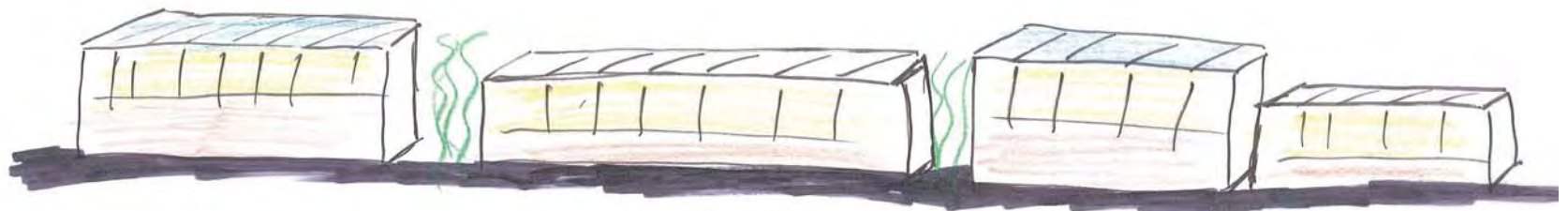
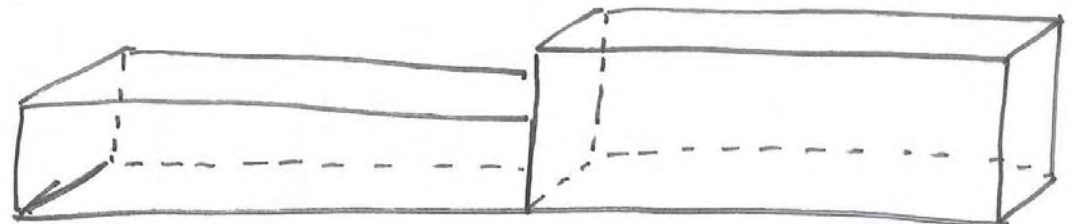
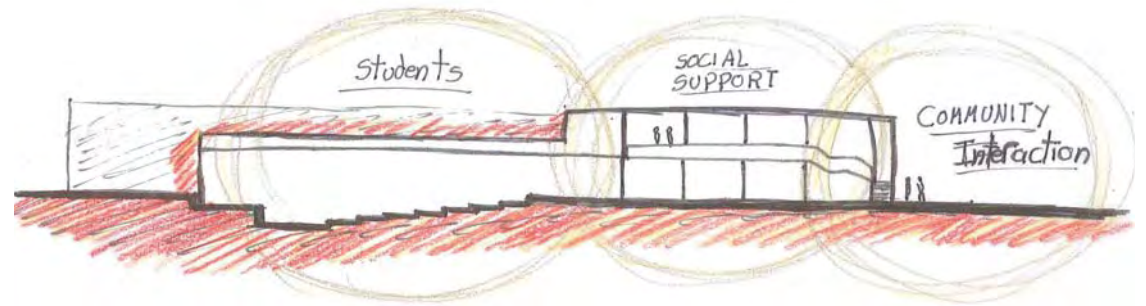
## DESIGN CONSIDERATIONS



1. A SITE STRATEGY THAT WOULD ENGAGE THE SURROUNDING COMMUNITY AND IMPROVE THE BUILT ENVIRONMENT.
2. CONNECTIONS BETWEEN BUILDINGS, WALKWAY PATHWAYS, AND GREEN SPACES.
3. RESPOND TO THE SURROUNDING SITE; TREES, RIVER, WIND, SUN, ETC.
4. A DESIGN THAT OFFERS SPACES FOR BOTH THE STUDENTS AND THE COMMUNITY TO INTERACT.
5. CREATE THE ABILITY FOR EXPANSION IN THE FUTURE.

## DESIGN CONSIDERATIONS

1. THE LOCATION OF THE AUTISTIC CENTER IS IMPORTANT IN ORDER TO ESTABLISH A RELATIONSHIP WITH THE MEMBERS OF THE COMMUNITY AS WELL AS TO CREATE ITS OWN PRIVACY AT CERTAIN MOMENTS.
2. THE MASSING AND MATERIALITY OF THE BUILDING MUST RESPOND TO THE SOLAR ORIENTATION OF THE SITE IN ORDER TO CREATE A SUITABLE ATMOSPHERE FOR THE STUDENTS.





## SCHEME I



SECOND FLOOR PLAN

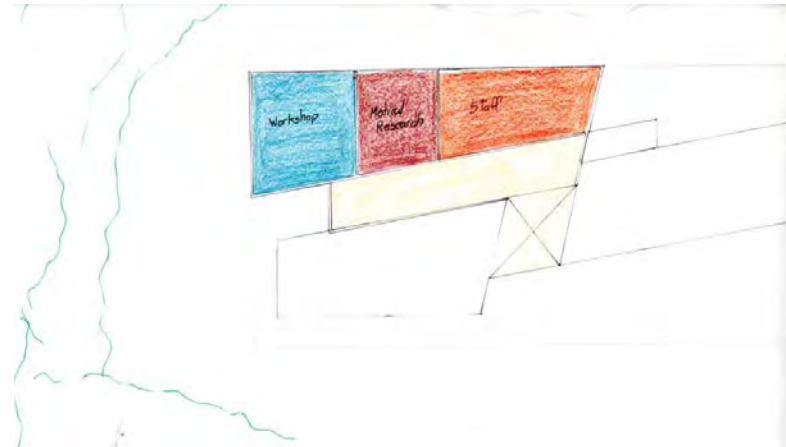
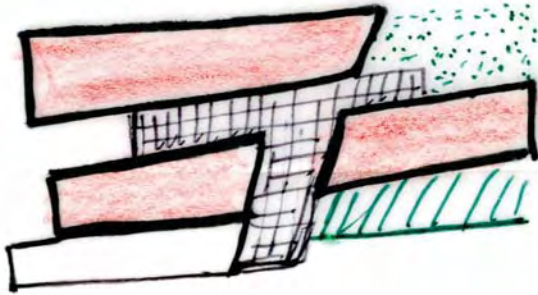


FIRST FLOOR PLAN



THE EXPLORATION OF THIS LAYOUT WAS BASED ON THE IDEA OF A CLUSTER ARRANGEMENT WHERE ONE CIRCULATION TOWER WOULD BE THE FOCAL POINT OF THE BUILDING.



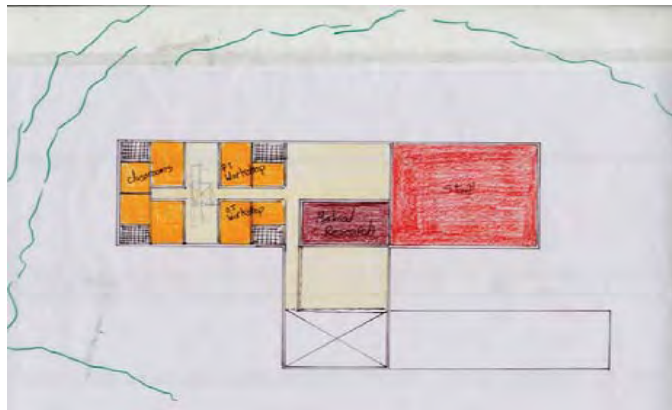


SECOND FLOOR PLAN

THE EXPLORATION OF THIS LAYOUT WAS BASED ON THE IDEA OF A CONNECTION PATH BETWEEN THE ORIGINAL AUTISTIC SCHOOL AND THE DORMITORIES ON THE RIGHT HAND SIDE. A PATH THAT LEADS TO THE MAIN ENTRANCE OF THE BUILDING.



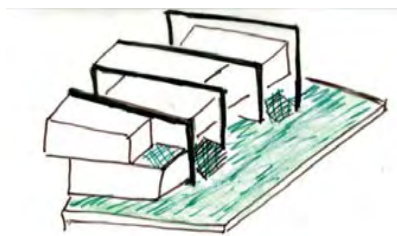
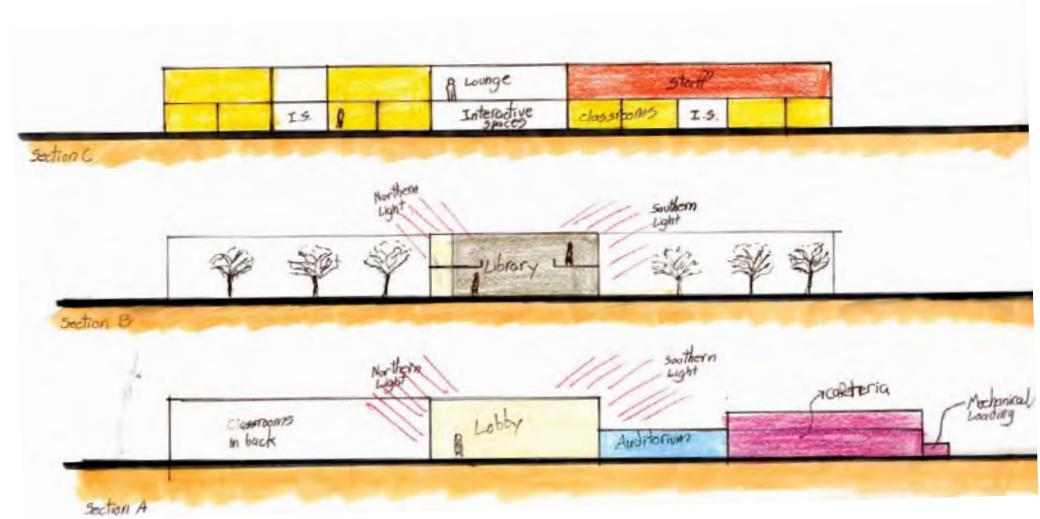
FIRST FLOOR PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN

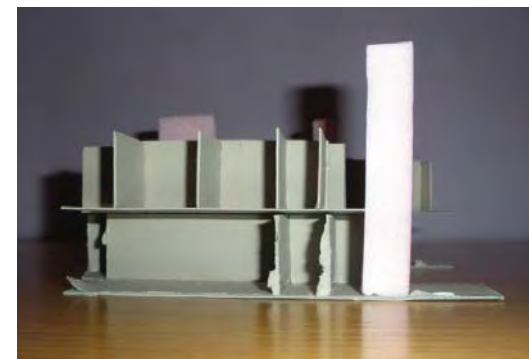
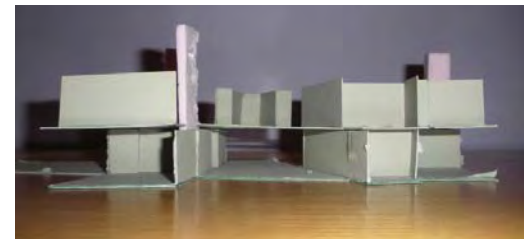
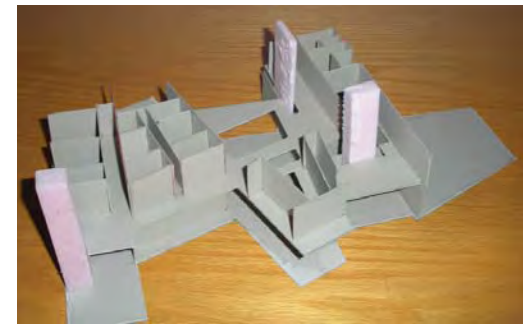




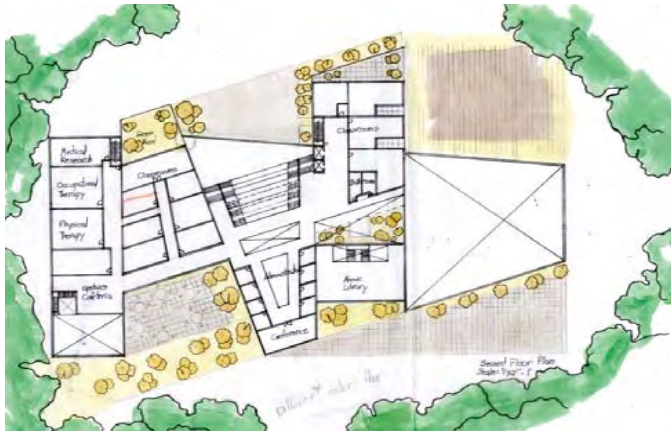
## SCHEME IV



AUTISTIC CHILDREN CENTER



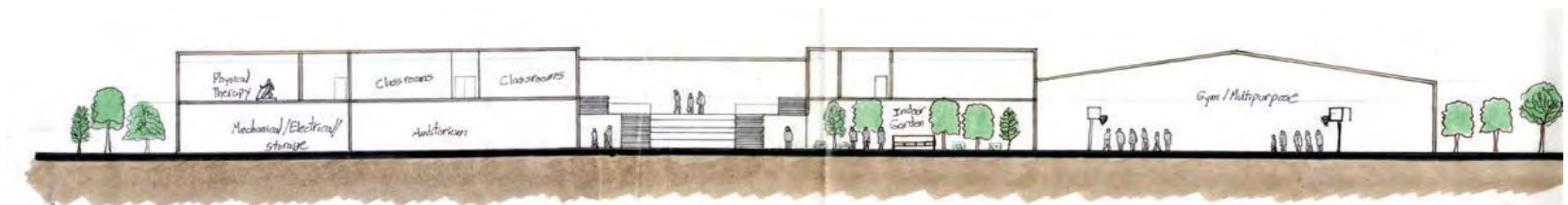
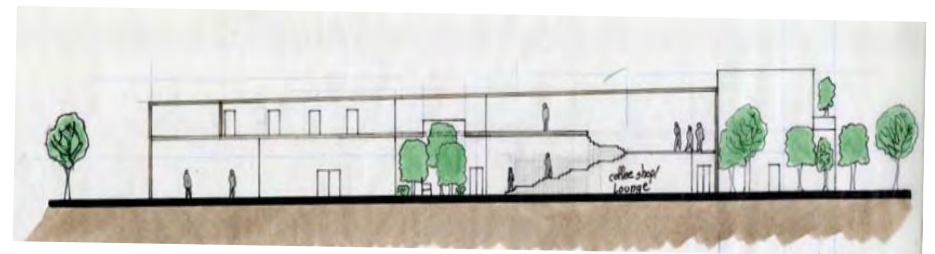
## SCHEME IV



SECOND FLOOR PLAN

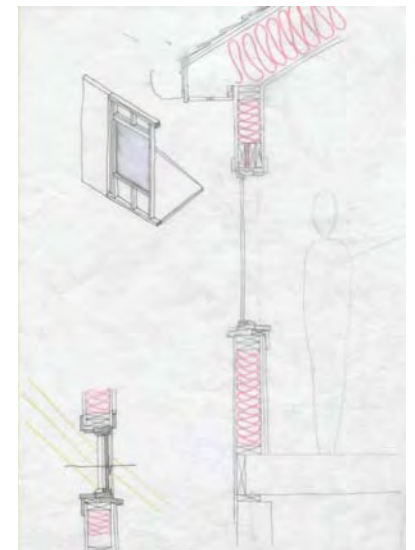
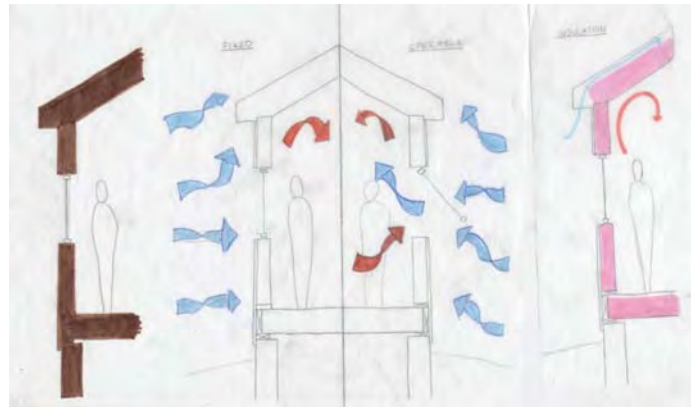
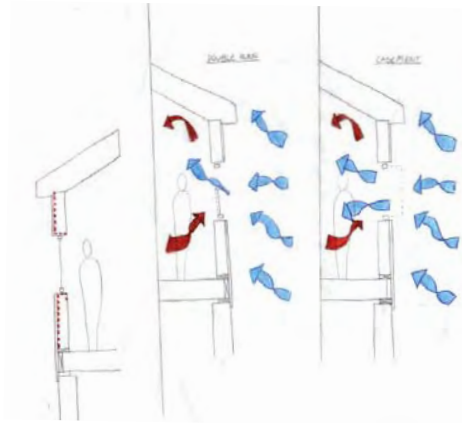


FIRST FLOOR PLAN

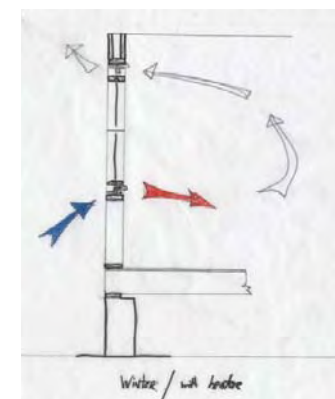




## STUDY ON WINDOW DETAILS



THE EXPLORATION OF WINDOWS WERE A BIG COMPONENT WITHIN THE DESIGN OF THIS BUILDING. A LOOK ON HOW COOLING AND HEATING WORKS AND HOW THE CHILDREN MAY REACT TO THE AMOUNT OF GLAZING AND NOISE WITHIN THE BUILDING. UNLIKE REGULAR PEOPLE WITHOUT AUTISM MANY OF THESE CHILDREN ARE AFFECTED BY THE SLIGHTEST NOISE OR GLARE. EVERYTHING MUST BE TAKEN INTO ACCOUNT.

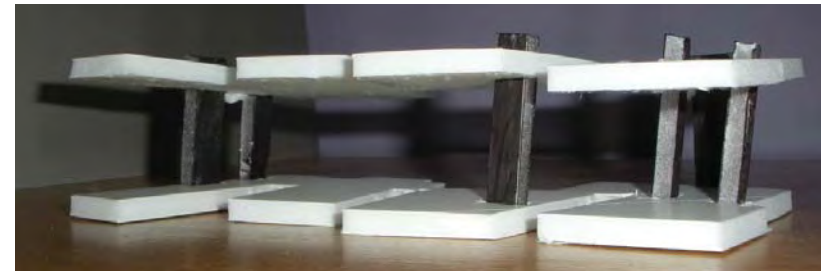
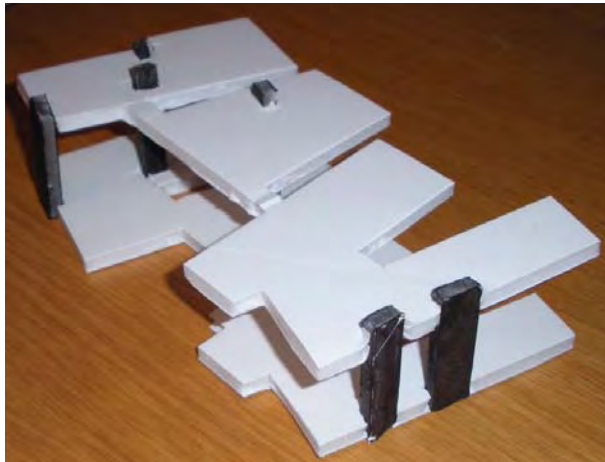


## PROCESS MODELS

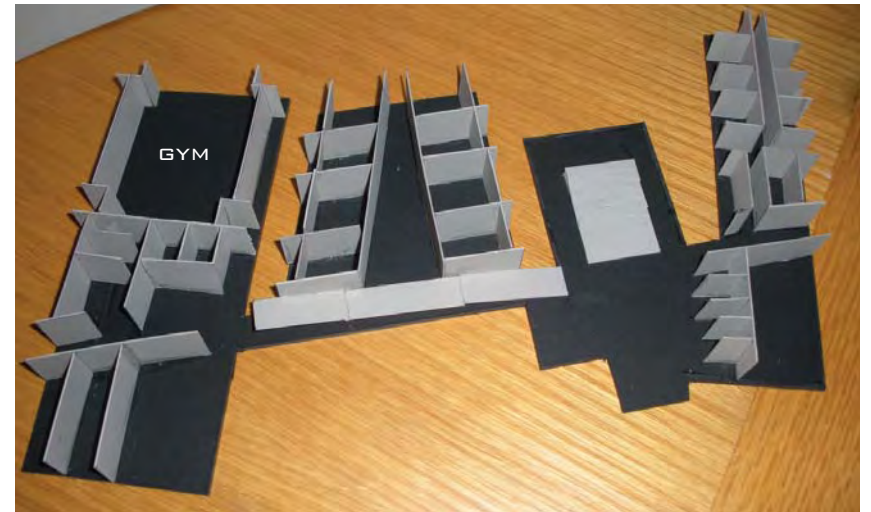
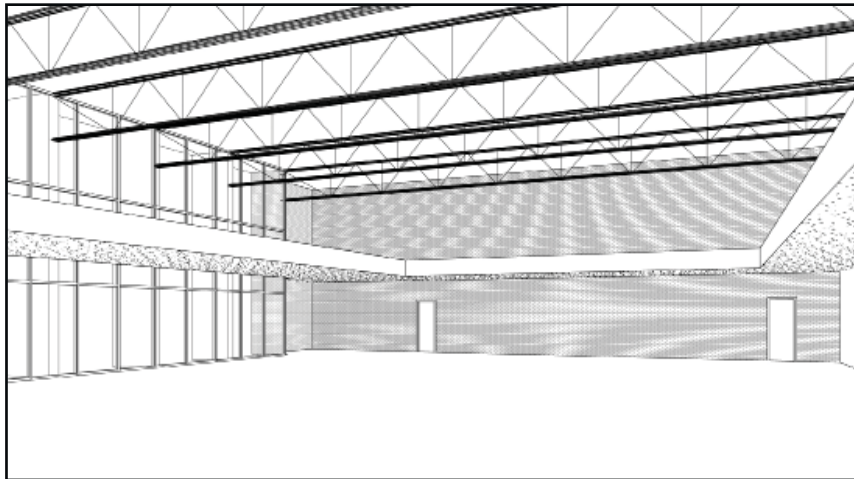
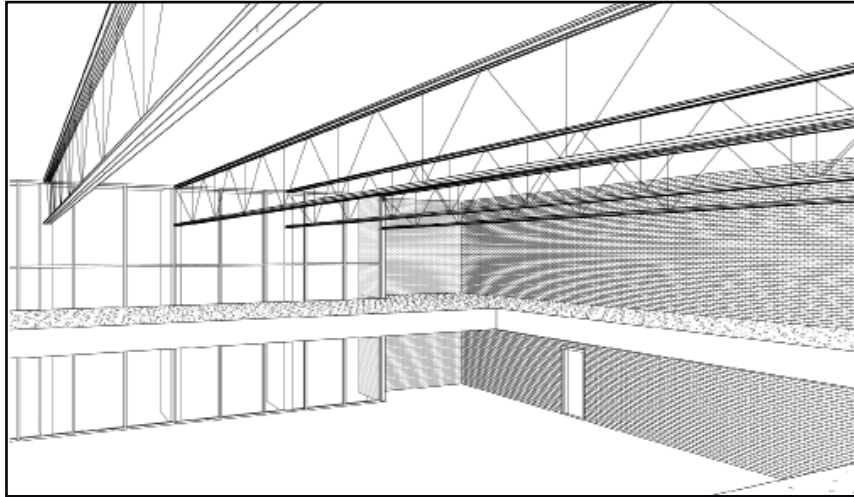
FRONT VIEW



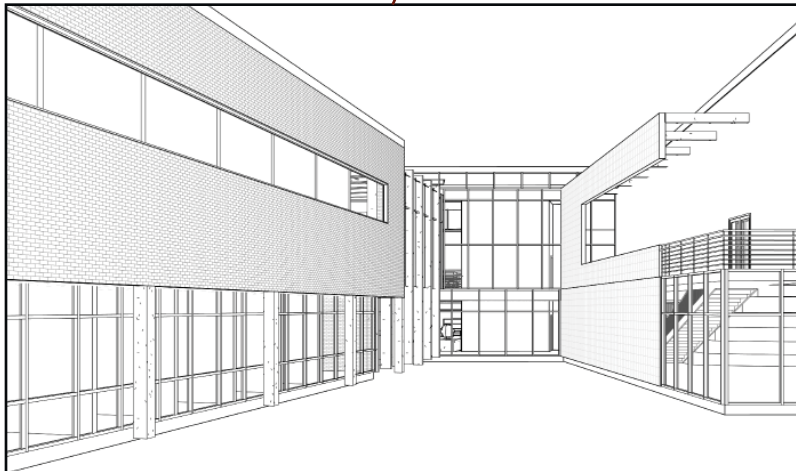
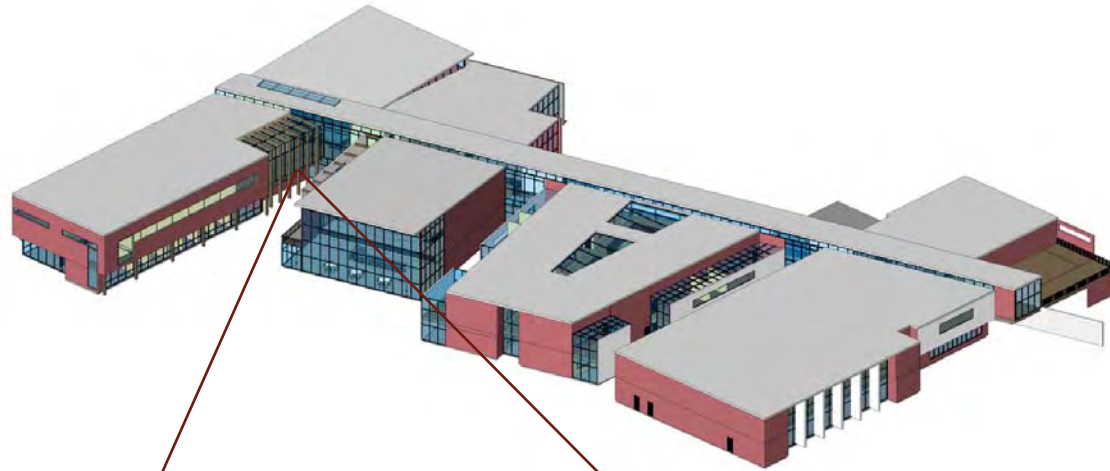
BACK VIEW



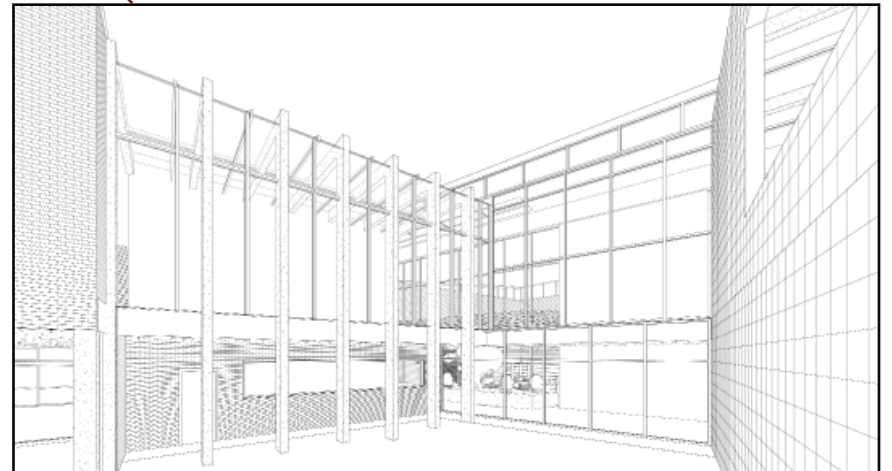
TALL, BLACK TOWERS: CIRCULATION  
WHITE PLANES: FLOOR PLANE





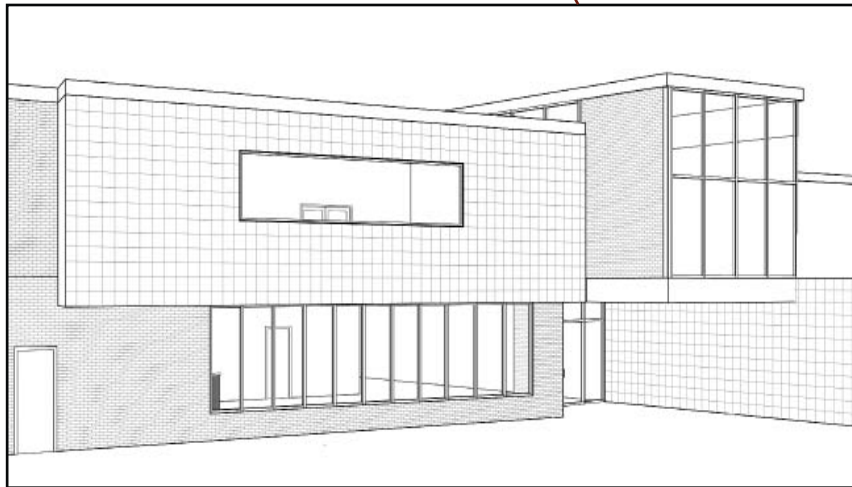
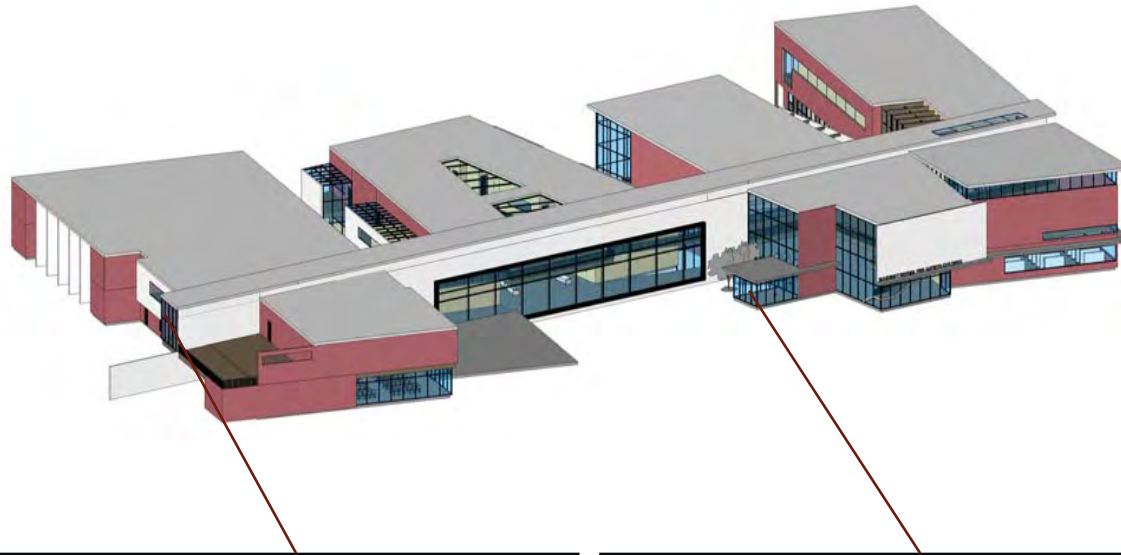


OFFICE VIEW

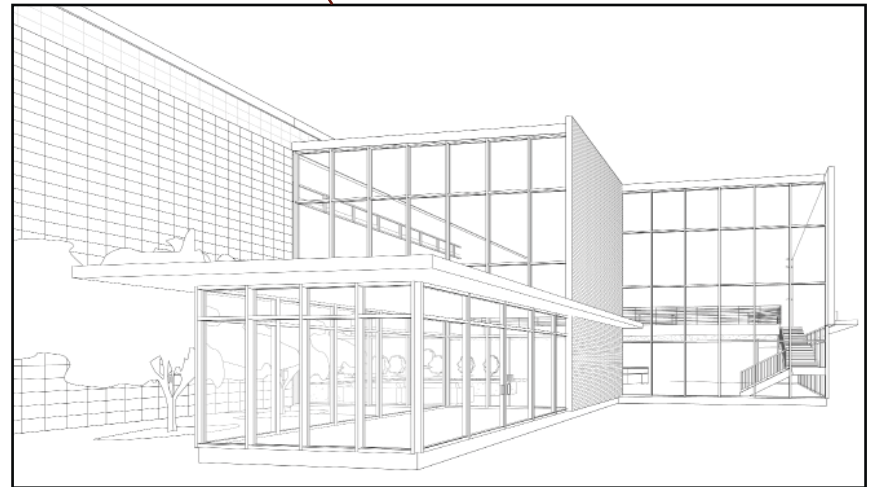


OFFICE: STRUCTURAL CORRIDOR



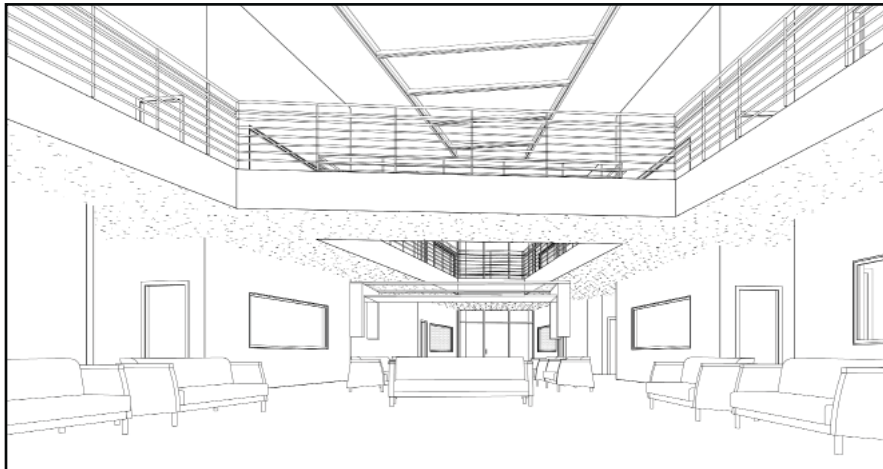
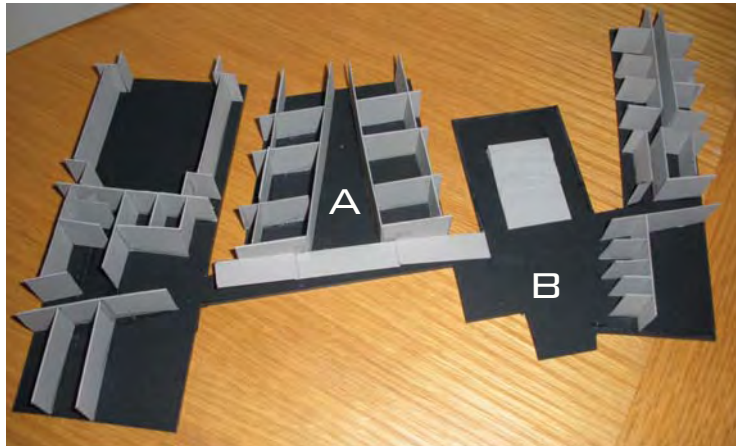


GYMNASIUM ENTRANCE

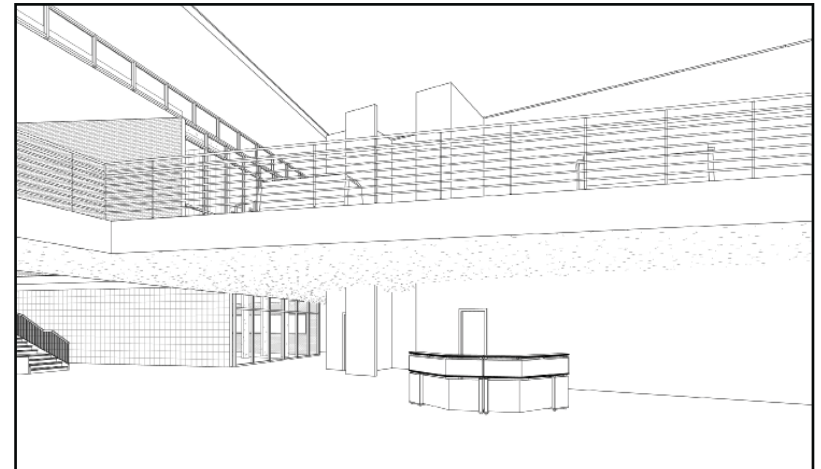


MAIN ENTRANCE

## PROCESS MODELS



**A: CLASSROOM CORRIDOR FROM  
FIRST FLOOR**



**B: MAIN ENTRANCE/LOBBY**

# FINAL PRESENTATION



"FORM FOLLOWS FUNCTION-  
THAT HAS BEEN  
MISUNDERSTOOD. FORM  
AND FUNCTION SHOULD BE  
ONE, JOINED IN A SPIRITUAL  
UNION."

~FRANK LLOYD WRIGHT

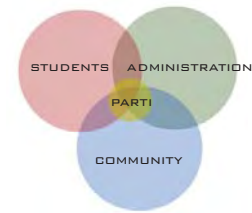




VIEW OF THE LIBRARY AND MAIN ENTRANCE FROM THE GARDEN SPACES THAT SURROUND THE BUILDING.



# SITE PLAN

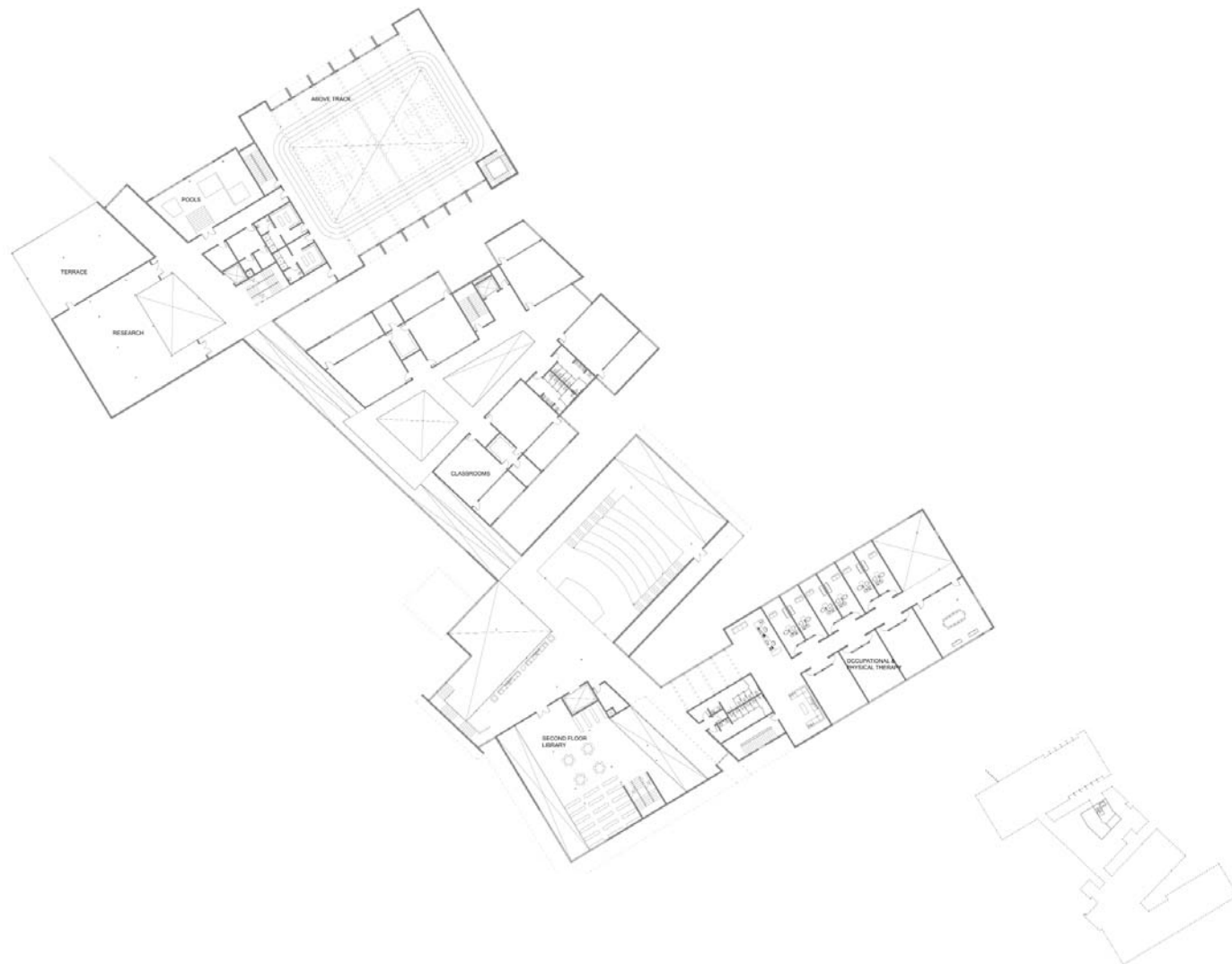


SITE PLAN  
1/64" = 1'-0"





FIRST FLOOR PLAN

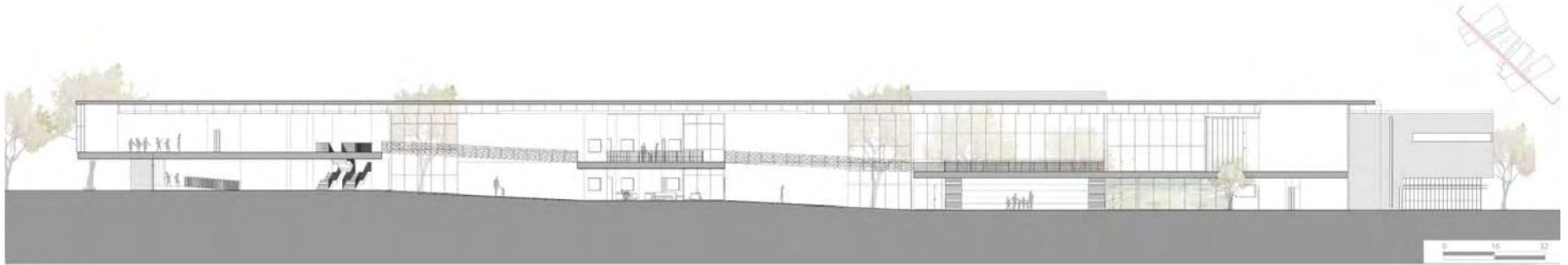


SECOND FLOOR PLAN

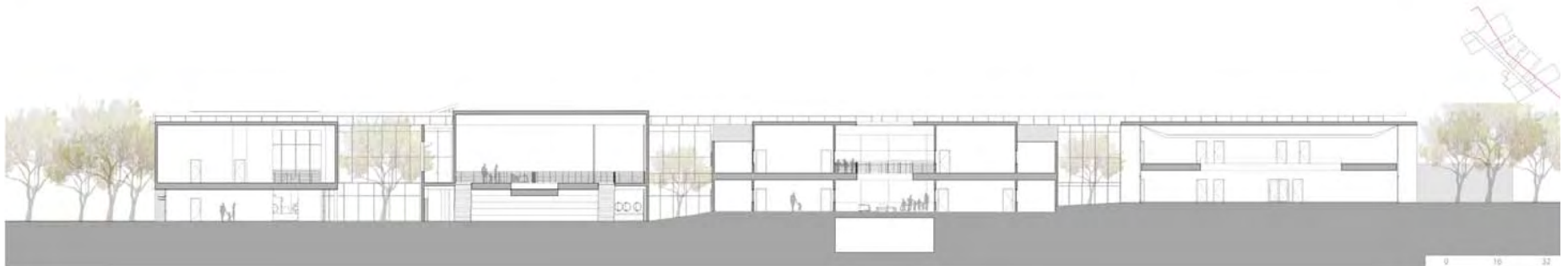
# SECTIONS



SECTION A



SECTION B



SECTION C



SITE SECTION A



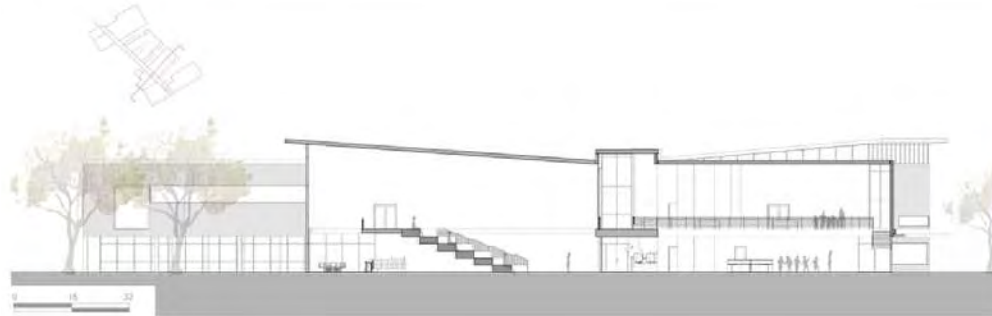
## SECTIONS



SECTION D



SECTION E



SECTION F



SITE SECTION B



# ELEVATIONS



SOUTH ELEVATION



WEST ELEVATION







# ELEVATIONS



NORTH ELEVATION



EAST ELEVATION



## PERSPECTIVES



BACK ENTRANCE



MAIN ENTRANCE



GYMNASIUM ENTRANCE



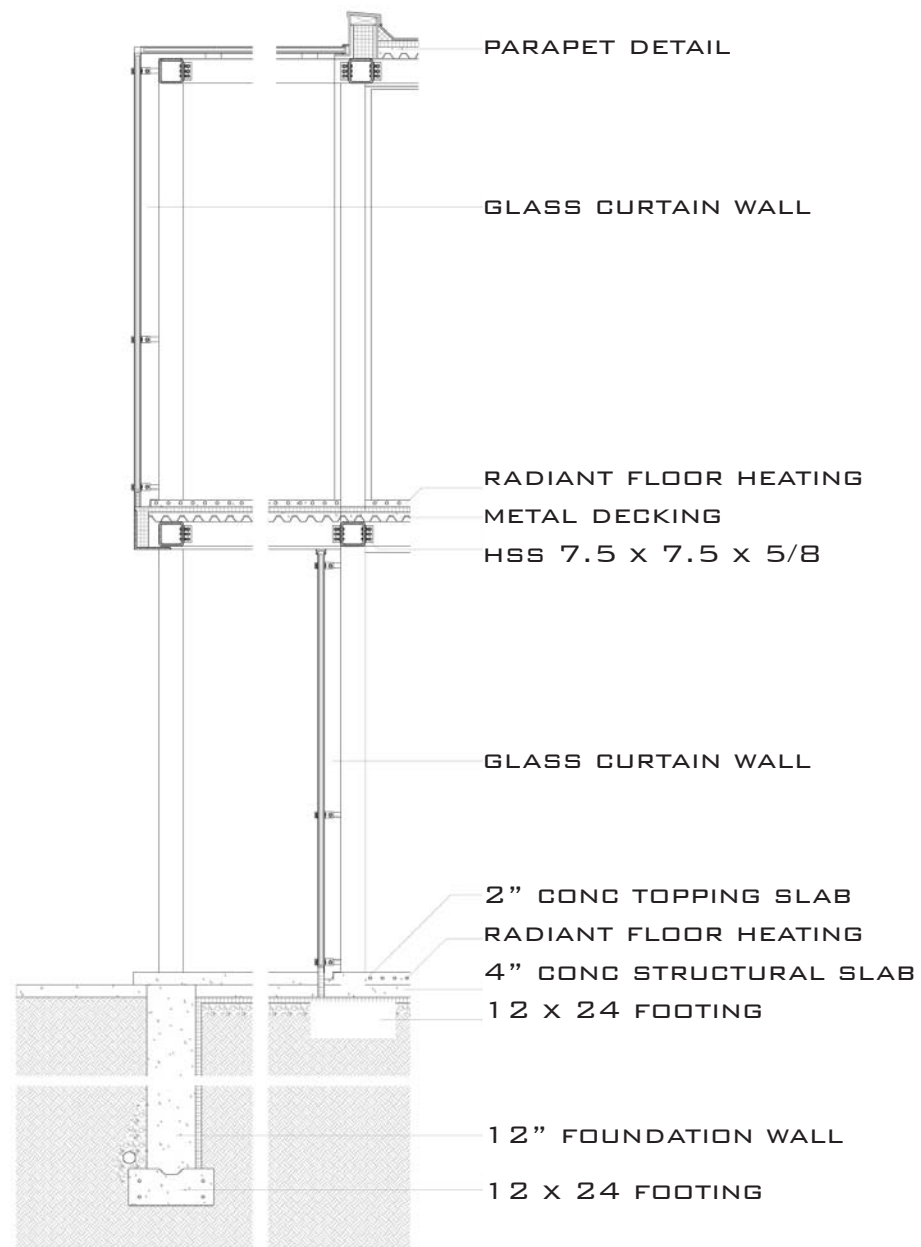
LOBBY



GARDEN SPACES



## WALL SECTION



THROUGHOUT THIS PROJECT I BECAME AWARE OF HOW THE LIFE OF AN AUTISTIC CHILD DIFFERS FROM OTHERS. THEY VIEW THE WORLD AROUND THEM AS SOMETHING NEW AND EXCITING; EVERYTHING IS AN ADVENTURE WAITING TO BE UNFOLDED. MANY PEOPLE RUSH THROUGH LIFE WITHOUT EVER TAKING THE CHANCE TO VIEW THE ENVIRONMENT AROUND THEM. THE GOAL WAS TO CREATE AN ENVIRONMENT TO HELP CHILDREN WITH AUTISM AND MAKE THEM COMFORTABLE WITHIN THEIR DAILY LIFESTYLE. I USED ARCHITECTURE TO CONSTRUCT A REALM IN WHICH THESE STUDENTS COULD EXPLORE WITHIN AN ENVIRONMENT WHICH BENEFITED THEIR DEVELOPMENT. ARCHITECTURE ENCOMPASSES THE ENTIRE WORLD AROUND US AND HAS THE ABILITY TO DIRECT EFFECT OR EVEN CHANGE OUR LIVES. PARTLY THE WAY HUMANS ACT AND INTERACT IS BASED ON THE DESIGNED WORLD IN WHICH THEY LIVE. ARCHITECTURE BECOMES A STARTING POINT IN THEIR LIVES. ARCHITECTURE COMPRISES SO MUCH POWER OVER HUMAN, ESPECIALLY THOSE WITH DISABILITIES, SUCH AS AUTISM. THE INTERACTION BETWEEN FORMS, LIGHT, LANDSCAPE AND MAN ARE ALL VARIABLES IN THE OVERALL EQUATION OF THE DESIGN AND THE WAY THAT ARCHITECTURE CONTROLS THESE ELEMENTS IS THE SOLUTION TO THE EQUATION. THIS PROJECT EXPLORED A VERY FRAGILE TOPIC OF ARCHITECTURE, ONE THAT MANY STUDENTS NEGLECT TO CONFRONT. THE REALITY THAT EVERY DECISION AN ARCHITECT MAKES HAS A STRONG IMPACT ON THE INHABITANTS. I PERSONALLY FOUND GREAT PLEASURE DURING THIS PROJECT, WHEN I REALIZED THE IMPORTANCE OF EVERY ARCHITECTURAL MOVE ON THE LIVES OF THESE CHILDREN. ALTHOUGH THE DESIGN IS NOT COMPLETE AND THERE IS MUCH MORE TO EXPLORE, I AM SATISFIED WITH THE LEVEL IN WHICH I ARRIVED. I MATURED A LOT DURING THE DESIGN OF THIS PROJECT AS AN ARCHITECT. AS ANY DESIGNER HOPES I IMAGINE THIS PROJECT CHANGING THE LIVES OF EVERY INDIVIDUAL WHO INHABITS IT.

## WORKS CITED



“ALL ARCHITECTURE IS  
SHELTER, ALL GREAT  
ARCHITECTURE IS THE DESIGN  
OF SPACE THAT CONTAINS,  
CUDDLES, EXALTS, OR  
STIMULATES THE PEOPLE IN  
THAT SPACE.”

~ PHILLIP JOHNSON

[HTTP://WWW. QUOTES: THINKEXIST.COM](http://www.quotes.thinkexist.com)

## BIBLIOGRAPHY

AIKEN, JOAN L. HADDONFIELD HISTORIC HOMES: SUCCESS THROUGH HISTORIC PRESERVATION.

NEWTOWN SQUARE, PA: HARDWOOD BOOKS, 1991.

BELTZIG, GUNTER. ED. KINDERGARTEN ARCHITECTURE. BARCELONA: LOFT; CORTE, MADERA, CA.:

GINKO PRESS, 2001.

ENGELHARDT, N.L., LEGGETT, STANTON. ED. PLANNING ELEMENTARY SCHOOLBUILDINGS. NEW YORK:

F.W. DODGE CORPORATION, 1953.

TURNER, JOHN F. C. HOUSING BY PEOPLE: TOWARDS AUTONOMY IN BUILDING ENVIRONMENTS. NEW

YORK: PANTHEON BOOKS, 1977.

VIEYRA, DANIEL I. HISTORIC HOUSES IN HADDONFIELD: A PRESERVATION GUIDE. HADDONFIELD, NJ:

NEW JERSEY HERITAGE, 1988.

[HTTP://WWW.BANCROFTNEUROHEALTH.ORG](http://www.bancroftneurohealth.org)

[HTTP://WWW.LEVINS.COM/HADDON.HTML](http://www.levins.com/haddon.html)

[HTTP://WWW.MERRIAM-WEBSTER.COM](http://www.merriam-webster.com)

[HTTP://WWW.QUOTES: THINKEXIST.COM](http://www.quotes:thinkexist.com)



## IMAGE CREDITS

1. WRIGHT, FRANK LLOYD. AN AUTOBIOGRAPHY/FRANK LLOYD WRIGHT. NEW YORK: HORIZON PRESS, 1977, PG 1
  2. [HTTP://FINEARTAMERICA.COM/IMAGES-MEDIUM/AUTISM-REBECCA-FITCHETT.JPG](http://fineartamerica.com/images-medium/autism-rebecca-fitchett.jpg)
  3. [HTTP://WWW.MITOSANPAINTS.COM](http://www.mitosanpaints.com)
  4. [HTTP://WWW.GOOGLE.COM](http://www.google.com)
  5. [HTTP://WWW.GOOGLE.COM](http://www.google.com)
  6. [HTTP://FARM2.STATIC.FLICKR.COM/1336/1232612102\\_FA919DFCDD\\_O.JPG](http://farm2.static.flickr.com/1336/1232612102_fa919dfcdd_o.jpg)
  7. [HTTP://NEWS.XINHUANET.COM/ENGLISH/2008-05/28XINSRC\\_15205052816282131974914.JPG](http://news.xinhuanet.com/english/2008-05/28/xinsrc_15205052816282131974914.jpg)
  8. [HTTP://COOLMRISTUFF.FILES.WORDPRESS.COM/2008/07/BRAIN-STRUCTURES-AUTISM.GIF](http://coolmristuff.files.wordpress.com/2008/07/brain-structures-autism.gif)
  9. [HTTP://WWW.COMMONS.WIKIMEDIA.ORG/WIKI/FILE:AUTISM-STACKING](http://www.commons.wikimedia.org/wiki/File:Autism-stacking)
  10. [HTTP://IMAGE42.WEBSHOTS.COM/42/4/44/61/290444461YHIQFW\\_FS.JPG](http://image42.webshots.com/42/4/44/61/290444461YHIQFW_FS.JPG)
  11. [HTTP://WWW.DVRBS.COM/IMAGES/CAMDENSKYLINE-2003-1.JPG](http://www.dvrbs.com/images/camdenskyline-2003-1.jpg)
  12. [HTTP://WWW.GOOGLE.COM](http://www.google.com)
  13. [HTTP://WWW.RVE.COM](http://www.rve.com)
  14. [HTTP://WWW.RVE.COM](http://www.rve.com)
  - 15-25 [HTTP://WWW.GAISMA.COM](http://www.gaisma.com)
  26. [HTTP://WWW.STATE.NJ.US](http://www.state.nj.us)
  27. AIKEN, JOAN L. HADDONFIELD HISTORIC HOMES: SUCCESS THROUGH HISTORIC PRESERVATION. NEWTOWN SQUARE, PA: HARDWOOD BOOKS, 1991.
  28. [HTTP://WWW.FWS.GOV/.../IMAGES/COOPER-RIVER-AFTER.JPG](http://www.fws.gov/.../images/cooper-river-after.jpg)
  29. GOOGLE EARTH
  30. [WWW.FLICKR.COM/PHOTOS/SQUIRRELHUGGER/33955150/](http://www.flickr.com/photos/squirrelhugger/33955150/)
- ALL IMAGES PERTAINING TO THE CHILDREN'S SCHOOL WHERE TAKEN FROM:  
[HTTP://WWW.DESIGNSHARE.COM/INDEX.PHP/PROJECTS/THE-CHILDRENS-SCHOOL](http://www.designshare.com/index.php/projects/the-childrens-school)
- ALL IMAGES PERTAINING TO THE NETLEY UNIT WHERE TAKEN FROM:  
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- ALL IMAGES PERTAINING TO THE PRESCHOOL IN VIENNA WHERE TAKEN FROM:  
BELTZIG, GUNTER. ED. KINDERGARTEN ARCHITECTURE. BARCELONA: LOFT; CORTE, MADERA, CA.: GINKO PRESS, 2001
- ALL IMAGES NOT NUMBERED WHERE TAKEN BY THE AUTHOR