

REINVENTING THE WELLNESS CENTER

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Dedicated to my mother Sue and father Paul, for their unconditional support and a lifetime of health and happiness. Also I am extremely grateful for my beautiful fiancée Amanda, for her love and emotional support.

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ABSTRACT

This thesis will attempt to heighten the level of wellbeing in all of us through architectural intervention. More specifically, it will study and hopefully add to our understanding of how the built environment enhances our wellbeing. The vehicle that will be used to study how the environment can directly affect our wellbeing will be Complementary and Alternative Medical (CAM) wellness centers.

Expectations of standards of health have exponentially increased past current remedies and health is being recognized by many as being more than just freedom from disease. Health is being considered the soundness of mind, body and spirit. Since architects (and the buildings they design) are the settings for these environments, it is time that architects evaluate whether the current healing environments are keeping up with today's standards of care.

Increasing just as much as the expectations of standards of care is our exposure to disease and illness from unnatural processes that surround us. Everything in our lives today has become industrialized. The food we eat, the medicines we take, and the jobs we perform are all becoming unnatural. There is a disconnect from nature that is creating a mess of health problems. When it comes to fixing these problems, many people are choosing to find alternative and naturalistic means of bringing back the wellness they had at child birth. This thesis seeks to explore how architecture can improve the environments that foster wellness and to imagine the creation of a new wellness center that brings together all forms of Complementary and Alternative Medicine.

Can architects create settings that cultivate much needed collaboration among CAM professionals and patients to further

the potential of CAM to produce wellness among individuals and communities, and can they help bolster initiatives that get the community involved in producing research results on the effectiveness of CAM? The implementation of a CAM wellness center into an existing community is the basis for this thesis. It will seek ways of increasing Complementary and Alternative Medicine's potential to produce healthy communities.



THESIS

What does it mean to be healthy? Many decades ago to be healthy, to stay healthy, and to live a healthy life took on a whole different meaning. The consumer culture that exists today has made it challenging for individuals to maintain healthy lifestyles. Technology has changed the way we spend our leisure and pastimes, usually reinforcing non-active behaviors. Also, it has created many professions that involve sitting or standing for extended periods of time with the fingers being the most exerted part of the body. The fast food industry has provided us with the cheapest and easiest available food, which happens to be the unhealthiest. At this point, Modern medicine has been able to prevent, identify, detect, diagnose, treat, and cure just about any disease, illness, injury, ailment, disorder, and imbalance that may have resulted from the unhealthy cultures that prevail, but it all comes at a cost and America is now facing those costs. How does architecture respond to counteract the emergence of unhealthy communities?

This thesis seeks to expand our understanding of the environments that nurture Complementary and Alternative Medicine in the hope of developing architectural ideas that encourage spreading their culture, mentalities, and responsible lifestyles to whole communities.

SETTINGS FOR CAM CENTERS

Wellness centers of today organizationally and physically exist in the built environment essentially in two different ways, with some variations. Their primary position in the urban fabric is scattered all throughout the commercial and retail centers and thoroughfares as small shops owned by sole practitioners. The other phenomenon takes place in connection with existing hospitals as acceptability among conventional medical practitioners continues to increase. By analyzing their immediate locations we are able to make some hypotheses on the overall effect these centers have on society.

RETAIL DEVELOPMENTS

Small retail centers have proven to be prosperous locations for CAM centers. The decentralized nature of spaces provided by retail centers have strengthened their position in the social fabric by creating opportunities for people to discover them. Often, retail shops are bounded by neighborhoods, taking up an edge or corner in the urban fabric. Depending on how well CAM centers integrate themselves into in the urban fabric will determine their effect on communal wellness.

HOMES AND RESIDENCES

Although Complementary and Alternative Medical centers are mostly found in retail centers, it is not unlikely to find practitioners working out of their own homes or in buildings that once served as homes. There are strong underlying concepts that connect home to healing. Whenever we are sick the one place we all want to be is at home. At home, one can be tended to by family members, removed from sight and audible range from the noise created by the bustle of the business world, have access to comfort food and beverage, and be surrounded by plush furniture. The home is the most authentic place for dwelling where the natural processes of healing prosper regularly so many CAM centers may be found in homes re-purposed or renovated to suit this new use

HOSPITALS

While CAM centers take advantage of the many attributes that cultivate natural healing, Hospital patient rooms are the antithesis of the home. Academic, cultural and economic critic Wendell Berry has commented about the atmosphere of today's hospital rooms in a speech he delivered at a conference entitled "Spirituality and Healing" when Berry says, "any ordinary person would assume that a place of healing would put a premium upon rest, but hospitals are notoriously difficult to sleep in. They are noisy all night, and the routine interventions go on relentlessly. The body is treated as a machine that does not need to rest."(Berry). This may be one of the reasons why being separated both physically and organizationally from conventional medical facilities has proven over time to be fairly enticing to the general population.

The population is starting to distrust conventional medicine and CAM centers are benefiting because of it. This distrust is reinforced by Nancy Terry, writer and editor for Medscape Today. Medscape Today content is evaluated, created, and presented under the guidance of a Medscape program director and a medical professional advisory board. Terry discusses reasons for why the population of CAM users is increasingly growing when she says, "People are trying different solutions because the official treatment does not work or because they are opponents of the chemical way of thinking. Western medicine has become a technical and chemical factory. We forget that the psyche of the patient plays a very important part"(Terry). The article touches on the clear image of the reality that many hospitals face today, realities that have strengthened the existence of CAM centers.

Distrust could also stem from the fear brought about from childhood memories of pain inflicting surgeries. One does not have to be young to be afraid of dealing with life threatening measures. Many tests have proved that the public is afraid of visiting the hospital. A study published by the Journal of Health and Social Behavior entitled "Children, Stress, and Hospitalization" states that, "under prevailing conditions the social environment of the hospital is likely to produce a great deal of stress for child patients and their mothers. For the children this stress is likely to result in elevated temperature, pulse rate and blood pressure, disturbed sleep, fear of doctors and nurses, a delayed recovery period, and other forms of behavior which deviate from the medical culture's norms of "health" and normal progress of hospitalization"(Skipper 285). A more recent study published by the Society of Critical Care Medicine concludes that visitors also share a sense of fear. Their evidence concludes, "More than two-thirds of family members visiting patients in the intensive care unit suffer from symptoms of anxiety or depression"(Pochard 2001). It is unlikely that patients looking to receive treatment from a CAM professional will want to do so in a place where the severely ill are tended to.

The medical term for the fear of going to the doctor or doctors is iatrophobia and is considered a social phobia. Can architecture banish all cases of iatrophobia? Not likely, but it can soften the



Symptoms of Iatrophobia: breathlessness, excessive sweating, nausea, dry mouth, feeling sick, shaking, heart palpitations, inability to speak or think clearly, a fear of dying, becoming mad or losing control, a sensation of detachment from reality or a full blown anxiety attack

overall negativity and added symptoms patients have each visit. The location of the sole practitioner lends some comfort on the patient, mainly because the patient would be in a better state of mind going to a place of healing rather than a place for the sick. Examples of caring centers designed by renowned architects aspire to diminish the phobia associated with healing environments are the Maggie cancer caring centers in the United Kingdom.

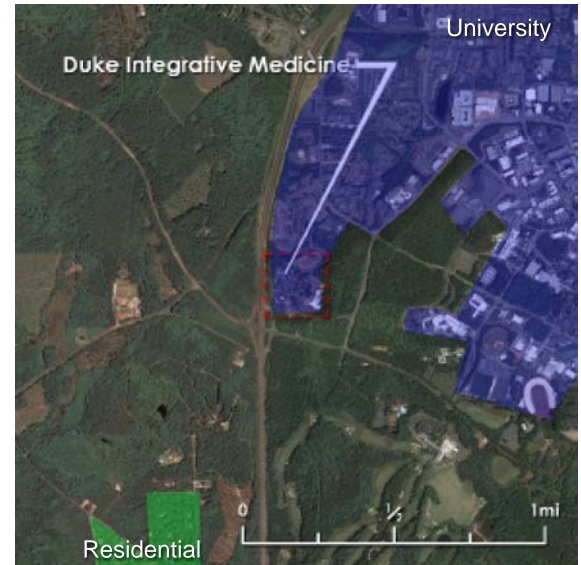
Maggie Cancer Caring Centers utilize the physically separate but organizationally connected way of creating inviting spaces in every one of their facilities. While talking about the Maggie Cancer Caring Center, architect, Frank Gehry reinforces the idea that if you are able to comfortably pull in a patient and give them a place where they are able to open up to total strangers then the healing process will be intensified. Gehry adds, "I think it's an inviting building, I think people will want to come inside and spend time there, and I hope that in some small way it might contribute to a sense of rejuvenated vigor for moving forward and living life." One of the key ingredients in the healing process that Maggie cancer caring centers and Complementary and Alternative Medical centers take advantage of is the body's natural way of healing itself in stress free environments.

CAM IN THE HOSPITAL SETTING

In the event of keeping up with the population's expectations of standards of care, conventional medical centers have gone to tremendous lengths to actually include Complementary and Alternative Medicine in their facilities. Hospitals have associated this new style of care as Integrative Medicine. The way hospitals articulate Integrative Medicine varies from hospital to hospital because they all have different interpretations of what should be included and what environments support Complementary and Alternative Medicine. Various hospitals have created entirely separate centers devoted to Integrative Medicine, while others have made minimal interventions. The Duke Integrative Medicine facility is a foremost example of a hospital owned wellness center that provides CAM treatments.

Designed by Duda/Paine Architects, Duke's state of the art Integrative Medicine facility was intended "to embrace and serve a healthcare experience that is unlike any other" as stated by partner Turan Duda. The Integrative Medicine facility is tucked into the thick forest on the outskirts of Duke University, a prime location for peace and serenity. However, if critiqued on its effectiveness to support local communities, the overall impression suggests exclusivity. There isn't a community, other than the university, close enough where patients can walk, or even ride a bike, to receive treatment. How would this model effect behavioral change if individuals can't regularly interact with other people who have the same health intentions?

None of the Integrative Medicine centers provided by hospital institutions seem to be directly connected to the surrounding community. They seem to lack any qualities of "third places," a term coined by Ray Oldenburg, an urban sociologist from Florida who writes about urbanism. Oldenburg believes, "Life without community has produced, for many, a lifestyle consisting mainly of a home-to-work-and-back-again shuttle. Social well-being and psychological health depend upon community" (Oldenburg). Having programs that aren't necessarily CAM in a wellness center



What community is Duke Integrative Medicine intending on serving other than the University?

is critical to its chances of making an impact on the community. The “third places” Oldenburg speaks of include coffee and tea shops, mom and pop owned restaurants, whole foods restaurants, art exhibits, book stores, barber shops etc.

Other ways conventional medical centers have introduced CAM into their gamut of healthcare is by hiring nurses that are trained to give such treatments and offering them an office inside the hospital to perform CAM. There has been many examples where hospitals have seen positive reactions due to providing CAM treatments to already admitted patients. The following are success stories provided by Registered Nurse Debra Wood, who has been able to get inside information from other registered nurses working at various hospitals across the nation. Her article is published by the website nursezone.com, an “online community dedicated to providing nurses with professional and personal development information and opportunities”

“Cardiac nurse practitioner Anne Darga, RN, MS, from Chicago’s Northwestern Memorial Hospital’s Center for Integrative Medicine explains that she and Stephen Devries, MD, employ acupuncture, massage therapy, stress management and other techniques, but at the same time they will prescribe cardiac drugs. Sometimes, the medication offers an immediate, needed intervention while the patient incorporates lifestyle changes that will help manage his or her condition. “It’s more of a nursing approach, a holistic approach,” Darga said. “That approach to patients is becoming more acceptable in medicine as well.”

“The Valley Hospital in Ridgewood, New Jersey, trains every nurse on staff in a foundation of CAM techniques, including bodywork therapy, aromatherapy, visualization and meditation. Nurses began offering it at no-cost in 2002 and patients and nurses have embraced it. “It makes a major difference in patients’ hospitalization,” said Linda Lewis, RN, MSA, NEA-BC, FACHE, vice president of patient care services and chief nursing officer at The Valley Hospital. “It helps patients to relax and I think that allows them to heal faster.” Lewis believes CAM builds customer loyalty and helps with nurse recruitment and retention. “One of the biggest draws for us for recruitment is the holistic practice we have here that is part of nursing practice, not a separate department,” Lewis said. “It changes how they approach not only their professional life but their personal life” (Wood).

COGITATING CAM THROUGH THE LENS OF OTHER ARCHITECTURAL BUILDING TYPES

Reinvention of the wellness center can benefit from the growth and adaption that takes place when Complementary and Alternative Medicine starts to be performed in new environments. What works well in a general hospital setting is the “everything under one roof” aspect. Physicians are able to develop relationships between other physicians, which will more than likely make an influence on the referral process. CAM professionals do not have this luxury. One of the reasons why conventional medicine has advanced this far in such a short period of time is because of the collaborative process performed in the hospital setting. Hospital spaces, such as board rooms, surgical theaters, centrally located nursing stations, cafeterias, and large entry lobbies, encourage collaboration. Some of the best teamwork develops when it comes to saving lives. What if CAM facilities of the future borrow concepts from other types of architecture? Looking at several architectural building types will help us imagine the possible roles the wellness center could take in society.

EDUCATIONAL ENVIRONMENTS

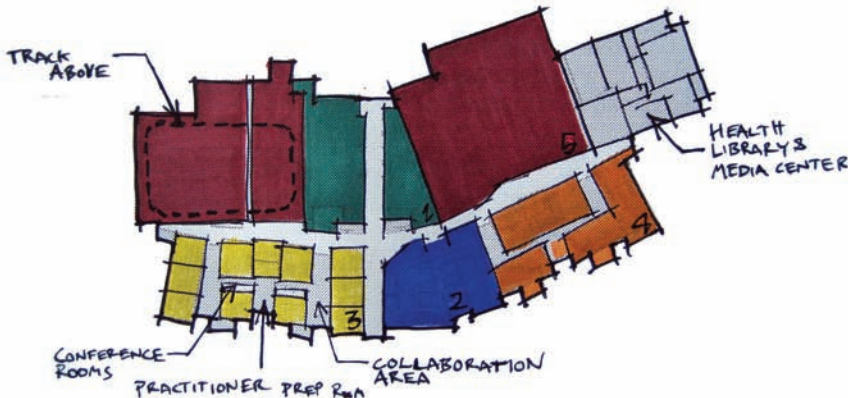
ASPINE MIDDLE SCHOOL SALT LAKE CITY, UTAH VCBO ARCHITECTURE



Imagine the wellness center as an educational learning center. What spaces will be utilized the most to empower people to live healthy lives? What are the organizational techniques used? When do spaces flow together and when are they completely separated? These are the types of questions that come to mind when thinking of a wellness center as a learning environment.

We can learn more culturally relevant and time sensitive designs by looking at the most recent developments in educational centers. The design of Alpine Prototype Middle Schools is an example that looks at encouraging collaboration and community in its space planning. In this specific case, the architects have designed the hallways to function as more than just transitional space by making them double their width, providing lounge furniture, and making each classroom visually and directly connected at all times by installing glass overhead garage doors. These spaces increase the chances of informal gatherings and meetings, a concept that would strengthen the relationships between each CAM practitioner and patients alike. Imagine how a wellness center would utilize other spaces provided by educational centers. For example, what if people were able to go to the library and check out a book on healthy living, or meet up with some friends at the gymnasium to exercise, or swim, or take a class on quitting smoking?

Learning Health and Wellness Center



1 - TEACHING AND DEMONSTRATION KITCHEN

- Nutritional Wellness

2 - PHARMACY

- Dietary Supplements
- Ayurvedic Medicine
- Homeopathic Medicine

3 - MANIPULATIVE-BASED THERAPY

- Alexander Technique
- Chiropractic
- Massage Therapy
- Reflexology

4 - MIND-BODY AND ENERGY THERAPY

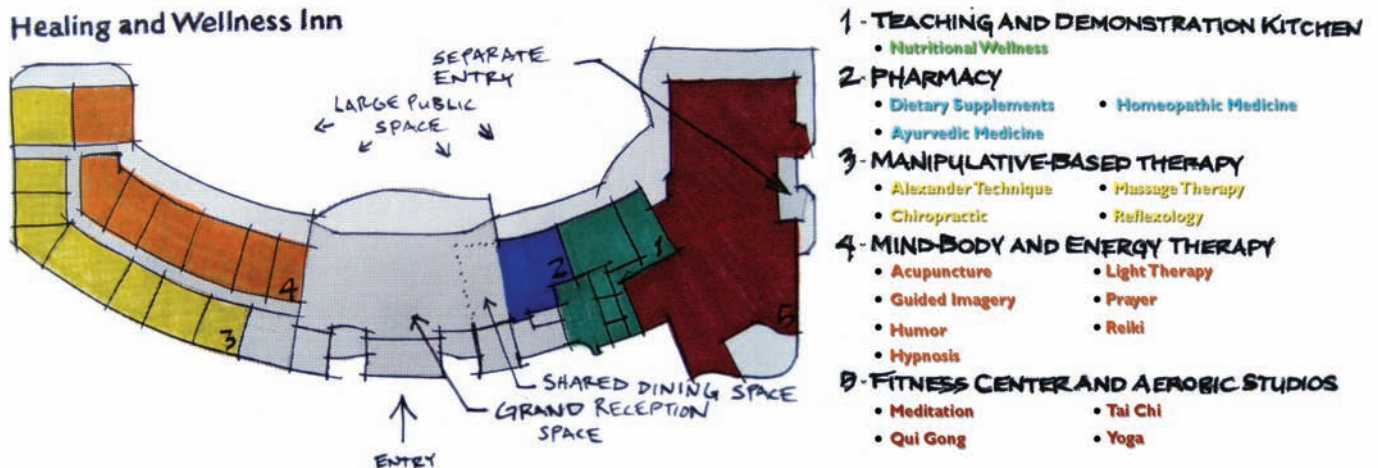
- Acupuncture
- Guided Imagery
- Humor
- Hypnosis
- Light Therapy
- Prayer
- Reiki

5 - FITNESS CENTER AND AEROBIC STUDIOS

- Meditation
- Qui Gong
- Tai Chi
- Yoga

HOTEL ENVIRONMENTS

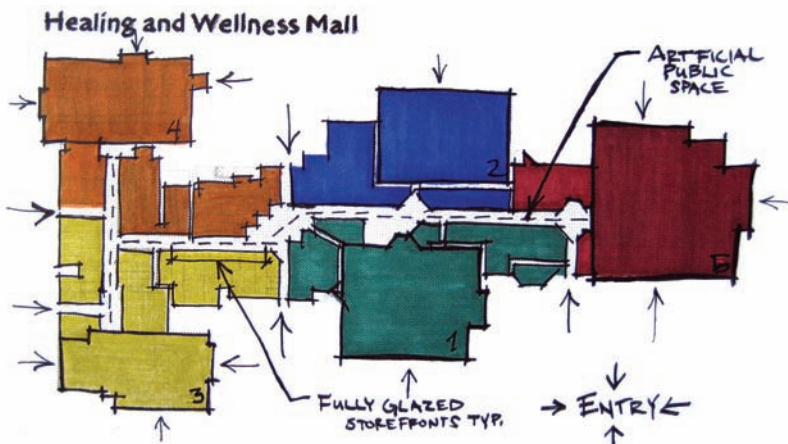
When looking at wellness centers as modeled as a hotel, one can only imagine how the patients might be tended to differently. Upon arrival at hotels, patients have the mentality to expect being welcomed to treat the spaces as if it were their home. What are the cues that drive this mentality and could the wellness center bring about the same expectation? One of the key spaces hotels are especially known for are their grand reception spaces. Much like meeting someone for the first time, the first impression is always the most lasting. Hotels spend the most money per square foot in these spaces to create the most welcoming environments of any type of architectural other than your own home. Materiality, openness, diversity of spaces, acoustical qualities, light fixtures, connection to the outside world, and whether a space is climate controlled, all create an impression on the quality of care that one might expect to receive. Some hospitals, like the University of Southern California's University Hospital, have redesigned their concierge desk to look and function like what a guest might find at a world class hotel. The book *Medicine Moves to the Mall* describes this change as "an indication of a more comprehensive redesign of hospitals and healthcare facilities to evoke familiar spaces and expected services" (Sloane P.7). If the architectural expression evokes a sense of professionalism then the employees would strive to live up to the image created.



MALL ENVIRONMENTS

The last type of architecture that we should look at is the idea of a mall. Putting aside the negative critiques associated with the shopping of malls, the mall has been one of the few universal forms easily comprehensible by the general public. Fears of getting lost or not knowing where one has traveled diminish as soon as one enters the centrally located atrium space. Destinations can be visually seen for the majority of the time, and when the destination is not in clear view, understanding that it is located along one of the walls of the same space that one currently occupies puts the mind at ease. Healing environments should always be designed to eliminate any possibility of adding stress to patients and staff. Studies have shown that patients who are ill are susceptible to increasing their illness if exposed to too much stress, as cited by an article written by the Associate Dean of Research at California State University.

"If stress persists after the initial fight or flight reaction, the body's reaction enters a second stage (Rubin, Paplau, & Salovey, 1993). During this stage, the activity of the sympathetic nervous system declines and epinephrine secretion is lessened, but corticosteroid secretion continues at above normal levels (Rubin, Paplau, & Salovey, 1993). Finally, if the stress continues and the body is unable to cope, there is likely to be breakdown of bodily resources (Rubin, Paplau, & Salovey, 1993). It is in this stage that there may be a reduction of the levels of epinephrine and norepinephrine in the brain, a state related to depression (Rubin, Paplau, & Salovey, 1993)." (Despues)



INTENTIONS

The soul of the wellness center will be the attraction of healthy people doing healthy things together. One can develop a healthy lifestyle just by being around other people who maintain healthy lifestyles. Architecture can help shape cultures and sometimes even start new cultures through careful planning and good intentions. Imagine if the place that you regularly eat at is connected to the place where you take yoga classes. Would the adjacencies of programs affect what and how you consume? Wouldn't it be easier to maintain a healthy lifestyle if you are constantly being reminded of what you want your life to be like?

Two years ago former president Bill Clinton described our current cultural trends in his dedication for the opening of the Mayo Clinic's healthy living center. In his speech he said, "if we don't rescue our children from a culture they had no hand in making, which is literally compromising their ability to have good lives, then we won't make it" (Brown). The wellness center can be a place for communities to reshape the ailing culture that exists to build a healthy culture less focused on consuming and more focused on leisure and physical activities.

Crucial to the development of the wellness center will be finding an appropriate site. This process will take the ideas developed while looking at the settings CAM centers currently exist in, along with the ideas of who will be positively influenced the most, to select the most appropriate site, one that is also viable.

Ultimately this thesis will start a conversation about thoughts of a new form of healing environment and how it may be another place in the urban fabric that supports the healthy growth of communities.

METRO-DETROIT CAM CENTERS

A Cross-section of Existing CAM Centers

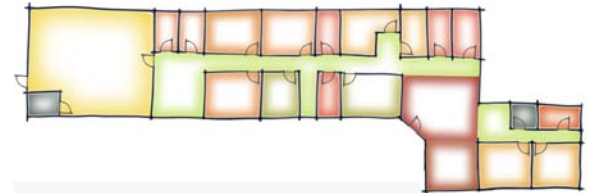
The following is a study of the current conditions of Complementary and Alternative Medicine facilities in the Metro-Detroit area. Photos of the interior spaces, some exterior shots and rough sketches of the interior floor plans were documented. The facilities were chosen by proximity and convenience.

METRO-DETROIT CAM CENTERS

CENTER FOR THE HEALING ARTS

CLINTON TWP, MI .

The Center for the Healing Arts is a fairly comprehensive CAM center. The services they provide there include massage therapy, Roling, colon cleansing, basic spa services, and life coaching.



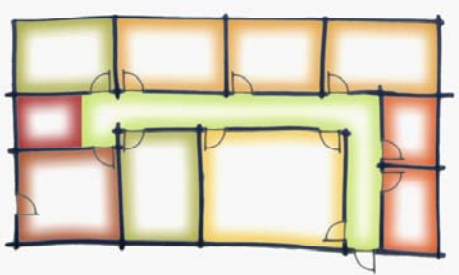
- RECEPTION
- WAITING ROOM
- WASHROOM
- MASSAGE ROOM
- THERAPY ROOM
- GROUP THERAPY ROOM
- CIRCULATION
- OFFICE
- STORAGE
- KITCHEN/BREAK ROOM



METRO-DETROIT CAM CENTERS

ALTERNATIVES FOR HEALTHY LIVING

CLINTON TWP, MI .



- RECEPTION
- WAITING ROOM
- WASHROOM
- THERAPY ROOM
- GROUP THERAPY ROOM
- CIRCULATION
- OFFICE

Alternatives for Healthy Living uses A positive and integrative approach to emotional and mental health. The owner is a Fully Licensed Psychologist, Marriage and Family Therapist, and a practitioner of various psychotherapies including Cognitive Behavioral Therapy, Family Systems Therapy, EMDR®, and Energy Psychology.

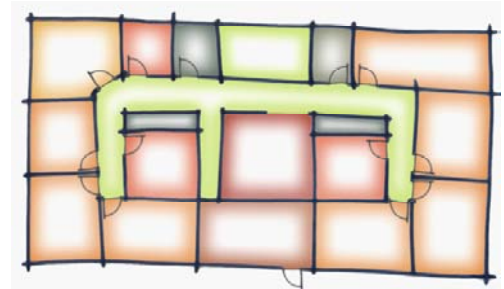


METRO-DETROIT CAM CENTERS

ASSOCIATES THERAPEUTIC MASSAGE

CLINTON TWP, MI.

Associates Therapeutic Massage offers a multitude of massage treatments. Treatments offered include Swedish Massage, Hot Stone Massage, Deep Tissue Massage, Couples Massage, Reiki, Cranial Sacral Therapy, Integrative Manual Therapy, Biovalent Systems, Reflexology, Lymphatic Drainage, QXCI



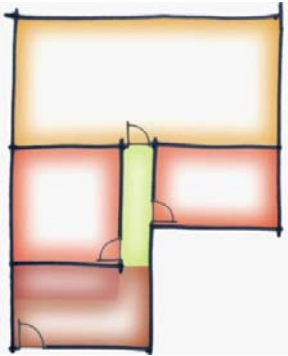
- RECEPTION
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- MASSAGE ROOM
- THERAPY ROOM
- CIRCULATION
- STORAGE
- KITCHEN/BREAK ROOM



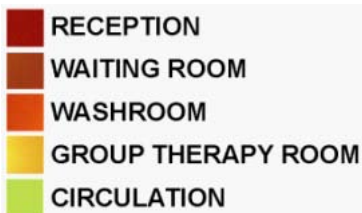
METRO-DETROIT CAM CENTERS

BIKRAMYOGA

Farmington Hills, MI.



Bikram Yoga is a challenging, 90-minute series of yoga postures that improves flexibility, strength, and balance of the body while enhancing mental clarity and focus. The 105 degree heated room warms the muscles and joints, improves circulation, detoxifies the body through sweat, and significantly reduces the risk of injury during stretching.

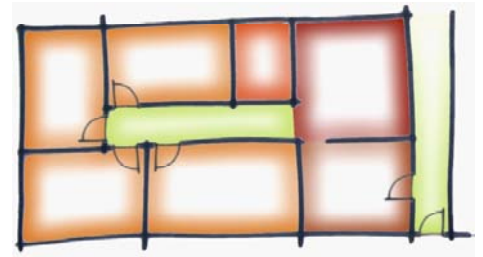


METRO-DETROIT CAM CENTERS

CENTER FOR BODY AND SOUL

CLINTON TWP, MI.

The Center for Body and Soul is a massage therapy center that offers massage therapy exclusively.

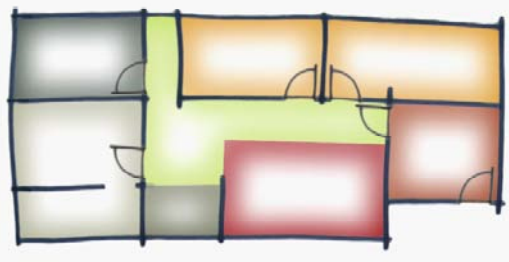


METRO-DETROIT CAM CENTERS

SCHLAF CHIROPRACTIC WELLNESS CENTER

Rochester Hills, MI.

Schlaf Chiropractic and Wellness Center offers Chiropractic Care, Corrective Exercises, Lifestyle Advice, Nutritional Counseling, and Spinal & Postural Screenings.



- RECEPTION
- WAITING ROOM
- WASHROOM
- THERAPY ROOM
- CIRCULATION
- STORAGE
- X-RAY ROOM



PRECEDENT ANALYSIS

MAGGIE'S HIGHLANDS

INVERNESS, SCOTLAND. 2005

PAGE \ PARK ARCHITECTS

Maggie's Highlands Cancer Caring Center is an example of a carefully designed facility that in its entirety is devoted to making the patient at ease. Maggie's Highlands is one of 6 open cancer caring centers run by the same organization whose start came from the wife of famous architect Charles Jencks. Maggie Jencks was diagnosed with metastasized breast cancer, being told that she had only a few months to live, so she used every last minute of her life to help give future patients with cancer the chance to be "an informed participant in their medical treatment", by offering "help with stress reducing strategies, psychological support and the opportunity to meet up and share with other people in similar circumstances in a relaxed domestic atmosphere." The professionals there are focused on treating the person, not the cancer.



"the importance of an imaginative, inspiring place for people to be able to turn to at such a critical moment in their lives, somewhere which feels joyous, a beacon of hope" (maggiescentres.org)

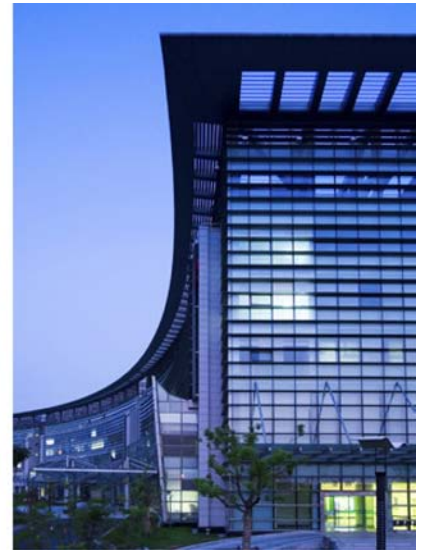


Treating the patient and not the symptom is one of the most crucial elements about the organization because the staff understands that some patients want to go on with treatments in a more passive way. The buildings themselves passively help the healing process acting as a placebo, being required to be non-institutional, domestic, organized on an open plan, built around a kitchen, furnished with comfortable furniture, uniquely designed with refreshing views, and physically separate but working in partnership with the National Health Service.

PRECEDENT ANALYSIS

SHUGUANG HOSPITAL SHANGHAI, CHINA SMITHGROUP

“The Shuguang Hospital is the first of its kind in China: a medical facility that combines the teaching and practice of traditional Chinese and Western medicine in a new, state-of-the-art hospital campus. SmithGroup’s challenge with this fast-track project was to create a modern, 750-bed academic medical center that would also support the key tenets of Traditional Chinese Medicine (TCM), a 3,000-year-old system of diagnosis and treatment where environment plays a key role in the healing process. The design of this breakthrough facility incorporates abundant natural light, healing gardens, and a multi-layered exterior envelope which references traditional Chinese architecture and also reflects the ancient planning principles of Feng Shui.” (SmithGroup).



“environment plays a key role in the healing process” SmithGroup



Approach

"To respect the practice of Traditional Chinese Medicine, Shuguang Hospital was conceived in terms of the equilibrium between natural and man-made elements yin and yang. The five time-honored elements of TCM wood, fire, earth, metal and water play a key role in the design. Their expression is found in interior and exterior healing garden and courtyards and an enhanced natural watercourse that flows through the site. The design of Western surgical facilities accommodates more traditional Chinese medical procedures, such as acupuncture for pain control. A special pharmacy containing thousands of natural remedies is fitted with a dedicated HVAC system to handle the dust and heat produced during the preparation of herbal medications" (SmithGroup).

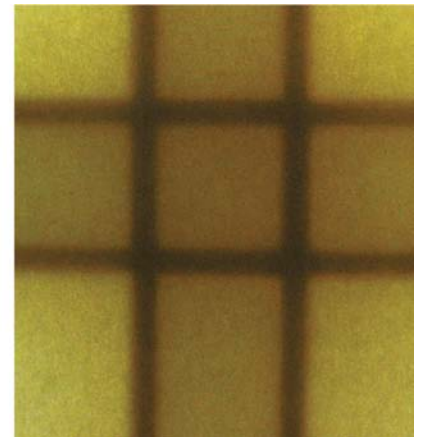
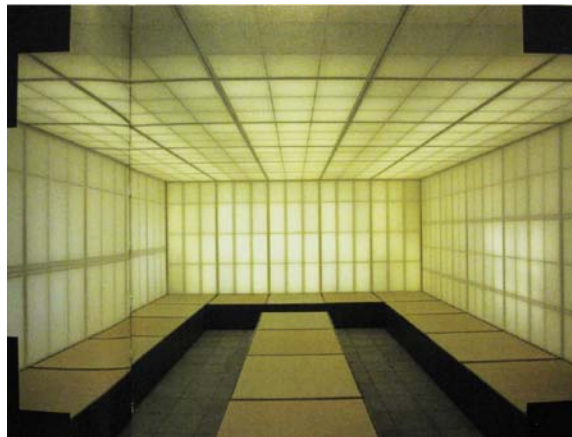
PRECEDENT ANALYSIS

PAPER SPACE

TAKAMATSU, JAPAN

TETSUO GOTO

This space was designed for the sole intention of providing a Japanese store owner a private place so he can get away from the hectic world to practice zazen. In the United States, It is difficult to find spaces that offer similar stress free qualities. The emptiness, carefully designed proportions, and even distribution of light all contribute to the elimination of stress. The plan of the room is structured to the proportions of the tatami mats, which still continues to be the standard unit of measure for room size in Japan.



"A first step toward EMPTYING THE MIND is emptying the SPACE"

Michael Freeman - international photographer and writer, based in London



“The choice was to not focus on any form of worship but to create a space capable of hosting the prayer and meditation for all faiths” Studio Tamassociati

HALL OF MEDITATION AND PRAYER

KHARTOUM, SUDAN. 2007

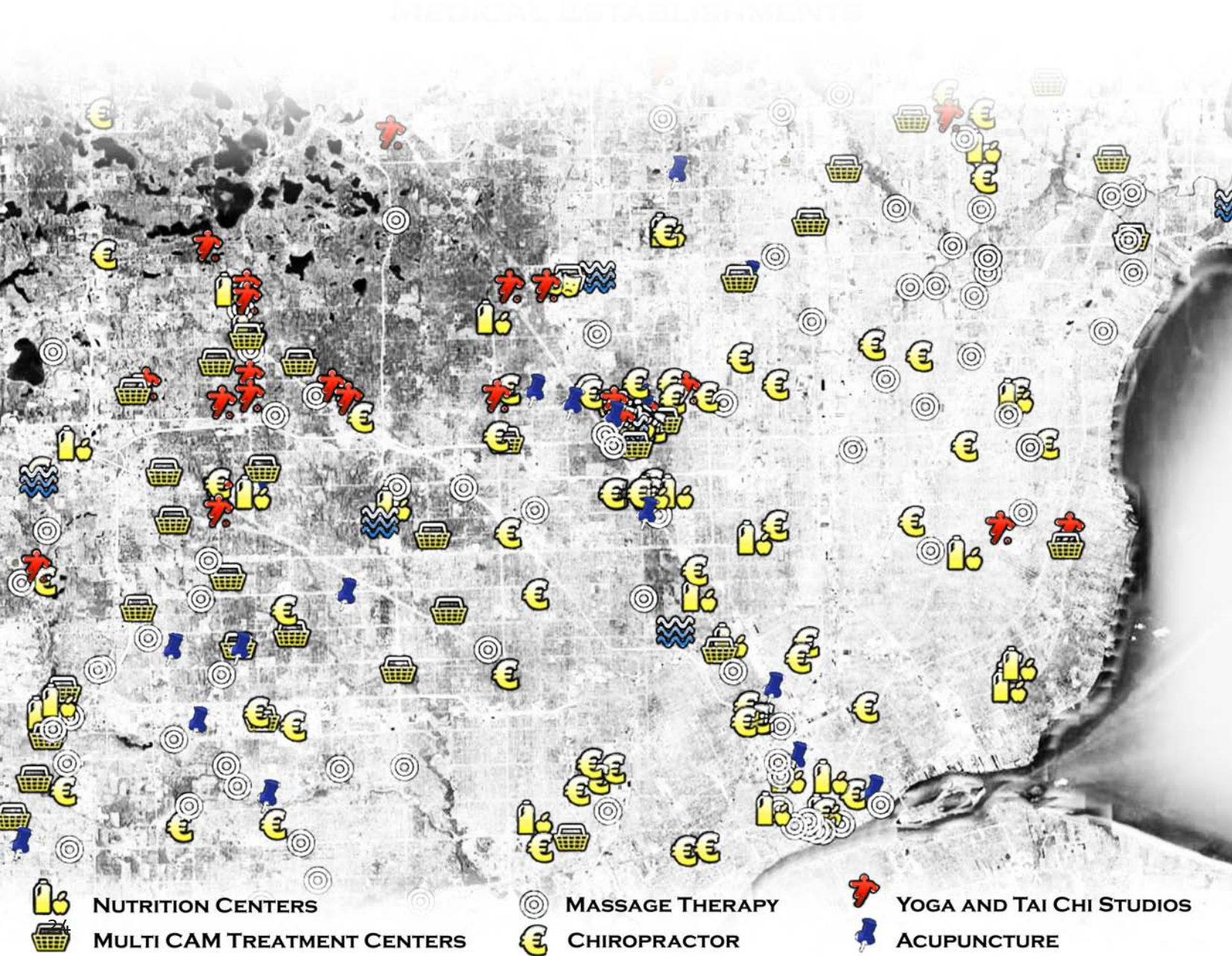
STUDIOTAMASSOCIATI

Another project with design features that play with natural daylight, the Hall of Meditation and Prayer creates a direct connection with nature by having only semi transparent palm leaf stocks between the user and the sky. A conceptual framework that works well to give a higher connection with the intent of the program is Heidegger’s idea of what it means to dwell, especially how he describes dwelling as “In saving the earth, in receiving the sky, in awaiting the divinities, in initiating mortals, dwelling occurs as the fourfold preservation of the fourfold” (Heidegger). While meditation and prayer help people ask questions of their existence, architecture is able to help them remember who, what, where, when, why and how they exist.

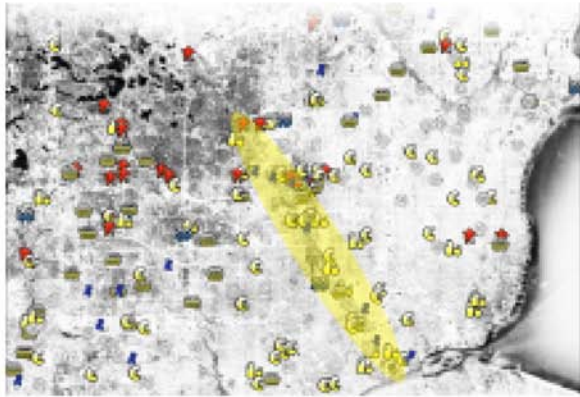
SITE SELECTION

DETROIT, MI

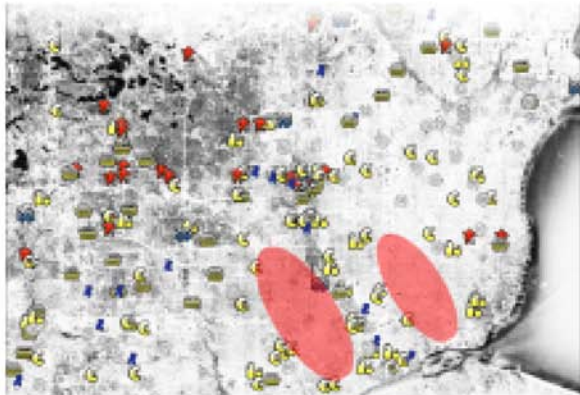
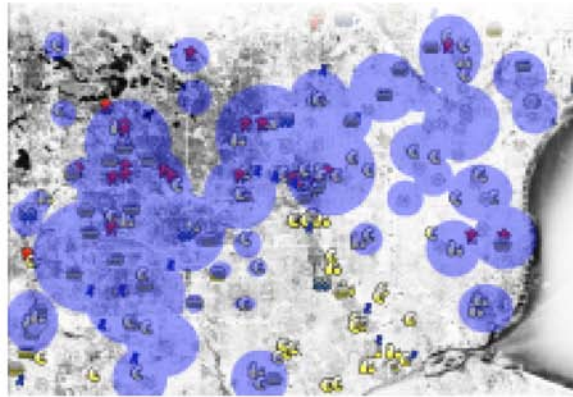
EXISTING COMPLEMENTARY AND ALTERNATIVE MEDICAL ESTABLISHMENTS



MAPPING CONCENTRATION ZONES & VOIDS



CONCENTRATIONS



VOIDS

Site selection became an extensive study with mapping. The first mapping study involved utilizing Google Earth to all of the existing up and running CAM facilities in the Metro Detroit. After some time patterns developed in the process. The majority of the CAM facilities were located just outside the Detroit city limits. The deeper the study went, other trends developed. Another focal point that prevailed is at any of the Downtown beads that are strung along the Woodward corridor.

SITE SELECTION

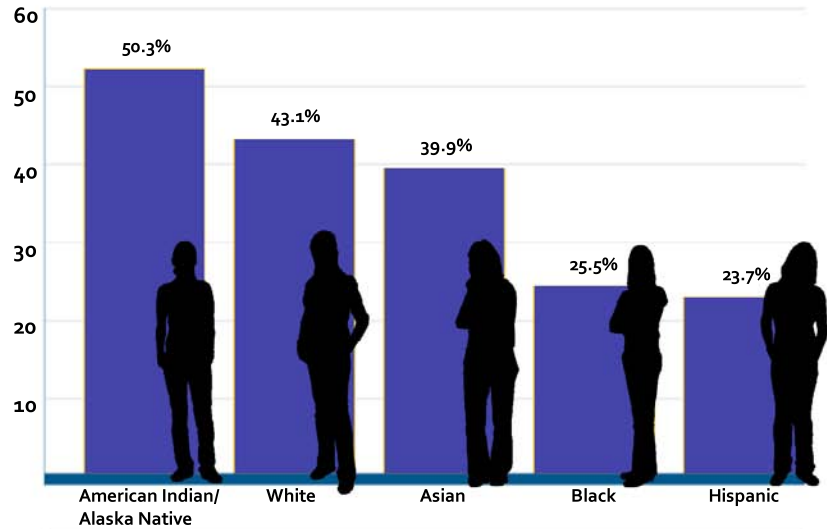
CAM DEMOGRAPHIC STUDY

The Google mapping study led to a study in demographics. The proceeding studies correlated to the Google Earth trends. 43% of the White Caucasian population used some form of CAM within the last year, whereas the Black Complementary and Alternative Medicine usage only amounted to 25% of the population. These studies have shaped the intentions of the thesis to make sure that the site selection and formation of the program strides to align the facility to become stewards in the adjacent community.

But how would a facility that currently relies solely on personal out of the pocket finances be viable in an under deserved community? One way that funds nonprofit organizations is taking advantage of citing their program in a diverse neighborhood where they are able to pull from many different use groups. Another way is to join forces with a larger organization. If the larger organization is granted the chance to grow and expand with a high chance of success they will be more than willing to step in and take leading roles.

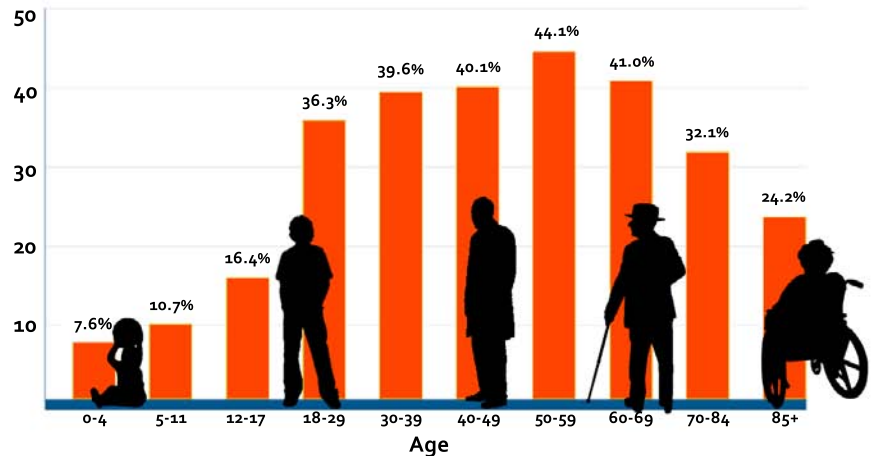
An academic center with a comprehensive school of medicine, college of nursing, and a college of pharmacy and health sciences that does not already offer courses in CAM is Wayne State University. Students interested in getting a degree in these three fields will be at a loss if they are not introduced to CAM. Doctors are faced every day with answering the patient's questions about alternative means of regaining their health and if improperly prepared to answer such questions one may lose a patient to another healthcare system.

CAM Use by Race/ Ethnicity Among Adults - 2007



Source: Bames PM, Bloom B, Nahin R. CDC National Health Statistics Report #12. Complementary and Alternative Medicine Use Among Adults and Children United States, 2007. December 2008.

CAM Use by Age - 2007



Source: Bames PM, Bloom B, Nahin R. CDC National Health Statistics Report #12. Complementary and Alternative Medicine Use Among Adults and Children United States, 2007. December 2008.

SITE ANALYSIS

MAPPING WAYNE STATE UNIVERSITY AREA

EDUCATIONAL ANALYSIS

Inserting a wellness center on the perimeter of a university has more than its fair share of advantages. First off, university towns located close to the downtowns of major cities have some of the most diverse sets of demographics. Reasons that might explain why these conditions exist include the fact that large universities award minorities scholarships, professors tend to want to live close to where they work, students rent apartments and small houses close to their university, local businesses feed off of the college students and staff, and the list goes on.

The wellness center could act as a link for connecting the university students and staff with the surrounding communities. For instance, the wellness center in this project will be connecting WSU and Midtown to the Woodbridge Neighborhood. What else does the university offer other than organizational support and a source of income? With all of the students having to complete labs, conduct so many clerkship and residency rotations, conduct an overwhelming amount of research, and develop meaningful theses projects and papers, there will be more than enough service support and extra hands to conduct the needed CAM research. Having a large student body also lends help on getting a large enough sample size when conducting much needed research.



- WSU PARKING STRUCTURES
- WAYNE STATE UNIVERSITY
- ELEMENTARY SCHOOLS
- HIGH SCHOOLS



RESIDENTIAL ANALYSIS

The majority of the residential makeup happens to be single family homes, but there is also a strong presence of multi-family residences and a couple of senior centers nearby. The wellness center will be able to treat a multitude of patients, all with vastly different health conditions and concerns.



75

75

94

94

SITE

SINGLE FAMILY RESIDENTIAL

MULTI-FAMILY RESIDENTIAL

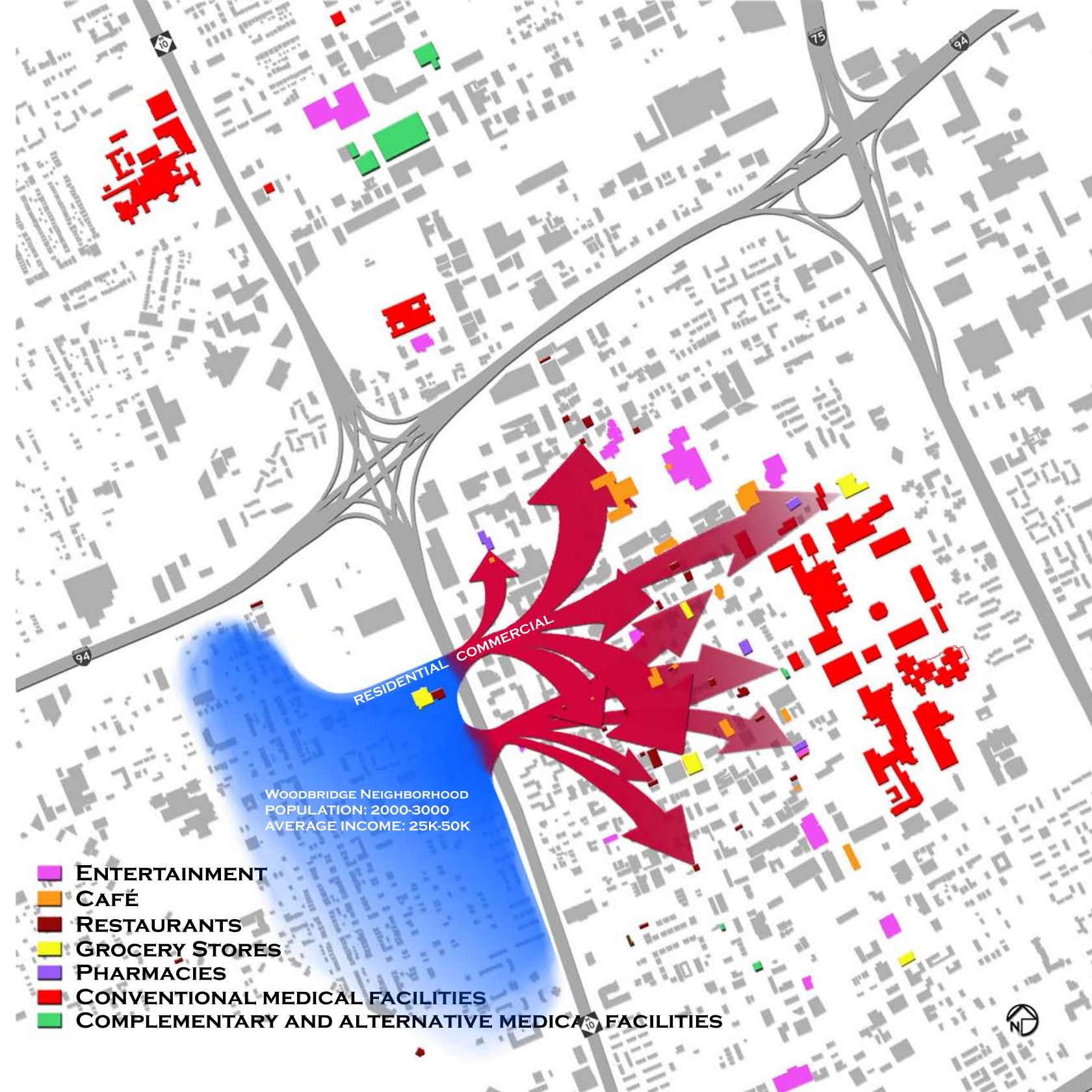
WSU COLLEGE DORMITORIES

ASSISTED LIVING



COMMERCIAL AND RETAIL ANALYSIS

The commercial and retail map tells a story of movement. Almost all of commercial and retail enterprises center around Midtown so, if a residence of Woodbridge wants to get a coffee at the café, they must travel to Midtown. This movement between Midtown and Woodbridge becomes concentrated along the two streets that span over the Lodge Freeway. If located on the surface parking lot owned by Wayne State University along Warren Avenue, the wellness center would be able to take advantage of the street presence that already exists. Currently the lot is detrimental to the urban fabric, creating a massive void in the streetscape.



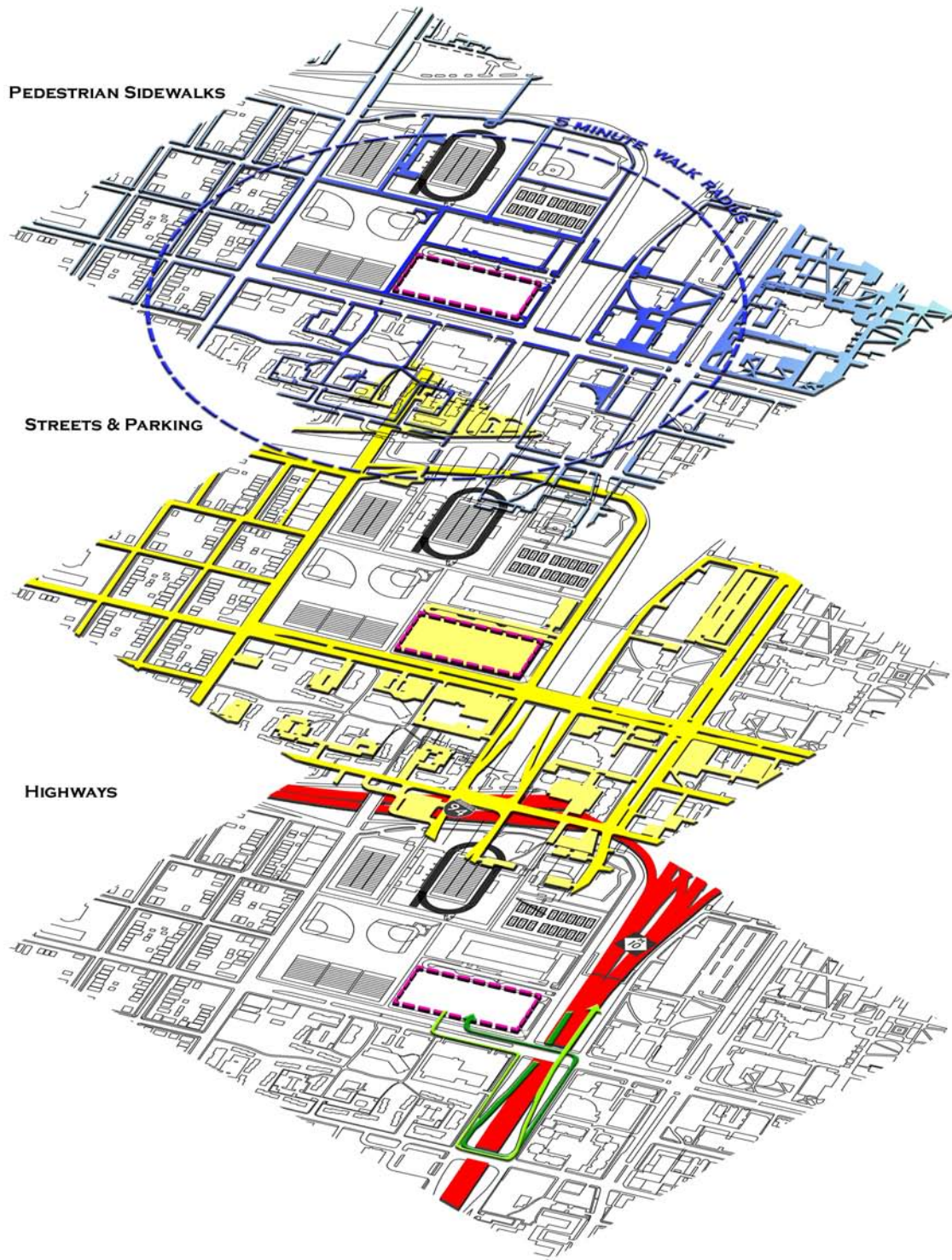
WOODBRIDGE NEIGHBORHOOD
 POPULATION: 2000-3000
 AVERAGE INCOME: 25K-50K

- ENTERTAINMENT
- CAFÉ
- RESTAURANTS
- GROCERY STORES
- PHARMACIES
- CONVENTIONAL MEDICAL FACILITIES
- COMPLEMENTARY AND ALTERNATIVE MEDICAL FACILITIES



TRANSPORTATION ANALYSIS

Access to the site is crucial to any health care facility. Locating the wellness center right off of the Lodge Freeway offers easy access for commuters heading to and from downtown Detroit. Ease of access strengthens retainage of returning patients. By car, a patient can reach the parking lot minutes after exiting the freeway. By foot, the five minute walk radius reaches the core of Wayne State University, the new Woodbridge Estates community, Miracles Park, Freedom Place apartments, University Meadows apartments, and many single family homes. A few more minutes will get you to the Detroit Institute of Arts, the Detroit Science Center, and the Detroit Public Library. By bike, a fifteen minute ride can get you all the way to the sports stadiums downtown.

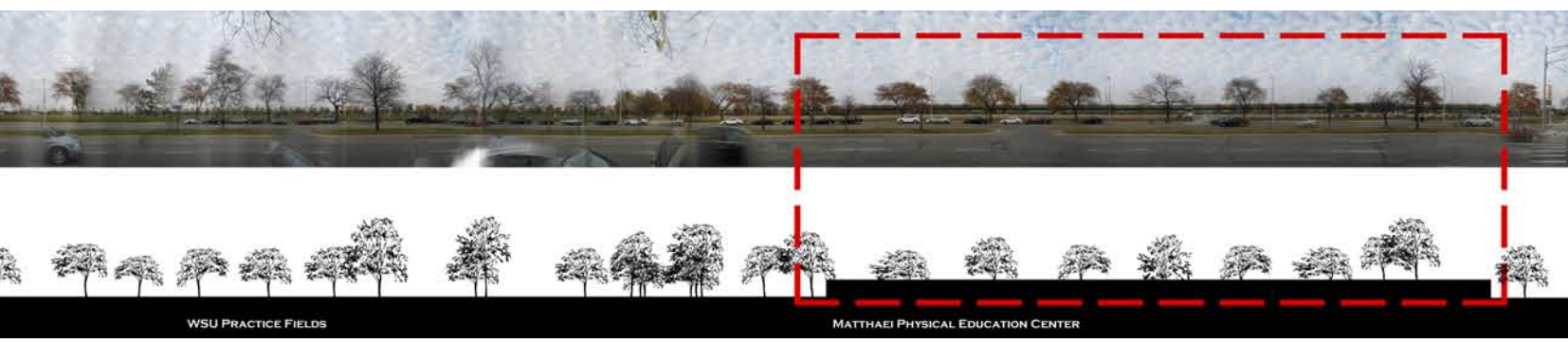
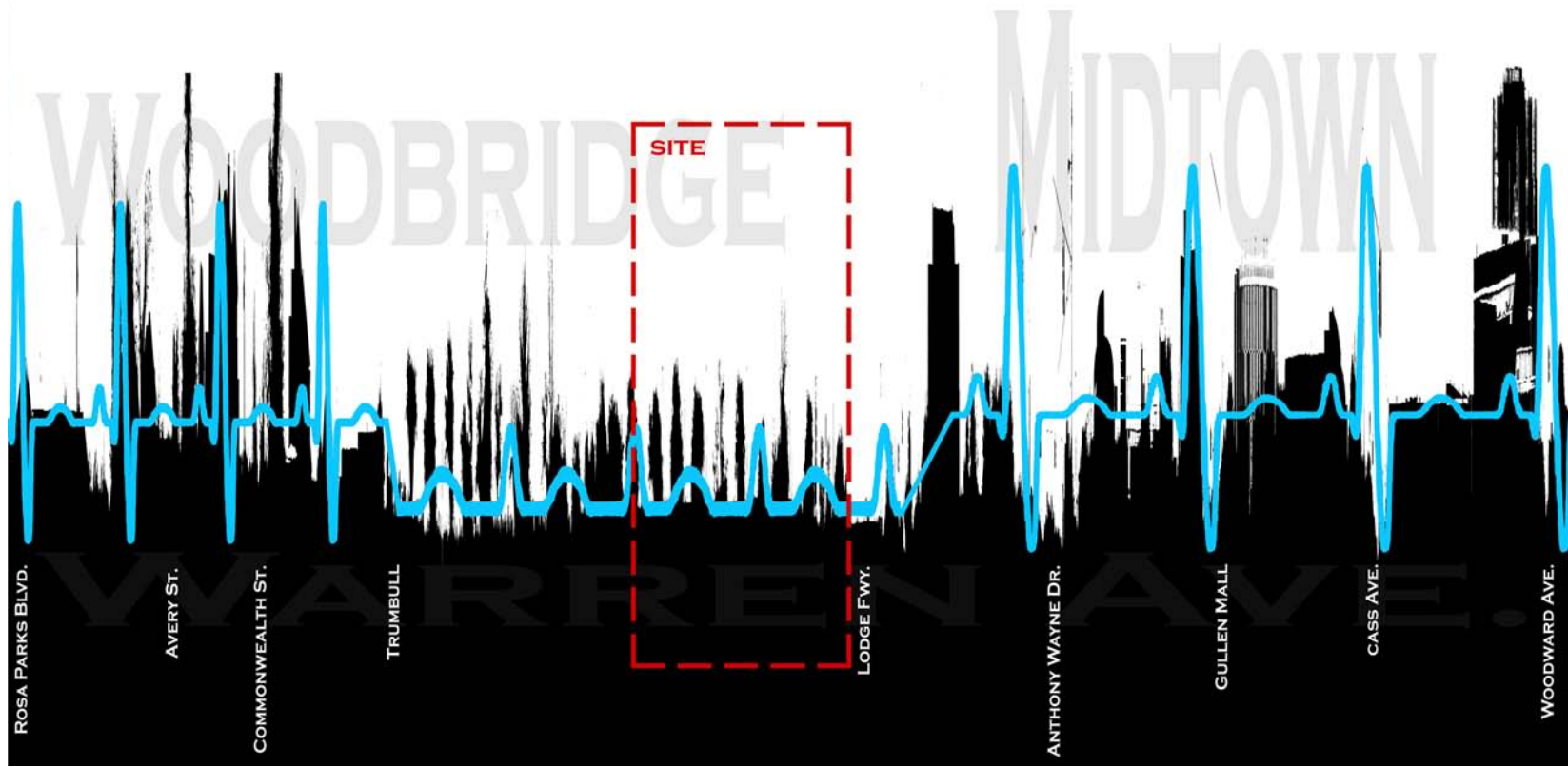


SITE DOCUMENTATION

Street Elevation Along Warren Ave. West of the Lodge Freeway

Division between campus and community is manifested in the vignette on the opposite page. The community is cut off from all of the energetic street presence the students regularly create. Physical barriers between WSU and Woodbridge community are the lodge freeway and the lengthy section of barren playing fields and surface parking lots. The blue line suggests a moment when the urban environment has flatlined. While most parks in metropolitan cities act as a breath of fresh air, the playing fields and surface parking lot form a dead zone in the urban fabric.





SITE DOCUMENTATION

Street Elevation Along Warren Ave.
East of the Lodge Freeway



LODGE FWY.

ANTHONY WAYNE DR.



Wayne State University buildings along Warren Ave. display their openness to exploring a variety of different architectural styles, building heights and choice of materials. Materiality of the surrounding buildings include a diverse palette to work with.



GULLEN MALL

CASS AVE.

WOODWARD AVE.

BIOLOGICAL SCIENCES

LIFE SCIENCE

SCIENCE HALL

**BARNES & NOBLE
CAMPUS BOOK STORE**

PARKING GARAGE

WSU WELCOME CENTER

SITE DOCUMENTATION

Surrounding Context

Down the road you will find some of Detroit's finest historically preserved single family homes. Woodbridge has what local architect Graig Donnelly explains "a very strong undercurrent of activism that has come out of urban renewal projects and expansions of local institutions." Donnelly is the executive director of the Woodbridge Neighborhood Development Corporation.



A great example of a historically preserved Victorian style house less than a mile away from the site.





The "Simms" attached Condo model



Newly renovated senior housing



The "Horton" single family home model

Development new to the Woodbridge community is Woodbridge Estates, a development with 100 single-family houses, 245 apartments and a senior community with nearly 300 units.

PROJECT PROGRAMING

Programming the Complementary and Alternative Medical Wellness Center will be one of the most important factors that will determine its success. The moves made programmatically will in effect be in response to what was found to be deficient in today's CAM centers. To summarize these deficiencies, CAM centers of this decade have little effect on community wellness and only focus on the individual patient. Their presence in the community is almost non-existent. Their scope of wellness is limited to the size of their facilities and the short supply of trained professionals. Often each facility only specializes in one of the four domains of CAM. It is difficult to see CAM progress past what it is today if the programmatic elements remain static.

Starting with how the Wellness Center programmatically responds at an urban level, the center engages the street by taking presence right up to the sidewalk. Every establishment that resides on a major thoroughfare close to the downtown of a main city should accommodate for the pedestrian by giving them places to shop and eat. Planned for the first level along Warren Avenue will be a natural products pharmacy, a tea and coffee shop, a healthy bakery, a mom and pop owned Mind Body and Spirits restaurant that purchases the majority of their produce from local farmers and vegetable gardeners, and leasable space for companies or individuals that have businesses that foster healthy lifestyle choices.

Just above and behind the retail spaces is where the educational spaces take place. The first level houses the administrative spaces and a teaching kitchen integrated with an auditorium. The second third and fourth floors house the classrooms, computer labs and chemical biology labs. The vertical circulation to these spaces is celebrated in the atrium.



Street View Collage

A supplementary program that will act as the knuckle to the Complementary and Alternative Medicine spaces and Wayne State University learning spaces will be a library/media center. In an age where time has value, waiting for treatment often has an effect on whether or not the patient will return another day. The wellness center will by all means eliminate waiting by not providing space for people to wait. Instead of waiting, the patients can spend time before their treatment looking for a healthy living book to check out or to browse the internet, write emails to loved ones or co-workers, or even pay some bills online. If the patient is occupied while waiting there is a good chance that time will go much faster.

The emphasis on collaboration has been a driving force when programming out the spaces for the CAM professionals. The first intuitive attempt was to bring together each sub group classification of CAM. The first category is Mind-Body Medicine. These types of therapies include Meditation, Yoga, Imagery, Tai Chi, Hypnosis, Humor, Prayer, and Ayurvedic Medicine. Biologically Based Practices include Nutritional Wellness, Dietary Supplements, Aromatherapy, and Homeopathic Medicine. Manipulative and Body Based Practices include Massage Therapy, Chiropractic, Alexander Technique, and reflexology. Energy Medicine includes Reiki, Acupressure, Light Therapy and Qui Gong.

After laying out the spaces, it became apparent that there was a disconnection. Collaboration in each sub group was realized but not amongst all of the professionals. Also, the yoga forms were not participating in unionizing the CAM professionals with the students and the community. Further study of the yoga element needed to be explored.

After meditative thought about how might the future of CAM progress, programming then started to shape the spaces. Observing how and where people collaborate also had a profound impact on shaping the spaces. Widening the halls at one end of the cam spaces allows for more shared and social spaces for



Library/ Media Center Collage

spontaneous collaboration. Providing comfortable furniture in these social spaces completes the notion of gathering for extended periods of time.

Some CAM therapies require more privacy than others; therefore a way of separating the various levels of privacy had to be accommodated. This separation happens sectionally. The more private CAM therapies, such as massage therapy, take place on the second level. To physically connect the two levels, the center of the second level will be open to the first, allowing the space to act as an atrium with shared light from above. Allowing for vertical views gives the ceiling a chance to enhance the experience. This is where the yoga form makes a connection from one space to the next.

The captured spatial elements of yoga movement formed a series of modulated spaces each with distinctly different roof lines and wall angles. In some spaces it is difficult to tell whether the surface is a wall or a ceiling. The spaces that become unable to be occupied because the surface becomes too low is where the most interesting spaces exist sectionally. The ground plane is cut in at these interventional spaces. The first space provides raked seating for planned instructional teaching for any of the CAM therapies. A pool was implemented in the second space that was formerly deemed inhabitable. What becomes just as exciting as the articulated ceiling is views of the articulated surface from the exterior.

The sections of roof that cover the CAM spaces are clad in an extensive green roof that captures the eye of anyone who passes the wellness center. The green roof is designed to integrate the surrounding landscape in with the building. The WSU playing fields in the site adjacent to the wellness center are blanketed with a rich green lawn that spans an eighth of a mile square. It is a gem that can't be fully appreciated when you drive past because the land flat as the tarmac. The green roof was used to give homage to the plane of grass by bringing up the side of the building into clear view.

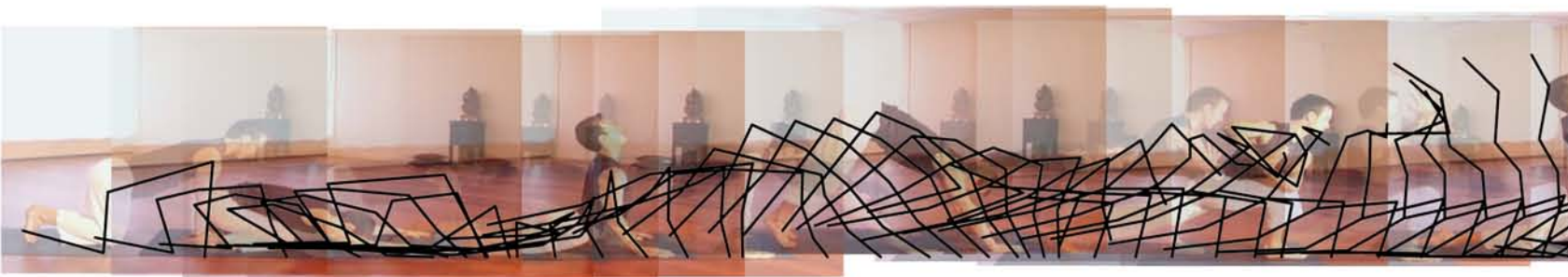
Some of the most enjoyable programmed spaces are integrated into the landscape. The yoga formed modules of building created space for a programmable public plaza. This sun soaked space will be programmed as a vegetable garden labyrinth. The labyrinth path will undulate below grade to bring visitors all the way to eye level with the raised gardens, allowing for more intimate sights and smells. The intent is to build up the visitor's expectations of the care they should expect from the CAM professionals.

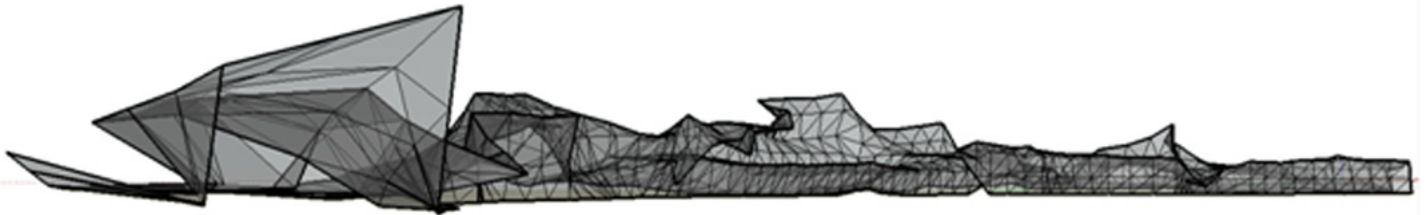
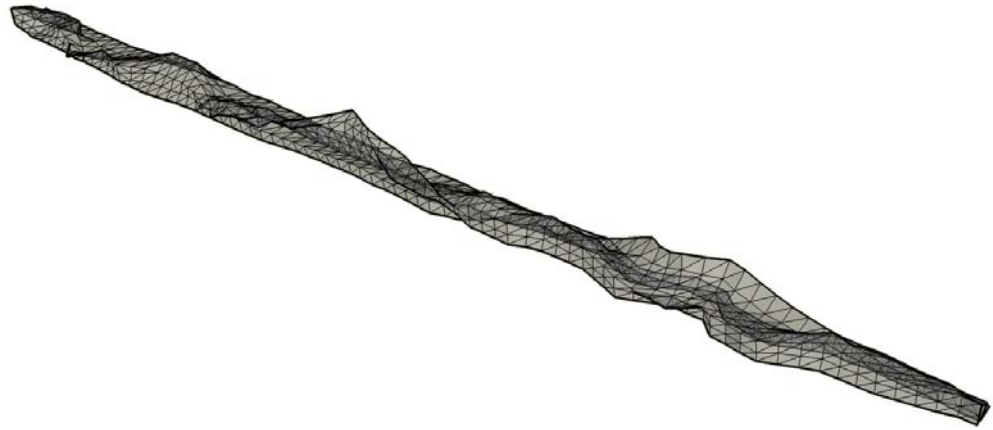
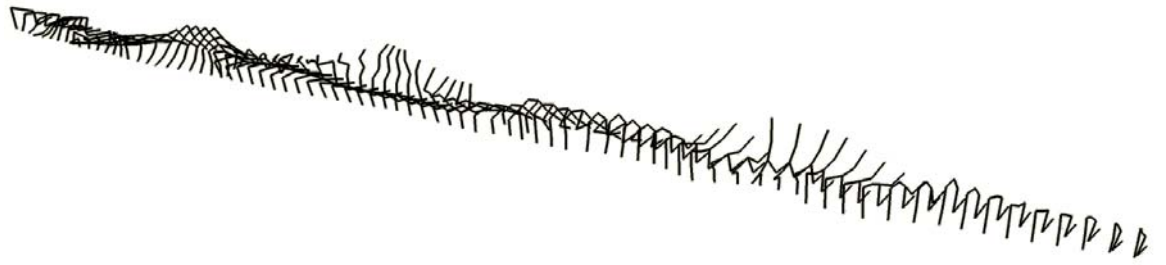
Program	Quantity	Size (sq ft)		
Wayne State University School of Complementary and Alternative Medicine			Mind-Body Therapies	
Classroom Size A (20 Students)	34	500	Hypnosis Office	1 150
Classroom Size B (45 Students)	16	1100	Ayurvedic Medicine	1 150
Lecture Classrooms	4	3000	Yoga/Tai Chi Studio A	1 600
Chemical biology labs	8	300	Yoga/Tai Chi Studio B	1 300
Computer labs	4	250	Group Therapy	1 1000
Lecture Space	1	900	Mind-Body Collaborative Space	1 500
Main Office	1	2500	Biologically Based Therapy	
Offices for Professors	12	120	Pharmacy	1 4000
CAM Instructional Teaching Theater	1	1000	Nutritional Wellness Office	1 150
Teaching Kitchen	1	1000	Energy Medicine	
Kitchen Auditorium	1	2000	Reiki Therapy Room	2 120
Media Center/Library	1	4000	Acupuncture Therapy Room	2 120
Janitors Closet	2	80	Light Therapy Room	2 120
Staff Washroom	2	120	Retail	
Staff Break Room	1	200	Healthy Bakery	1 900
Conference Room	2	200	Mind Body and Spirits Restaurant	1 2400
Storage	2	200	Natural Products Pharmacy	1 1500
Manipulative Based Practice			Lease out Space	2 2000
Massage Therapy Room	5	120	Auxiliary Spaces	
Couples Massage Therapy Room	1	160	Pool	1 2000
Chiropractic Adjustment Room	4	120	Locker Rooms	2 500
Alexander Technique Office	1	150	Fitness Center	1 3000
Rolfing Office	1	150	Shipping, Receiving, and Storage	1 3500
Chiropractors Office	1	150	Circulation/Gathering Space	
CAM Collaborative Space	1	1000	10000	
			Overall Total	93,200

DESIGN PROCESS

Spatial Studies in Movement

While the current translation for yoga includes the union between mind, body, and spirit, the original translation came from the ancient Sanskrit meaning for “union”. This thesis will use yoga as the “uniting” element of design. To capture the spatial qualities involved with the practice of yoga, a rigorous tracing of the authentic movements was performed. These traces were mapped in equal distances from one another and the ending result has produced an elegant composition of lines that have guided the design process.

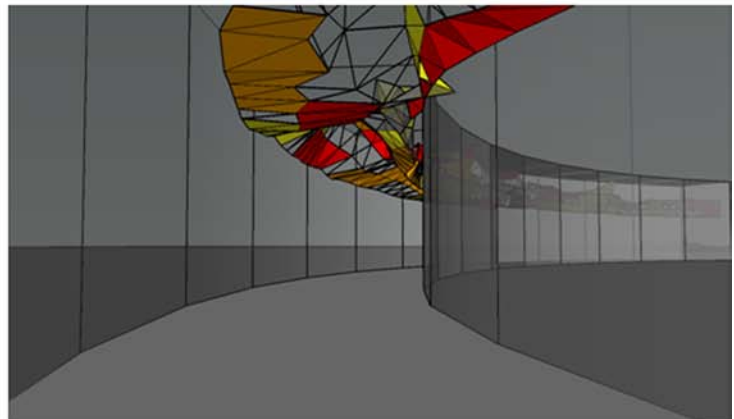
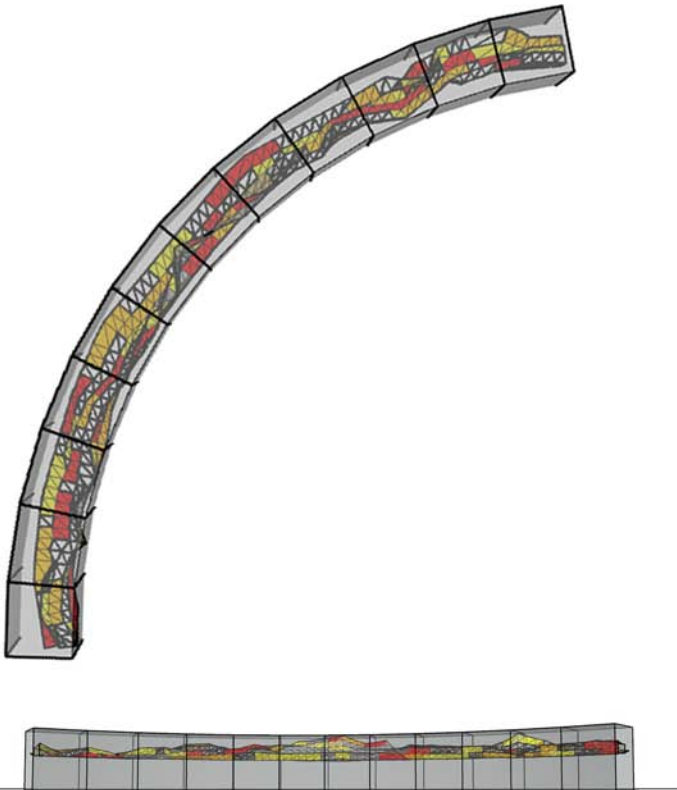


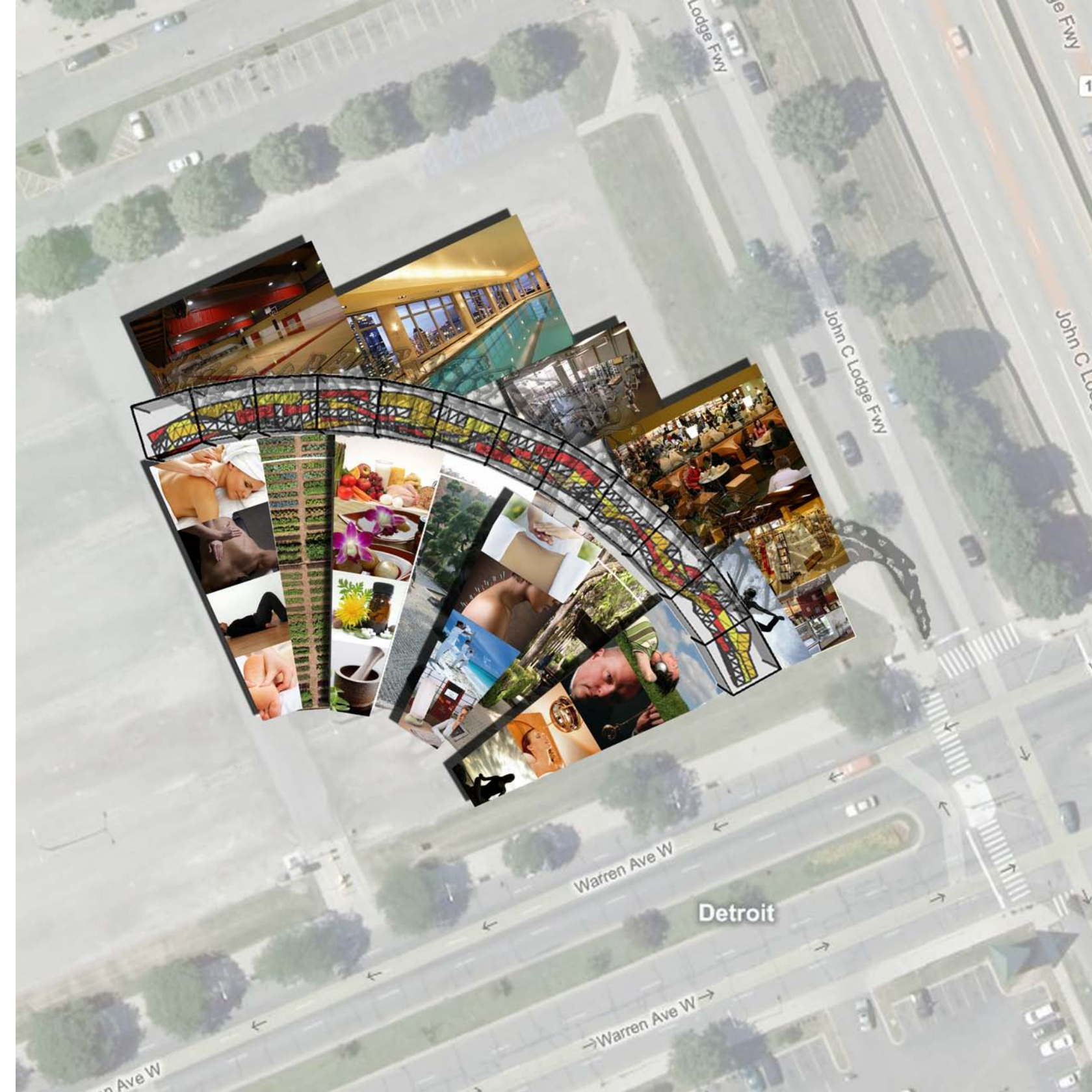


SCHEMATIC DESIGN 1

Yoga as a Organizational Element

After capturing the spatial qualities of the movements in yoga, the first attempt of organizing the programmatic elements of the wellness center were made. The undulated surface created acts as a way finding element, connecting all of the program elements to a naturally curved circulation spine. The Idea was to weave bright colored fabric though suspend bamboo poles shaped to associated yoga poses. The overall goal was to eliminate any chances of adding stress to the users. One of the most prevalent problems current healing environments face is wayfinding, especially hospitals that have grown over time like a organisms. By presenting the user with an unforgettable cue that they have entered the main circulation space, there would be a less likely chance that they will develop stressful thoughts of being lost.





...e Fwy

Lodge Fwy

John C Lodge Fwy

John C Lodge Fwy

Warren Ave W

Detroit

→Warren Ave W→

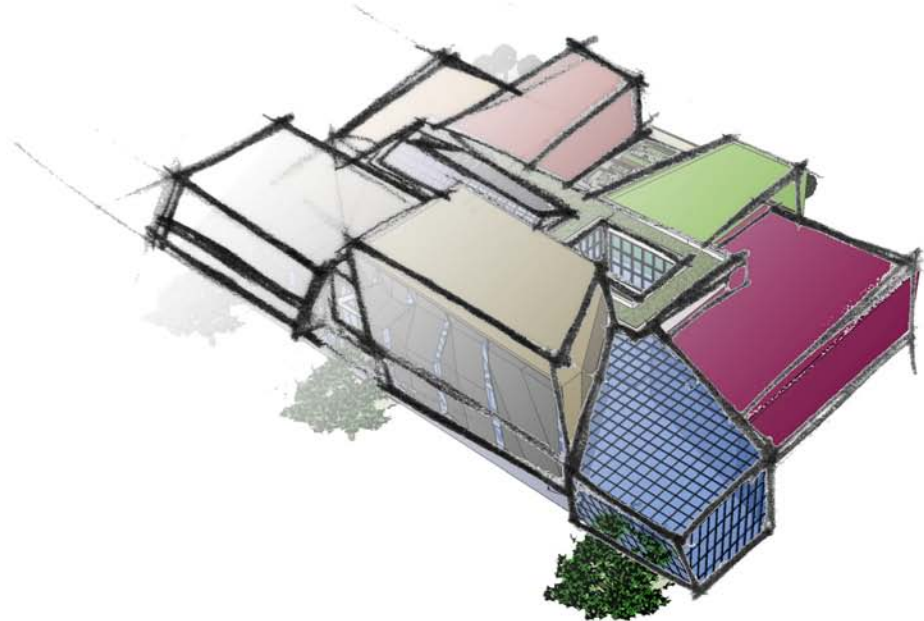
...n Ave W

SCHEMATIC DESIGN 2

Urban Programmatic Diagram

A new design scheme was formed to complement the urban site conditions. The previous design did not contribute to urban fabric. The façade and massing now addresses both the city scale and the pedestrian scale. The buildings now have a strong relationship with the street, while also contributing a range of articulated rooflines. The main entry brings presence to the street corner, enticing street-goers to enter.

To add to the user-focused service environments inside, a central atrium space is now the element connecting all of the programs. This space allows for an elimination of a physical barrier between the user and the Complementary and Alternative Medicine offices. Removing the doors from the threshold will create a more inviting presence, allowing people to “browse around” and discover the healing environments within.



Lodge Service Drive

Labyrinth Garden

Manipulative and Body
Based Practices

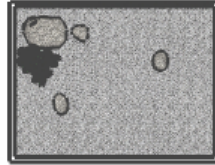
Energy Medicine

Biologically Based
Therapies

Mind Therapies

Entry

Central Atrium Space



Zen Garden

Wayne State University
Classrooms

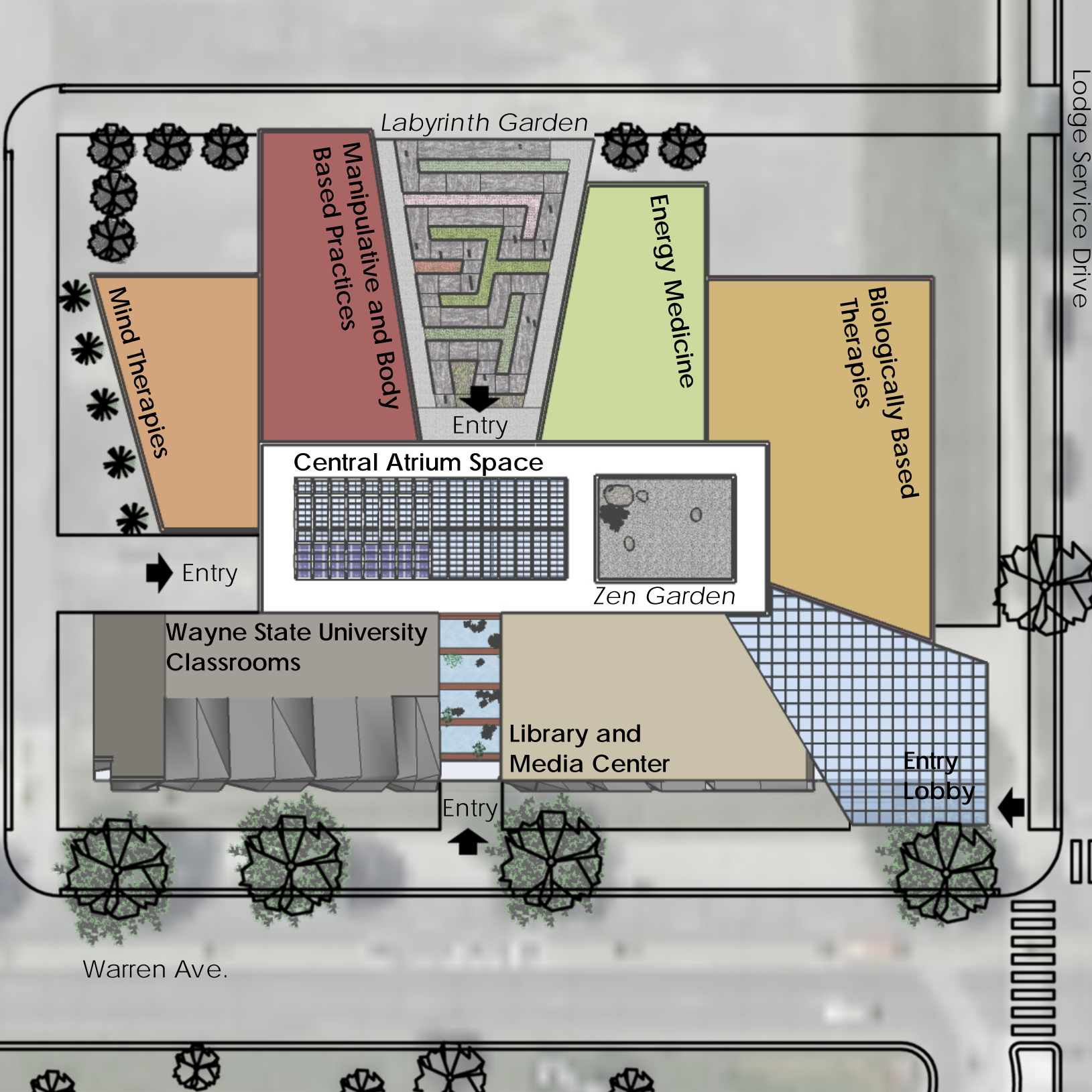
Library and
Media Center

Entry
Lobby

Entry

Entry

Warren Ave.



SCHEMATIC DESIGN 3

Yoga Space

Zooming in on individual sections of the yoga movement study has developed other architectural features worth exploring. Looking at figure 1, notice how the two closest forms lean in on each other. If one imagines walking through them a sense of comfort might set in, perhaps because it looks like their masses would support each other or their form might mimic a ritualistic bow or genuflect used by many different cultures.

Figure 2 has qualities that inform a closeness to nature. Its naturalistic curves present the impression of a mountainous terrain. Since clinical trials done by Roger Ulrich in 1984 have concluded that views of nature through a hospital window reduce the duration of hospitalization and pain medication usage of recovering surgical patients, consequently the built environment might offer a similar healing influence if we are able to distinguish a connection to naturalistic forms.

The last form captures the essence of movement. An architectural element that uses movement in a similar fashion would be shading devices or solar panels moving with the changing angle of the sun.

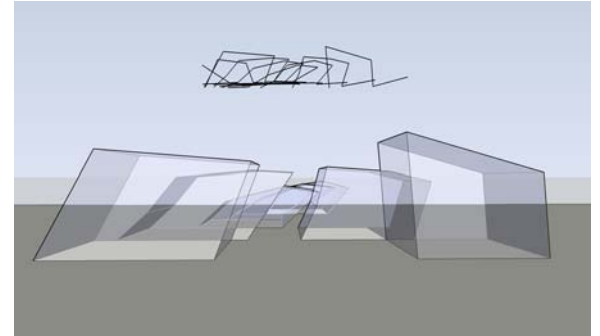


Figure 1

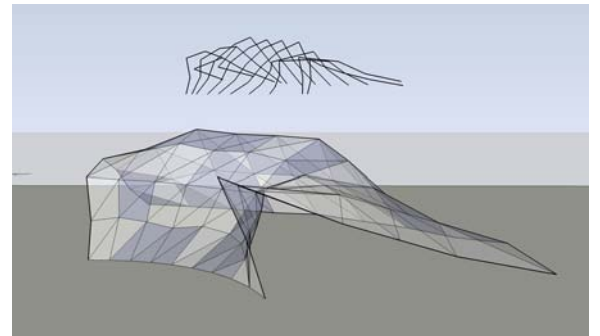


Figure 2

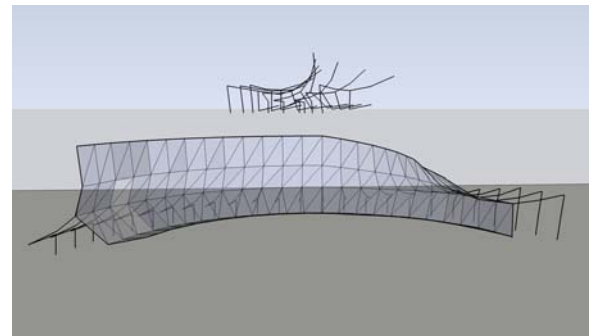


Figure 3



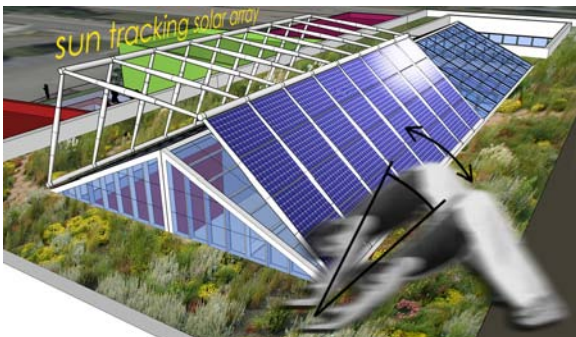
Façade

The Façade facing Warren Avenue takes advantage of the comforting sense developed by figure 1. The inward leaning structures have the appearance of two masses supporting each other. Street-goers are able to take refuge from the elements in the covered void while waiting for a bus.



Entry Lobby

The entry leans over into the pedestrian air space distinguishing itself as the place of entry. While not fully developed yet, the goal is to enliven the space with a terrarium in the upper level for birds to fly freely. Animals provide helpful distractions to hectic city lives.



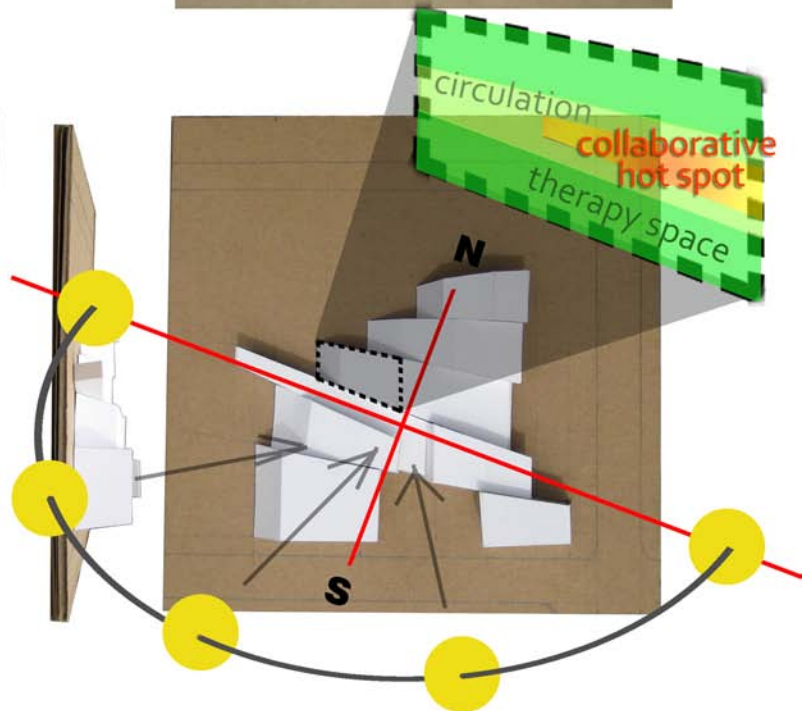
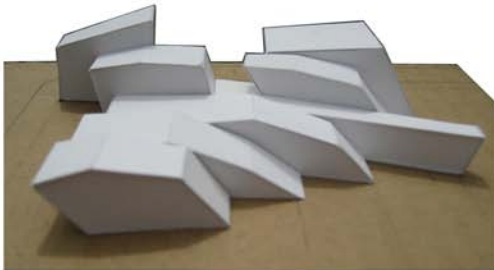
Roof Detail

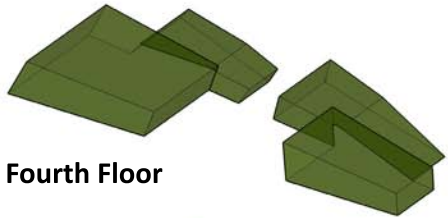
Over the atrium space will be an array of sun tracking photovoltaics. The structural elements allow for the photovoltaics to tilt so that they can align with the angle of the sun.

SCHEMATIC DESIGN 4

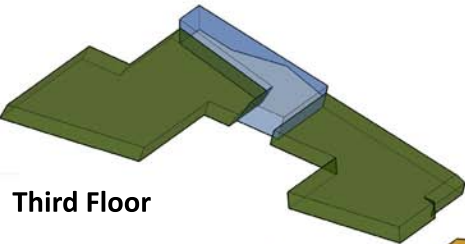
Final Yoga Space Design Approach

The last schematic design phase looked at the yoga movement study as a play in sectionally articulated space to produce modules of building program. The first process involved physically modeling the forms. The static forms were then pulled and stretched across the site to accommodate for the various ideas produced in the earlier studies of cogitating CAM centers through the lens of other architectural building types. Solar orientation also influenced the stretching of modulations.

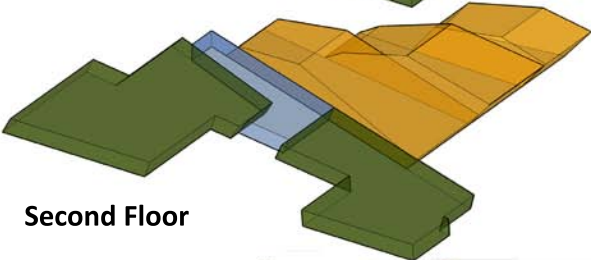




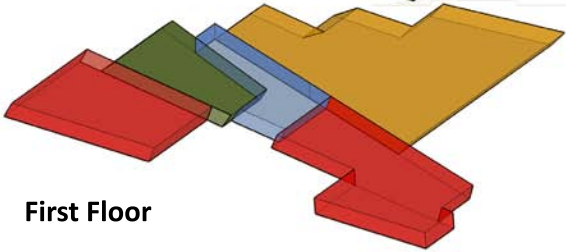
Fourth Floor



Third Floor



Second Floor



First Floor

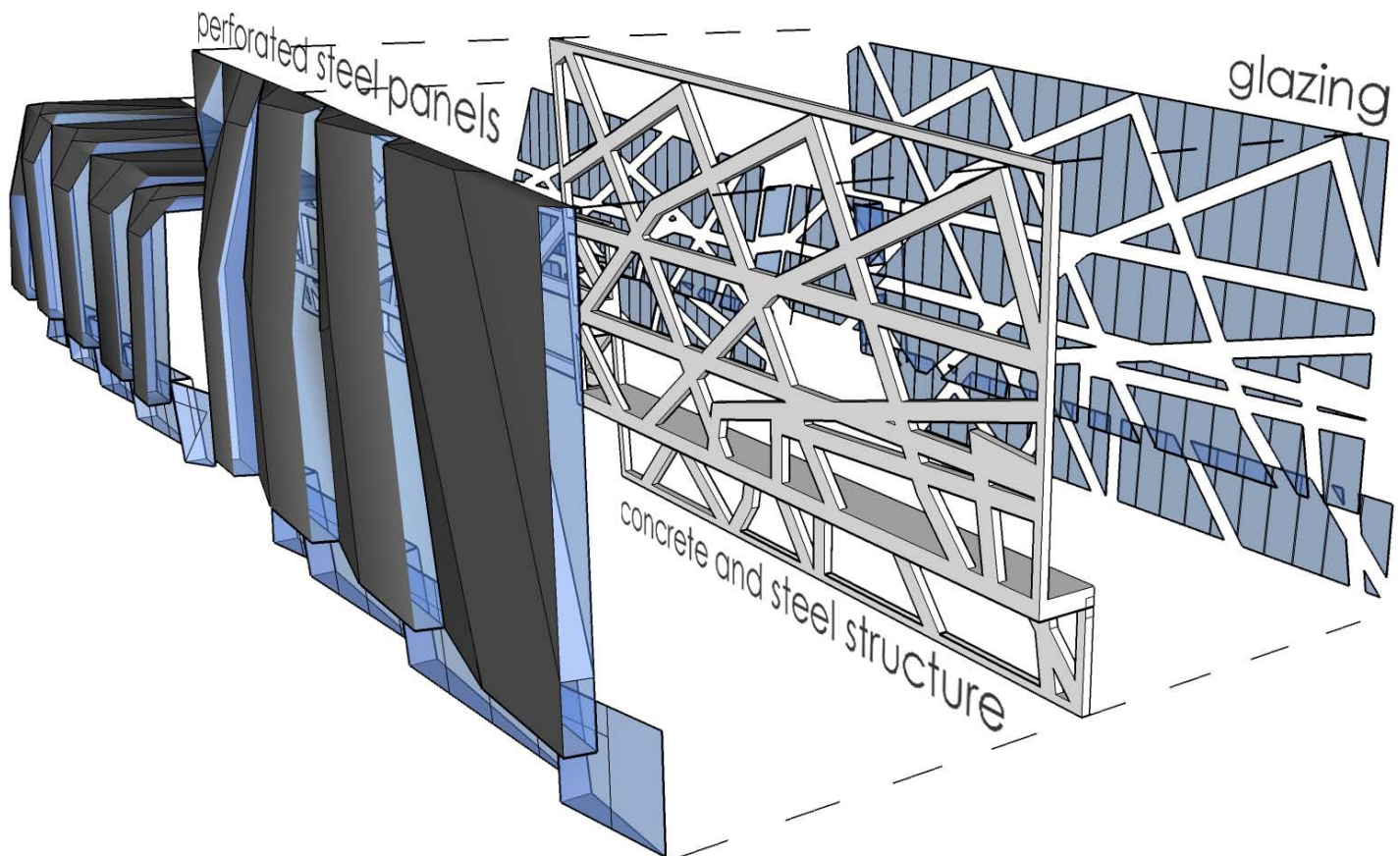
- CAM
- WSU
- Entry and Reception
- First Floor Retail

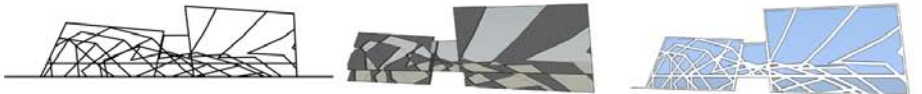
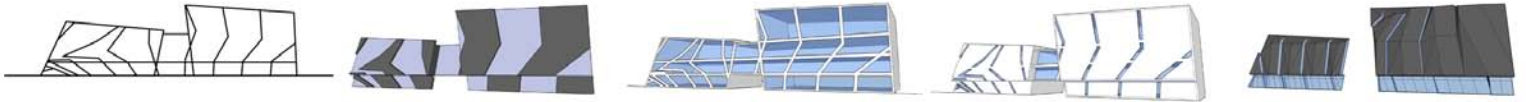
Developing the programs into the form came natural. The retail spaces hold the street's edge, the educational spaces happen behind and above the retail, and the Complementary and Alternative Medicine spaces fill in behind.

Design Process

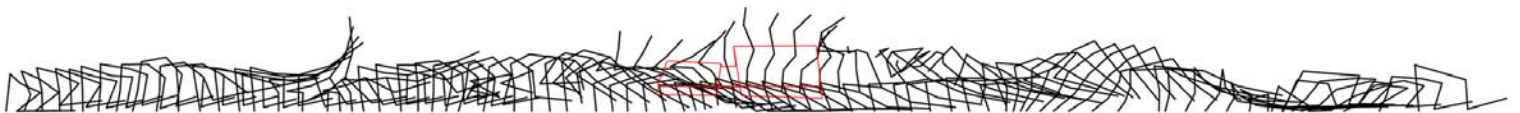
Façade Study

The most important façade of the wellness center will be the one facing Warren Avenue. Not only does it have to create the image of the attention to care each patient should expect to receive within, but it also must protect the users from the harsh southerly exposure to the sun. The wall is composed of three layers. The first outermost layer is made up of operable perforated steel panels that act as a buffer for the cold months and a sun screening device during the warmer months. The next two layers include a preformed, highly reinforced concrete structure with an insulated, non structural, double glazing system. At night, the interior lights reveal the pattern of the structural elements.

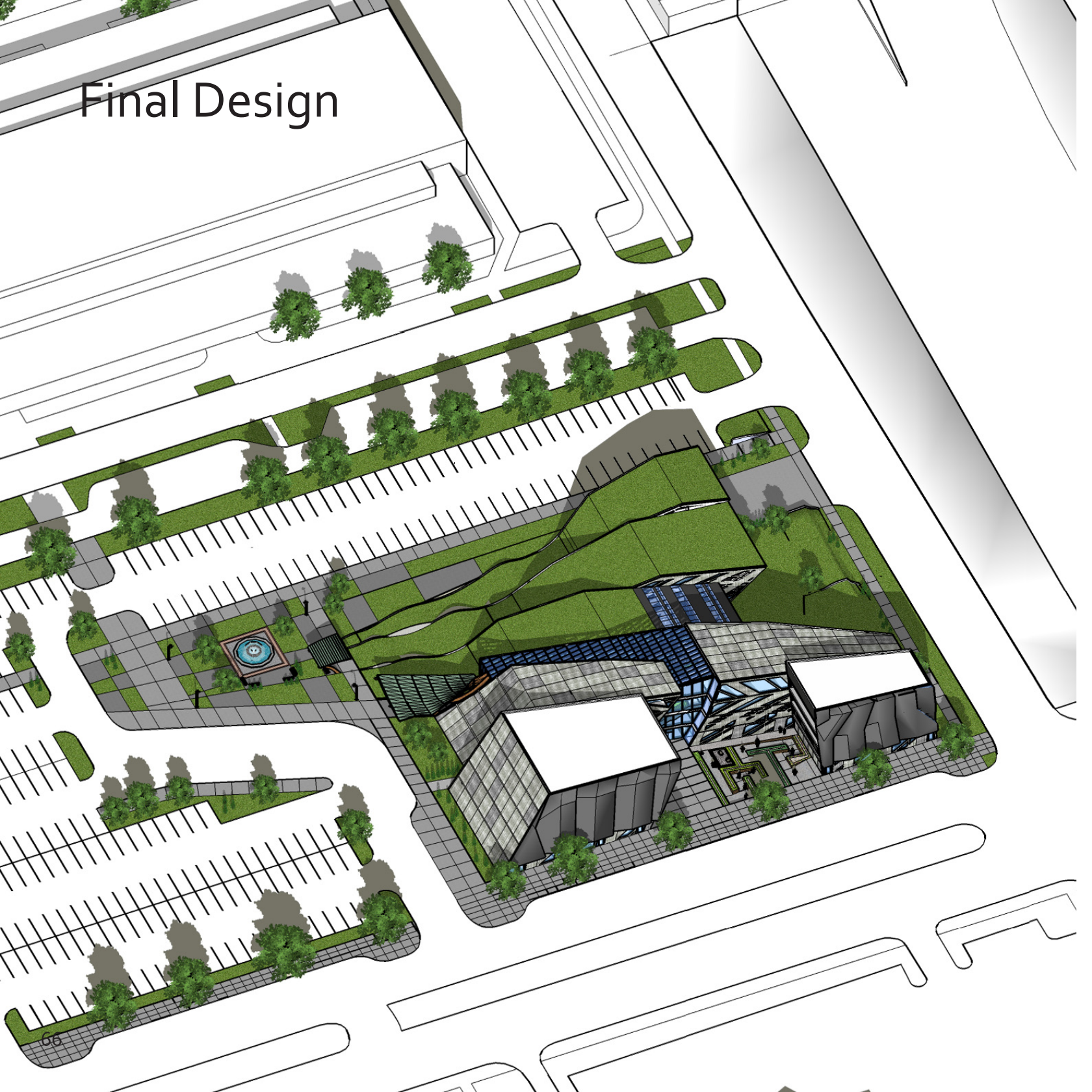


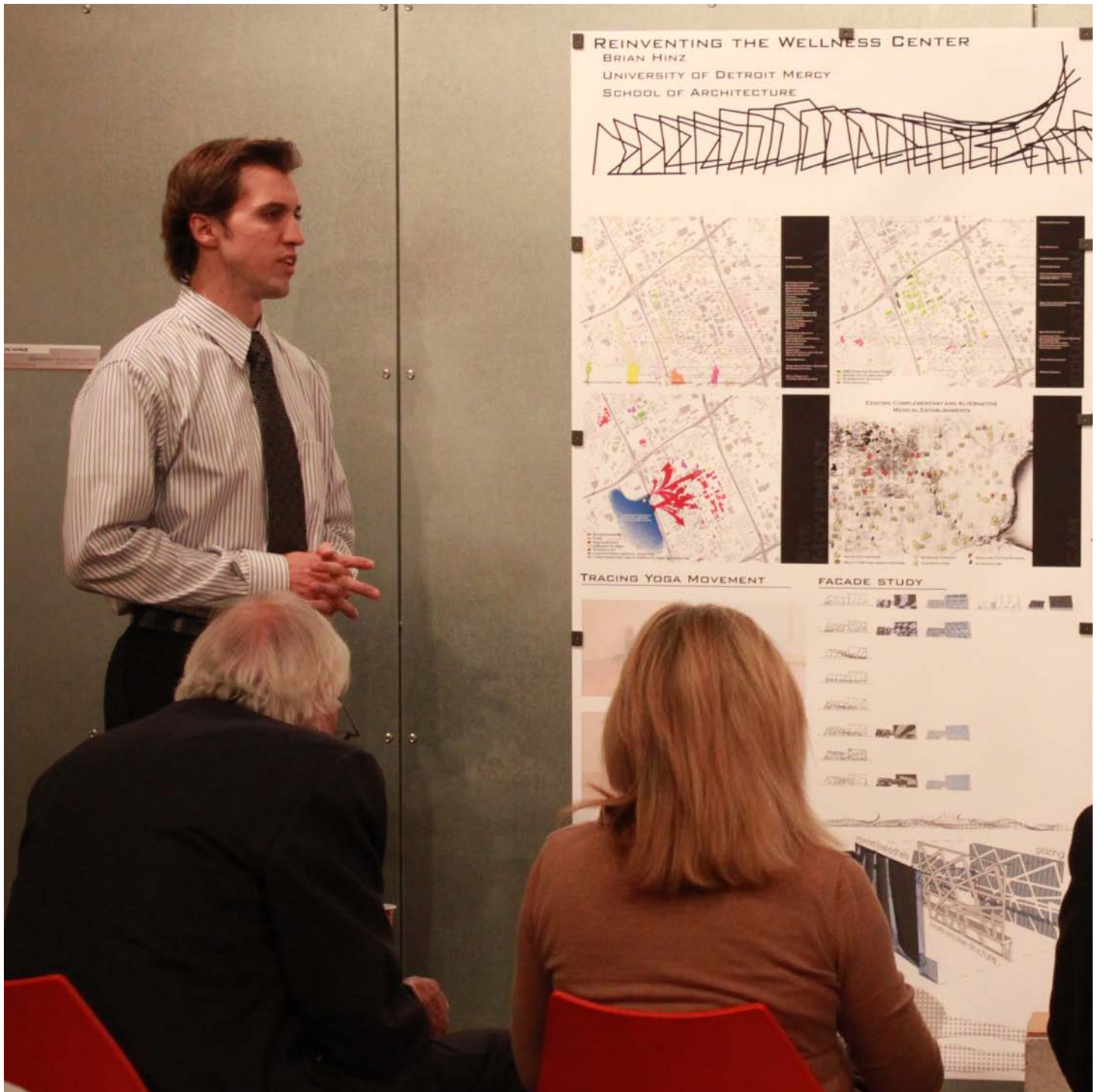


Multiple iterations of different sections of the yoga spatial study were studied to find a pattern that had elements of structural adequacy along with the character and sensibility of movement.

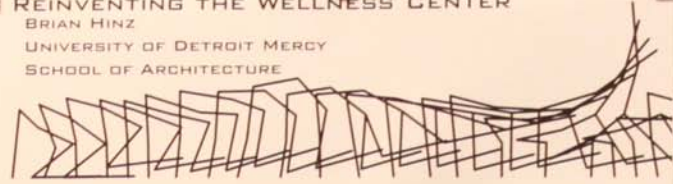


Final Design





REINVENTING THE WELLNESS CENTER
BRIAN HINZ
UNIVERSITY OF DETROIT MERCY
SCHOOL OF ARCHITECTURE



TRACING YOGA MOVEMENT



FACADE STUDY



First Floor Plan

Exercise and Therapy Pools



Yoga / Tai Chi Studios



Library / Media Center



**Nutritional Wellness
(teaching kitchen)**



Chiropractor's office

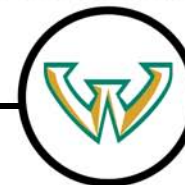


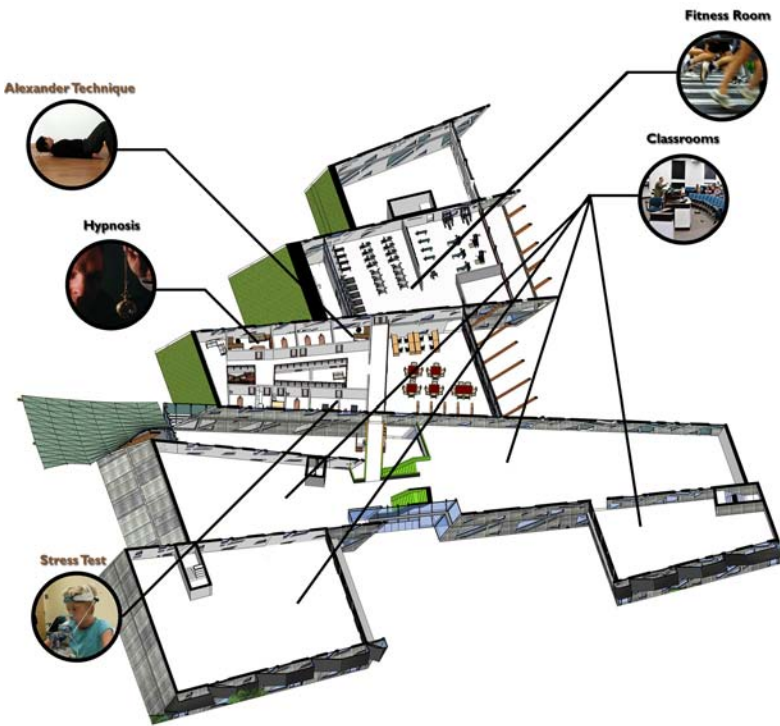
Reiki



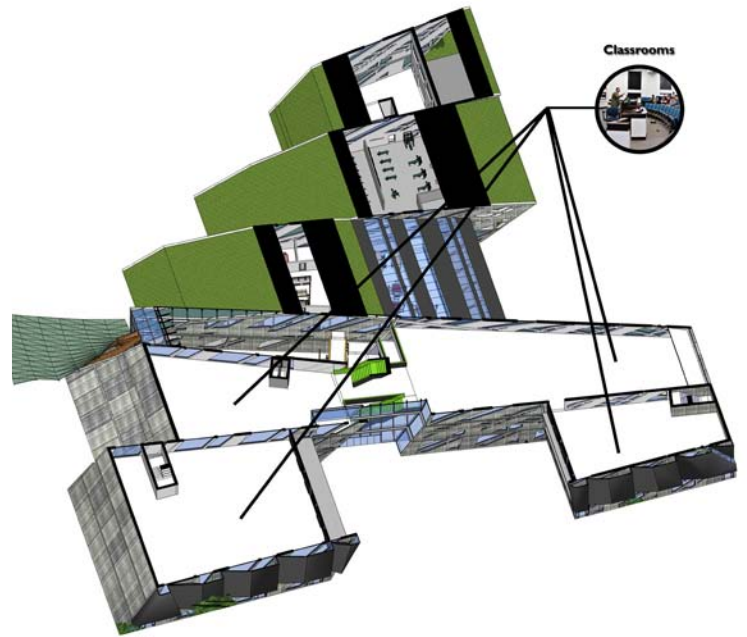
Massage Therapy

WSU CAM Administration

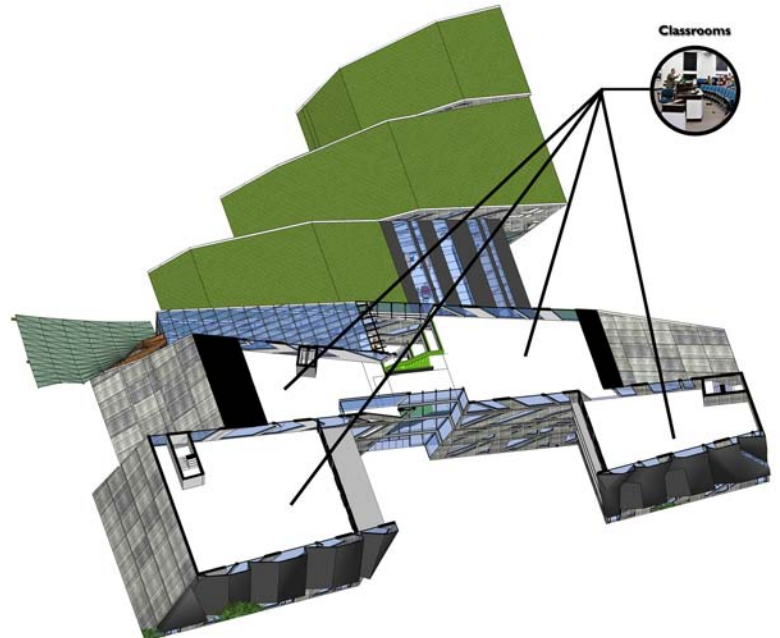




Second Floor Plan



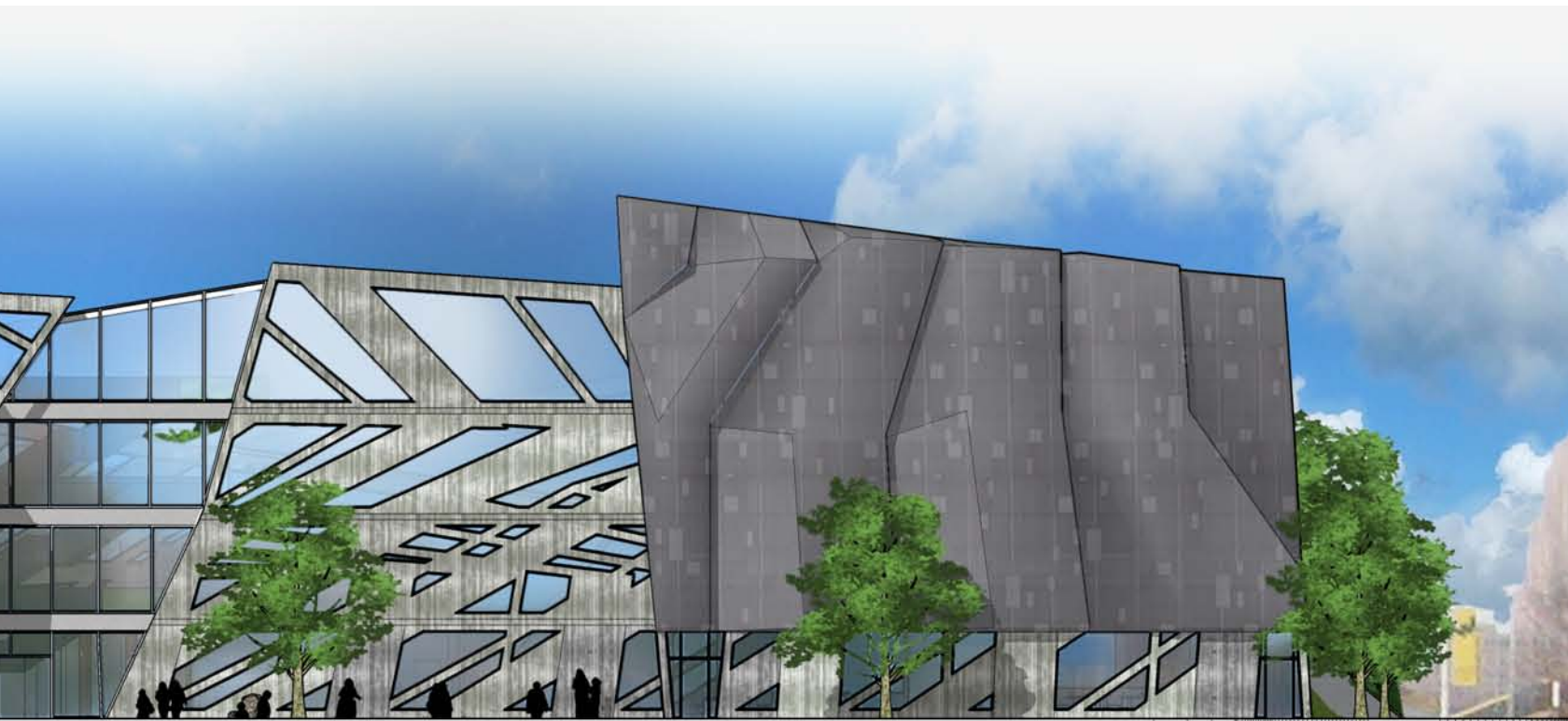
Third Floor Plan



Fourth Floor Plan

South Elevation



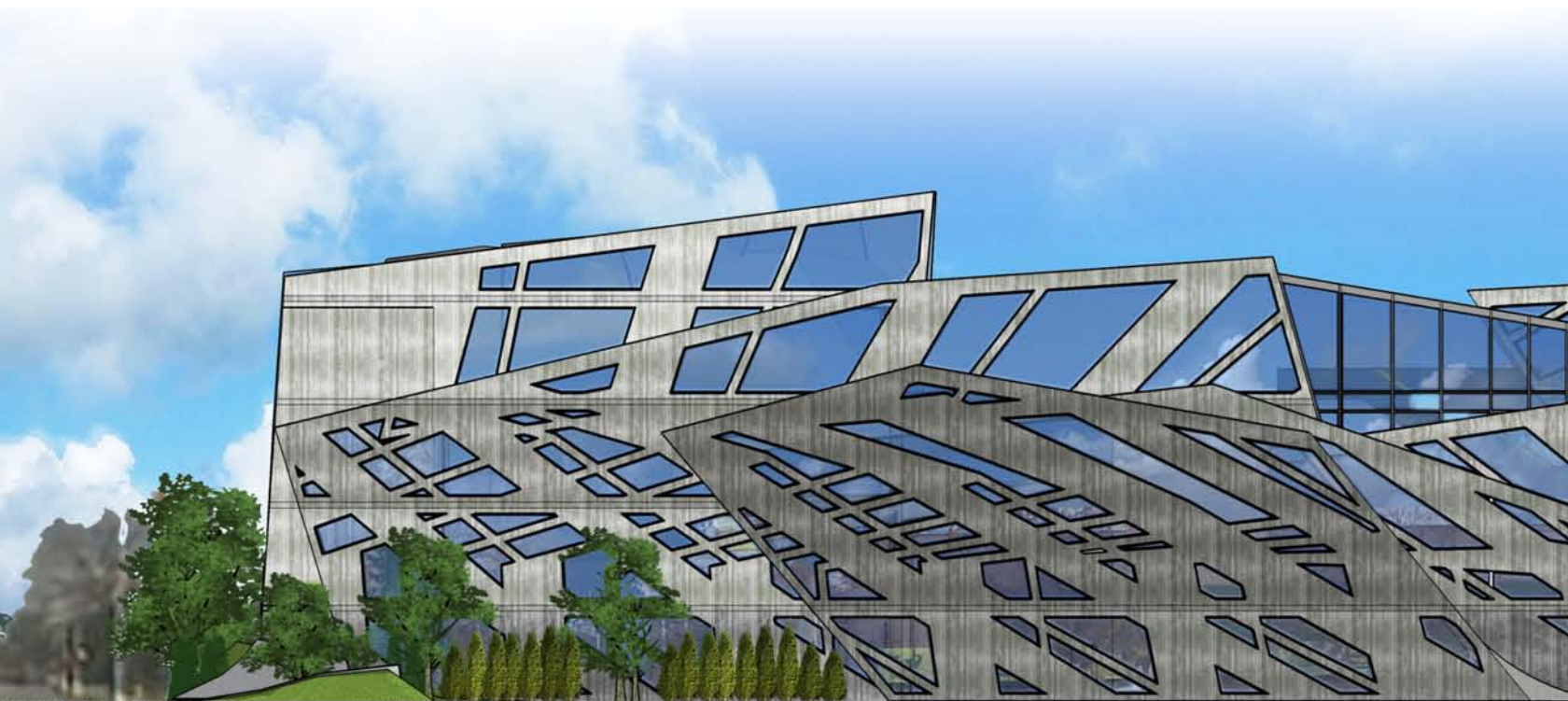


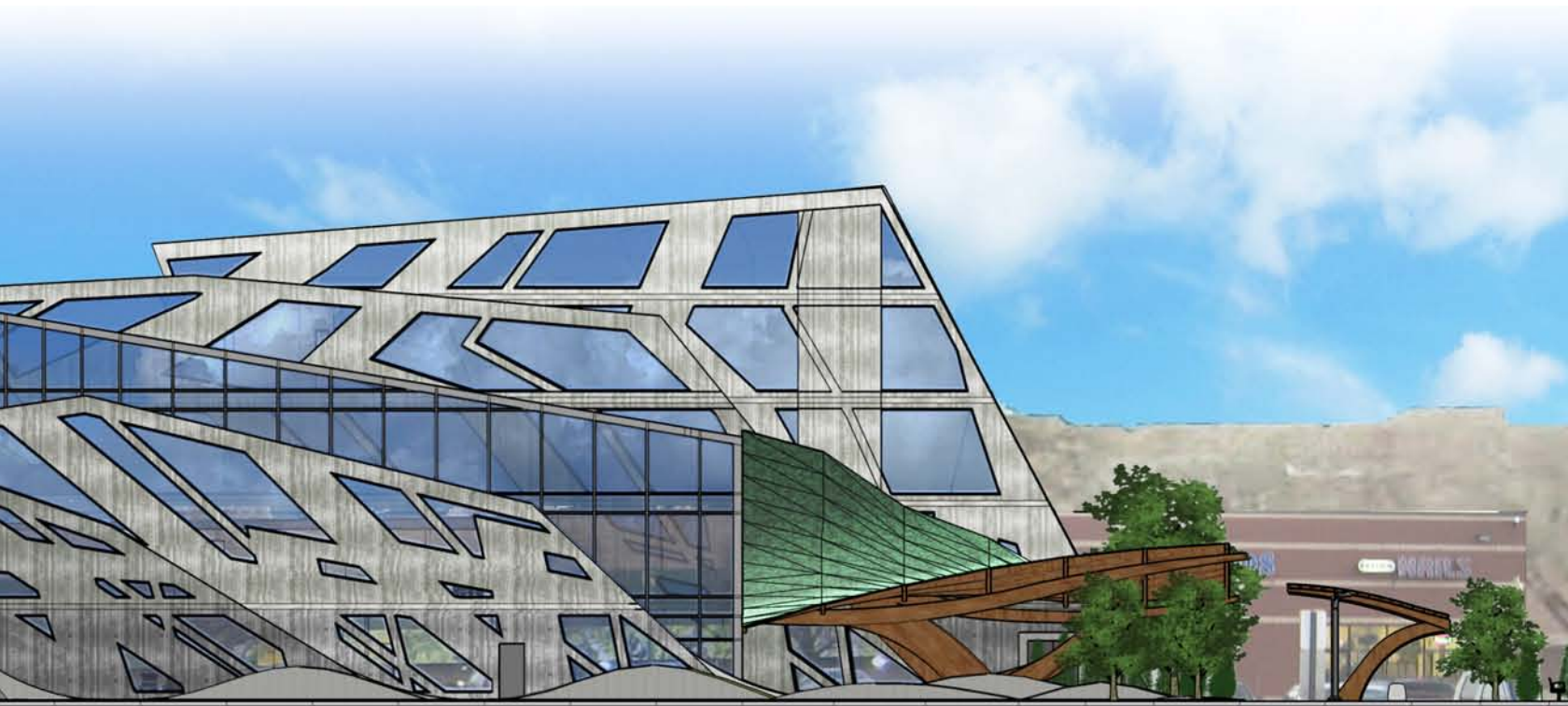
East Elevation



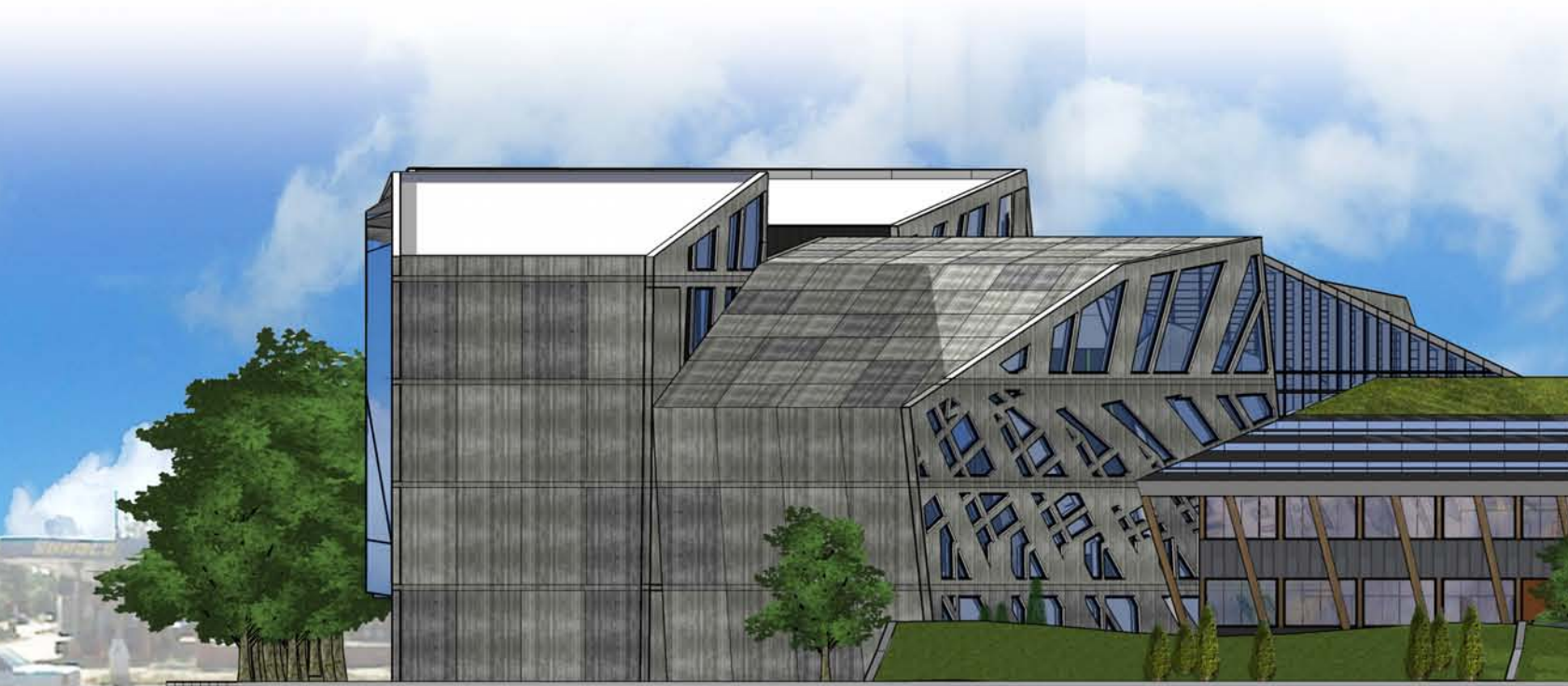


North Elevation



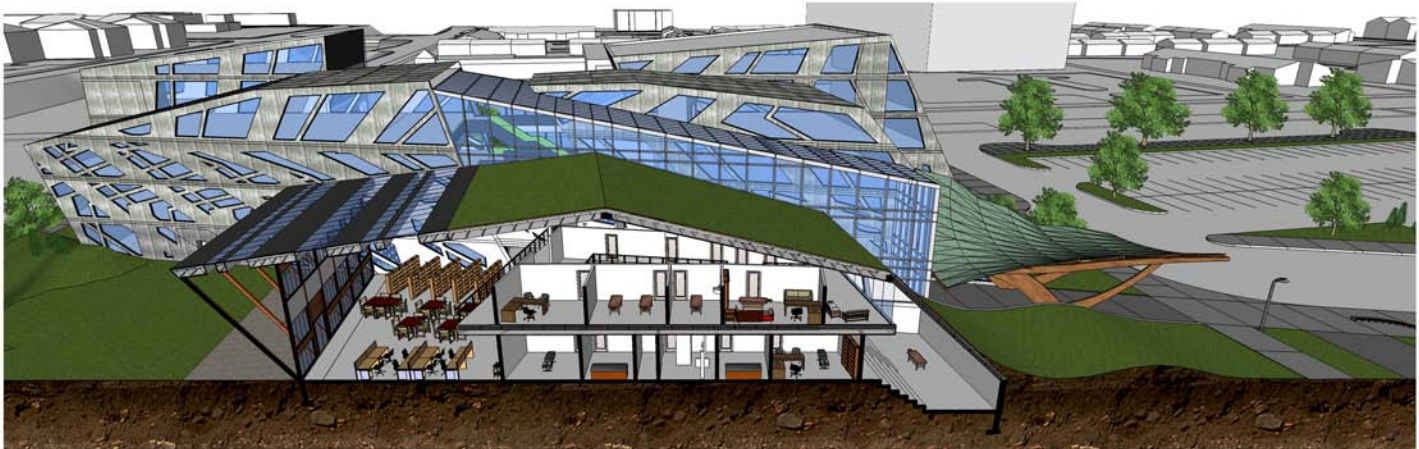


West Elevation





Detailed Sections



Section through CAM spaces and Library/Media Center



N/S Section through entire building



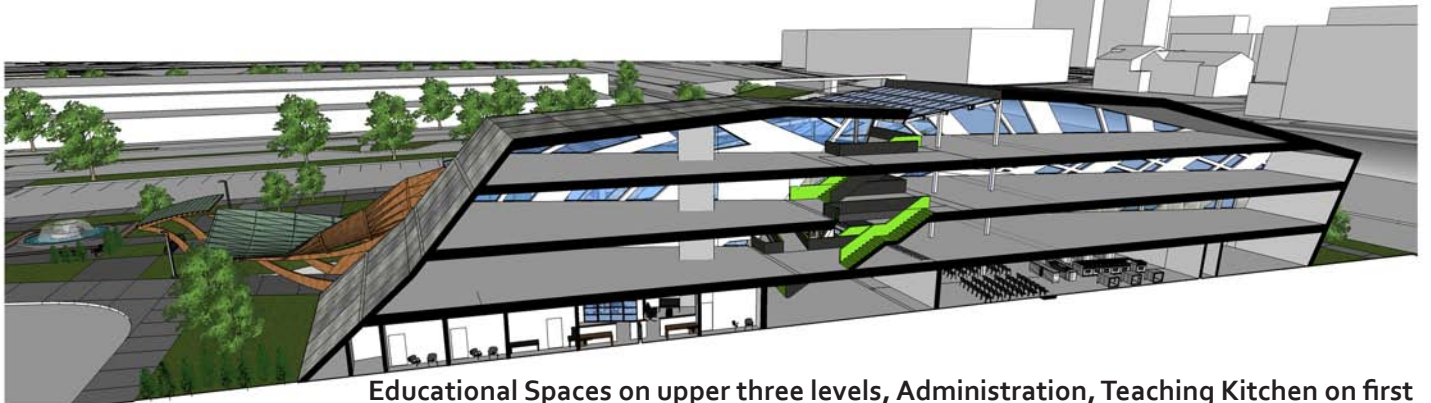
Shipping/Receiving and storage spaces



Fitness Center on second level, Pool and Yoga/Tai Chi on first

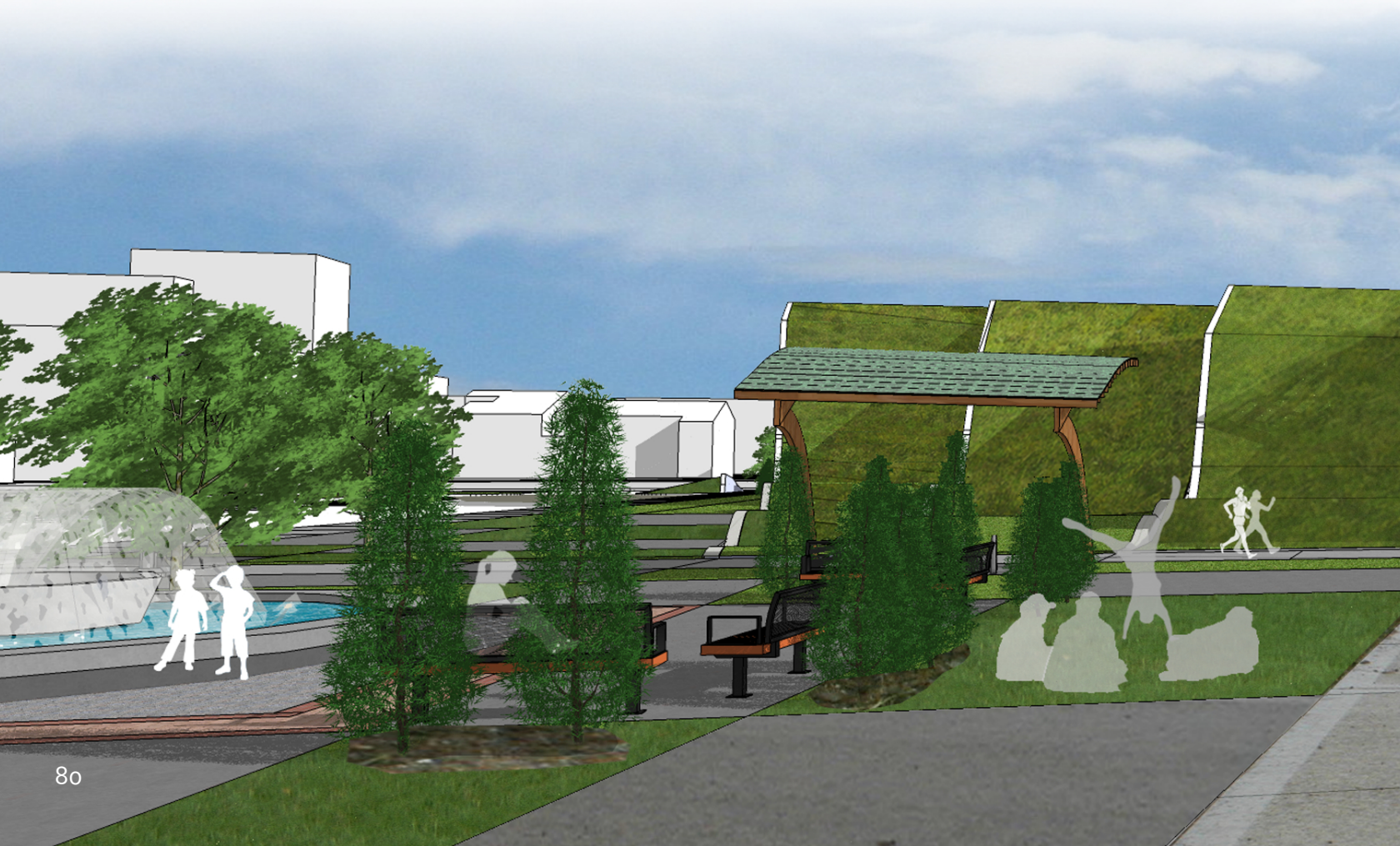


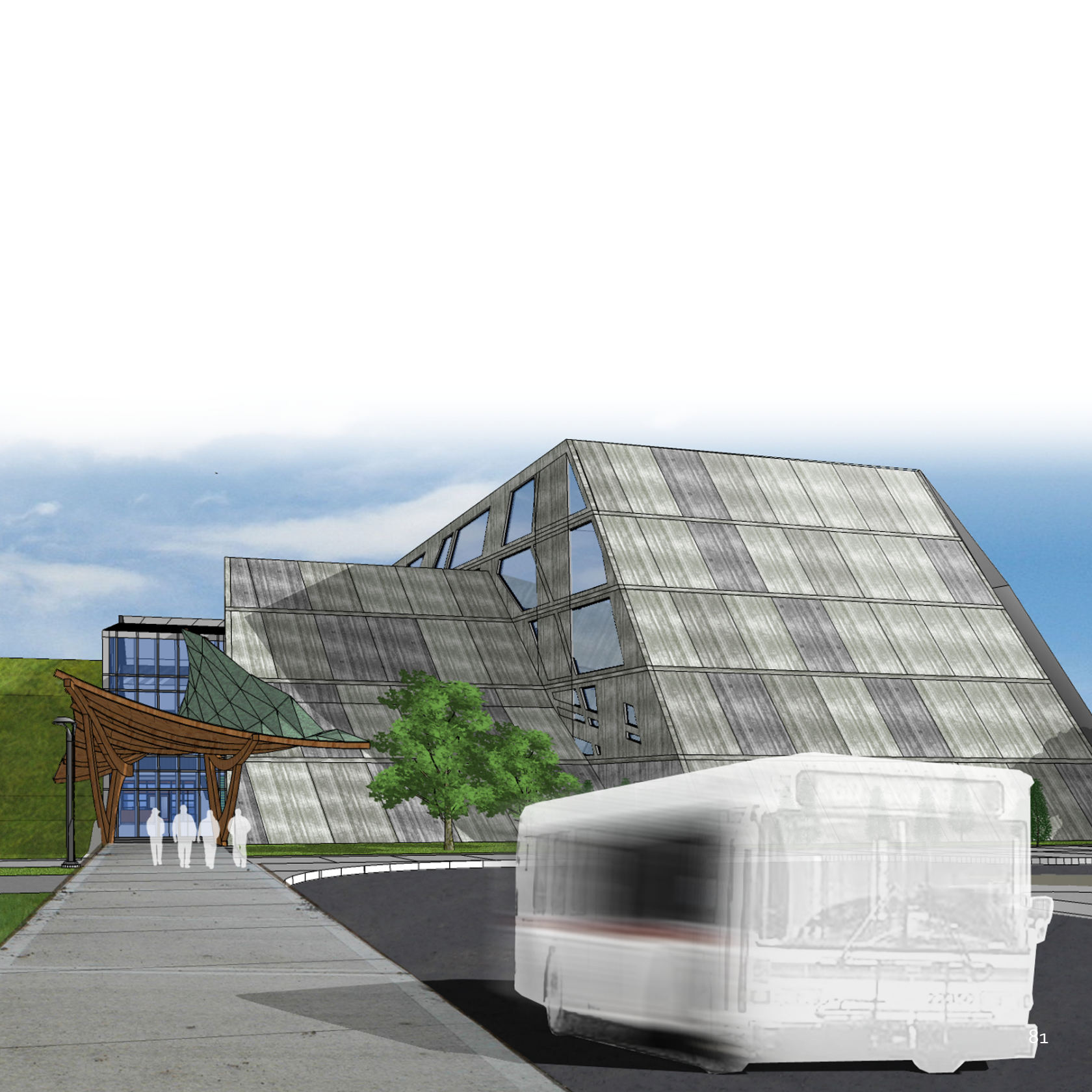
Section through CAM spaces and Library/Media Center



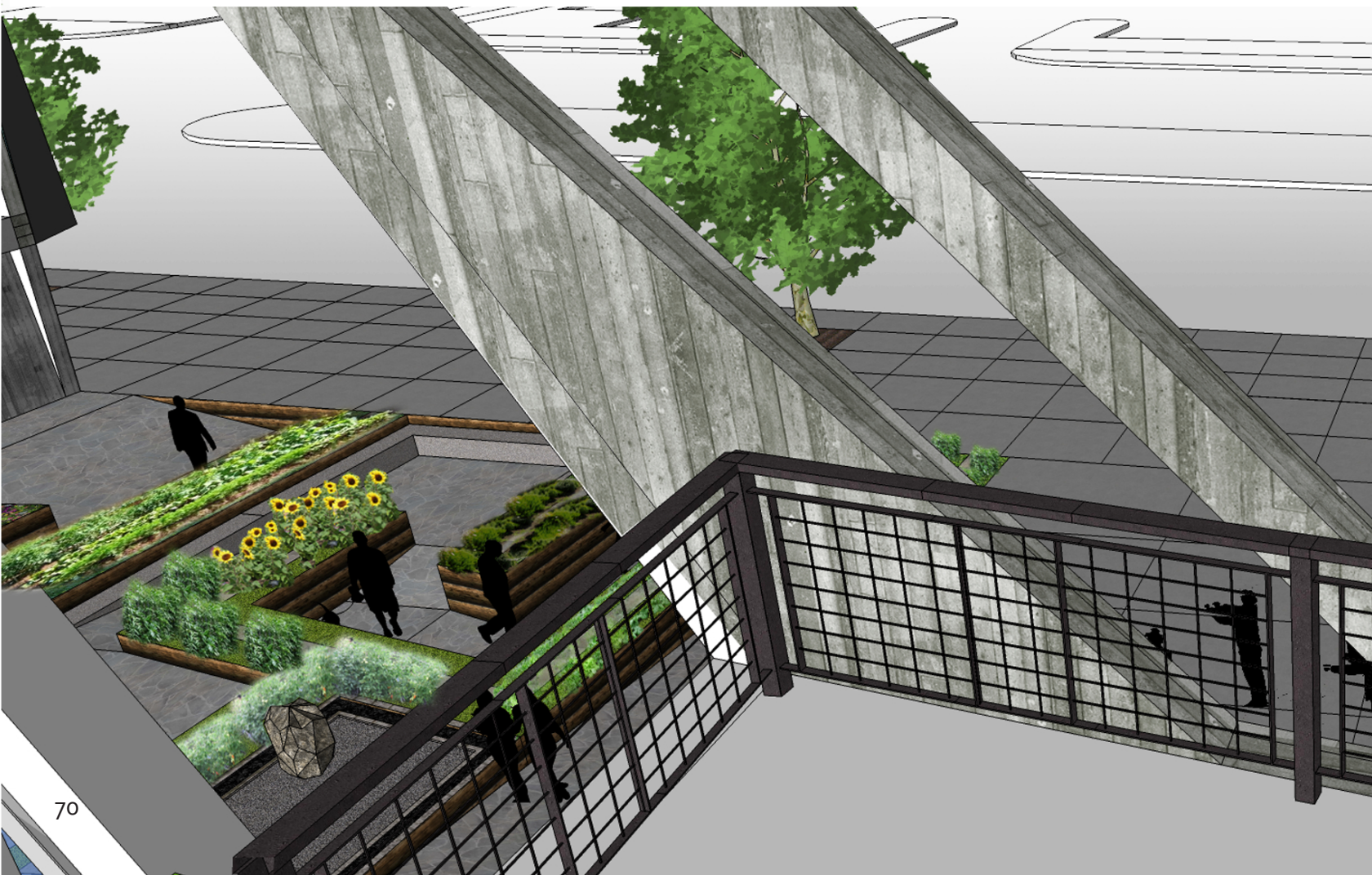
Educational Spaces on upper three levels, Administration, Teaching Kitchen on first

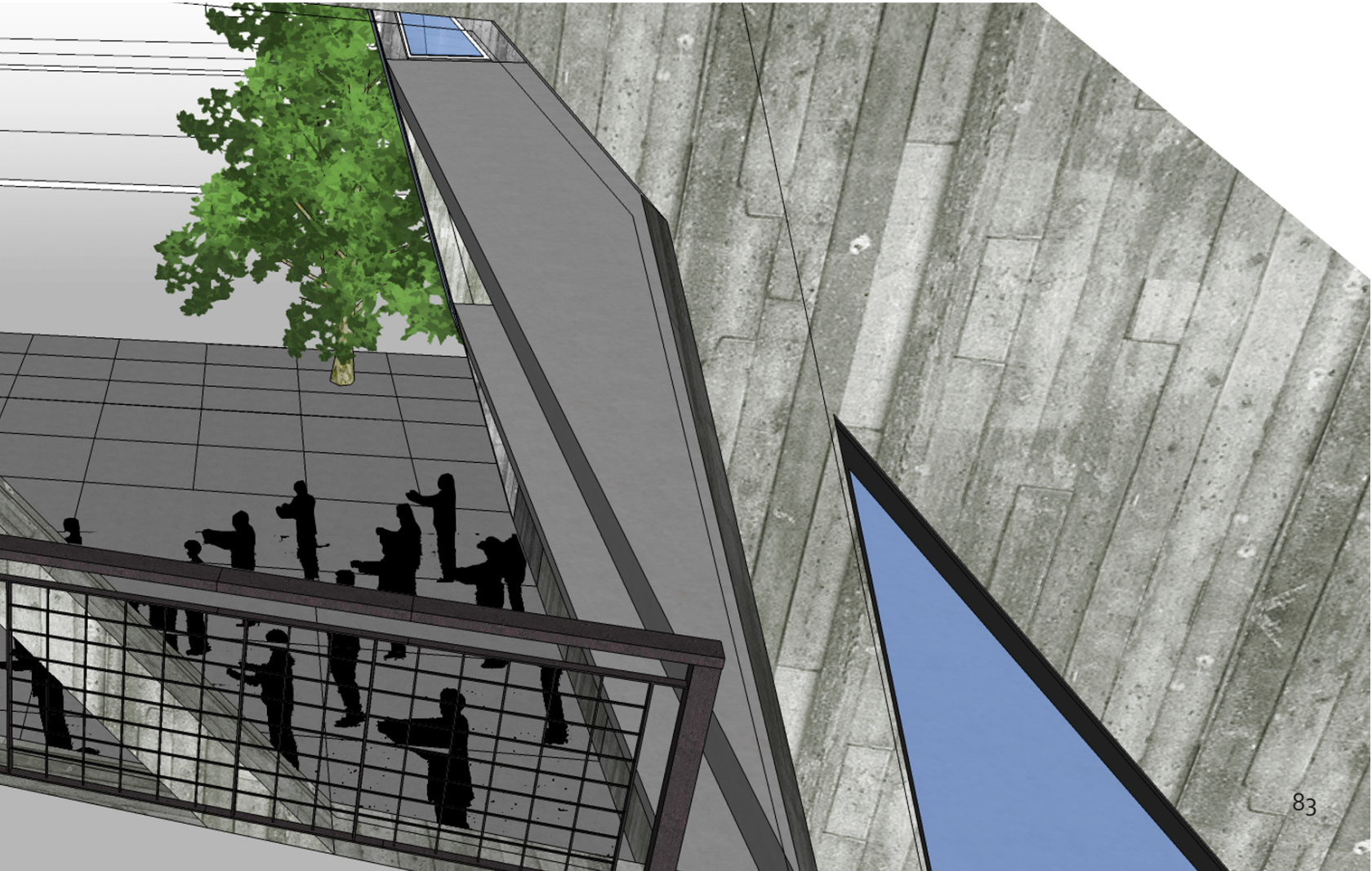
Entry Perspective



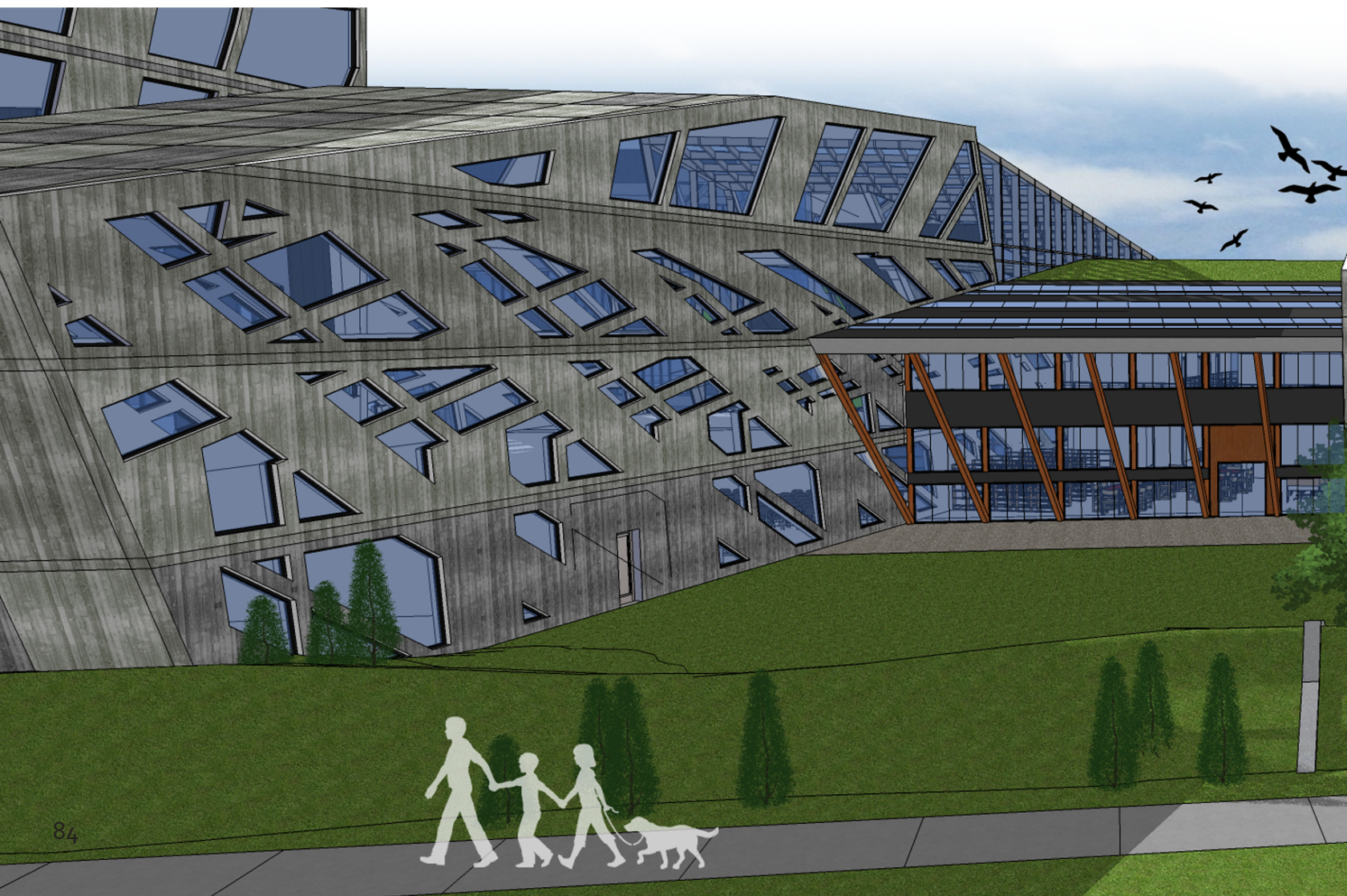


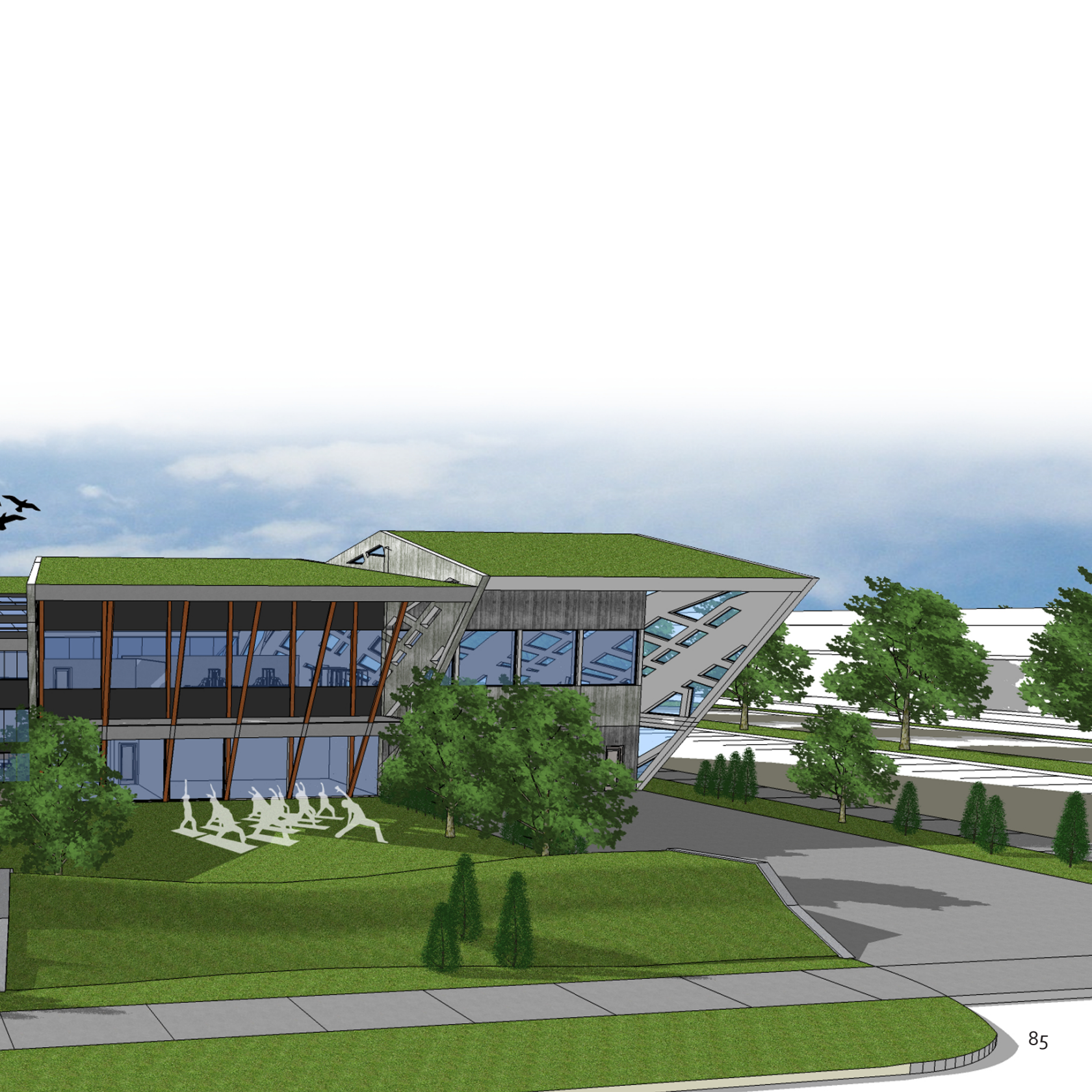
Perspective Looking Over Entry
Plaza Along Warren Avenue





Perspective of Open Lawn Adjacent to the
Library/Media Center and Yoga Rooms





"Oldenburg, Ray." Project for Public Places. Web. Jan. 6, 2010. <[http://74.125.95.132/search?q=cache:MYoNUTFYUSIJ:www.pps.org/info/place makingtools/placemakers /roldenburg+Ray+Oldenburg +habits+of+public+association&cd=1&hl=en&ct=clnk&gl=us](http://74.125.95.132/search?q=cache:MYoNUTFYUSIJ:www.pps.org/info/place+makingtools/placemakers/roldenburg+Ray+Oldenburg+habits+of+public+association&cd=1&hl=en&ct=clnk&gl=us)>.

Sloane, David C., and Beverlie C. Sloane. *Medicine Moves to the Mall*. Baltimore: John Hopkins University, 2003.

Terry, Nancy R. "What Is the Attraction of Alternative Medicine?" *Medscape Family Medicine* (2009). *Medscape Today*. 8 Sept. 2009. Web. Jan. 8, 2010. <<http://www.medscape.com/viewarticle/707994>>.

"The Maggie Project." Web. Jan. 5, 2010. <<http://www.umcg.nl/Umcg/6021/64445/65388/Pages/TheMaggieProject.aspx>>.

Wagenaar, Cor. *Architecture of hospitals, The*. Rotterdam: NAI, 2006

Wood, Debra. "More Hospitals Now Offer Complementary and Alternative Medicine - NurseZone." *Nurse Zone*. Web. Jan. 9, 2010. <<http://www.nursezone.com/Nursing-News-Events/more-features.aspx?ID=18812>>.

Conclusion

One of the issues that could have been explored with more detail would be CAM in the hospital setting. The tension between Western Medicine and CAM has become more relaxed now that we are seeing more and more hospitals starting up integrative medical practices. I have chosen to keep them separate for many reasons, some of them include people's fear of hospitals, keeping a clear distinction between caring for the patient as a whole and treating specific problem areas and the whole premises of CAM being medical and health care systems, practices, and products that are not generally considered part of conventional medicine. The project would have improved if more time was available to research the underpinnings of each form of CAM and how each treatment may inform how each space is used and what materials might envelop each space.

