scale of design

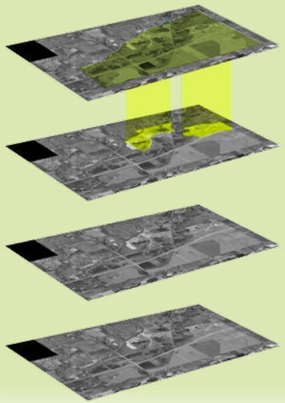
1. REGIONAL GATEWAY: TRI-E FACILITY

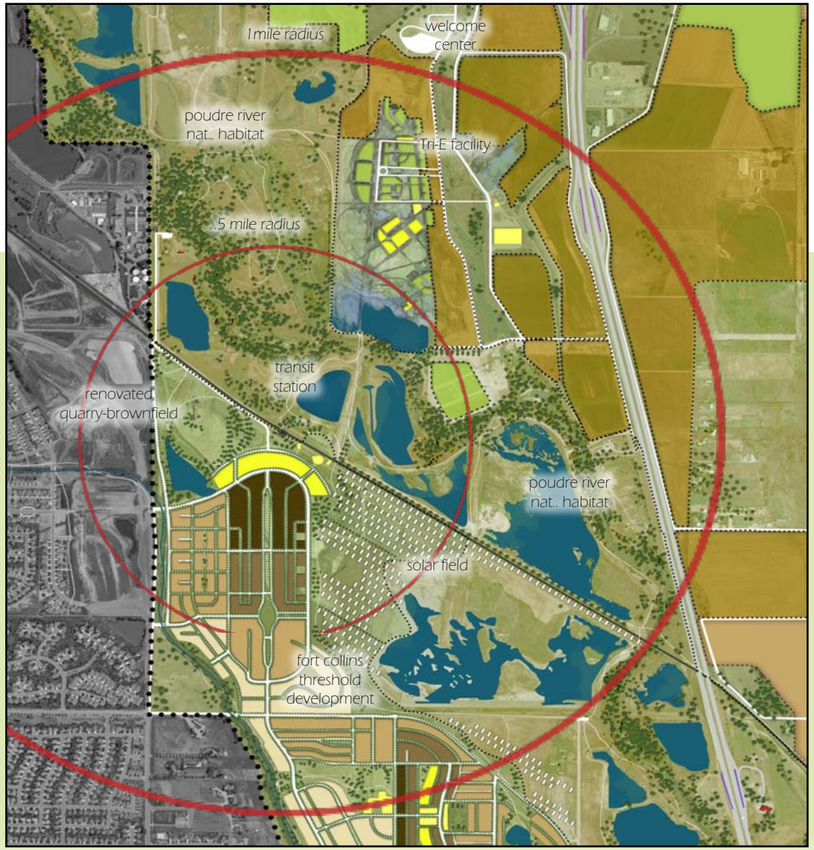
To design for a region depends on the collection and application of research for a variety of populations and systems. This information combined, not to only provides function, but well justified solutions to preserve key natural reserves, reusable post-industrial sites and providing opportunity to expand and involve the local community and culture.

FORT COLLINS: GATEWAY COMMUNITY

Most of any regional scale will have more than 2 distinct functions. To filter, use GIS, site photos, and even trail maps. Using the new Sustainable Sites Innitiative (SSI), benefits and warnings of site use were explored highlighting multi-functions for various site elements.

City With editing software, I imposed the information to reveal function/disfunctional relations. Looking at the negative space of the info revealed land of least disturbance for development. A concept map began character of design and finally at the city scale, could the design take true form.





Sustainable Sites Innitiative Analysis

switch-grass

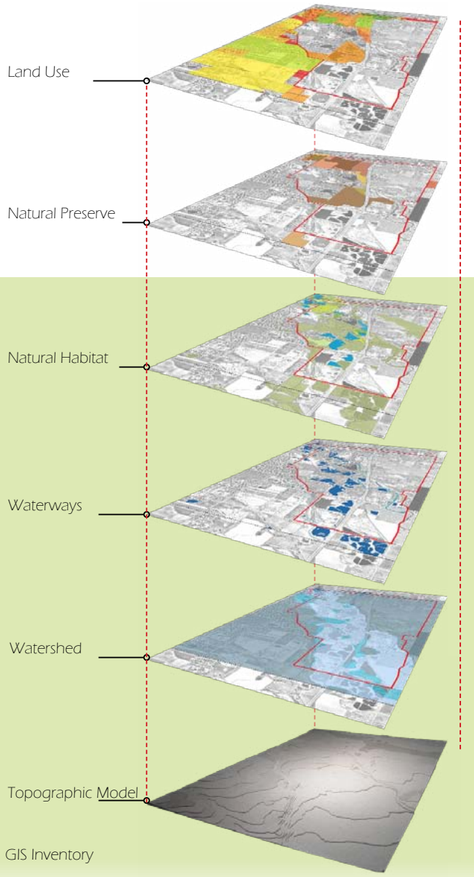
tall fescue

big blue-stem

Sunflower

Vegetation

Applicable prerequisites and/or credits	Information collected	How can this information influence site design
• Preserve and restore plant biomass on-site • Provide outdoor spaces for mental restoration • Provide Outdoor spaces for social interaction	• Native vegetation	• Utilize in design for outdoor spaces promoting interaction and reflection • 5 sense gardens
• Preserve special status trees • Preserve threatened or endangered species habitat • Preserve and restore plant biomass on-site • Preserve and restore native wildlife habitat • Promote a sense of place with native vegetation • Minimize building heating and cooling requirements with vegetation • Reduce urban heat island effects • Provide views of the natural environment to building occupants • Provide outdoor spaces for mental restoration • Provide outdoor spaces for social interaction	• Historic Cottonwoods • Orchards • Dense vegetative growth along Poudre • Riparian vegetation • Agriculture • Plants that provide opportunities for: • Phytovolatilization- Big Bluestem, Andropogon gerardii (PA) Prairie Cordgrass, Spartina pectinata (PA) Switchgrass, Panicum virgatum (PA) Hybrid Poplar, Populus deltoids Indian Mustard, Brassica juncea (PA) • Phytoaccumulation/extraction Sudangrass, Sorghum bicolor Nettles, Urtica urens Oat, Avena sativa Sunflower, Avena Sativa • Phytodegradation Tall Fescue, Festuca arundinacea	• Utilize vegetation in design for outdoor spaces promoting interaction and reflection • Utilize rooms already present in natural habitat created by vegetation (forests and riparian areas) • Use of shade creates shelter and reduces the need for repairs in the future • Create microclimates using riparian edges and open public space • Include points of rest along corridors and walkways to promote points of interest and education • Utilizing vegetation in design for onsite bio-remediation and water cleansing
• Mitigate potential wildfire risks	• Wildlife corridors for: Deer Turkey Mountain lion	• Conserve and support the existing wildlife habitat and corridor



GIS Inventory

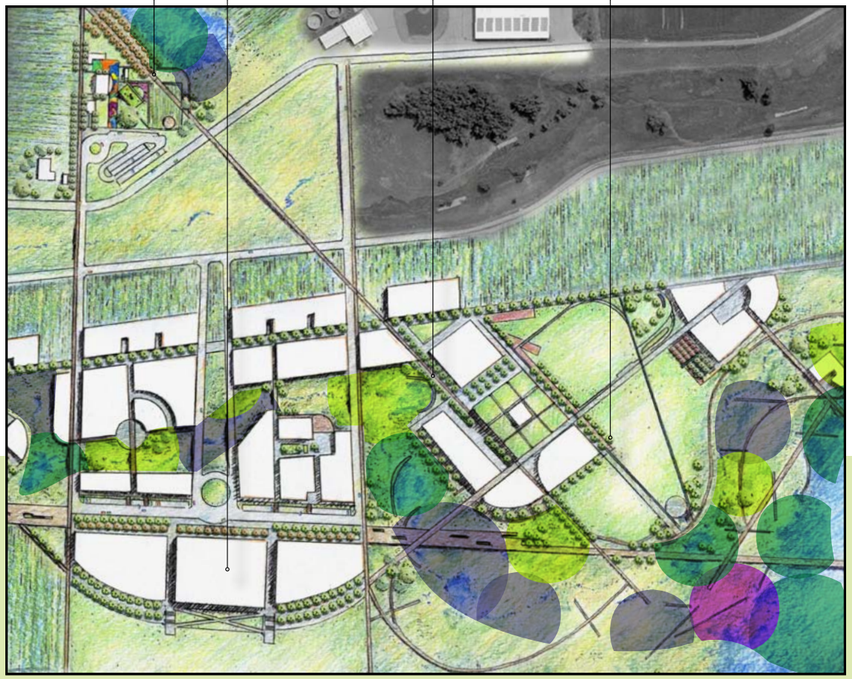
pencil, tablet, Google Earth, GIS, Collage, Photoshop, SSI

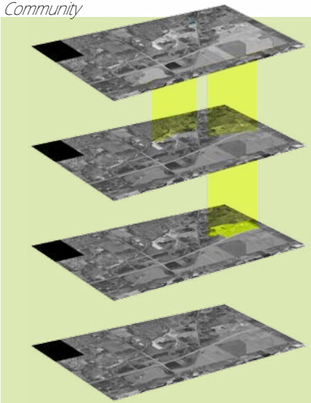
FORT COLLINS: TRI-E RESEARCH FACILITY

What do you get when business, agriculture, and science collaborate?

A research community and facility provides venue for a nearby university to study, work, and live adjacent to the local nature preserve and agriculture.

The creek/bioswale spine collects/cleanses water via a variety of mitigation pools before deposit into the Poudre River watershed.





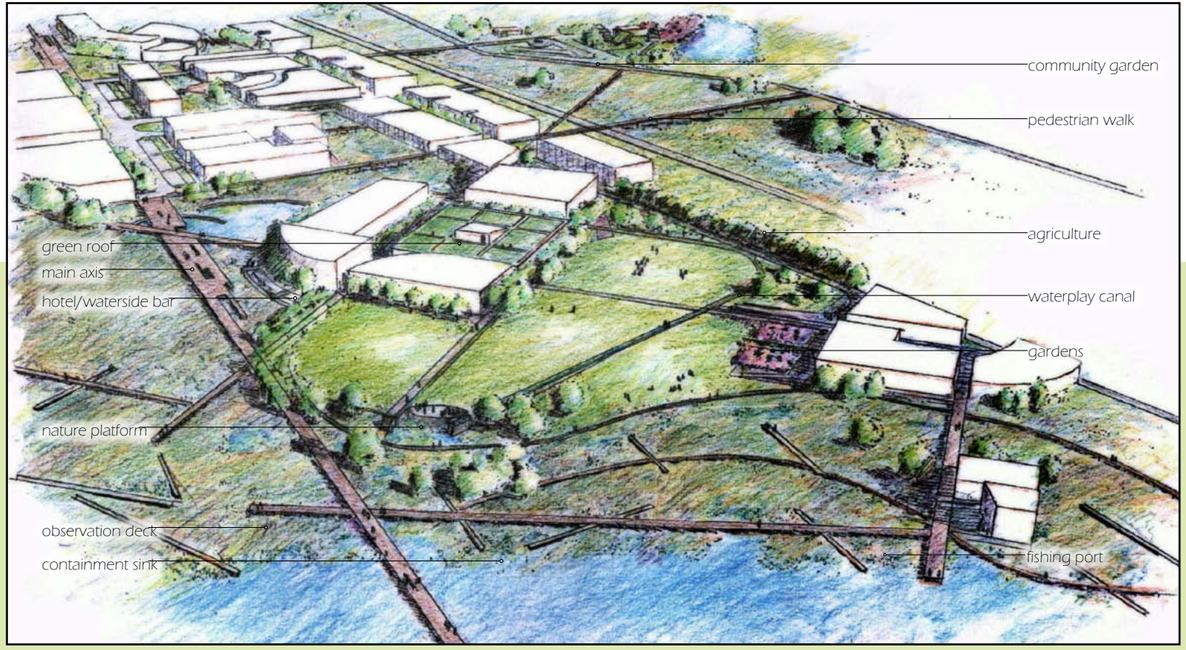
water filtration stages

Shallow Marsh
phytovolitilization
phytoaccumulation
aquatic habitat

Wet Meadow
phytoaccumulation
phytovolitilization

Mud Flats
shallow filtration
note: important
to migratory birds

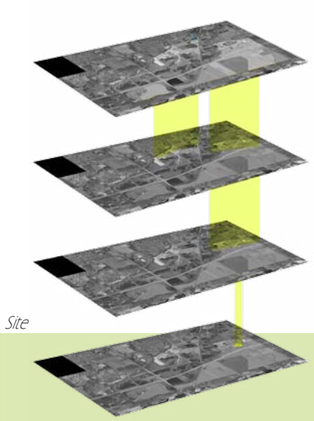
Open Water
sediment deposit
and solar exposure



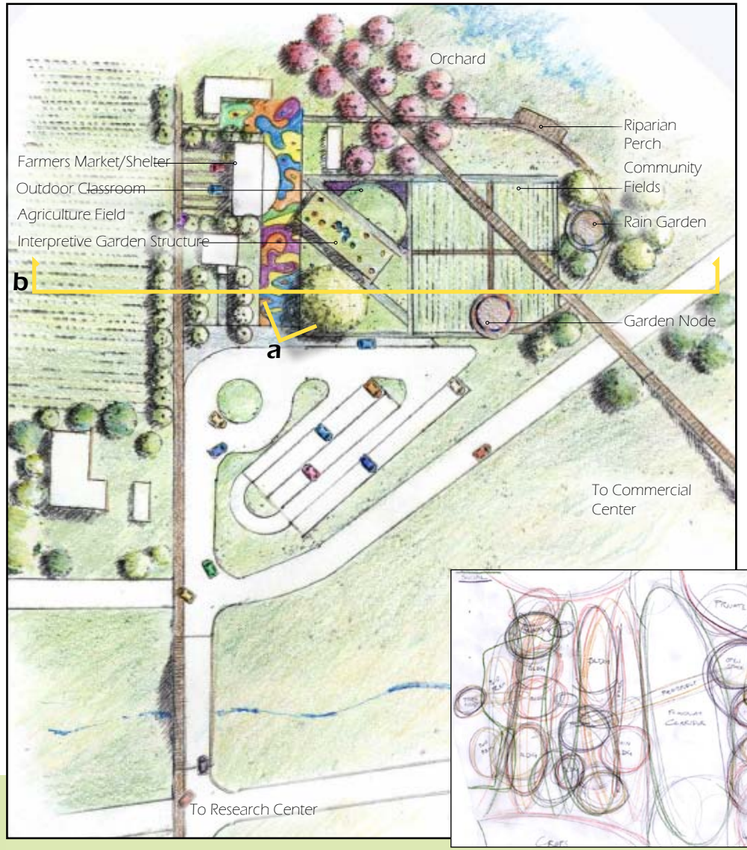
pencil, Sketch Up Photoshop

TRI-E RESEARCH FACILITY: COMMUNITY GARDENS

The Community Gardens are the capstone for community. The gardens become a new landmark presenting a variety of rooms each with unique experiences. Kids and parents, enjoy the fun of growing-food, community identity and the outdoor/active lifestyle Fort Collins has.



Site



Functional Diagram

a A variety of areas such as the farmers market pavillion; orchard; community fields and node; rain garden; riparian perch; wind turbines; and the interpretive garden structure(a 30' tall exhibit of color, education and a variety of plants); all provide plenty of excitement, education, community growth, and interaction for parents and kids alike.

b farmers market/pavillion | harvest plaza | interpretive garden | classroom | community gardens | wind generators | rain garden

pencil, Photoshop

2. AFRICA RENEWAL UNIVERSITY

Community

The community requires design that reflects the local culture. To pull away from the paper and act as an investigator to understand the foreign needs and site specifics. This is important for collaborating with the various engineers that were working on the site as well. To reach the community requires solutions that connect directly with the individual's scale.

AFRICA RENEWAL UNIVERSITY

Volunteering in Africa, I had the first time experience to collaborate with a wide range of engineers and locals. The goal: to use culturally identifiable functions and create multi-purpose solutions. With limited technology and need to share ideas, my hand graphic skills were a key tool to communicate.

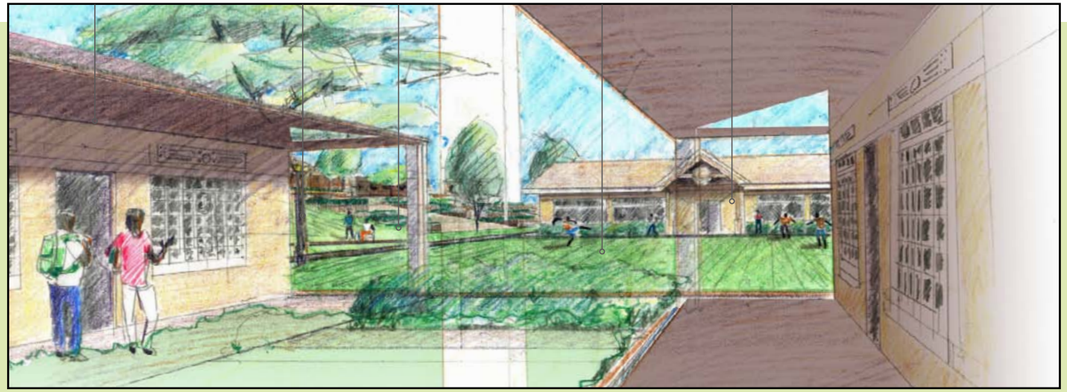
What we consider LEED and new technology, the local culture had been doing for the past centuries:

a) building placement for full light
b) rainwater collection
c) shade and vegetative planting as natural cooling systems

Community

on-site charette master plan

a teacher offices iconic acacea tree terrace gardens quad play field library



pencil

3. ALAMEDA LIGHT RAIL DEVELOPMENT

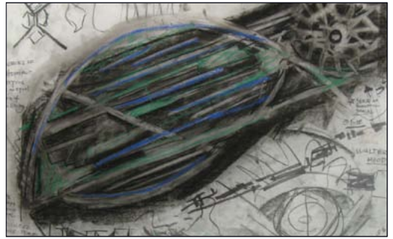
Community

Connection is one of the most needed elements in the world we live. Visual, access, economical, environmental, the list goes on and on, but when connections are not healthy, a vein of our life seems to die. The community scale requires noting connections between districts and the existing. Modern day examples include pedestrian and transit oriented developments.

ALAMEDA LIGHT RAIL DEVELOPMENT: COMMUNITY PROTOTYPE

(group) Site Inventory

(group) Historic Figure ground



(group) Reductive Concept

(individual) Sequential Drawings

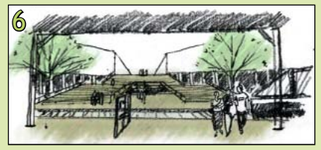
(group) Conceptual Master plan

Historical city figuregrounds and charcoal reductive drawings explored and integrated the three arteries (waterways, interstate traffic, secondary traffic) into a pedestrian focused multi-purpose community.

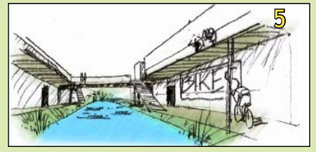
With a rough concept, I drew Sequential Experiences of patrons traveling in the space. Such drawings shared ideas of major aspects of the function, character, and details; contributing to the final design.

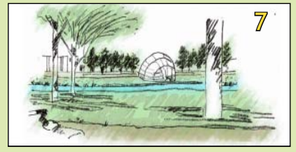
Community

Commuter to the Civic Center



Biker through the Civic Rift

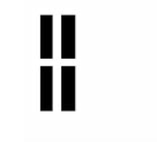




pencil, pastel/charcoal, historic figure grounds, Photoshop

ALAMEDA LIGHT RAIL DEVELOPMENT: CIVIC CENTER

connection exploration

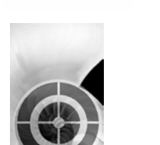


"The High-way" Retail

River Terrace/Cafe Seating

Water stage/plaza

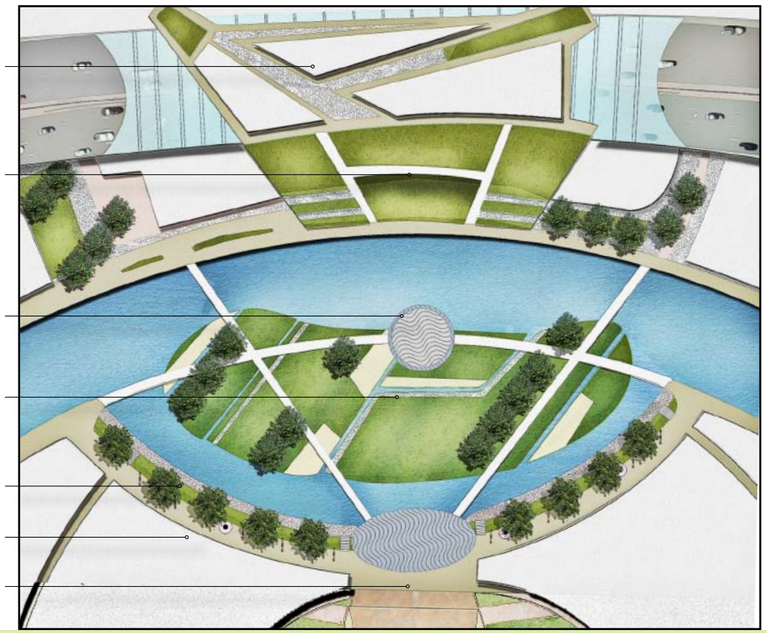
Rolling Green

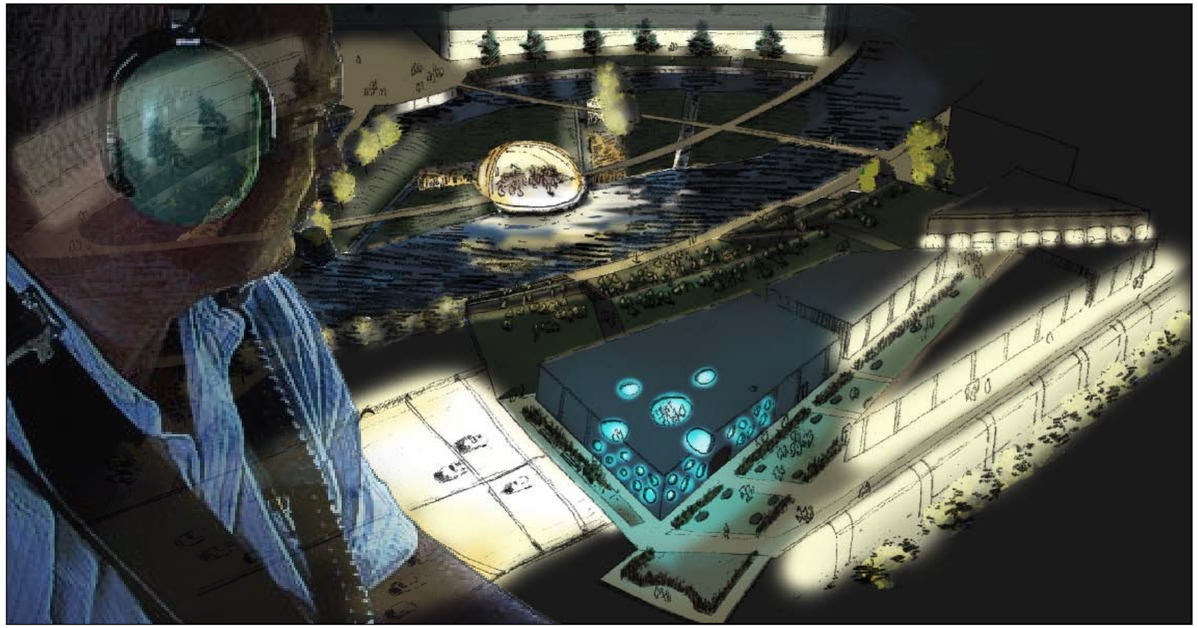


River Walk Promenade

1st floor Retail/ 2-3th floor Lofts

City Center/Transit





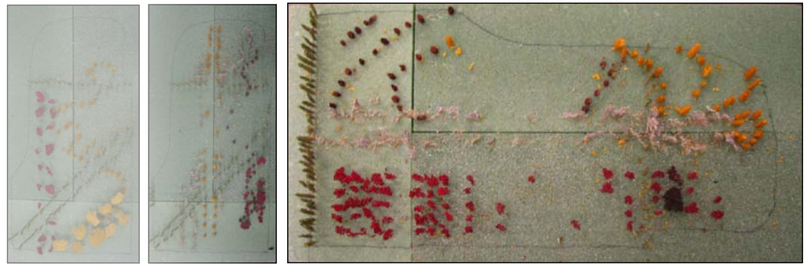
District

Even at a view from above (maybe from a helicopter (oposite page), one starts to see various elements juxtaposed creating a multipurpose space. Adhering to a unique district, take the speed of use (quiet residential or busy commercial) and apply the various uses/ connections of a site and a multipurpose design is created.

pencil, Sketch Up, Photoshop

Earthwork form-ology

Flora space-ology



4. ENVIRONMENT LEARNING CENTER

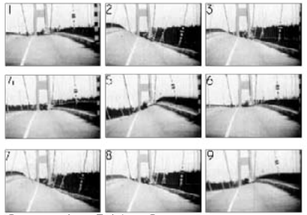
Like a room in a house, districts are defined by their unique purposes in a landscape (ex. commercial, housing, natural preserve). The Environmental Learning Center is a district set to fuel interaction between the community and its natural environment. The scale of design focuses further down to elements such as topography, vegetation, and materials that create experieneces addressing the districts purposes.

Tangible models were done to explore these materials and their effect within the site.

District

Surface sensation-ology

ENVIRONMENT LEARNING CENTER



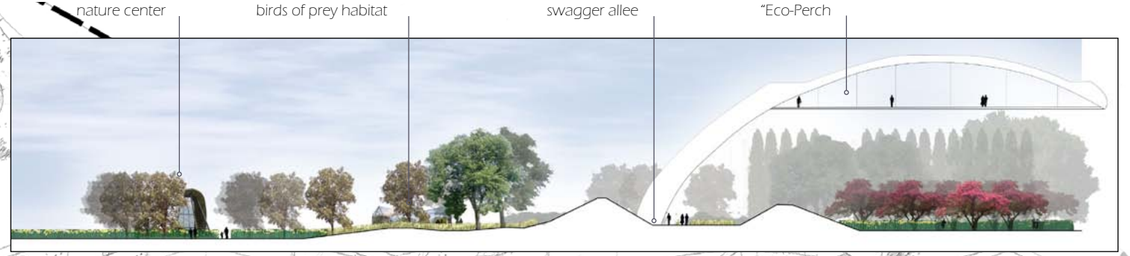
Suspension Bridge Sequence

The **Environmental Learning Center** is inspired by the motion of a nearby suspension bridge. An earthwork compression/release (dubbed the ***swagger allee experience***) occurs as alternating hills reveal specific views of surrounding natural habitats and the site rooms.


a Swaggering Foothills


b Open Prarie


c Millennium Bridge

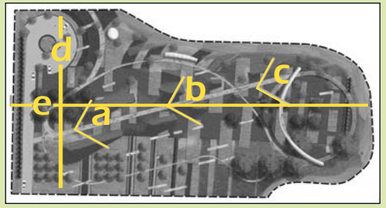


e Swagger Mounds

grading concept

d Swagger Allee

District



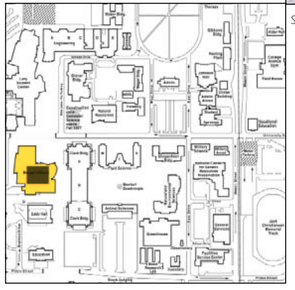
pencil, Photoshop

5. MORGAN LIBRARY: SOCIAL STUDIES

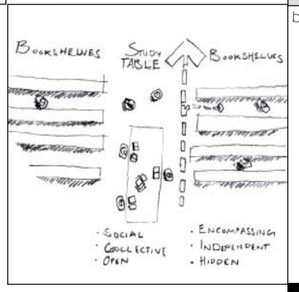
An experience comes not only from a concept but on the details: texture, tone and accessibility. "Social Studies" Courtyard is no exception where function inspires concept and concept inspires the interaction (detail).

sketch analysis

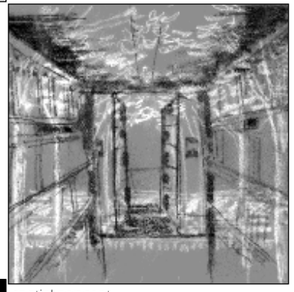
bookshelves



campus location



spatial psychology



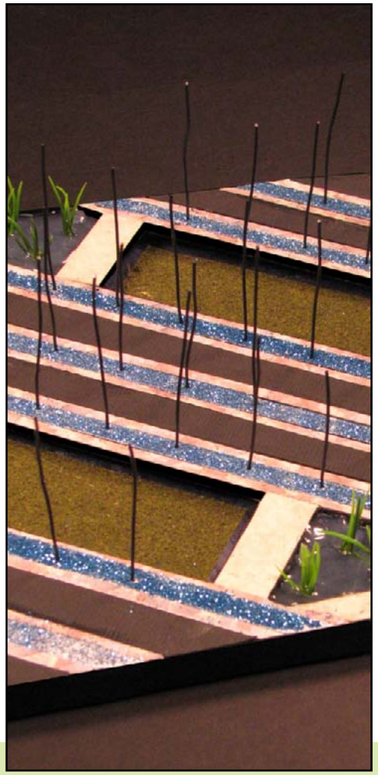
spatial concept

allee

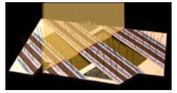
The sequence of drawings depict the inspired form of bookshelves used to conceptually imposing two distinct experiences in a constricted space.

Site

MORGAN LIBRARY: SOCIAL STUDIES



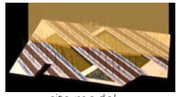
Site



site model

recycled blue glass (blue envokes relaxed moods)

posture-orientated site furniture (promoting focus)



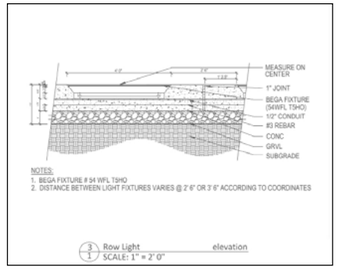
site model

group study lawns

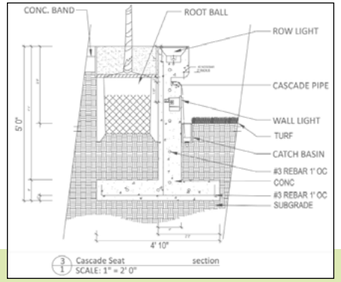
private study allees

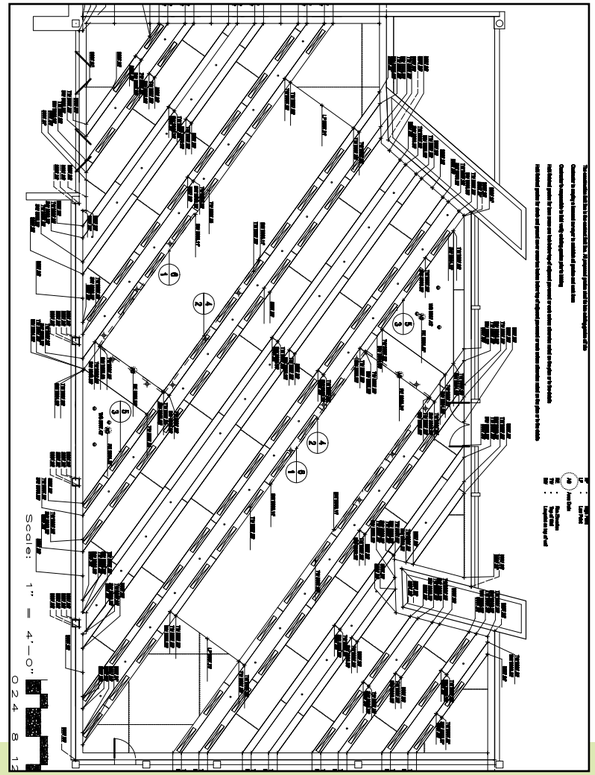
water wall seating (subtlely mute louder groups from area)

At site scale the location of elements begins to direct focus through methods such as screen and revealing. The allee of trees mimic shelves creating enough space for an individual to sit comfortably, the sunken lawns open for larger social gatherings.



For a fluid and effective experience, design must be taken to the intimate scales. In "Social Studies", construction details were the foundation to create the unique experiences in such a small space..



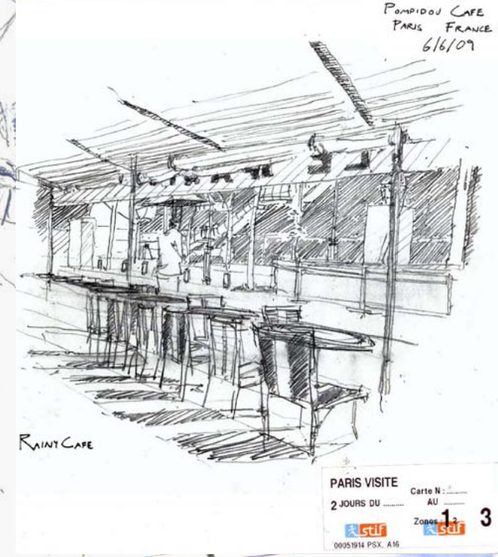


tactile model, pencil, AutoCAD, Photoshop

7. GRAPHIC MOVEMENT

Commuting to the office everyday wasted too much time at the stop lights. Using pads of paper and scraps, I would do quick sketch studies during the stop light, drawings ranging 5-30 seconds.

pencil, watercolor, ink, collage, paint, photoshop



Click here to see my personal sketchbook
www.wix.com/rtsand/sketchbooks

While teaching and working closely with clients and collaborators, direct and open communication has become more character than skill. My strong and versatile skills for graphic communication; hand drawing and digital illustration/3-D modeling, connects others and I with visual ideas.

I carry a sketchbook with me at all times so that even a simple sketch can begin exploratory discussion.