

## 8.0

### Student Design Vignettes

Transporting Ecologies Studio engaged undergraduate seniors and first year graduate students in literature and field research and conceptual design exploration to import and develop innovative bicycle infrastructural strategies discussed in the sections above in response to specific challenges in the local community. Students identified appropriate needs, developed strategic approaches, studied local site conditions and developed design interventions to promote connectivity, ecological stewardship, sustainable communities and increased routinized cycle use.

Projects are organized under categories based on the contextual initiatives they propose and issues the projects address.

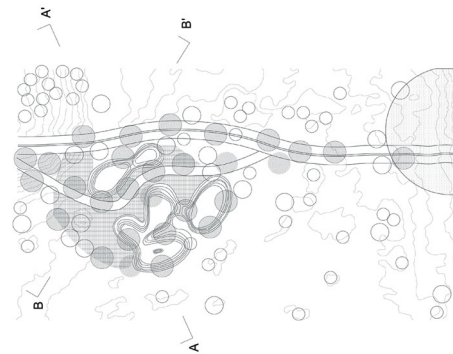
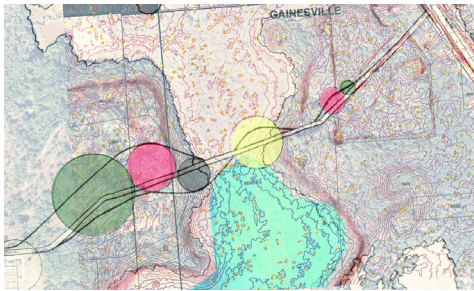
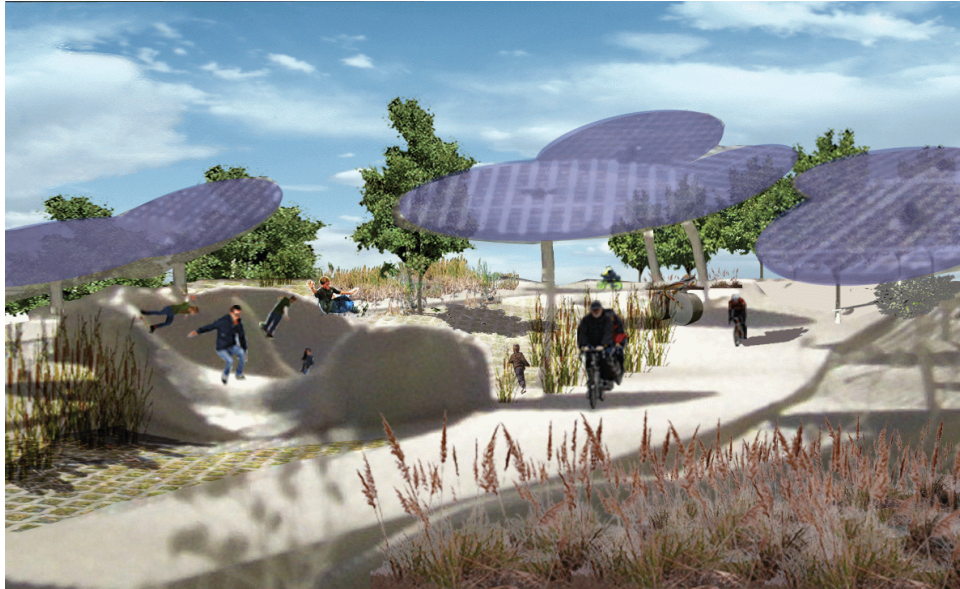
- ì Archer Braid interventions promote vital connectivity infrastructure between the west side of Gainesville (west of I-75) and the University of Florida campus and beyond. Proposals include nature oriented recreational destinations providing educational, directional and health information and emergency services access as kiosks along the way. Innovative energy producing photovoltaic installations are incorporated that feed the power grid via existing high tension lines in the proposed corridor while providing needed shade along the path and at kiosks.
- í Alachua Braid interventions. Projects focus on horizontal and vertical connectivity at key “pinch” points on 13<sup>th</sup> Street (US 441) near the University of Florida campus. New and renovated bridges are proposed at NW 8<sup>th</sup> Avenue and the Depot Trail overpass in addition to an innovative NW 13<sup>th</sup> Street University Avenue crossing proposal.
- î Multi-modal transportation center initiatives formalize the underground satellite parking culture — a boon for parking lot sign companies. Many students drive to commercial parking areas, illegally park, and ride their bikes to campus from there. In this case, the former K-mart plaza is reconsidered as a multi-modal hub with auto and cycle parking including a bus “station”. Service oriented commercial enterprises are suggested — grocery, dry cleaner, postal store, day care, cycle shop etc. These projects stretch the notion of a “parking lot” engaging elastic vegetal and storm water infrastructures to create “lots-of-park” rather than a parking lot.
- Ø Modular kiosks were developed to strategically deploy bicycle facilities throughout the system. Elements such as shelter, water/drink vending, informational boards (maps), restrooms, cycle repair center or news stand are designed as stand alone or integrated modular components. Stations can be set up, expanded, moved, reduced or relocated. The proposal provides the flexibility to test locations and the affordability and efficiency of prefabricated systems. As a kit-of-parts stations could be highly individual yet have a similar material and construction language unifying them as a network of stations.

Archer Braid  
project

**Concretized Fluidity:  
Kanapaha Skate  
Pavilion**

Koyel Sikdar  
Graduate Student

Youth are engaged in healthy activities near the vital wetland recharge area of Kanapaha. Photovoltaic and tree canopies are interchanged to provide shade and electric power along the existing power utility corridor. The project promotes both individual health through social physical activity (skate park) and environmental health through awareness and stewardship.



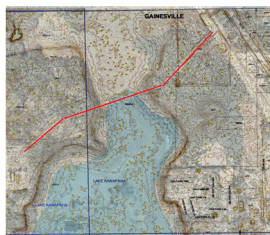


Archer Braid  
project

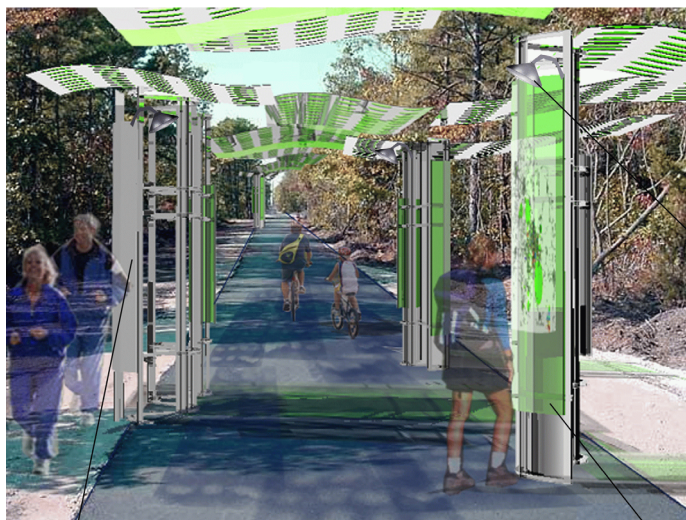
**Solar Garden: PV &  
Educational Kiosks**

Dara Huang  
Undergraduate Senior

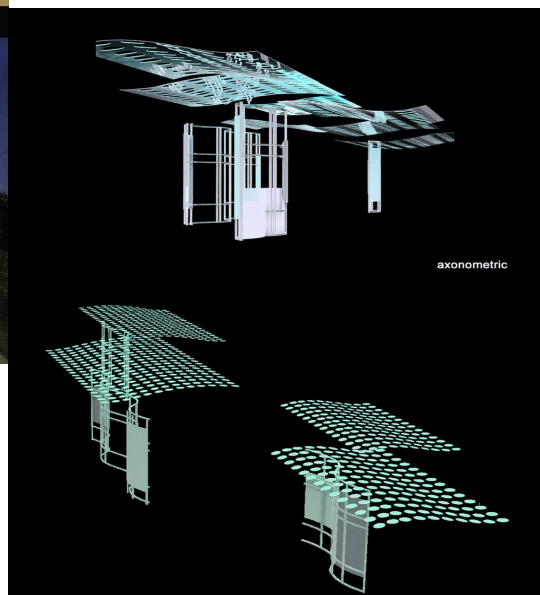
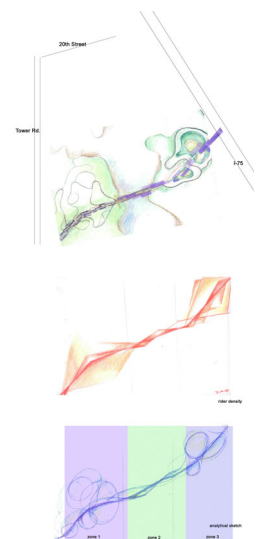
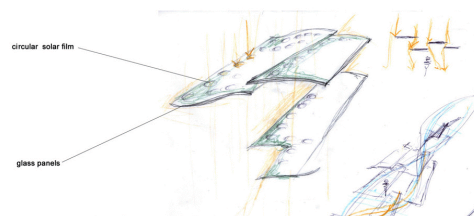
The Solar Garden optimizes the use of photovoltaic devices to provide energy to the community while shading the trail. Promotion of ecology and health is supported through kiosks along the trail. Kiosks might monitor health (heart rate) or other indicators and/or monitor energy generation. Stopping is promoted as a destination encouraging communal interaction.



**Linear site at northern  
edge of Kanapaha Lake**



emergency call box

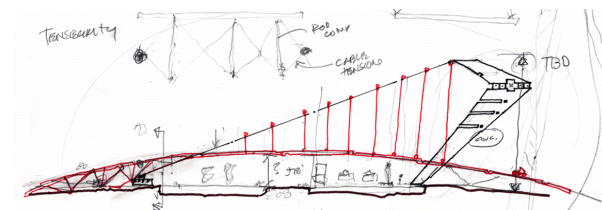
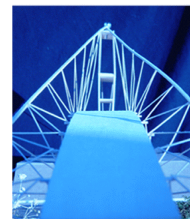
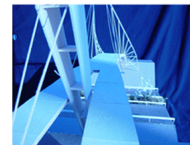
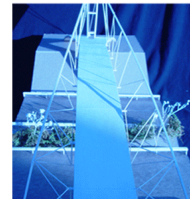
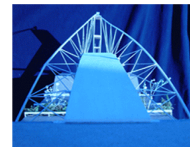
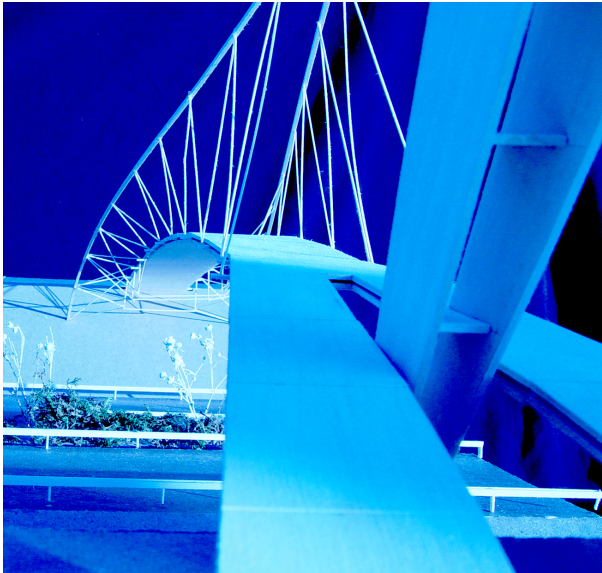


Archer Braid  
project

**Kanapaha Gateway:  
Linking Gainesville**

Jason Elmer  
Undergraduate Senior

A bicycle pedestrian bridge is proposed to connect west Gainesville across Interstate 75. The bold and innovative tensegrity structure integrates high efficiency structural design minimizes materials, and engenders a visually open and dynamic structure — establishing Gainesville as an important location on the national interstate highway system. Protection for automobiles and safety rails will be included as a visually transparent system such as a web mesh (not shown) to maintain the open feel.



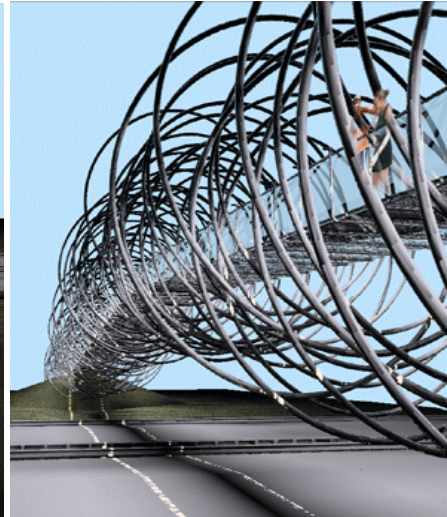
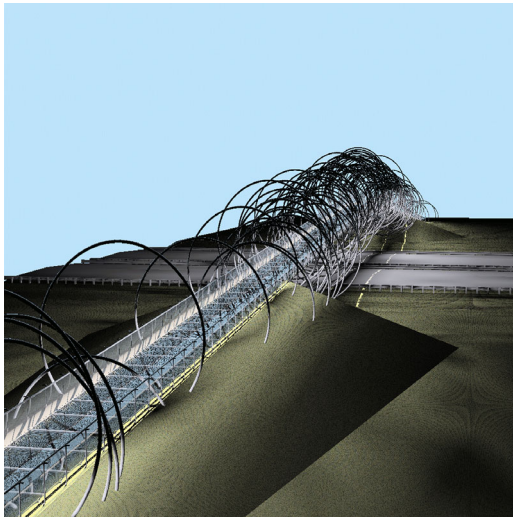
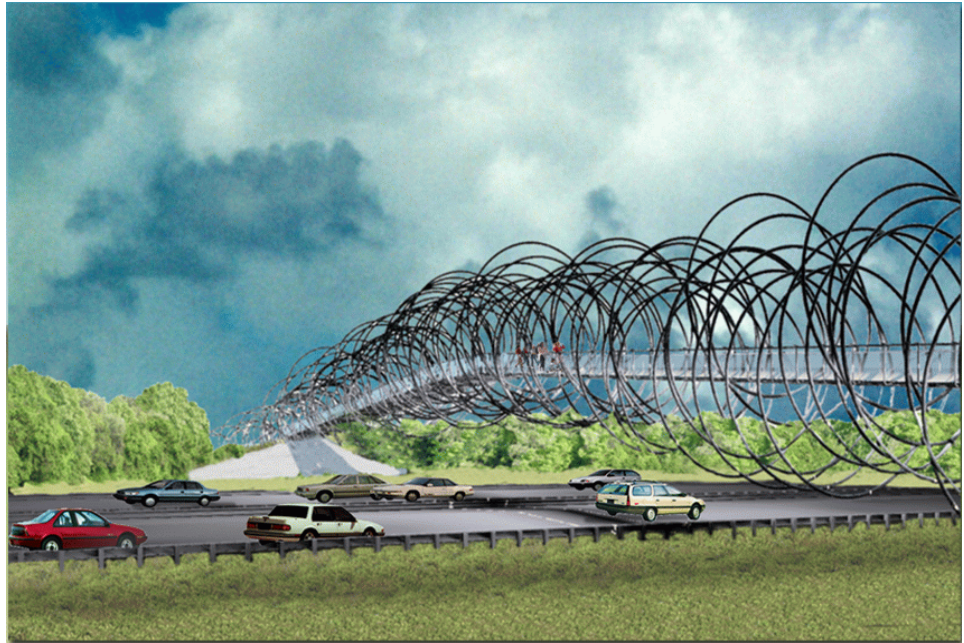


Archer Braid  
project

***Voxilated Tube  
Bridge: Linking  
Gainesville***

Douglas Mullins  
Graduate Student

Voxilated Tube Bridge utilizes ring elements as structural members of a tube truss to free span the existing Interstate — modulated by the rhythms of traffic passing beneath. Cyclists and pedestrians occupy the safety of the tube while retaining a visual spaciousness that opens as one passes through the wall of kudzu on the east to the expanse of the kanapaha wetland to the west. It provides a striking marker conveying the innovative forward looking sensibilities of Gainesville.



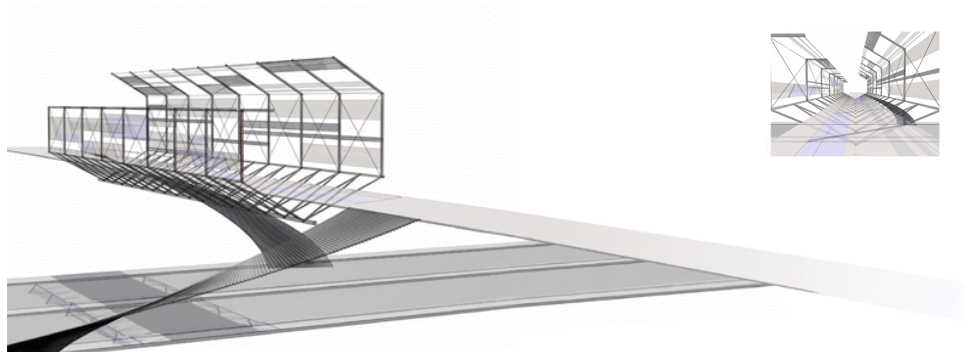
Alacha Braid  
project

**Over & Under Pass:  
SW 13<sup>th</sup> Street &  
Depot Trail.**

Todd Sussman  
Graduate Student



Over & underpass proposes to visually open-up the SW 13<sup>th</sup> Street area south of the current railroad trestle. A lightweight panel system provides safety and shade pulling away from cycle path limiting unauthorized occupation of the structure. Panels might also be used to identify the structure as a gateway to the University of Florida campus.



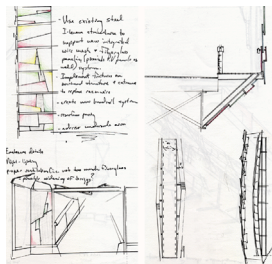
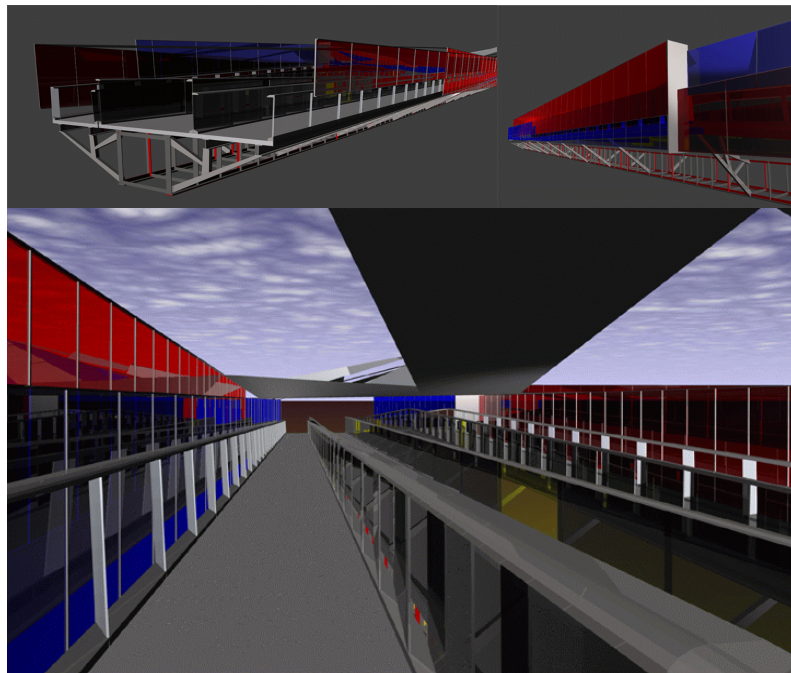
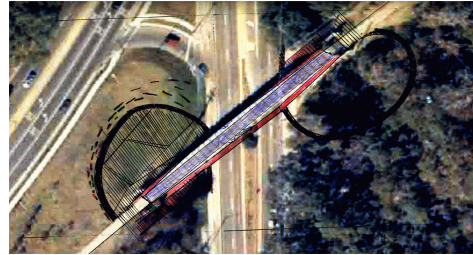
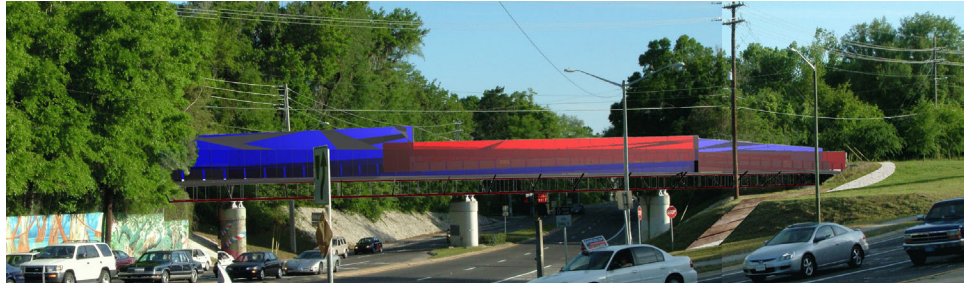


Alacha Braid  
project

**Chroma Train: SW  
13<sup>th</sup> Street & Depot  
Trail.**

Thomas LaPerriere  
Undergraduate Senior

Recalling the images of trains rushing over the trestle, Chroma Train utilizes overlapping colored panels to define cycle and pedestrian pathways on the bridge while marking the bridge as colored luminous object at night. Both horizontal and vertical connectivity are included linking landscape to the tectonic of the bridge. Overhead fabric canopies provide shade while eliminating occupation of the "roof".

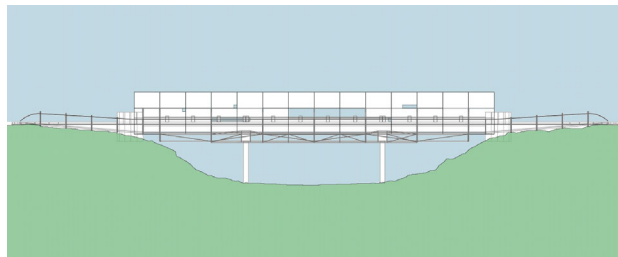
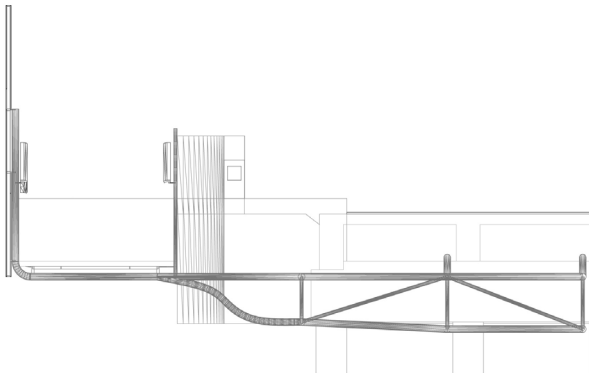


Alacha Braid  
project

**Shadow Screen: NW  
13<sup>th</sup> Street & NW 8<sup>th</sup>  
Avenue.**

Travis Orr  
Undergraduate Senior

Cycle screen utilizes the cycle movement to activate the NW 13<sup>th</sup> Street overpass at NW 8<sup>th</sup> Avenue — currently a cycle and pedestrian hostile zone. The adaptation of shadow screen tectonics portrays various scales of cycle and pedestrians crossing the bridge. Separated cycle paths are provided to connect cycle lanes across the narrow bridge. Cycle pedestrian links to NW 8<sup>th</sup> Avenue below are provided that integrate storm water catchments and vegetation to define circulation paths and public space.





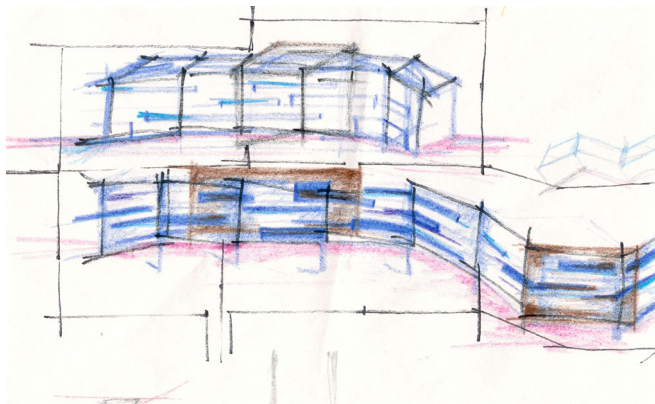
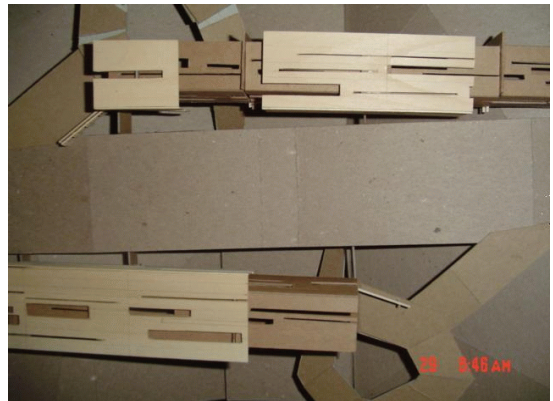
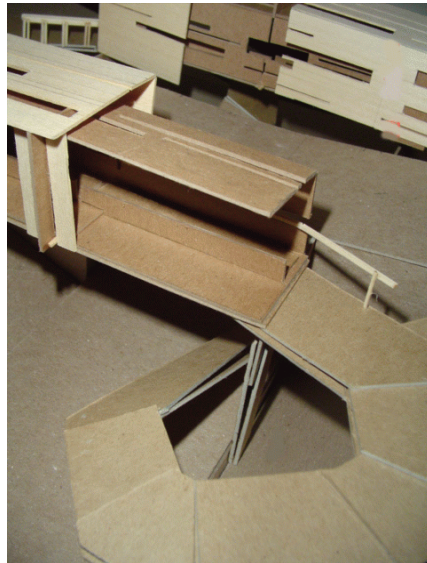
Alacha Braid  
project

***Shelter Screens: NW  
13<sup>th</sup> Street & NW 8<sup>th</sup>  
Avenue.***

Ana Marulanda  
Undergraduate Senior



This project optimizes safety while providing vertical connectivity at the existing overpass. Attaching to the existing structure, partial rooms are created that allow cycles to move freely on each side of the bridge. The design provides shade, reduces auto noise, admits light and protects cyclists and motorists.

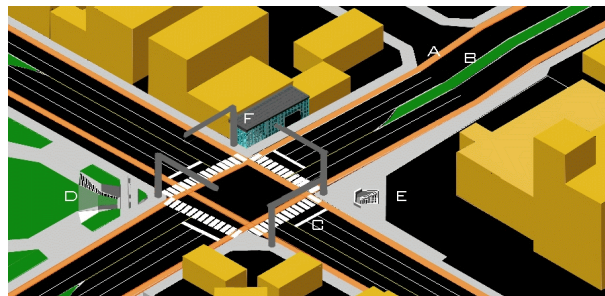
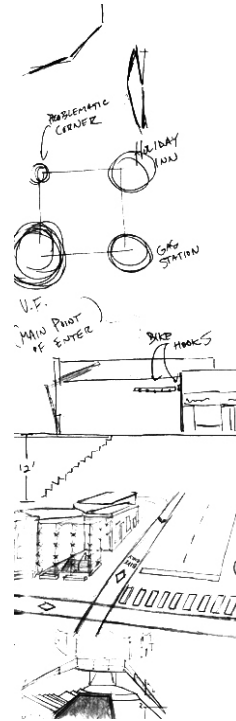
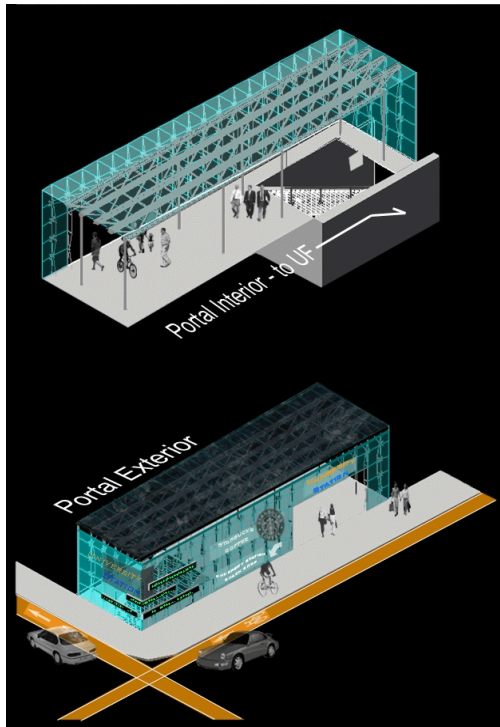


Alachua Braid  
project

**University Portal:  
Alternatives for the  
West University  
Avenue and West  
13<sup>th</sup> Street  
Intersection.**

Mark Hammerschmidt  
Undergraduate Senior

University Portal conveys transit in 3 dimensions at University Avenue and W 13<sup>th</sup> Street. Marked cycle lanes on the surface streets in conjunction with a below grade portal link the four corners providing pedestrian access and commercial opportunities — vending, news stand and cycle rentals. The portal kiosk (NW corner) shown here provides shelter during the short afternoon downpours while providing vending opportunities. Crosswalk alternative underground routes provide shaded immediate crossing of the busy intersection — perhaps decreasing auto wait times.



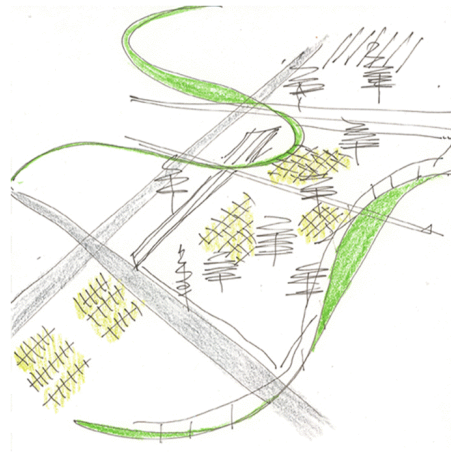
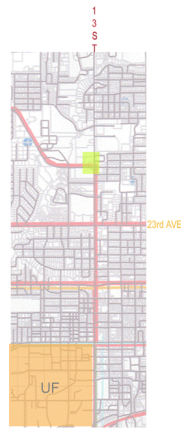


## Multi-modal Center project

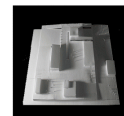
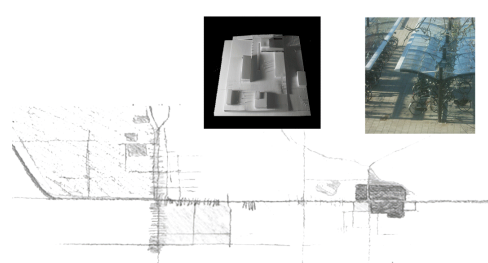
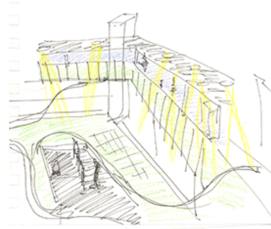
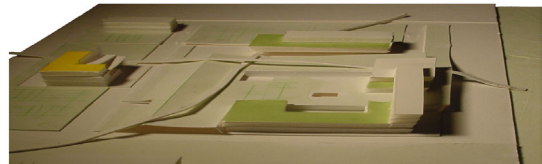
### **Parking Garden: Bicycle, Auto, Bus and Multi-modal Center**

Ximena Valle  
Undergraduate Senior

Parking garden proposed a formalization of the “satellite” parking around campus. Integrating a “green” parking lot with support businesses and infrastructure to store bicycles allows a park-n-ride model to exist for cyclists to get in and out of campus more easily. It does rely on a well developed network of paths to campus. Storm water and vegetative islands are used to provide hydrologic infrastructure, shade and habits for birds.



In order to encourage mass use of the bicycle, we must understand its use as a component of an integration of several systems; automobile traffic, public transportation, and bicycle-pedestrian infrastructure. In order for bike use to be widely accepted, we must recognize the need to integrate these systems, so that they together, work to improve our current situation. What is proposed in this project, is a strategy for how this integration might be possible through the introduction of a park & ride model we call a Parking Garden.



Multi-modal Center  
project

***Eco-park-ing-lot:  
Bicycle, Auto, Bus  
Multi-modal Center***

Justin Kristan  
Graduate Student

Parking ecology unites multi-modal transportation with commerce to provide a park-like environment with easy auto, cycle and pedestrian access to businesses. A vegetated green space with parking garage below maximizes the ecological land value. Secured cycle parking and storage is provided. A bus station is included with coffee shops and news stand. Multiple businesses cater to commuters who will change transport modes at this location.

