



## Janiva Henry, LEED A.P.

Bachelor of Architecture, University of Arkansas

Master of Design Research in City Design, Planning and Policy, SCI-Arc

For me, great architecture should encompass more than programmatic, aesthetic and structural concerns. Social responsibility and sustainability must become priorities for Architecture and Urban Design. A serious shift towards sustainable attitudes combined with a healthy respect for the environment should permeate the creation of architectural artifacts. The research, use and development of low-cost, sustainable materials would enable all classes of society to experience the dignity, beauty and comfort of good design. Architecture and Urban Design should not only affect quality of life, but also the cost of living. It should excite emotions, evoke positive social change and preserve the environment for future generations.

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The **great** thing about  
being an **architect** is  
that you can walk into  
your *dreams*.

Harold E. Wagoner, 1986



### Fayetteville High School V. P. A.

A Sustainable Urban Umbrella for the 21st Century

### LEED Office Building

Leading by Example

### Country House

Making Elegant Space of an Uninhabitable Line

### Neonatal Intensive Care Unit

Designing for the Delicate

### Design Build- Outdoor Classroom

Giving back to a Deserving Community

### Sketches and Project, Italy and China

Indescribable Places



# Fayetteville High School for Visual and Performing Arts

## B.Arch. Portfolio

### Studio Work

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[Country House](#)

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[The Big Picture](#)

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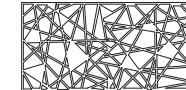
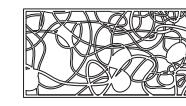
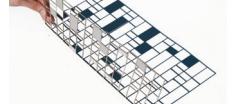
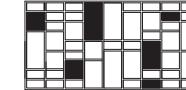
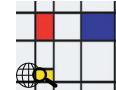
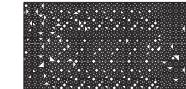
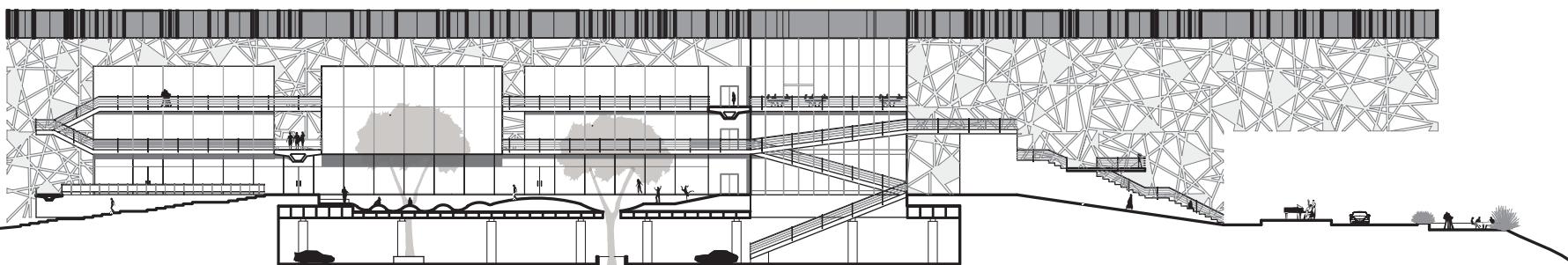
[The Community](#)

[A Look Around](#)

[Sustainable Site](#)

[In The Press](#)

This addition to the neighboring Fayetteville High School rethinks traditional ideas of learning spaces and creates a model relevant to the 21st century. The Space Frame structure and skin combination defines the boundaries of a varied and vibrant high school sub-culture without the restriction of exterior walls. Restrictions translate negatively into students' attitudes towards life and especially the arts. The dynamic play of light and shadow that the 'umbrella' casts on the interior sets the tone for an exciting exploration of the arts. The entire building is a stage for students' performances and artwork.



The exploration of pattern, light and shadow for the surfaces/skin, led us to realize the potential for structural ability within the skin itself.

*The Big Picture*

*The Program*

*The Community*

*A Look Around*

*Sustainable Site*

*In The Press*

*Fayetteville High School V. P. A.*

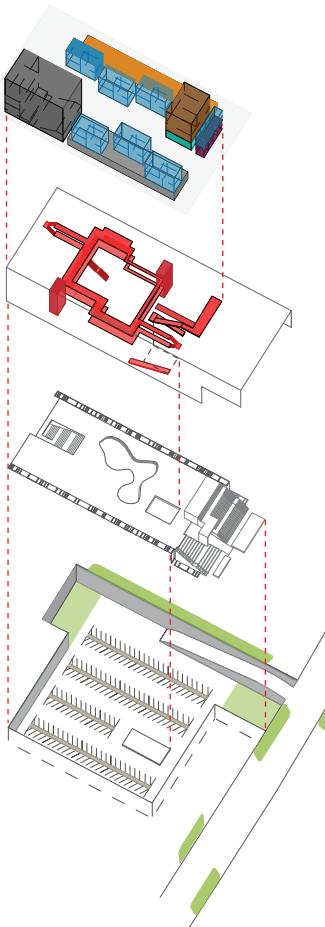
*Country House*

*Design Build- Washington Elementary*

*LEED Office Building*

*Neonatal Intensive Care Unit*

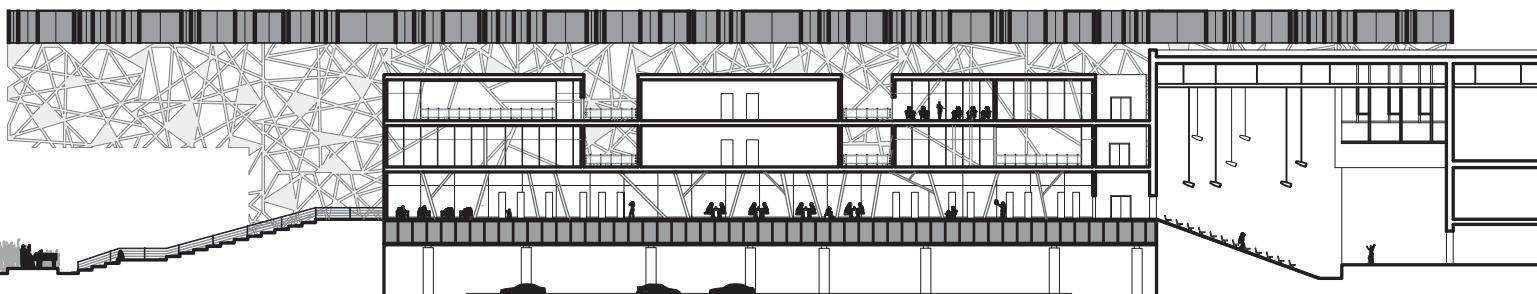
*Sketches and Project, Italy and China*



- Library
- Auditorium
- Gallery
- Administration
- Bookstore
- Dining
- Classrooms
- Circulation
- Green Spaces



The dilemma of creating an urban, community-oriented environment that addresses concerns for students' security was resolved sectionally. Public spaces such as the library, gallery, administration and the grand entry amphitheater are located at ground level, while classrooms perch as upper levels. Each building under the 'umbrella' is conceived separately. They are however united by the Space Frame overhead. The frame pierces through the library to create cozy reading spaces and forms balconies for outdoor classroom activities such as spray painting.



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This project creates spaces that encourage a strong sense of community. The street, which extends into the suburban neighborhood is the stage for the grand entry amphitheater, which reaches out in invitation to the community and the neighboring high school. Both pedestrians and vehicles share the clearly demarcated Green street. The Space frame stretches across the street to embrace passersby. Strategic placement of a skating rink between non-recreational program, the overlapping of paths of movement and the various scales and focuses of study spaces encourage community among the students.



# Fayetteville High School for Visual and Performing Arts

[janivahenry.com](http://janivahenry.com)



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**Fayetteville High School V. P. A.**

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# Fayetteville High School for Visual and Performing Arts

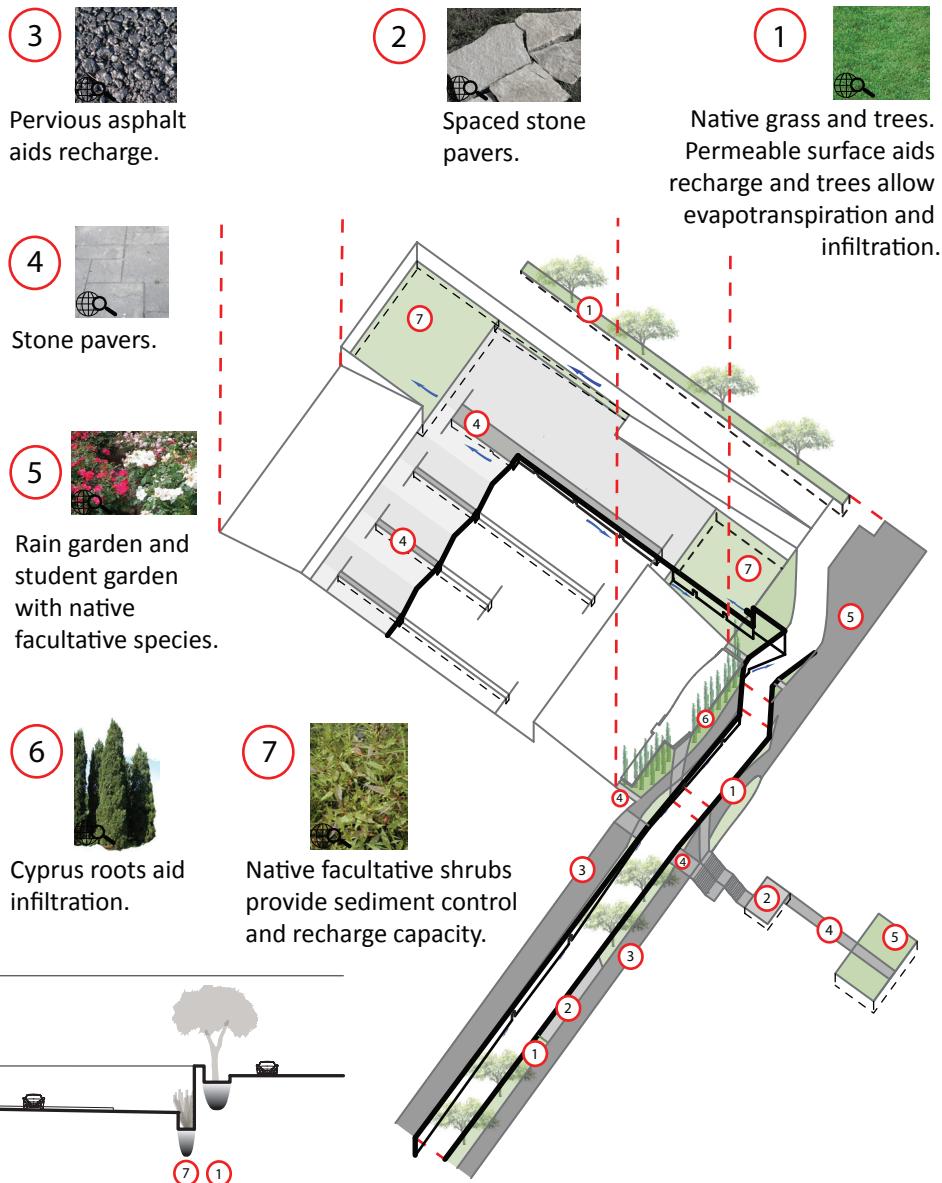
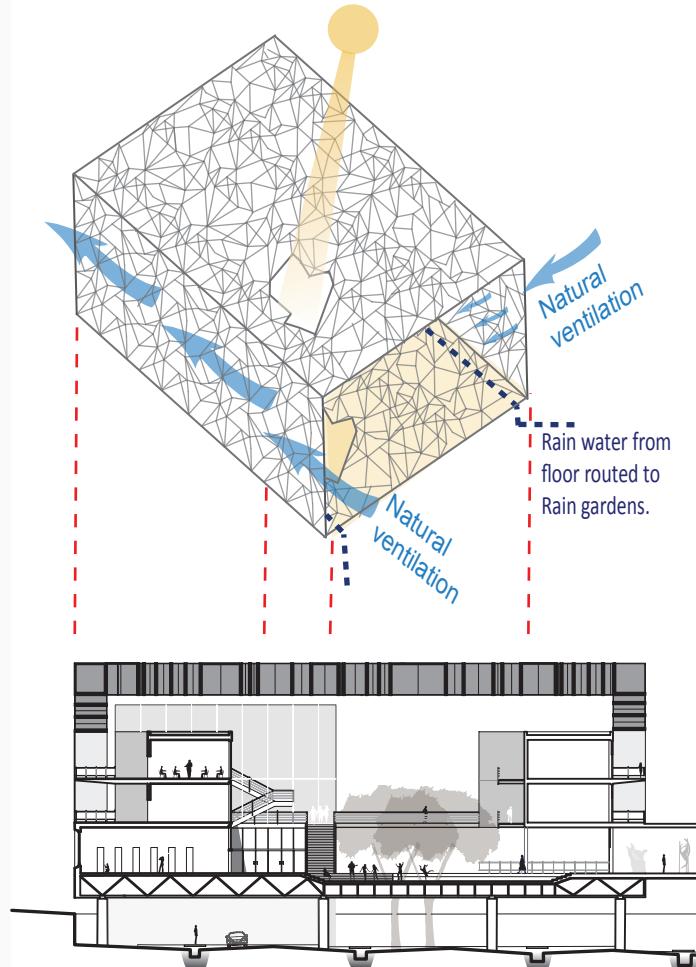
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"My favorite part is this skin-structure and the quality of light that it casts on the interior," Henry said as she worked. Jaggers and Henry said the spring project gave them a rare academic opportunity to work in teams rather than go solo. Huber said architects in the real world tend to work in groups. **The result, Henry said: "A richer and stronger design."**

(My teammates on this project were Cydney Jaggers, Roberto Rocco and Raquel Mayorga)

"With all the talk in the community about redesigning the Fayetteville High School campus, students in Huber and **Larry Scarpa's design studios** spent this semester developing their own models and plans for the **40-acre site** that the school board hopes to renovate."

**"The results may help Fayetteville voters decide whether to approve a proposed 4.9-mill increase in property tax to fund construction of a new high school complex."**

**"Drawings and models designed by the architecture students are on display at the Fayetteville Public Library from July through September."**

"...led by Larry Scarpa, the 2009 Fay Jones Visiting Professor, and Jeff Huber, an adjunct professor and project designer for the Community Design Center...they focused instead on designs for an **80,000-square-foot, 500-student learning community** for the visual and performing arts."

|                                  |   |
|----------------------------------|---|
| <a href="#">The Big Picture</a>  | <a href="#">Fayetteville High School V. P. A.</a>     |
| <a href="#">The Program</a>      | <a href="#">Country House</a>                         |
| <a href="#">The Community</a>    | <a href="#">Design Build- Washington Elementary</a>   |
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| <a href="#">In The Press</a>     | <a href="#">Sketches and Project, Italy and China</a> |



# Country House

B.Arch.  
Portfolio

## Studio Work

Fayetteville High School V. P. A.

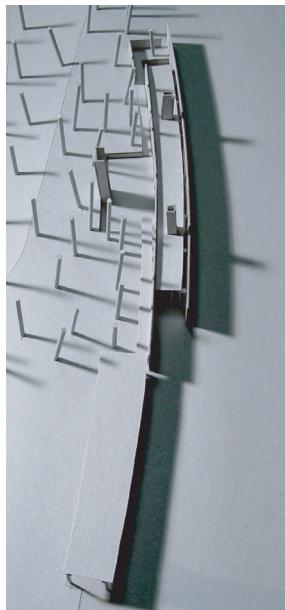
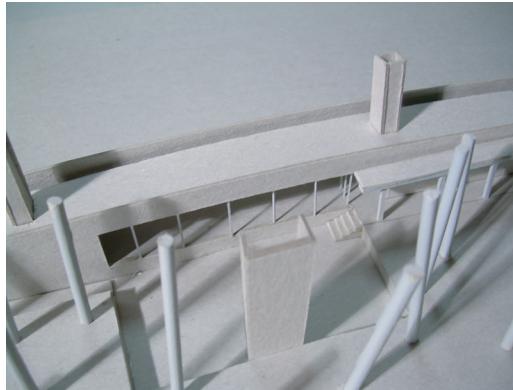
**Country House**

Design Build- Washington Elementary

LEED Office Building

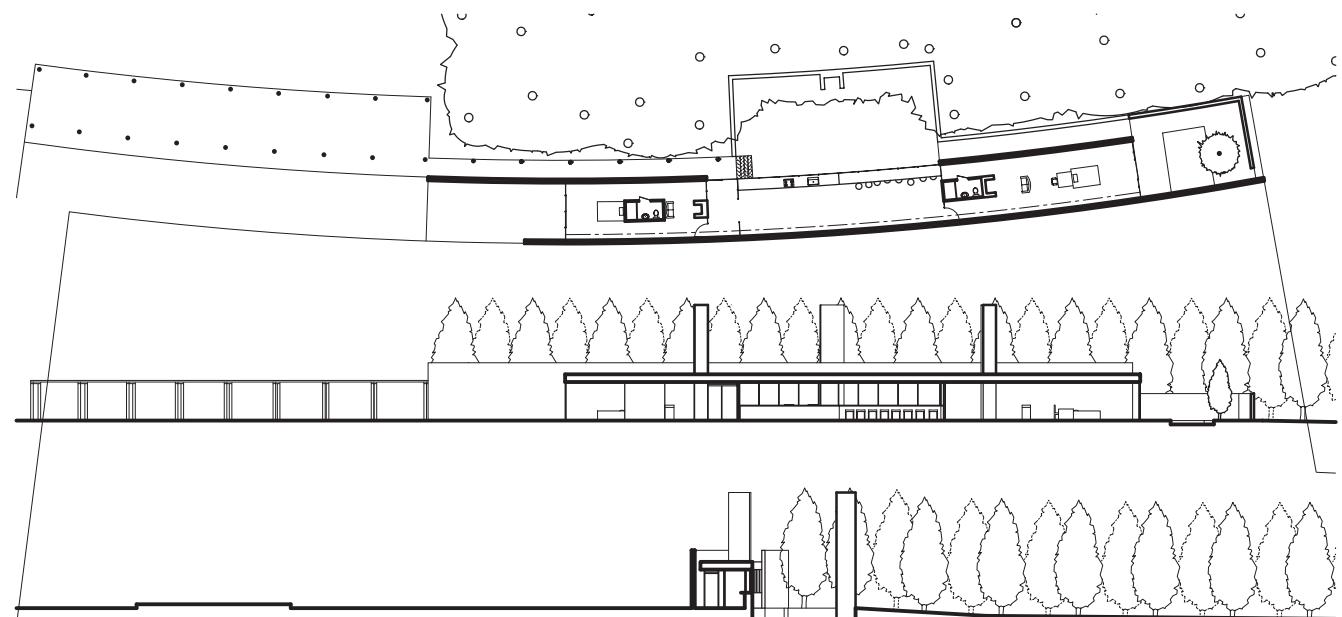
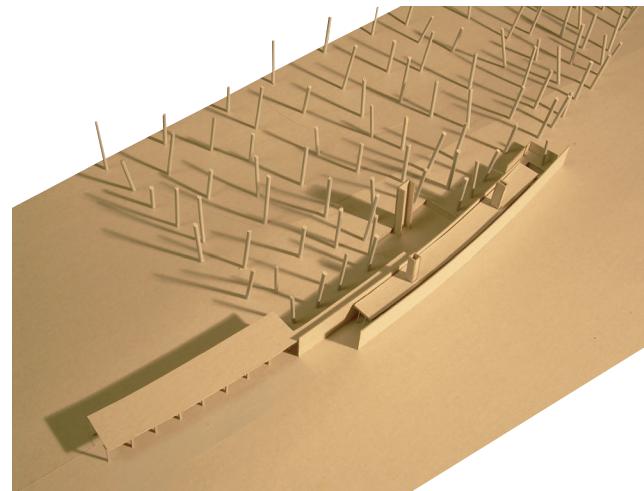
Neonatal Intensive Care Unit

Sketches and Project, Italy and China



*The Big Picture*

*The Experience*

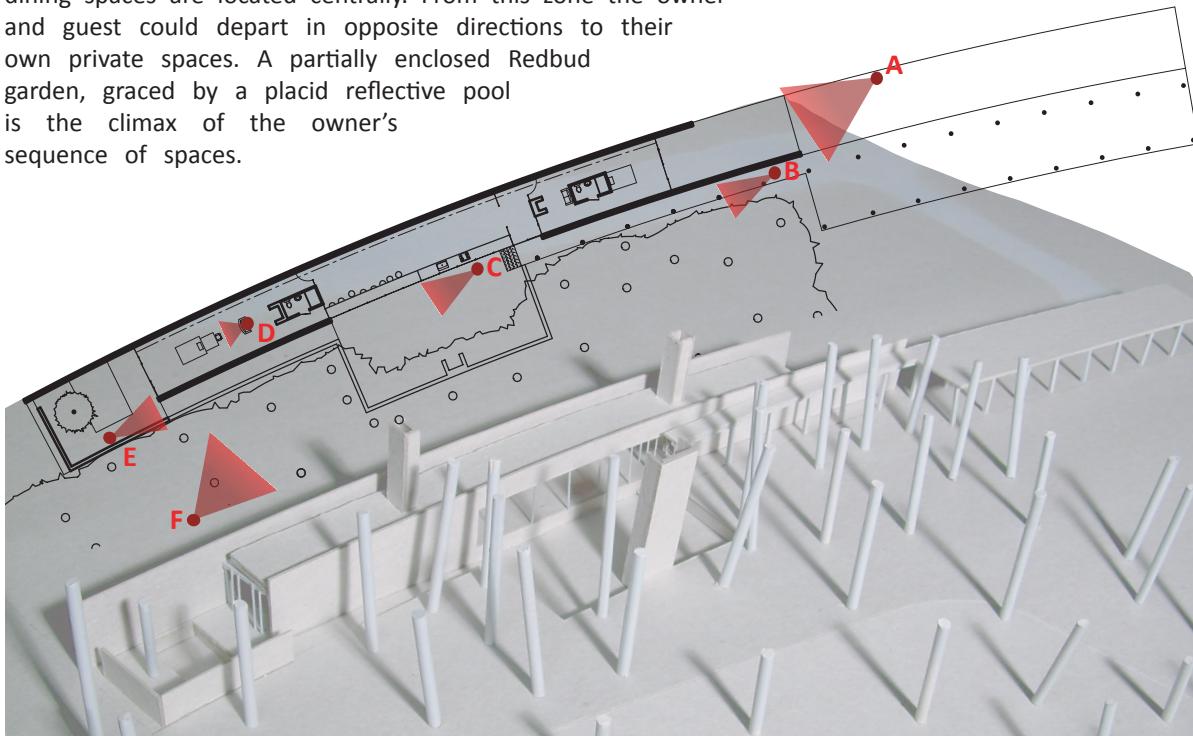


The Country House is an exploration of making elegant habitable space of a long narrow gesture first drawn on paper. The program, sequence of motion and the bosque, each respect the simple form of two curved walls imposed on the site. The landscape has been carved out to shade the sunken courtyard; the trees attain and continue the curved form of the wall. Locked into the woods, both the owner and guest have access to a shady retreat, countryside vistas, private and shared spaces.

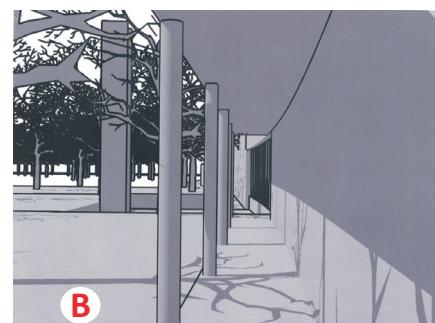
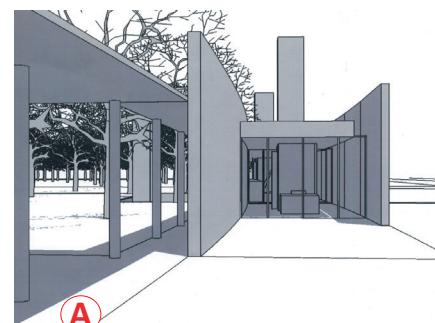
# Country House

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The Country House is conceived of as poured-in-place concrete and glass. Local timbers cleared from the site would furnish the interior, while stone mined from the area would be mortared together to construct the three towering fire places. The main entrance along with the kitchen and indoor dining spaces are located centrally. From this zone the owner and guest could depart in opposite directions to their own private spaces. A partially enclosed Redbud garden, graced by a placid reflective pool is the climax of the owner's sequence of spaces.



|                        |  |
|------------------------|--|
| <i>The Big Picture</i> | <i>Fayetteville High School V. P. A.</i>     |
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# Design Build- Outdoor Classroom

## B.Arch. Portfolio

### Studio Work

Fayetteville High School V. P. A.

Country House

Design Build- Outdoor Classroom

LEED Office Building

Neonatal Intensive Care Unit

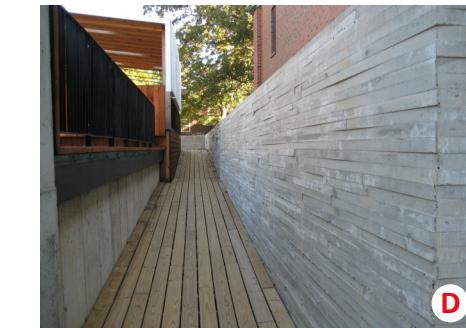
Sketches and Project, Italy and China

The Big Picture

The Process

Solar Installation

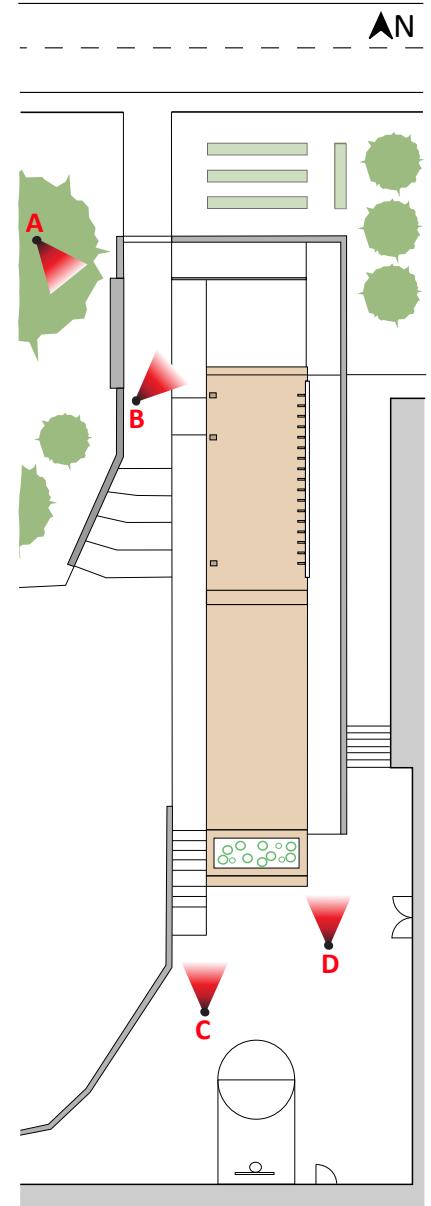
Getting The Details Right



This Elementary School Outdoor Classroom is not simply a place that contains learning activities but is itself an instrument of learning. The architecture, the butterfly and vegetable garden on the north end and future solar and electrical installations in the pavilion are the preconceived instructors.

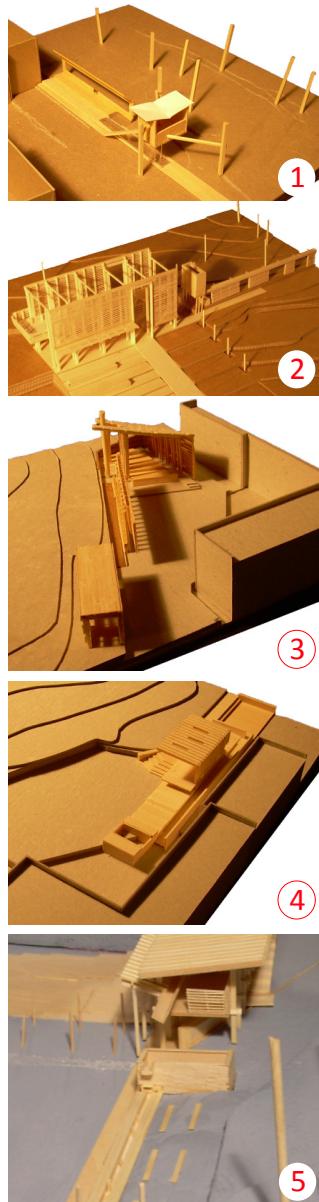
Another prime function of the classroom is the hosting of community activities. The classroom is not only accessible from the school on the south, but also from a public street on the north.

The project is characterized by a sequence of spaces that increase in scale, suggest different student activities and have visual connections to each other for large gatherings. The spaces, defined by Mexican river rock and a continuous folding Redwood surface, are all wrapped by a continuous Board-form concrete wall. A pavilion defines the primary zone and provides shade and repose in the summer.



# Design Build- Outdoor Classroom

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The Outdoor Classroom was brought to substantial completion by three different groups of architecture students. I was an integral part of the first group of 12. We planned, designed competitively and completed the first stages of construction.

My ideology was that children should be able to observe environmental phenomena through interaction with the architecture, and thereby learn sustainable practices even before the curriculum is engaged. As seen in images 1, 2, 5 and 6, my team and I focused on water management, agriculture, community engagement and entry sequencing. Some of these ideas were successful at all levels of competition and are evident in the final design seen in image 4. Image 3 shows progress by another team towards the final design.

We refined our ideas through meetings with the Washington Elementary PTA and community members. We also interacted constantly with donors and engineers throughout the process.

Since we were amateur builders, we followed our construction plan and models closely. Location of coordinates on site and excavation were followed by the erection of concrete walls and foundations. With the mentorship of professionals the pavilion and its fine details were constructed. Construction was delicately balanced with managing a large press presence for this service project.



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Assembling Formwork



# Design Build- Outdoor Classroom

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Getting The Details Right

After substantial completion of the Outdoor Classroom project, I investigated and designed a solar installation for the central rectilinear space in the pavilion canopy.

The Outdoor Classroom is defined by a set of folding planes, from large scale to details. I carried this idea and material palette into the solar installation design.

Since I wanted the classroom to be an instrument of learning, I wanted students to see not only the cells and glass, but the mounting system as well.

I consulted with suppliers and selected an appropriate photovoltaic. The deciding criteria were its dimensions, weight, cell spacing and color, wattage, support type and UL certification.

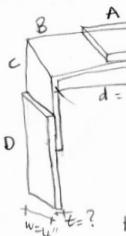
After much calculation and consultation, the mounting system consisted of adjustable aluminum bars for on site installation flexibility, and an aluminum C channel to support the glass.

### Sizing Members

Aluminum deflects 3x more than steel

Steel - max stress in bending 24 000 psi

Aluminum - max stress in bending 18 000 psi

  $f_b = \frac{M}{S}$  - force in bending  
 $M$  - Moment  
 $S$  - Section Modulus  
 $P$  - load

Max load of Solar Panel + Aluminum frame  
 $= 180$  pounds

According to code - Snowload  
 $20\text{psf}$

On a  $6.5 \times 3.5$  panel (the largest panel we may use)

Snowload  $= 20 \times 6.5 \times 3.5 = 455$

Total load  $= 635$  pounds

Since we have 4 supports,  $\frac{1}{4}P = \frac{635}{4} = 159$

Assume A B C & D are fixed together.

A & B bolted

B & C welded

C & D bolted



$$f_b = \frac{M}{S} = 24000 \text{ psi max (for steel)}$$

$$= \frac{\frac{1}{4}Pd}{\frac{wt^3}{6}} = 24000$$

$$\frac{159 \times 12}{\frac{4t^2}{6}} = 24000$$

$$t^2 = \frac{159(12)(6)}{4 \times 24000} = .12 \text{ in}^2$$

$$t = .346 \text{ in (about } \frac{3}{8} \text{)}$$

### Deflection



Assuming a connection from a fixed point

$$A = \frac{PL^3}{3EI} \quad h = d = 12'' \quad E - \text{Modulus of Elasticity for Steel}$$

$$I - \text{Moment of Inertia} = \frac{\text{width (thickness)}^3}{12}$$

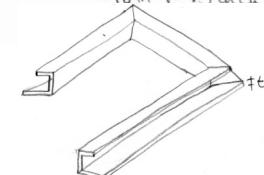
$$A = \frac{159(12)^3}{3 \times 29000 \text{ psi} \times \frac{4(.346)^3}{12}}$$

$$A = .23$$

Since the connection is not fixed but mobile



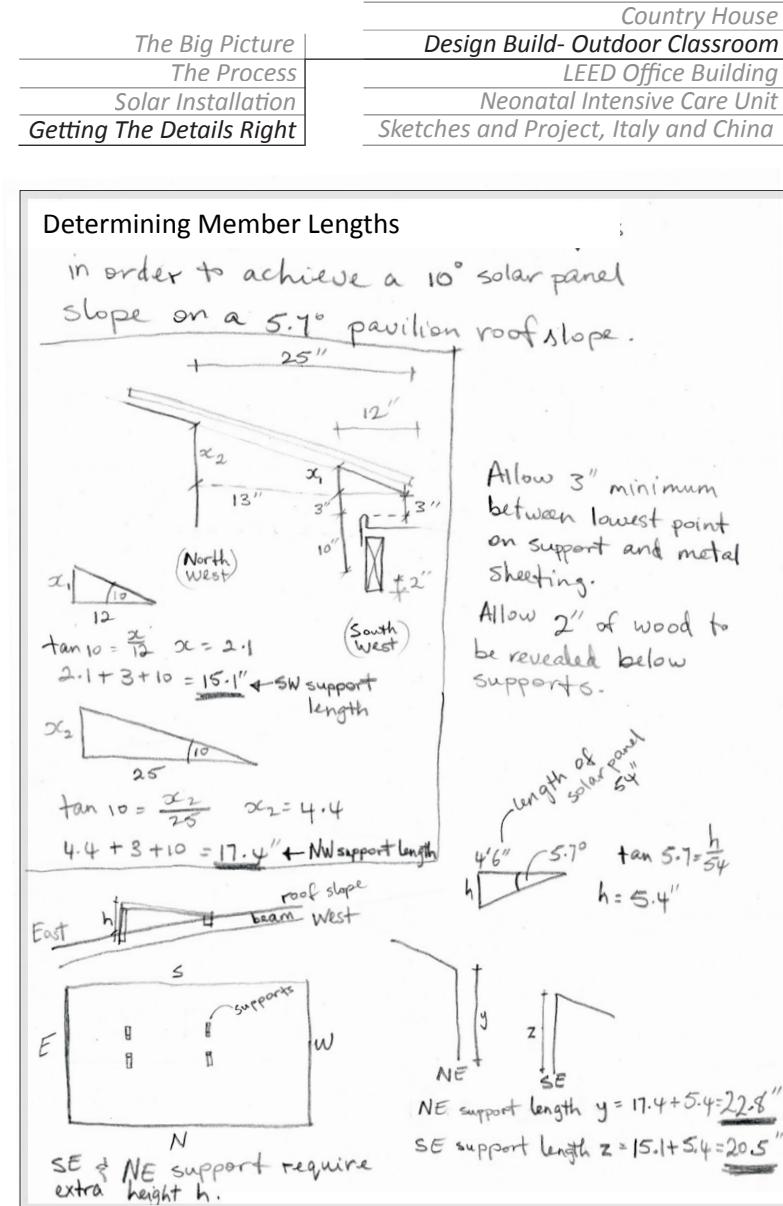
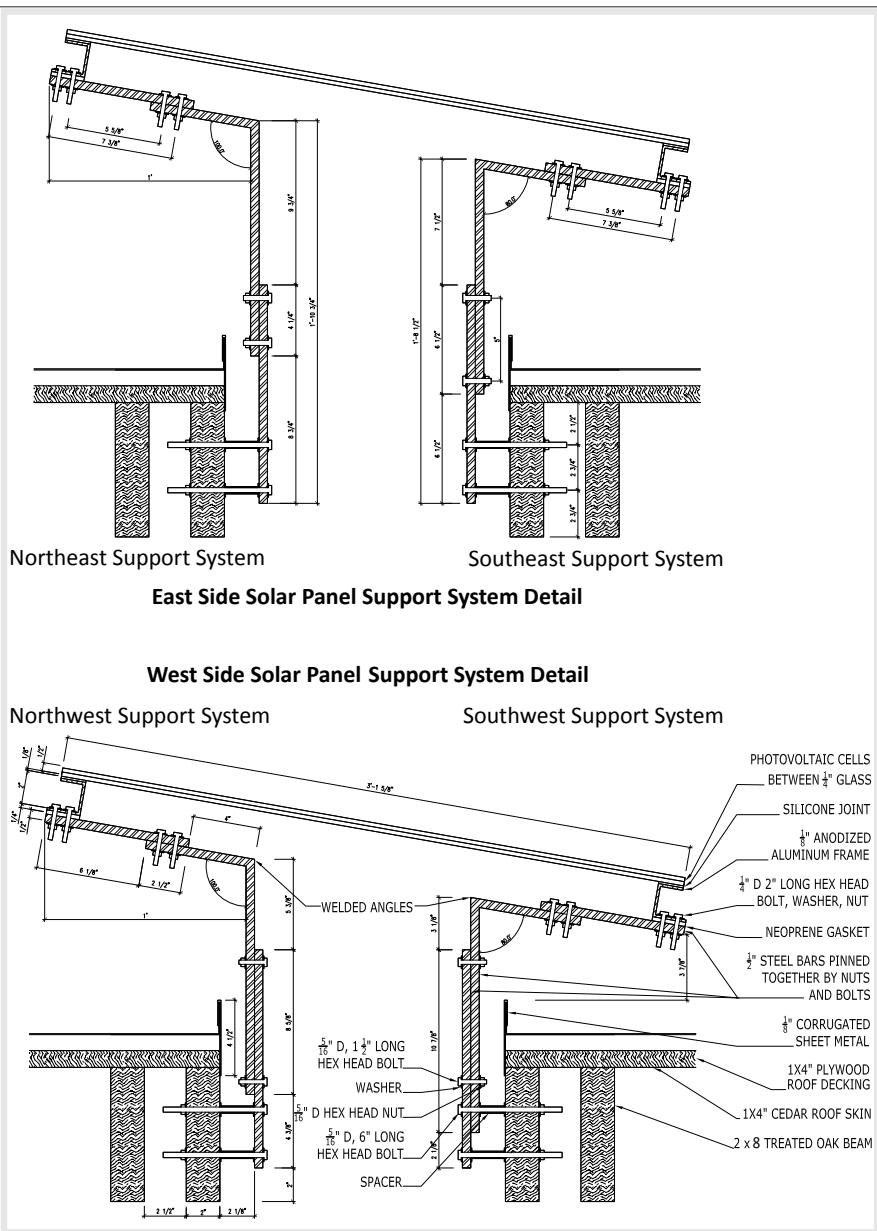
Therefore, increase t from  $.346 \text{ in}$  to  $.5 \text{ inch}$



$$W = \frac{635}{2 \times 6.5} = 49 \text{ #/FT}$$

$$f = \frac{M}{S} = \frac{61 \# \times 12 \text{ /FT}}{2.88 \text{ in}^3} = 2536 \text{ psi}$$

$$2 [ t = 0.13 \text{ "}]$$



# LEED Office Building

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### Sustainable Sites

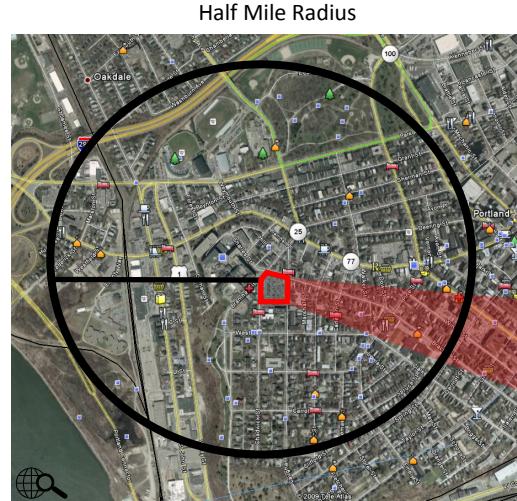
Indoor Environmental Air Quality

Water Efficiency

Energy and Atmosphere

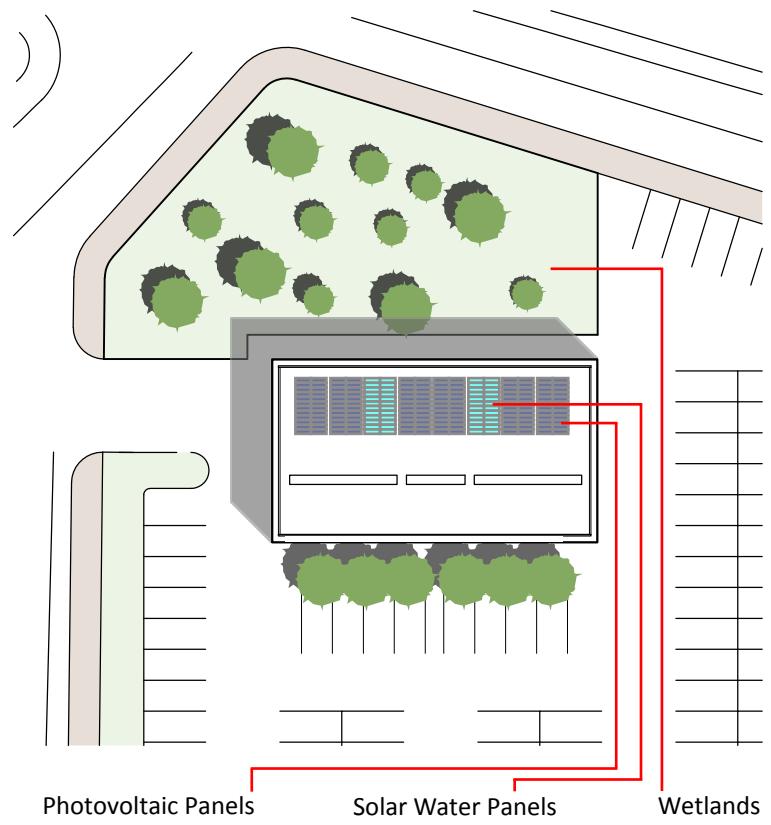


BikeWall Electronic Trolley System



The LEED Office Building was designed by four Architectural Technology students to be an example of sustainable design in the Portland Main community. Several major design-moves such as the BikeWall are not only visible to the community, but also engage the public. The entire ground floor facade is automated bicycle storage and display for use by employees of neighboring establishments as well as by those of the office building.

The site is within 1/2 mile of a residential zone with a net average density of 10 units per acre, within 1/2 mile of over 10 basic services and with pedestrian access and bicycle paths.



The site is currently a parking lot in a densely populated suburban area. This project seeks to return this site to its former natural inclination and status as a wetland. In order to compensate for the consequent reduction in parking space, the bike sharing program and shared parking programs with the neighboring hospital were instituted. Preferred shaded parking spaces for the disabled, fuel efficient cars and carpool spots are also provided. Showers and changing rooms are provided on the ground floor and are accessible to the public.

Fayetteville High School V. P. A.

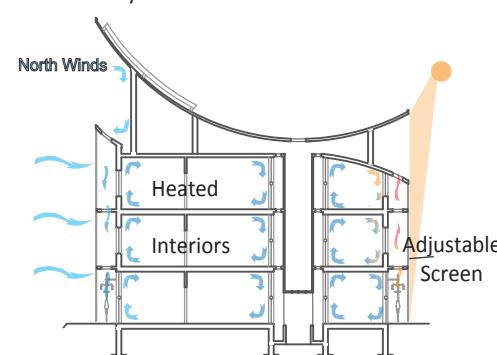
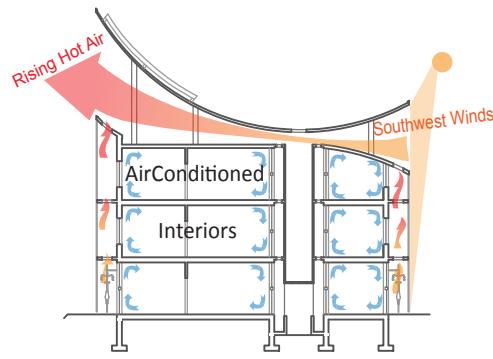
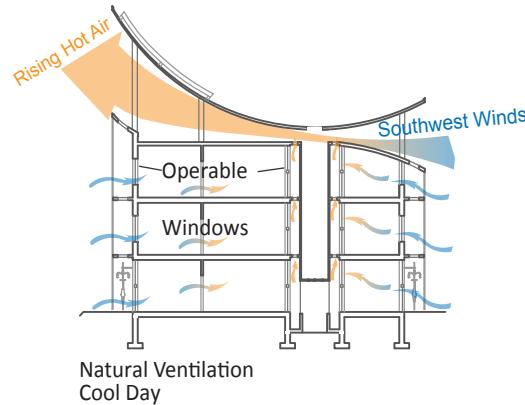
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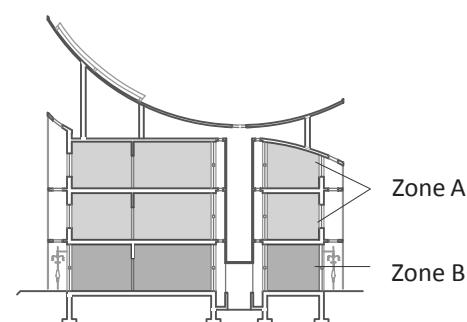
Sketches and Project, Italy and China



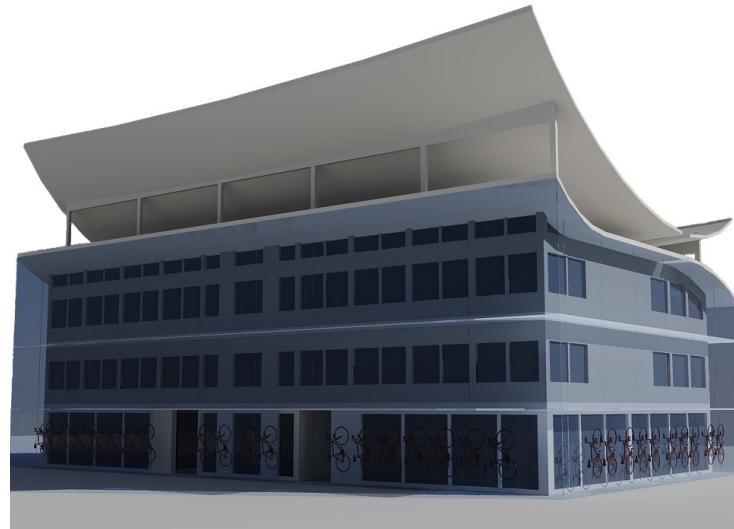
The most visible feature of the building is the large swooping roof. In addition to acting as a visible reminder of sustainable practices and other functions, it uses Bernoulli's principle to draw warm air out from the interior.

A doubled skin/screen reduces the impact of extreme temperatures and allows hot air to escape before it even reaches the exterior walls. The screen and all windows are operable to reduce energy usage and increase ventilation, daylight and views. These are also optimized by reducing the height of interior walls. The cooling and heating systems are designed for optimal efficiency and are controlled by zones of usage via a raised floor system.

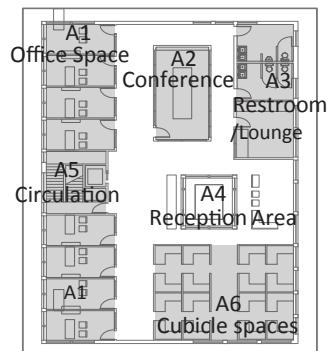
All paints, coatings, sealants and carpets are low VOC materials.



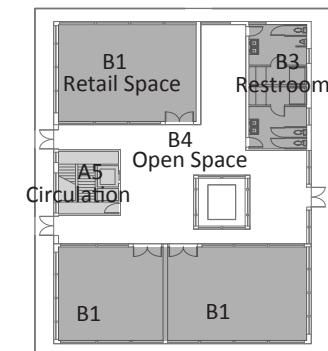
Zones for Energy Use Control



Front Elevation



A Zones



B Zones

# LEED Office Building

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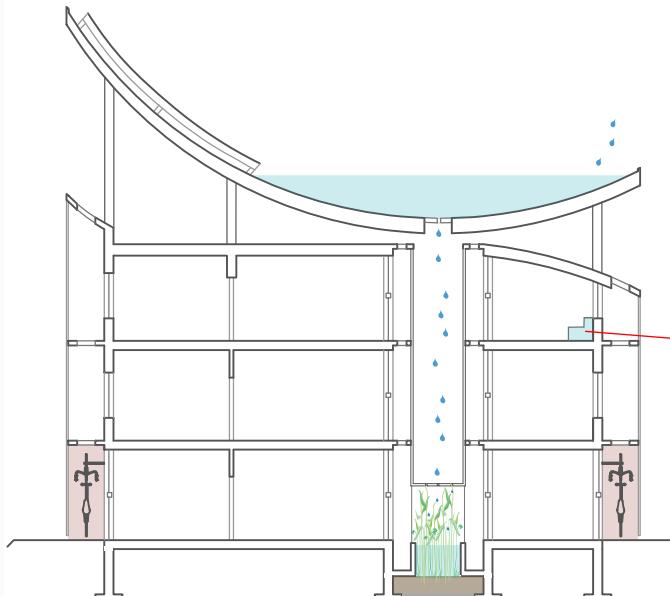
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*Indoor Environmental Air Quality*

*Water Efficiency*

*Energy and Atmosphere*

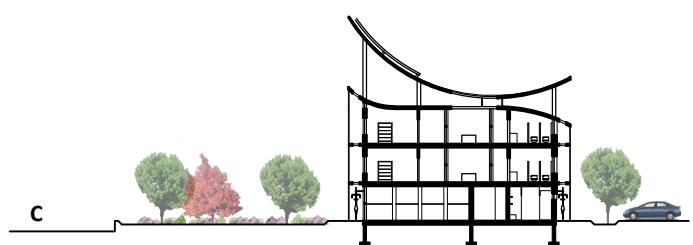
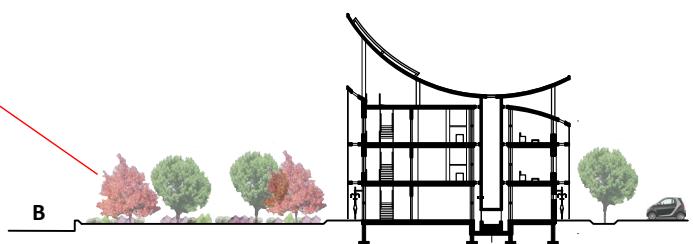
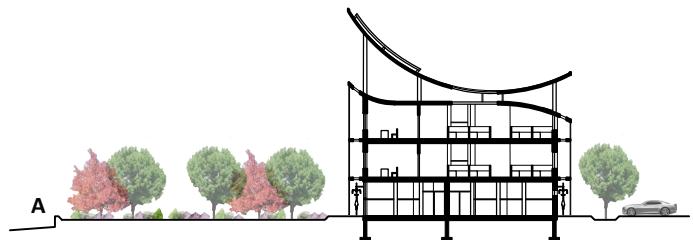
# LEED Office Building



Water Efficiency Strategies

The almost constant rain has been captured and stored by the concave roof to create an indoor water feature, supporting indoor plantings and producing gentle soothing sounds that reportedly aid employees in coping with stress.

Rain water is also used to flush low-flow toilets. Excess water is routed to the wetlands in front, and to bioswales in the parking lot behind the building. The wetlands and parking have been populated with local facultative species. No potable water is used for irrigation and potable water use is reduced 30%.



🔍 Trees and Shrubs selected for the Wetlands and for the Bioswales in the Parking Area



Northern Red Oak



Creeping Juniper



Black Twig Dog Wood



White Ash



Black Choke Berry

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**LEED Office Building**

Neonatal Intensive Care Unit

Sketches and Project, Italy and China

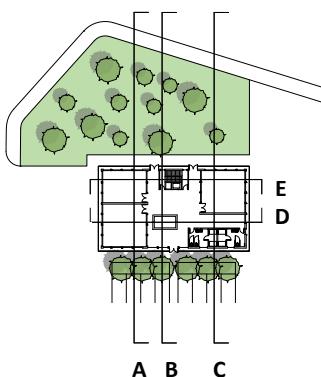
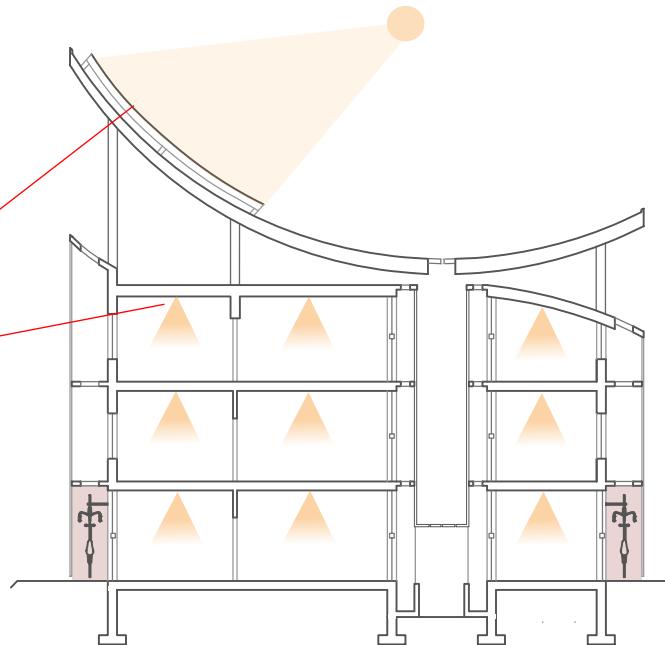
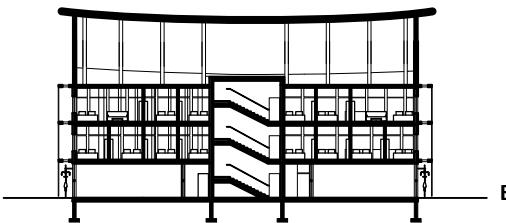


Solar Water Panels and Photovoltaic Panels are strategically located on the sun-facing side of the roof. The Solar Water Panels would provide hot water for sinks and showers.

The Photovoltaic panels would supply the building with 110% of its energy need. The excess power is to be sold to the city.

Energy efficient lighting would be installed throughout the building along with occupancy sensors and an automatic shut-off system.

In an effort to combat ozone depletion and its associated deleterious effects, the building's equipment would use refrigerants such as water and ammonia. All equipment would have efficient refrigerant charge and long service lives. Photocopiers would be specially ventilated.



#### Materials and Resources

All wood must be certified as locally manufactured and all doors would be brought from a neighboring office building currently under demolition. Rapidly renewable resources such as bamboo flooring have been selected. Steel and plastics for use would be sourced from a local recycler. 80% of construction waste would be diverted to local plants to be recycled or sold for reuse.

#### Project Categories and Points Earned

|                              |              |
|------------------------------|--------------|
| Sustainable Sites            | 11/14        |
| Water Efficiency             | 5/5          |
| Energy and Atmosphere        | 7/17         |
| Materials and Resources      | 8/13         |
| Indoor Environmental Quality | 12/15        |
| Innovation & Design          | 2/5          |
| <b>Total Points</b>          | <b>45/69</b> |

The LEED Office Building would attain **LEED GOLD**.

# Neonatal Intensive Care Unit

## B.Arch. Portfolio

### Studio Work

*Fayetteville High School V. P. A.*

*Country House*

*Design Build- Outdoor Classroom*

*LEED Office Building*

*Neonatal Intensive Care Unit*

*Sketches and Project, Italy and China*

### *The Big Picture*

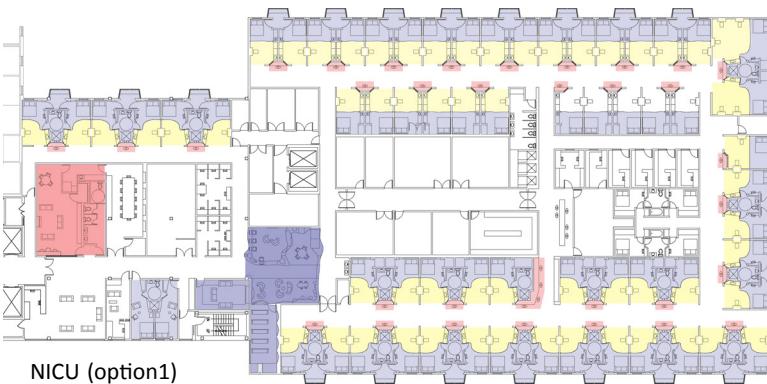
*Flexibility*

*Light, Sound and Views*

*The Organization*

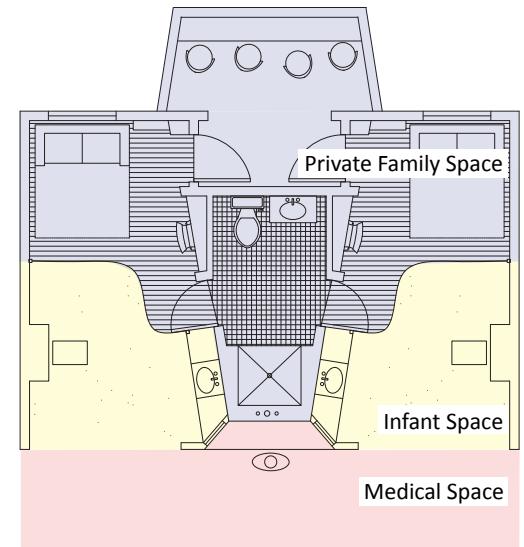
*The Plan*

*The Program*



- Private Family Space
- Semi-private Family Space
- Family Gathering Space
- Infant Space
- Nurses Gathering Space
- Nurses Work Space

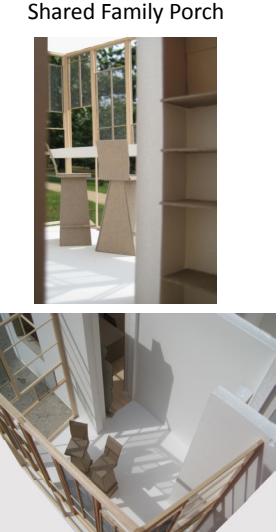
(The semi-private family spaces are a chapel and Grieving room. The public family space is an internet/vending and children activity area.)



The NICU Unit- 2 Single Family Rooms



A Single Family Room



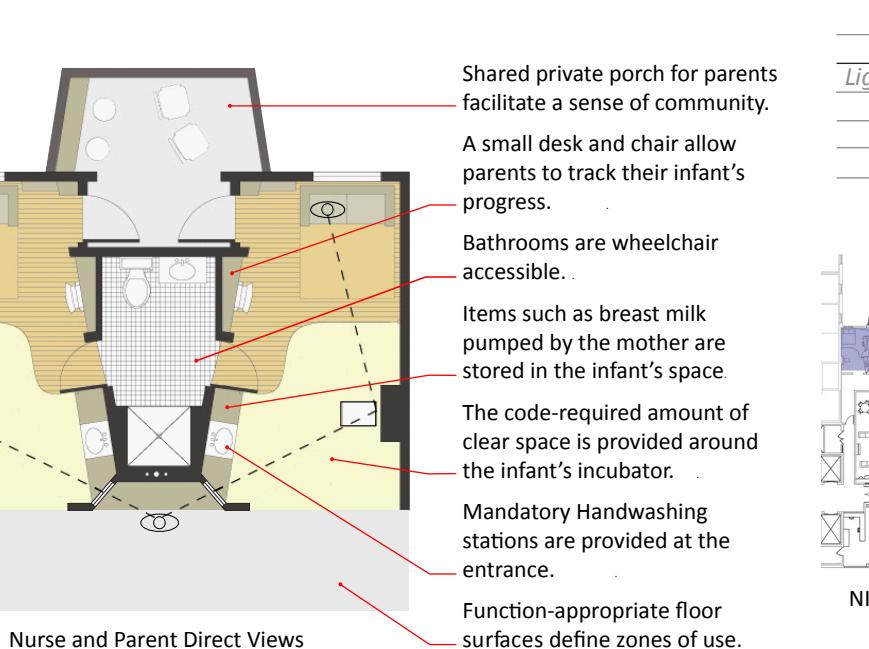
Shared Family Porch

### **The Big Picture**

Commissioned by Phoebe-Putney Memorial Hospital, Georgia, to redesign and extend their Neonatal Intensive Care Unit, a team of 6 under Dr. Tahar Messadi, carried out extensive research into NICU codes and trends. Armed with this data and results from numerous interviews with parents, doctors, nurses, and NICU visits, my partner and I proposed a NICU whose unit is 2 convertible Single Family Rooms based on a wedge-shaped core.

This wedged-core room design resolves 5 major NICU issues. Firstly, the need for nurses to have direct view of the infant. Secondly, the need for parental interaction with the infant and community with other parents. Thirdly, the need for clear distinctions between nurses, infant and family spaces. Fourthly, easy access for nurse collaboration, and access to outdoor views.

Research shows that increased maternal presence, especially for breast-feeding and other skin-to-skin contact significantly improves the ailing infant's health. Since premature babies are at a higher risk of death and long term social and developmental issues, the Single Family Room (SFR) is indispensable. As opposed to the traditional Open Bay arrangement, the Single Family Room facilitates not only parental visits, but long-term stays, comfort and privacy. The use of a curtain between the parent and baby spaces would allow medical staff continued access to the infant while the parents retain privacy, especially during sleep at night. The proposed SFR entrance is not completely enclosed, but is convertible.



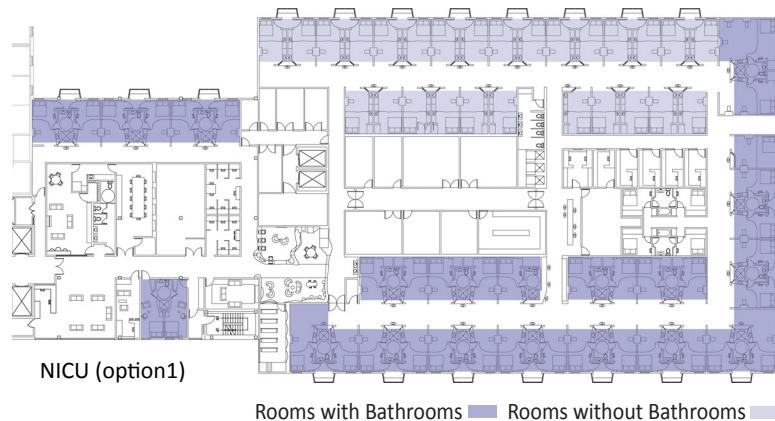
## Single Family Room Convertibility

In 2009, most NICUs (including Phoebe Putney's) still utilized an Open Bay arrangement. In the Open Bay there are no physical barriers between the medical staff and the infants. In order to ease the staff's transition to the research-proven SFR, and to allay their apprehension, we proposed an SFR that is really a hybrid between a true SFR and the Open Bay.



|                               |
|-------------------------------|
| <i>The Big Picture</i>        |
| <i>Flexibility</i>            |
| <i>Light, Sound and Views</i> |
| <i>The Organization</i>       |
| <i>The Plan</i>               |
| <i>The Program</i>            |

|                                       |
|---------------------------------------|
| Fayetteville High School V. P. A.     |
| Country House                         |
| Design Build- Washington Elementary   |
| LEED Office Building                  |
| Neonatal Intensive Care Unit          |
| Sketches and Project, Italy and China |



When the staff becomes comfortable with the switch, or when the market or codes demand it, the hospital's transition to the true SFR would only require the addition of a single partition per room.

## Another layer of Flexibility

Though the SFR is proven most effective for NICUs, it is limited by Phoebe Putney's demographics. This hospital serves a poor community that includes numerous single mothers who have had multiple births prior and hold several jobs. These mothers find it difficult to spend long periods of time with the hospitalized infant.

In the interest of reducing unnecessary construction expenditure and meeting the demographic's needs while encouraging longer stays, we provided two NICU options. Each has 3 SFR variations. All rooms contain at least a sitting/sleeping area. In addition, some feature a shared porch and/or a shared bathroom. NICU option 2 can be seen on page 23. As opposed to option 2, option 1 gives porches preference over bathrooms.

# Neonatal Intensive Care Unit

## B.Arch. Portfolio

### Studio Work

Fayetteville High School V. P. A.

Country House

Design Build- Outdoor Classroom

LEED Office Building

Neonatal Intensive Care Unit

Sketches and Project, Italy and China

The Big Picture

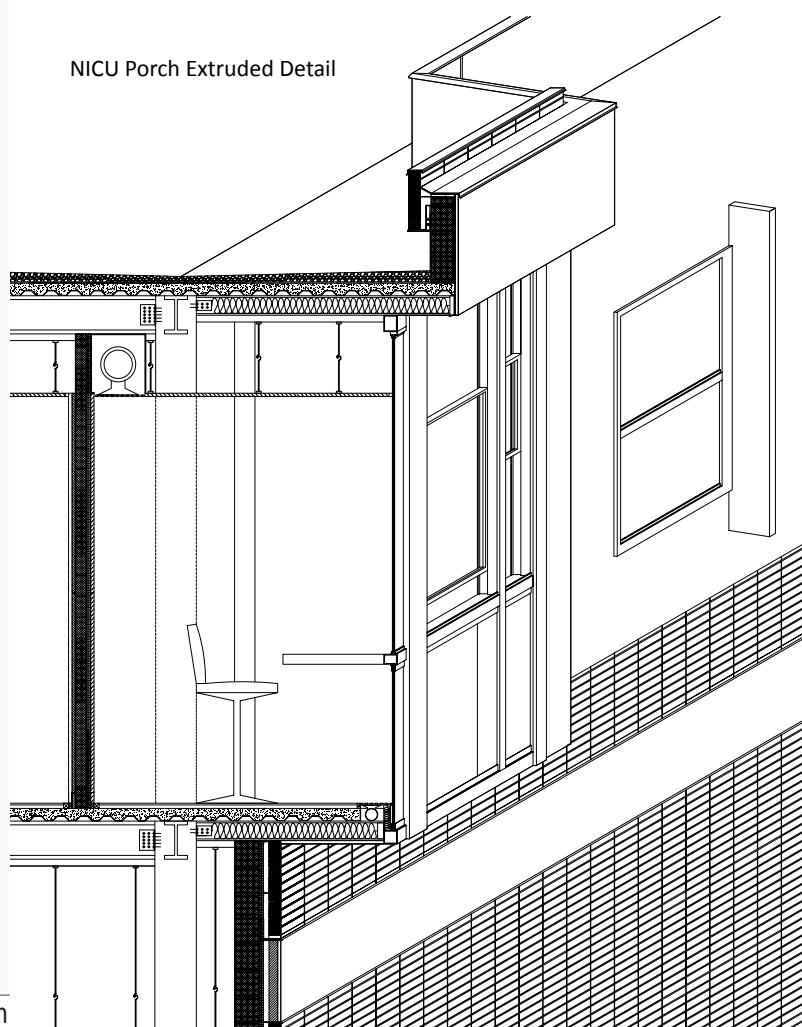
Flexibility

Light, Sound and Views

The Organization

The Plan

The Program



NICU research shows that views to the outdoors significantly reduce parental stress. This in turn increases their ability to relate pleasantly, and with a more positive outlook, to the ailing infant and the staff. All porches in both NICU options feature adjustable sun-screens. Unlike the soft interior furnishings the porch's decor encourages a more vibrant atmosphere.

### Materials.

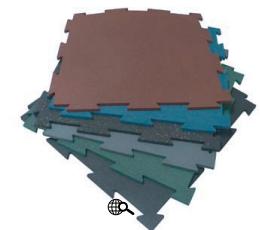
Direct sunlight should not come into contact with the infant. To contain light from the exterior window at the parent's room, that window has light transmittance of 60%, fixed shading on the facade and blinds inside. Acoustic treatment is specified for all windows, both inside and out.



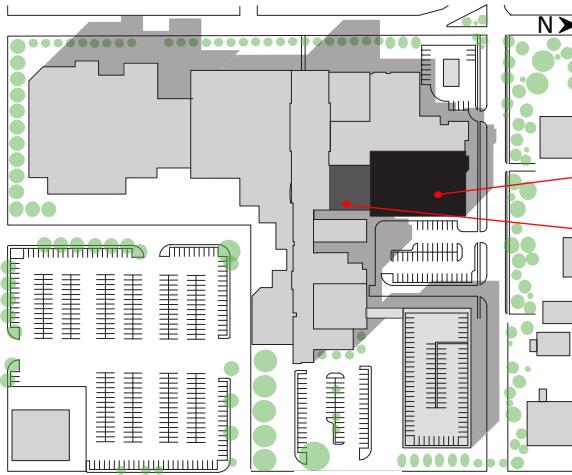
Footsteps, staff and family voices and the rolling of heavy equipment are some of the sounds that permeate a NICU. In order to protect resting infants, all floors received acoustic treatment.



While the parent space floor surface was covered in a warm wood finish, the infant space was surfaced with playful interlocking rubber tiles. Medical space flooring is a similar anti-slip and impact resistant tile. All floors have a reflectance of less than 40% and are low in VOCs. All paints and sealants used throughout the NICU are also low in VOCs.



# Neonatal Intensive Care Unit



Phoebe Putney Memorial Hospital

## Materials continued

Infant and medical spaces must be especially sterile. For this reason, smooth, uncovered, molded fiberglass, acoustic panels are used on the their walls. In contrast, acoustic panels covered with colored fabric are used to enliven and recreate a sense of home in the family spaces. Any sound and light that escapes from the extensive program surrounding the infants is absorbed by the hospital grade acoustic curtain that can be pulled to surround the incubator. A dark color is chosen to simulate the womb.

## Circulation

All SFRs are arranged around two large loops for easy way-finding. Corridors for staff-only in which family may become disoriented are off the loops and are barred by doors.

Service elevators are placed at the entrance and in the core of the NICU, but public elevators are placed at the entrance only.

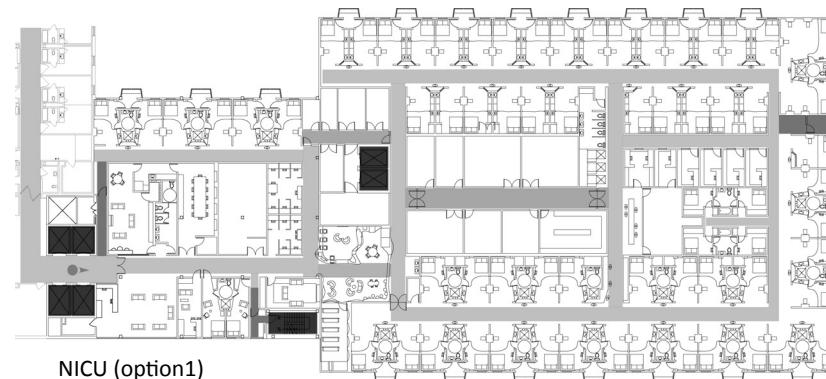
## Service and Support

Service and support spaces are spread along the center of the NICU for easy access to a single item such as clean linen or machinery, from several locations.

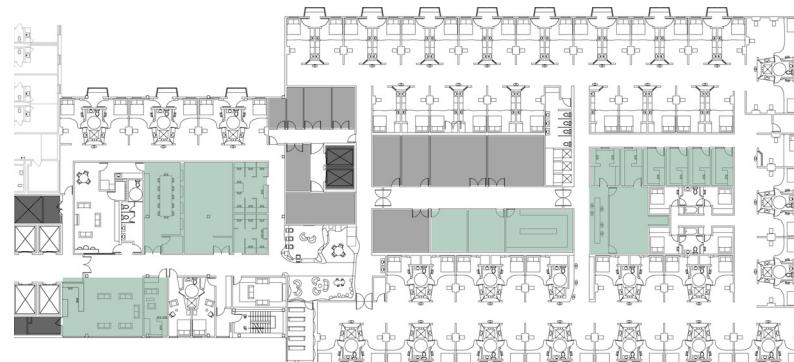


|                               |
|-------------------------------|
| <i>The Big Picture</i>        |
| <i>Flexibility</i>            |
| <i>Light, Sound and Views</i> |
| <i>The Organization</i>       |
| <i>The Plan</i>               |
| <i>The Program</i>            |

|                                       |
|---------------------------------------|
| Fayetteville High School V. P. A.     |
| Country House                         |
| Design Build- Washington Elementary   |
| LEED Office Building                  |
| Neonatal Intensive Care Unit          |
| Sketches and Project, Italy and China |



General Circulation ■ Staff Only Circulation ■ Point Of Arrival to NICU ●  
Halls for Emergency Use Only ■ Vertical Circulation ■



Service Spaces ■ Service Elevators ■ Support Spaces ■

Studio Work

Fayetteville High School V. P. A.

Country House

Design Build- Outdooor Classroom

LEED Office Building

Neonatal Intensive Care Unit

Sketches and Project, Italy and China

The Big Picture

Flexibility

Light, Sound and Views

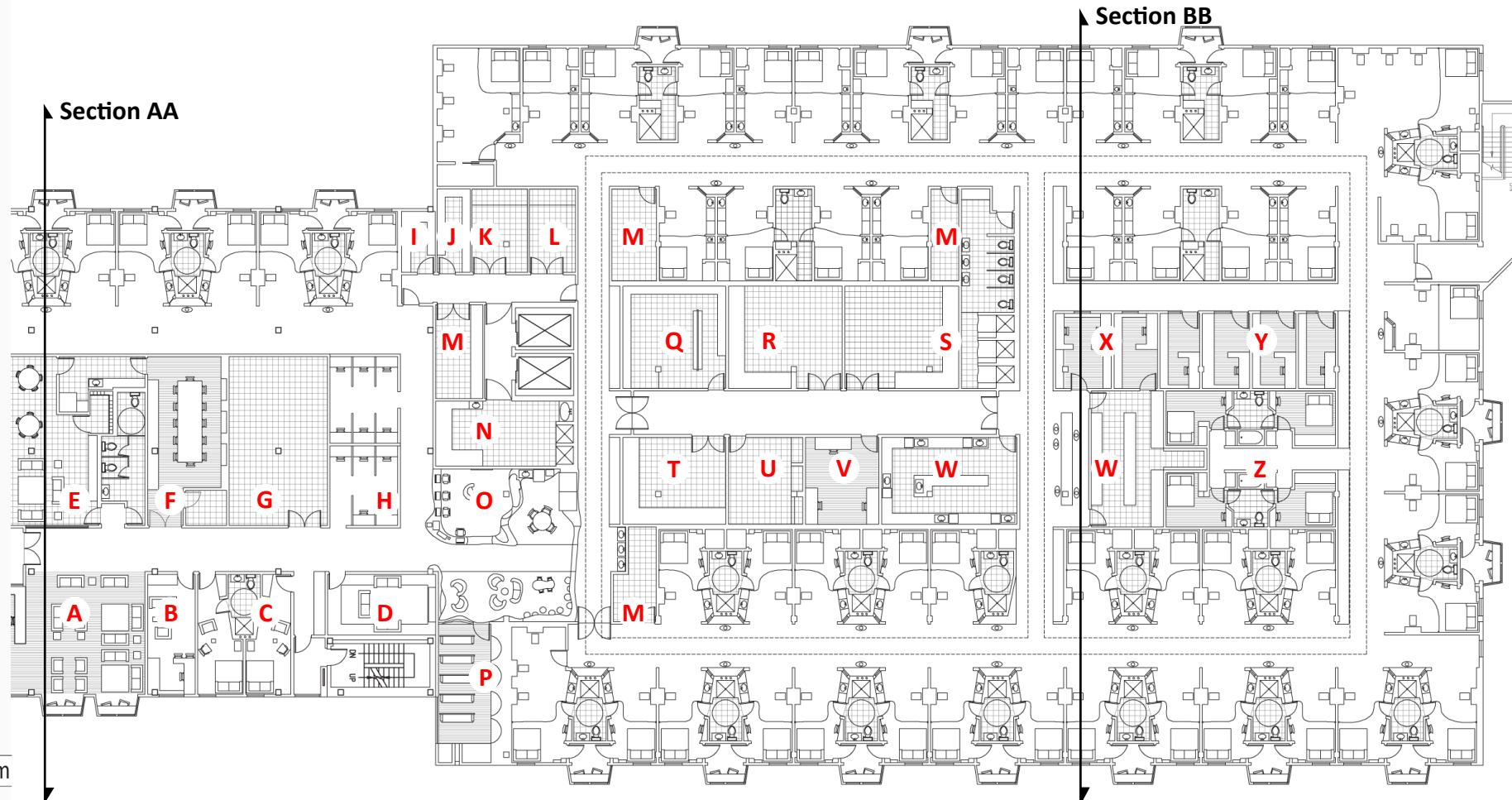
The Organization

The Plan

The Program

# Neonatal Intensive Care Unit

NICU (option2)

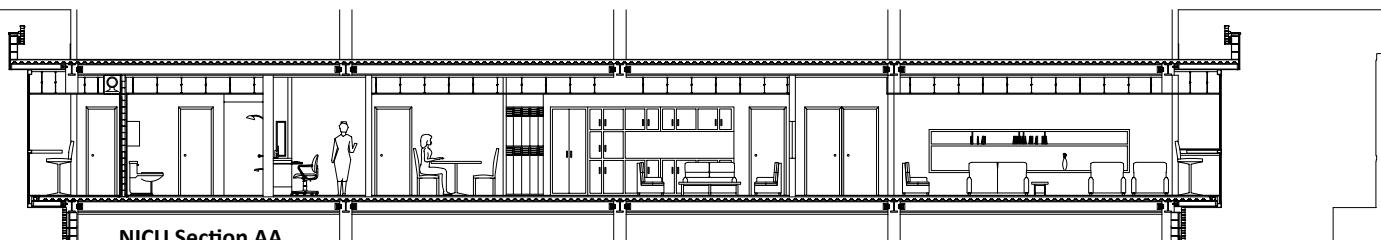


|                           |   |  |   |
|---------------------------|---|--|---|
| A- Reception Area         | H- Social Workers and other Support Staff | O- Internet/Vending and Children Activity Area | U- Mechanical Room                        |
| B- Discharge Nurse Office | I- Dirty Linen                            | P- Chapel                                      | V- Dietitians and Speech Therapist Office |
| C- Exit Rooms             | J- Clean Linen                            | Q- Dirty Equipment                             | W- Pharmacy and Pharmacy Storage          |
| D- Grieving Room          | K- Clean Equipment                        | R- Dirty Linen                                 | X- Pharmacists' Office                    |
| E- Nurses Break Room      | L- Dirty Equipment                        | S- Clean Linen                                 | Y- Doctors Offices                        |
| F- Conference Room        | M- General Storage                        | T- Clean Equipment                             | Z- OnCall Rooms                           |
| G- X-Ray Room             | N- House Keeping                          |  |   |

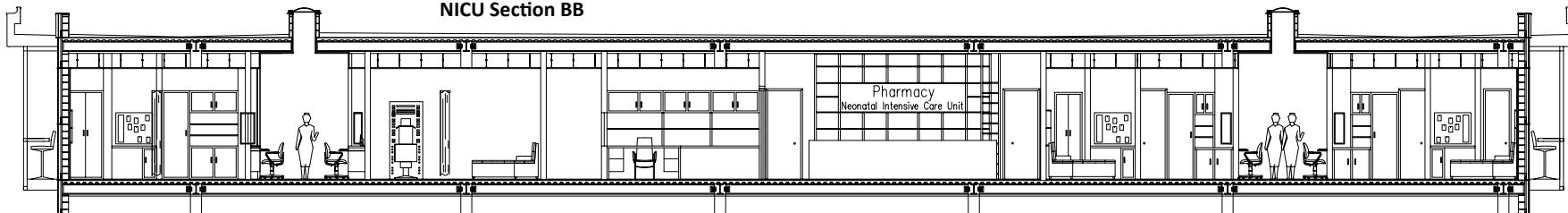


A Premature Infant Incubated at  
Pheoby Putney Memorial Hospital's Old NICU

The depth and width of the NICU do not permit the permeation of natural light. Since natural light is vital for the wellbeing and positive demeanor of stressed NICU practitioners, skylights are located in all the hallways where possible. Nurses especially benefit since their work stations extend into the halls.



NICU Section BB



# Neonatal Intensive Care Unit

# Sketches, China

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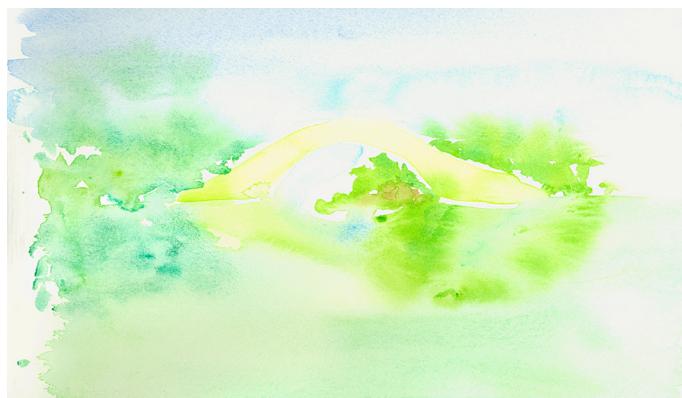
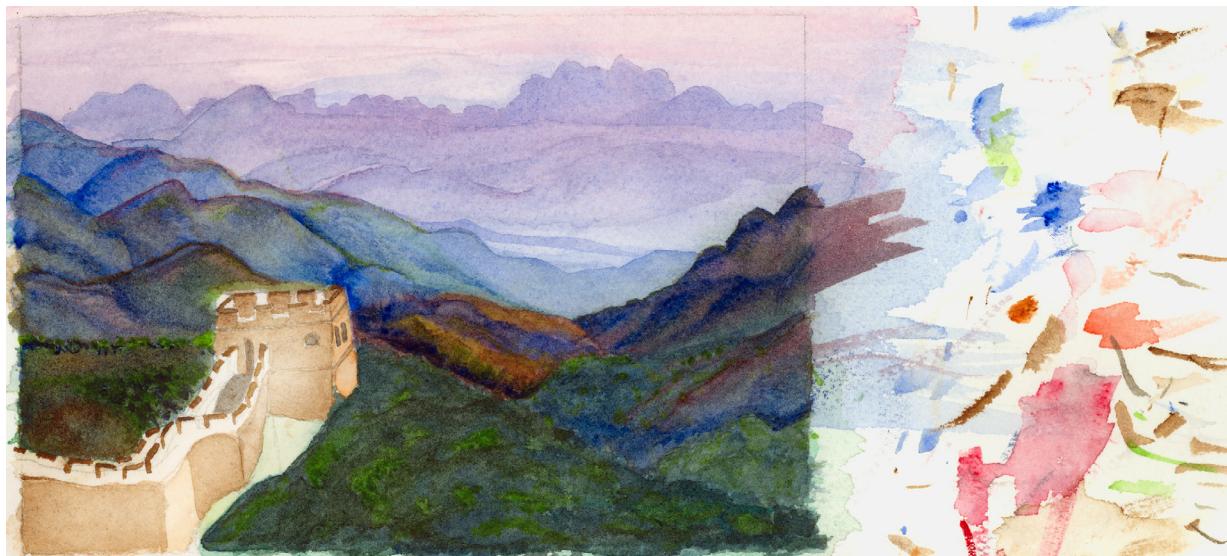
## B.Arch. Portfolio

### Studio Work

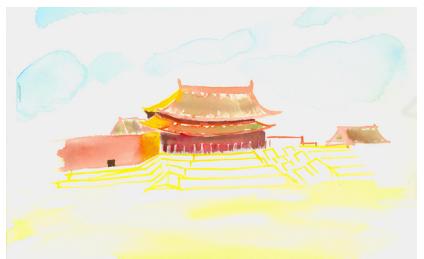
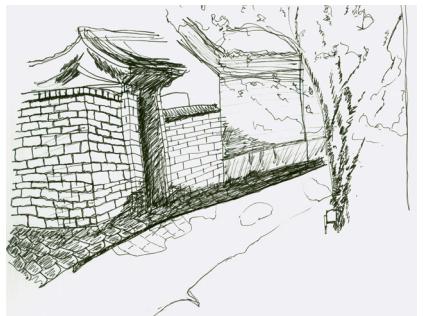
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| <i>Fayetteville High School V. P. A.</i>     |
| <i>Country House</i>                         |
| <i>Design Build- Washington Elementary</i>   |
| <i>LEED Office Building</i>                  |
| <i>Neonatal Intensive Care Unit</i>          |
| <i>Sketches and Project, Italy and China</i> |

China  
Italy

*Abstraction and Reality*  
*Exploring Great Spaces*



During my short time in China, I made quick sketches that I hope convey the awe and mystique of that country. From small contained alleys where bicycles traverse, to the expansive awe-inspiring Great Wall and the highly colored and embellished Temple of Heaven, they all tell of a simple people with a strong will, proud of their culture and steady in the preservation of their built environment. Some places I represented as they appeared literally and others I represented abstractly as the architecture moved me. Some in black and white, and others in vibrant color as the humbleness of the people and the exuberance of their architecture impressed me.



Fayetteville High School V. P. A.

Country House

Design Build- Washington Elementary

LEED Office Building

Neonatal Intensive Care Unit

Sketches and Project, Italy and China

Abstraction and Reality  
Exploring Great Spaces

China  
Italy



# Sketches, China

# Sketches, Italy

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## B.Arch. Portfolio

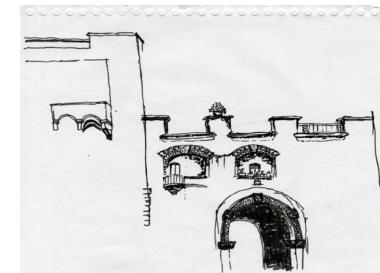
### Studio Work

|                                       |
|---------------------------------------|
| Fayetteville High School V. P. A.     |
| Country House                         |
| Design Build- Washington Elementary   |
| LEED Office Building                  |
| Neonatal Intensive Care Unit          |
| Sketches and Project, Italy and China |

China  
Italy

|                           |
|---------------------------|
| Rome of Old               |
| Architecture of Rome      |
| Modern meets Ancient      |
| Ancient Ruins in My Hands |

**Hadrian's Villa (Villa Adriana)** Location: Tivoli Type: Villa Time: 2nd century AD  
 \* Emperor Hadrian governed from his villa retreat instead of the capital, Rome.



### Pantheon

**Location:** Rome

**Type/ Style:** Roman temple

**Time:** 2nd century AD

\* Was originally dedicated to 'all gods'.

### Colosseum

**Location:** Rome

**Type/ Style:** Roman Amphitheatre

**Time:** 1st century AD

\* Largest amphitheatre built in the Roman Empire.

Slaves and animals were kept in the basement.

### Affordable Housing

**Location:** Rome

**Type:** Domestic

**Time:** 17th century AD

\* These projects are still in use today.

### Entrance to Tridente

(three major streets of Rome)

**Location:** Piazza del Popolo, Rome.

\* Twin churches of St. Maria define the entrance to Via del Corso, a 'Great Street' according to theorist Jane Jacobs.

**Castel Sant'Angelo**

**Location:** Rome

**Type/ Style:** Castle

**Time:** 2nd century AD

\* Originally a mausoleum for emperor Hadrian and his family.



**Basilica di Santa Maria sopra Minerva**

**Location:** Piazza della Minerva, Rome.

**Type/ Style:** Religious, Gothic cathedral, Renaissance facade

**Time:** 19th century AD



**Santo Stefano Rotondo**

**Location:** Rome

**Type/Style:** Religious Basilica

**Time:** 5th century AD

\* Santo Stefano is the oldest round church in Rome.



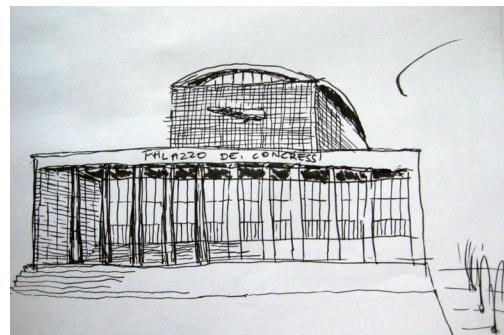
**Palazzo dei Congressi**

**Location:** Rome

**Type/Style:** Government, Fascist

**Time:** 20th century AD

\* Built as part of a Universal Exposition under Mussolini's rule. Fascist architecture is strict in appearance, intending to command the people.



|                           |                                     |
|---------------------------|-------------------------------------|
| Rome of Old               | Fayetteville High School V. P. A.   |
| Architecture of Rome      | Country House                       |
| Modern meets Ancient      | Design Build- Washington Elementary |
| Ancient Ruins in My Hands | LEED Office Building                |

|       |                                       |
|-------|---------------------------------------|
| China | Neonatal Intensive Care Unit          |
| Italy | Sketches and Project, Italy and China |



**St. Peter's Square (Piazza San Pietro)** Location: Vatican City  
Type: Public Square Time: 18th century AD

Sketches, Italy

# Sketches, Italy

janivahenry.com

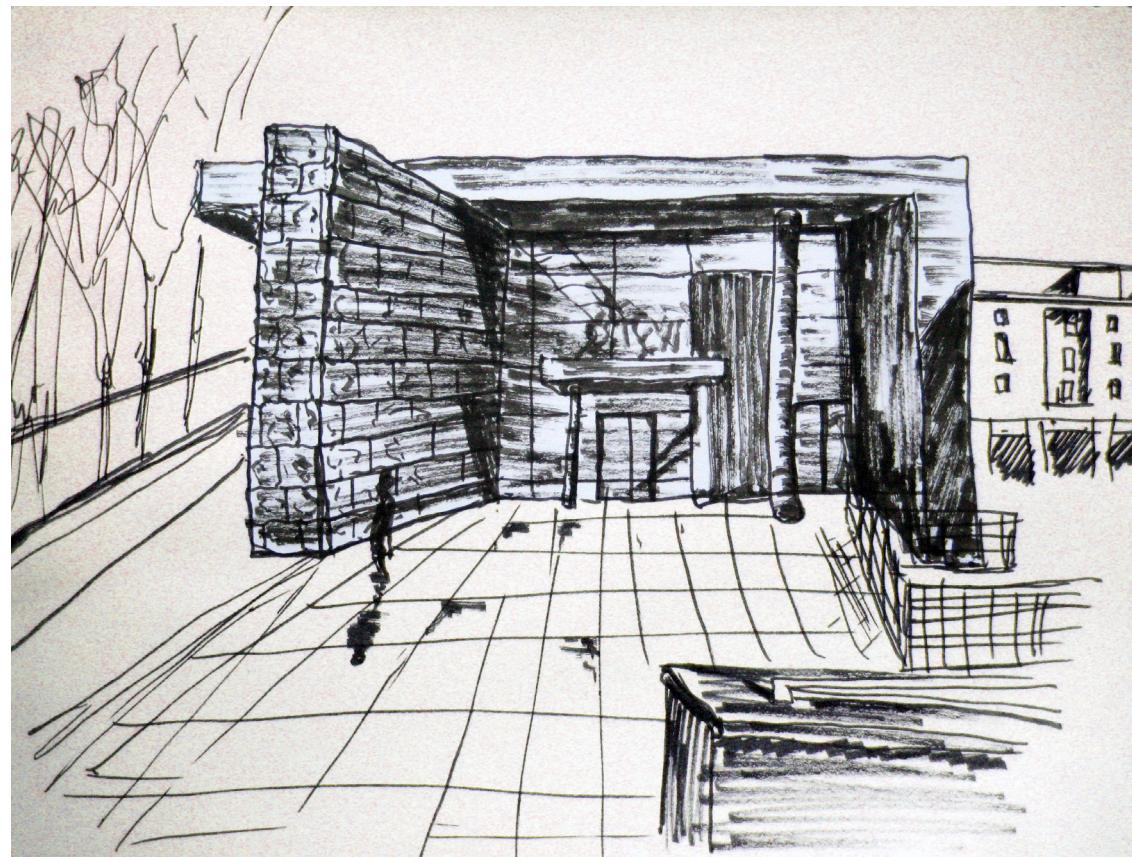
## B.Arch. Portfolio

### Studio Work

|                                       |
|---------------------------------------|
| Fayetteville High School V. P. A.     |
| Country House                         |
| Design Build- Washington Elementary   |
| LEED Office Building                  |
| Neonatal Intensive Care Unit          |
| Sketches and Project, Italy and China |

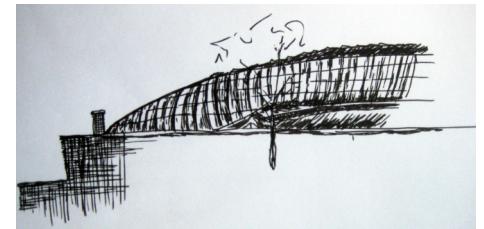
China  
Italy

|                           |
|---------------------------|
| Rome of Old               |
| Architecture of Rome      |
| Modern meets Ancient      |
| Ancient Ruins in My Hands |



**Ara Pacis Museum** Location: Rome Type: Museum Time: 21st century AD

\* This controversial modern work of architecture houses the Ara Pacis, altar to Roman peace, dating 9th BC.



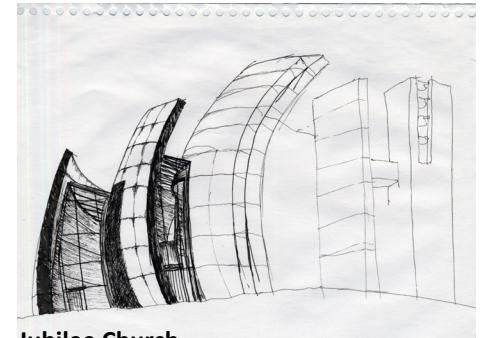
**Parco della Musica**

**Location:** Rome

**Type/Style:** Public auditorium, Modern

**Time:** 21st century AD

\* Italian architect Renzo Piano incorporated ancient ruins into his design after discovering a Roman villa dating 6th BC during excavations.



**Jubilee Church**

**Location:** Rome

**Type/Style:** Church, Modern

**Time:** 21st century AD

\* Its sterile white concrete and bold curves stand in stark contrast to both the surrounding 1970's apartment buildings and to traditional Catholic architecture. Though the church appears radical, the strongest of Richard Meier's design-moves for it are based on traditions. The three towering sails are derived from the concept of the Holy Trinity.

Fayetteville High School V. P. A.

Country House

Design Build- Washington Elementary

LEED Office Building

Neonatal Intensive Care Unit

Sketches and Project, Italy and China

Synopsis  
Analysis  
Method

Rome of Old

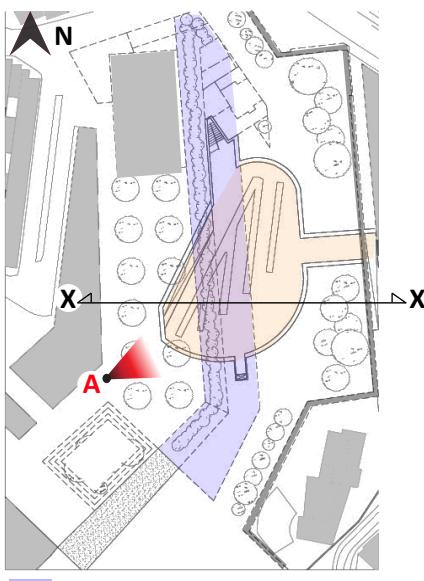
Architecture of Rome

Modern meets Ancient

Ancient Ruins in My Hands

China

Italy



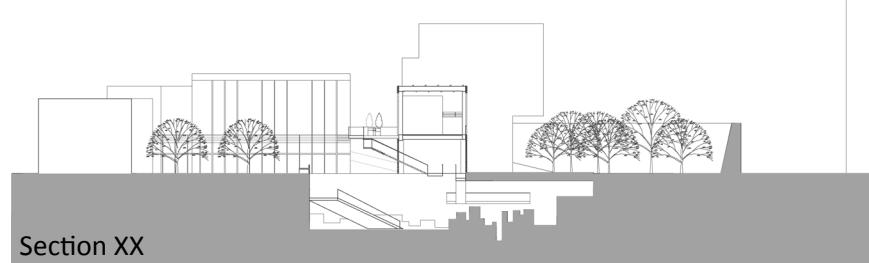
Thoroughfare Museum  
Ruin excavation

This slender bar slides over the ancient ruins to create multiple paths over and through the excavation. It heightens perception and understanding of the ruin. It also provides ease of passage for pedestrians between two new public green spaces on its east and west. Museo della Via Pubblica features a restaurant, museum, multiple viewing platforms and a green sky walk. The sky walk provides shade, cool and repose while encouraging a reduction in vehicular traffic and favoring pedestrians. It connects the major streets, Viale Trastevere on the north, to Via Portuense and the Tiber River on the south.



**Museo della Via Pubblica (Thoroughfare museum)** Location: Rome Type: Museum Time: 2008

\* This project is one product of my study abroad in Rome. (Ink and Watercolor)



Project, Italy

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# Project, Italy

B.Arch.  
Portfolio

Studio Work

Fayetteville High School V. P. A.

Country House

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LEED Office Building

Neonatal Intensive Care Unit

Sketches and Project, Italy and China

China

Italy

Rome of Old

Architecture of Rome

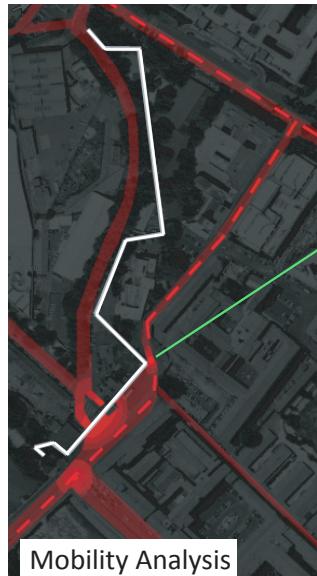
Modern meets Ancient

Ancient Ruins in My Hands

Synopsis

Analysis

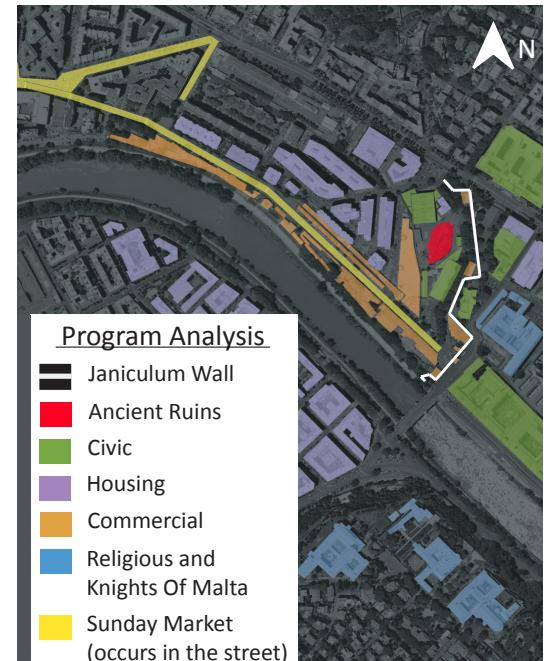
Method



- Janiculum Wall
- - Bus, Tram and Private Vehicles
- Dangerous/Traffic Congested Areas
- Major Streets On-site and Bridges

The disconnection between major streets, the odd geometries of the Janiculum Wall and inappropriate bus, tram and private vehicle paths create hazardous pedestrian zones on the site.

The city of Rome instituted a redevelopment program to enhance the area surrounding the historic Janiculum Wall. My partner and I completed a thorough city-wide analysis and outlined plans for demolition and restoration. After analysis, my focus was directed to the area immediately west of the wall. The issues of the site are: poor mobility for pedestrians; lack of green space and visual or physical access to the water; and shoddy commercial construction along the river and wall. The ancient ruins nestled just west of the wall are a major factor of the site that influenced my design.



Fayetteville High School V. P. A.

Country House

Design Build- Washington Elementary

LEED Office Building

Neonatal Intensive Care Unit

Sketches and Project, Italy and China

Synopsis  
Analysis  
Method

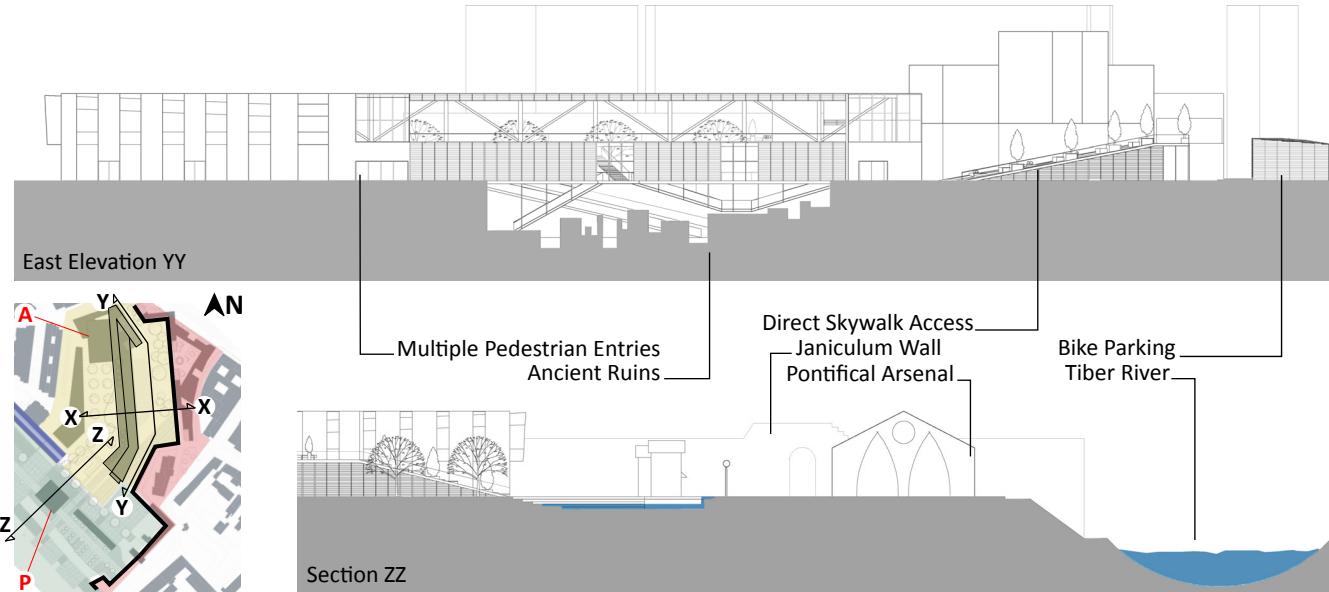
Rome of Old  
Architecture of Rome  
Modern meets Ancient  
Ancient Ruins in My Hands

China  
Italy

To implement my enhancement scheme synopsized on page 30, numerous buildings must be restored or demolished.

Structures to be restored are valuable in terms of historical significance, spatial quality and appropriateness for the site. Through the restoration process, their essence will be revealed. Such buildings include the Pontifical Arsenal and ATAC bus depot, marked P and A.

Structures to be demolished are inappropriate due to their proximity to the river or the wall. Their construction is poor; their forms and relationships to other structures do not contribute to an appropriate urban environment. Some of their program will be replaced in the new building.



# Project, Italy

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