A THESIS PROJECT BY
EVA BEHRINGER
CLEMSON UNIVERSITY | SCHOOL OF ARCHITECTURE

SUPPORTED BY THE AIA/AAH 2010-2011 ARTHUR N. TUTTLE FELLOWSHIP
WINTER
[ 23rd December ]
9 am | 12 am | 4 pm

SPRING | FALL
[ 23rd April | September ]
9 am | 12 am | 4 pm

SUMMER
[ 21st June ]
9 am | 12 am | 4 pm
DEPARTMENTAL COMPARISON

LEVEL 3
- **GIVING BIRTH:**
  - Distance emergency walk-in entry
  - Cesarean section
  - 679 feet | 201 m

LEVEL 2
- **INPATIENT WITH COMPLICATIONS:**
  - Distance farthest inpatient room
  - Operation theatre
  - 446 feet | 142 m

LEVEL 1
- **VISITOR ON THE WAY TO HIS RELATIVE:**
  - Main entry
  - Farthest inpatient room
  - 515 feet | 157 m

LEVEL 0
- **FOOD DELIVERY:**
  - Food service
  - Farthest inpatient room
  - 554 feet | 169 m

LEVEL 3
- **GIVING BIRTH:**
  - Distance emergency walk-in entry
  - Cesarean section
  - 741 feet | 226 m

LEVEL 2
- **INPATIENT WITH COMPLICATIONS:**
  - Distance farthest inpatient room
  - Operation theatre
  - 817 feet | 249 m

LEVEL 1
- **VISITOR ON THE WAY TO HIS RELATIVE:**
  - Main entry
  - Farthest inpatient room
  - 417 feet | 127 m

LEVEL 0
- **FOOD DELIVERY:**
  - Food service
  - Farthest inpatient room
  - 508 feet | 155 m
Clerestories on ground floor of public space support clinic-without-walls concept. Glass frittings provide privacy and sun control where needed.

Main circulation areas have visual connections to the outside to optimize wayfinding. (Fully glazed on northern facing facades)
CIRCULATION

6 Skylights and Clerestories in Inpatient Staff and Public Areas

5 Shading
2 Narro Building Footprint

* 45’-60’ building width
INPATIENT AREA SOUTH-EAST

SUMMER SUN ANGLE 74°
WINTER SUN ANGLE 25°

NON-INPATIENT AREA WEST/EAST

VERTICAL BLINDS CLOSED
VERTICAL BLINDS OPEN

SUMMER SUN ANGLE 74°
WINTER SUN ANGLE 25°

INPATIENT AREA SOUTH

SUMMER SUN ANGLE 0°
WINTER SUN ANGLE 0°

NON-INPATIENT AREA SOUTH-EAST

SUMMER SUN ANGLE 0°
WINTER SUN ANGLE 0°

INPATIENT AREA SOUTH-EAST

SUMMER SUN ANGLE 0°
WINTER SUN ANGLE 0°

NON-INPATIENT AREA WEST/EAST

SUMMER SUN ANGLE 74°
WINTER SUN ANGLE 25°

INPATIENT AREA SOUTH

SUMMER SUN ANGLE 0°
WINTER SUN ANGLE 0°

NON-INPATIENT AREA SOUTH-EAST

SUMMER SUN ANGLE 0°
WINTER SUN ANGLE 0°

INPATIENT AREA SOUTH-EAST

SUMMER SUN ANGLE 0°
WINTER SUN ANGLE 0°

NON-INPATIENT AREA WEST/EAST

SUMMER SUN ANGLE 74°
WINTER SUN ANGLE 25°
Plan enclosed courtyards provide access to daylight and views to nature for primary staff work stations.

Horizontal shading devices on southern facade reduce glare.
2 Perforated Thick Building Footprint

15’ x 30’ courtyards
SECOND LEVEL

CONNECTION TO EXISTING HOSPITAL

LEVEL 2

winter sun summer sun

M 1: 500

LEVEL

PERSPEKTIVE
Plan enclosed courtyards provide access to daylight and views to nature.

Overhangs on southern facade provide protection against heat gain and glare.
Sliding shutters on east facing facade provide protection against heat gain and glazing.

Overhang helps to control exposure to sun on southern facade.
Courtyards in Inpatient Staff and Public Areas

Orientation and Location