

ST. JOSEPH'S WOMEN'S HOSPITAL

NEONATAL INTENSIVE CARE UNIT (NICU) EXPANSION A BAYCARE HEALTH FACILITY 3030 W. DR. MARTIN LUTHER KING, JR. BLVD. TAMPA, FL 33607

DENNIS GIBSON-CONSTRUCTION MANAGEMENT

GENERAL PROJECT INFORMATION	
Architect & Structural Designers	HKS Inc.
MEP Engineers	Smith Seckman Reid, Inc.
Construction Manager	Barton Malow Company
Gross Square Footage - New Construction	117,569 SF
Number of Levels	5 + Mechanical Penthouse, All Above Grade
Occupancy Type	Institutional, I-2 (non-mixed)
Construction Dates	May 2010—August 2012
Cost	\$49.5 Million—GMP
Delivery Method	Design-Rid-Ruild with CM at Risk

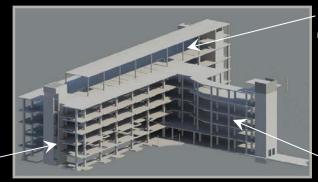
CONSTRUCTION...

St. Joseph's Women's Hospital is Tampa's primary resource for neonatal care and premature birth. The NICU Expansion will provide new private rooms for all patients, as well as medical imaging suites, a breast health center, surgical suites, and standard patient rooms, some of which will be refurbished rooms in the existing hospital. Maintaining operational status of the current hospital including the existing NICU will be one of the biggest challenges on the project. Three phases will be used to construct the new five-story tower, rehab portions of the existing hospital and finally to complete the tie-in between new and old structures.

STRUCTURE...

Foundation-Concrete spread footings and grade beams support the structure. There was not a need to go very deep as the sandy soils in Florida provide a sound base material.

Superstructure-Concrete prevails this design with columns and a two-way flat plate slab. Seventeen concrete shear walls are used to provide lateral support. There is some light steel framing, particularly for the roof areas. W10s and W12s can be found in the mechanical penthouse above the fifth floor as well as a few other places such as the entrance canopy and existing atrium. A rendering of the North and West faces of the superstructure can be found to the right.



FRAMED PENTHOUSE

> PHASE 3 (WEST WING)

MAIN BED TOWER

ARCHITECTURE...

St. Joseph's NICU tower will be built using a combination of architectural precast concrete panels and aluminum framed glazing, as seen below. The main tower showcases a clerestory fifth floor with little architectural precast showing. The subsequent floors below do show a bit more precast, but the predominating feature will still be the aluminum framed glass. When the tie-in to the existing hospital is made, it will boast a glass curtain wall on the North wall. A sketch of the façade can be seen to the left. The new tower and West facing façade can be seen on the left side of the image, and the existing tower with its new curtain wall on the North facing façade to the right.

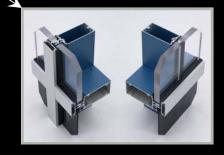


KAWNEER 1600 SERIES

MEP SYSTEMS...

The mechanical system will largely be tied-into the existing system on the current Women's Hospital, however, there are provisions to demolish one chiller, provide two new ones, along with an additional cooling tower. There will be a total of eight air handler units, four cooling towers, four chillers, and two boilers. All new direct digital controls will be installed, and linked into the Building Management System, giving specific feedback to any web based PC on energy management requirements, archived trends, and LEED Certification data. Energy recovery units will be added to the bed tower's AHUs, due to the extreme cooling loads that are associated with the Tampa region. Above ceiling plenum systems will bring return air to the ERV's after which it will be exhausted.

Additional systems include plumbed med gases, including oxygen, vacuum, and compressed air, along with pneumatic transfer tube systems to accommodate materials to and from nurse's stations, surgical suites, and the pharmacy.



HTTP://WWW.ENGR.PSU.EDU/AE/THESIS/PORTFOLIOS/2011/DGG5012/INDEX.HTML