A Tale of Four Hospitals: Virtua Voorhees
Discussion Guide

- Introductions
- Key Project Facts
- Unique Attributes
- Challenges & Solutions
- Lessons Learned
- Q & A
About Our Speakers

**Jim Rivard:** Vice President – Support Services, Virtua, Marlton, New Jersey
- Responsible for supply chain, logistics and facility development departments
- Manages all contracting, capital purchases and construction projects (totaling over $800 million since 2004)
- Previously served as Assistant Vice President, Clinical Resource Management

**Rick Stoudt:** Senior Vice President, Hammes Company, Philadelphia, Pennsylvania
- Served as project oversight during Virtua’s greenfield hospital project
- Oversees project delivery and quality assurance and provides leadership for the Healthcare Facility Development service group
- Over 30 years of varied construction management experience with an emphasis managing large, complex healthcare projects

**Michael Solak:** Senior Project Executive, Hammes Company, Philadelphia, Pennsylvania
- Served as project manager during Virtua’s greenfield hospital project
- Extensive experience in all aspects of healthcare design and implementation including operations, CON, site selection, financial feasibility and zoning
Key Project Facts:
Virtua Voorhees
Virtua Voorhees

- Virtua is a leading, comprehensive healthcare system headquartered in Marlton, New Jersey
  - Four hospitals and numerous outpatient facilities in South Jersey

- Strategic Facilities Plan initiated in 2002
  - Virtua needed to replace an older hospital 3.5 miles away that had reached its capacity, both geographically and technologically

- Replacement campus designed to create a healing environment, with an outstanding patient experience, efficiency and workflow serving as key project drivers
Key Project Facts

- **Location:** Voorhees, New Jersey
- **Groundbreaking:** March 2008
- **Opening Date:** May 2011
- **Campus:** 125 acres (40 acres of wetlands)
- **Hospital:** 680,000 square feet, 368 private rooms
  - **Three Entrances:** Main, women and children's / obstetrics
  - **Two Emergency Areas:** Adults and pediatrics
- **Health & Wellness Center:**
  - 315,000 SF
  - Adjacent to hospital, physician offices, same-day surgery, pharmacy, community meeting space, retail shop
Replacement Campus

Campus Entities:

South Half:
- Health & Wellness Center

North Half:
- Hospital

Virtua Voorhees

Health & Wellness Center

Hammes Company

The shortest distance between idea and reality.
Project Recognition

Campus Designations
- New Jersey Department of Health designated Primary Stroke Center
- Designation as a Regional Perinatal Center by the New Jersey Department of Health and Senior Services
- Physicians and surgeons named "Top Docs" by regional magazines

Project Awards
- 2012 AIA Wisconsin Honor Award
- 2012 IES/IIDA Regional & Section Guth Award for Interior Lighting Design
- 2012 IIDA Wisconsin Best of Competition Award
Unique Attributes:
Project Approach
Project Approach

- **Extensive Planning & Process-Driven Design**
  - Strategic relationship with General Electric
  - In 2001, Virtua adopted Six Sigma and LEAN methodologies
  - Focus on patient experience, operational processes and outcomes
  - User groups used to challenge and redesign 180 current-state processes and workflows

- **Project Team Collaboration**
  - HGA, Hammes Company, Turner Construction, Dewberry, KJWW
  - Helped achieve work process engineering efforts
  - Thorough analysis of all planning options with a corresponding effort to maximize efficiency
Challenges & Solutions
Challenges & Solutions

- **CHALLENGE:** Special permits
  - Off-site improvements
  - Protected pinelands

- **SOLUTION:**
  - Carefully monitor status of permit(s)
  - Continually keep in contact with authority to assure progress
  - Engage special consultants to aid in processing documents
Challenges & Solutions

- **CHALLENGE: Infrastructure**
  - sewer
    - 11,000 feet of force main
    - 6,000 feet of gravity line
    - Wetland crossings
    - Easement needed

- **TEMPORARY SOLUTION:**
  - Utilize a portable diesel engine pump
  - Pump into a holding tank
  - Transfer pump onto force main when completed
**Challenges & Solutions**

- **CHALLENGE:** New Jersey Department of Transportation
  - Jug handle / round about
  - Had to convey several acres to NJDOT

- **SOLUTION:**
  - Work closely with civil / engineer, owner and NJDOT
  - Timely resolution and acceptable design
  - Convey land to NJDOT

Added into design by NJDOT
Challenges & Solutions

- **CHALLENGE:** Continuing construction cost escalation
  - Material pricing, copper and steel
  - Labor contracts on “all union” project
  - Vision started 2002, GMP 2008

- **SOLUTION:**
  - Renegotiate with subcontractors on buyout and value engineering
    - Offered, $1.5M, accepted in excess of $500,000
  - Utilize “subguard” to eliminate bond requirement
    - $5M+
  - Used Owner-Controlled Insurance Program rather than Contractor-Controlled Insurance Program
    - Significant savings
  - Effective use of technology for medical equipment procurement
    - Just under $5.5M
Lessons Learned
Lessons Learned

- Assemble the right team early
- Engage local jurisdictions early on in design process and maintain communication
- Utilize Virtua’s culture of creating an outstanding patient experience to meet all stakeholders’ objectives
- Use internal talent to design and execute transition planning
- Monitor project team throughout all phases
  - Substantial cost avoidance
- Deploy technology effectively - Sharepoint
  - Over $5M equipment cost savings realized by outsourcing of equipment procurement process
Questions & Answers
Please direct all inquiries to:
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