

# GOUVERNEUR HEALTHCARE SERVICES

227 MADISON STREET, NEW YORK, NY, 10002

## ALEX DESPOTOVICH | CONSTRUCTION MANAGEMENT

### PROJECT TEAM

- . OWNER: New York City Health and Hospitals Corporation
- . CLIENT: Dormitory Authority of the State of New York
- . CONSTRUCTION MANAGER: Hunter Roberts Construction Group
- . GENERAL CONTRACTOR: J. Petrocelli Contracting, Inc.
- . ARCHITECT: RMJM Hillier Architects
- . LANDSCAPE ARCHITECT: EKLA
- . STRUCTURAL ENGINEER: Greenman-Pedersen, Inc.
- . MEP ENGINEER: AKF Engineers

### GENERAL BUILDING INFORMATION

- . OCCUPANT TYPE: Healthcare Facility
- . GROSS BUILDING AREA: 438,000 SF Renovation and Addition
- . TOTAL FLOORS: 14 including Mechanical Penthouse
- . TOTAL PROJECT COST: \$207 Million
- . DATES OF CONSTRUCTION: January 2009—December 2013
- . DELIVERY METHOD: Design-Bid-Build with CM Agency

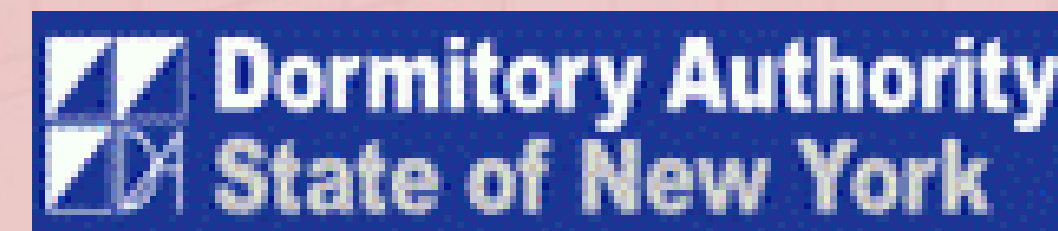
### CONSTRUCTION PROJECT BACKGROUND

#### . SCOPE OF WORK:

Interior Demolition and Renovation of Existing Building  
Modernization of the Existing Mechanical Infrastructure  
New 109,000 SF Addition

#### . CONSTRUCTION CHALLENGES:

Existing Facility Active During Construction  
Schedule Phasing of Floor Turnovers  
Site Logistics of New York City  
Asbestos Removal through Existing Facility



### THE USE OF BUILDING INFORMATION MODELING

#### . ANALYSIS BACKGROUND:

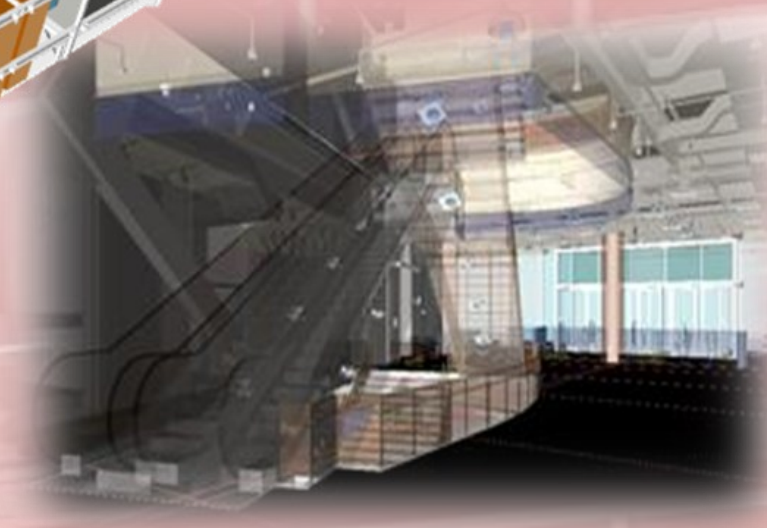
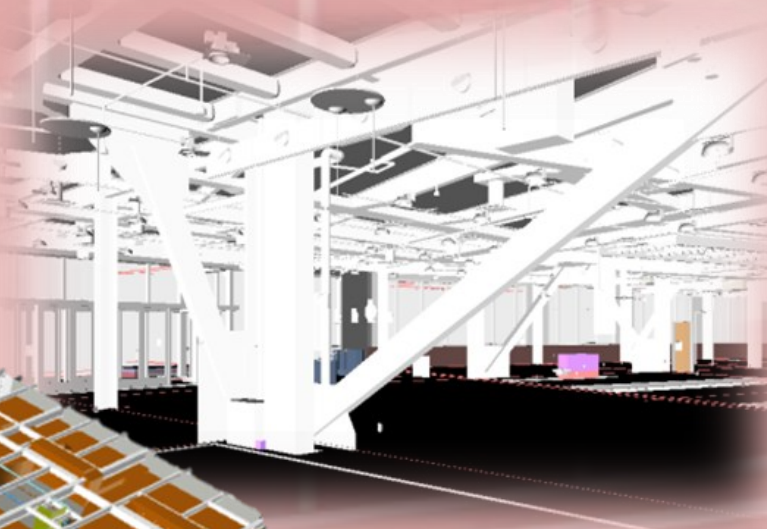
Identify feasibility of implementing a 3D model for coordination of design and construction for new and existing building  
Identify a more efficient method of performing punchlist through construction

#### . APPLICATION OF 3D MODELING:

Feasible to utilize for the new building design and construction but not for the existing due to the project schedule phasing

#### . APPLICATION OF VELA SYSTEMS:

Feasible to utilize VELA-equipped iPad's for punchlist process  
Estimated **2000 man hour savings**  
Overall System Cost of **\$25,000**



VELA SYSTEMS

### SCHEDULE RE-SEQUENCING AND TENANT OCCUPANCY

#### . ANALYSIS BACKGROUND:

Owner turns over floors to construction for demolition and renovation in a scattered sequence for the existing building  
Phasing relationship between floors is affected by the duration of occupancy move-in

#### . RE-SEQUENCING THE PROJECT SCHEDULE:

Establish a direct phasing relationship between residential floors six and nine, seven and ten, and eight and eleven

Overall Schedule Reduction of **168 Days**

10th Floor Reduction of **107 Days**

11th Floor Reduction of **182 Days**

Overall Cost Savings of **\$206,723**

#### . FM:INTERACT MOVE MANAGEMENT SOFTWARE:

Feasible to utilize for a more efficient method of managing the occupancy move-in process during various phases of the project

Overall Duration Savings of **14 days**

Duration Savings of **7 Days/Floor** for Existing Building

Overall Cost Savings of **\$439,488**



### MATERIAL STAGING AND SYSTEM PREFABRICATION

#### . ANALYSIS BACKGROUND:

Utilize integrated, prefabricated MEP racks to reduce site congestion, construction costs, and construction schedule

#### . IMPLEMENTATION OF PREFABRICATED MEP RACKS:

Second, Third, Fourth, and Fifth Floors in Corridors of the New Building

#### . MATERIAL STAGING PLAN:

Maximize efficiency for manufacturing versus delivery versus installation

#### . SCHEDULE SAVINGS:

Overall Duration Savings of **200 Days**

#### . COST SAVINGS:

Overall Labor Cost Savings of **\$1,673,293**



### SUSTAINABLE GREEN ROOF GARDEN

#### . ANALYSIS BACKGROUND:

Alternate design included a green roof garden on the sixth floor roof of the new building  
Financial restriction prevented owner from moving forward with implementation of green roof design

#### . IMPLEMENTING A GREEN ROOF GARDEN:

Newly proposed green roof garden to utilize 7050 SF of roof  
GroRoof Extensive Hybrid Modular Green Roof System

#### . PROJECT IMPACT OF GREEN ROOF GARDEN:

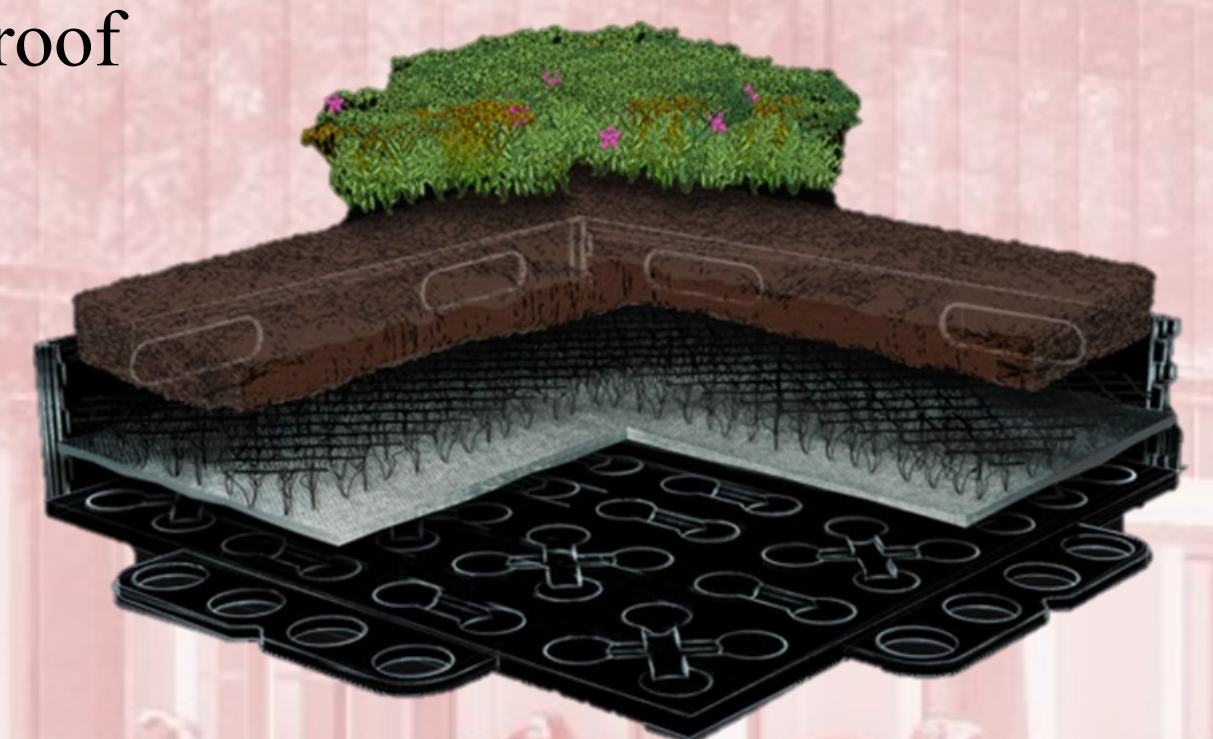
Feasible to utilize proposed green roof garden system

Green Roof System Cost of **\$77,935**

Annual Cost Savings of **\$3,746 per Year**

Payback Period of 21 Years

Overall Cost Savings of **\$113,090**



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INNOVATIONS IN GREEN ROOF TECHNOLOGY