PRESENTATION OUTLINE:

- I. PROJECT BACKGROUND
- II. ANALYSIS #1: RE-SEQUENCING PHASING
 - I. BACKGROUND
 - II. CASE FINDINGS
 - III. RECOMMENDATIONS
- III. ANALYSIS #2: PRECAST FAÇADE
 - I. DESIGN
 - II. STRUCTURAL IMPACT
 - III. SCHEDULE/COST IMPACT
 - IV. PROJECT IMPACT
 - V. THE CHOICE
- IV. ANALYSIS #3: BIM IMPLEMENTATION
- V. ANALYSIS #4: ICRA PLAN
 - I. ICRA MATRIX
 - II. AREAS OF RISK
 - III. CONSTRUCTION PRECAUTIONS
 - IV. MECHANICAL IMPACT
- VI. LESSONS LEARNED
- VII. ACKNOWLEDGEMENTS

SAINT VINCENT HEALTH CENTER

New Addition Project

ERIE, PA



PENN STATE AE SENIOR CAPSTONE PROJECT Tyler Jaggi | CONSTRUCTION MANAGEMENT DR. DAVID RILEY - CM ADVISOR

SAINT VINCENT HEALTH CENTER SAINT VINCENT HEALTH CENTER PENN<u>STATE</u> PENN<u>State</u> **NEW ADDITION BUILDING NEW ADDITION BUILDING PROJECT BACKGROUND** ERIE, PA ERIE, PA Tyler Jaggi | CONSTRUCTION MANAGEMENT TYLER JAGGI | CONSTRUCTION MANAGEMENT PRESENTATION OUTLINE: I. PROJECT BACKGROUND LOCATION: Legend Edeling Daki Silo Work An Parking Cross Parking Parking Product Work Phone 3 Work • 232 WEST 25TH STREET ERIE, PA • PRIVATE HEALTH CENTER COMPLEX— SAINT VINCENT BUILDING PARAMATERS: Existing Hospital 7 Stories • 104,660 SF GROSS BUILDING AREA PROJECT PARAMETERS: -5-1 **1** N NEGOTIATED GMP: APPROX. \$45 MILLION • DATES OF CONSTRUCTION: 6/22/2010 – JUNE 2012 Tyler Jeggl - CM 10/25/10 Infill Bldg - Phase 3 Complete Saint Vincent Health Center View from Hardner Building • DELIVERY METHOD: DESIGN-BUILD WITH CM •LEED CERTIFICATION: SILVER SAINT VINCEN # AUSTIN

SAINT VINCENT HEALTH CENTER SAINT VINCENT HEALTH CENTER PENN<u>STATE</u> PENNSTATE **NEW ADDITION BUILDING NEW ADDITION BUILDING** PRECAST FAÇADE VS. HAND-LAID MASONRY ERIE, PA ERIE, PA Tyler Jaggi | CONSTRUCTION MANAGEMENT TYLER JAGGI | CONSTRUCTION MANAGEMENT PRESENTATION OUTLINE: ουπ SLENDERWALL Heavy-gauge galvanized or stainless-steel stud accommodates interior finish In the Caulk Joint Dr ARCHITECTURAL PRECAST CONCRETE & STEEL STUD PANEL WALL SYSTEM: nage & Street-Level Leak Detection Syste SLENDERWALL® Section II. CASE FINDINGS with polished granite finish Hot-dipped galvanized • EXTERIOR SURFACE – THIN ARCHITECTURAL BRICK VENEER reinforcing Open Cell • VENEER CAST INTO 2 INCHES OF REINFORCED PRECAST CONCRETE Backer Rod -0 High-strength architectural INSIDE SURFACE – 16 GAUGE, 6 INCH STEEL STUDS @ 2 FT ON CENTER I. DESIGN precast concrete, 2-inch thick with high-end fiber for extra strength Interior Line CONNECTED WITH SHEAR STUDS of Sealant -Drain Strip 1/2-inch air space reduces thermal transfer Exterior Line of Sealant SLENDERWALL PANEL REPLACES: Available in a variety of colors, textures and finish BRICK VENEER ombinations SPRAY-ON HOT FLUID APPLIED VAPOR BARRIER EXTERIOR SHEATHING EXTERIOR METAL STUDS Sealant Dam Veather Spot[®] Weep Patent Pending Damp area after a storm # AUSTIN