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## Transitioning to Architect Led Design-Build

Web Presentation

#### Tuesday, June 10, 2008

2:00 PM - 3:30 PM Eastern 1:00 PM - 2:30 PM Central 12:00 AM - 1:30 PM Mountain 11:00 AM - 12:30 AM Pacific

Presented by: Ben Wilking, AIA, DBIA Betsy Downs, AIA, NCARB

#### **Upcoming AIA Webinar Programs!**

#### Future Topics for Design Build Webinars in 2008:

 Contract forms, Legal Risks, Legislation and Roles September 16, 2008 1.5 LU

Sponsored by the AIA Design Build Knowledge Community Look out for future events at www.aia.org/db; or via email!

- Future topics for 2008 Health 101 seminars will include: ICU-Acute Care, Ambulatory Care, and Surgery.
   Look out for future events at www.aia.org/aah; or via email!
- Healthcare 101: Programming June17, 2008
   1:30 PM 3:00 PM (US Eastern time) 1.5 LUs HSW
   Sponsored by the AIA Academy for Architecture for Health Knowledge Community
  - Visit <u>www.aia.org/ev\_aah\_webinar101\_prog\_for</u> more information or to register.

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#### CD Recordings Available for Purchase

Recordings of this presentation and previous presentations are available for purchase via KRM's website.

http://online.krm.com/iebms/coe/coe\_p1\_all.aspx?oc=10&cc=00346747P

Design-Build Webinars include:
History of Design-Build
Risk and Rewards of Architect Led Design-Build
Transitioning to Architect Led Design-Build

AIA Knowledge Communities





#### **Transitioning to Architect-Led Design-Build**

A Continuing Education Webinar of the American Institute of Architects

June 10, 2008

Program Sponsor:

AIA Design-Build Knowledge Community

Presenters: Ben Wilking, AIA, DBIA
Betsy Downs, AIA, NCARB



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#### **About this Document**

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\*In some states, design-build continuing education credits are not accepted for licensure. Please check with your state.



#### **Betsy Downs**

President OWP/P Design/Build

- 25 years Architectural Experience
- 10 years Public Policy Experience
- Partner at OWP/P
- President of OWP/P Design/Build
- Past President of DBIA Great Lakes Chapter
- Member of AIA DB Knowledge Community
   National Advisory Board

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### Benjamin Wilking

- President and Director of Design-Build, LBA Corporate Services
- 2006 Chair AIA Design-Build Knowledge Community
- DBIA Designated Design-Build Professional
- AIA National Project Delivery Task Force
- Colorado AIA/AGC/ACEC Liaison Committee
- Co-Author of The Architect's Guide to Design-Build Services
- 2003 President AIA Denver







## D-B Knowledge Community Webinar Series 2008

- #1 Introduction and History of Design-Build
- #2 Risks and Rewards in Designer Led Design-Build
- #3 Transforming to an Architect led Design-Build Firm
  - Tuesday, June 10, 2008 at 2:30 PM Eastern Time
  - · Betsy Downs, OWP/P and Ben Wilking, LBA Corporate Services
- #4 Contract Forms, Legal Risks and Legislation
  - September 16, 2008
  - · G. William Quatman, Esq. FAIA and Barry Bannett, AIA, DBIA
- #5 Design-Build in the Public Sector
  - Mid October 2008
- #6 Educating Architects during Changing Times
- Anticipated Webinar Continuation in 2009/2010

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#### **Program Topics**

- Business Model Options for a Design-Build Company
- What was Our Approach?
- Office Personnel
- Risk Management Tools
- Policies and Procedures
- Project Case Studies
- Lessons Learned
- How We've Been Changed





#### **Business Model Options**

- Getting Started:
  - Confirm business model (Contract with GG, Contract as Design-Builder, Hire GC, Integrate in House)
  - Research necessary risk management coverage
  - Brainstorm policies and procedures
  - Seek out familiar clients and project types
  - Start with small projects
  - Hire an experienced general contractor
  - Take notes and learn as you go
  - · Share rewards with the team.

AIA

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#### **Business Model Options**



- History since 1946
- Staff of 52 (13 registered architects)
- Top 20 architectural practice in Colorado
- Gross A/E fees of \$9.8 million
- Senior living and care, K-12 schools, healthcare, and military markets
- Master planning, architecture, interior design
- Work throughout the country (projects in 26 states).



#### **Business Model Options**

Sample projects for Lantz-Boggio Architects:

MorningStar Assisted Living Littleton, CO

\$ 10,500,000

**Brighton Gardens of Denver** 

Denver, CO \$ 10,700,000

**Frasier Meadows Manor** 

Boulder, CO \$ 24,500,000

Sunbridge Assisted Living Greenwood Village, CO

\$7,668,000

**Sunrise Elementary School** 

Cheyenne, WY \$ 9,400,000

**Peakview Elementary School** 

Walsenburg, CO \$ 5,450,000

**CU Hospital Emergency Department** 

Denver, CO \$ 5,200,000

Vandenberg Hall Renovation (USAFA)

Colorado Springs, CO \$ 150,000,000

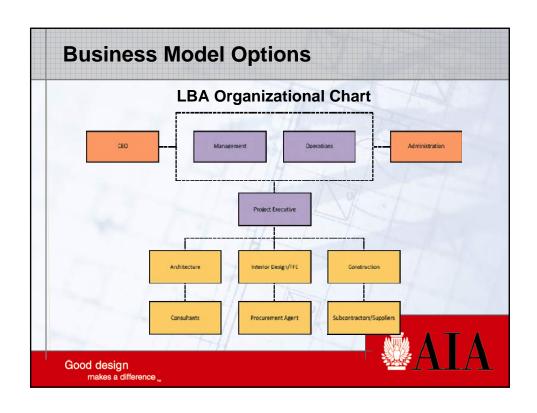


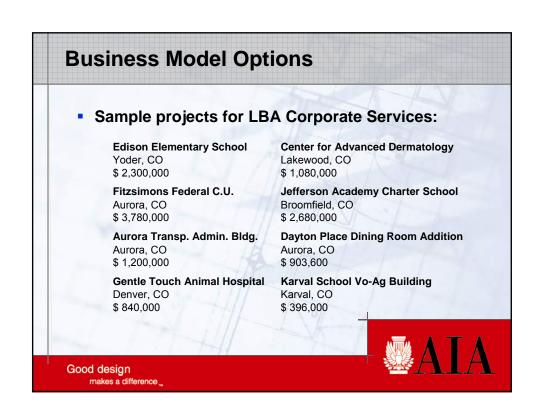
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#### **Business Model Options**

- LBA Corporate Services, Inc.
  - In business since 1999
  - Staff of 10 (3 registered architects, 2 licensed GC's)
  - · Integrated design-build firm
  - Projected gross earnings of \$6.5 million in 2008
  - K-12 schools, senior living and care, commercial, financial, aviation
  - Design-build, master planning, interior design, construction management, construction
  - · Work throughout the state of Colorado.







#### **Business Model**

- OWP/P is a full services A/E firm of 315
- Started Design/Build Company in April, 1998
- Offer our clients an option to Contractor Led
- Expand project opportunities

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#### **Business Model**

- OWP/P DB is solely owned subsidiary
- DB Board is composed of principals in the parent firm
- Illinois Corporation licensed as a Contractor
- Also registered to work in Wisconsin, Indiana, and Arizona



# Business Model - Form teaming relationships with trusted Contractor Partners - Contract with OWP/P for Architectural - Engineering by either - OWP/P consulting engineers - MEPFP subcontractors - Construction by GC Partner - Management by OWP/P Design/Build



#### **Our Approach**

- How we Transitioned to a Design-Builder:
  - Targeted similar markets and clients as the current ones
  - · Started with small projects
  - Began with similar building types we already knew
  - Highlighted strengths as an Architect
  - Took small steps
  - Learned from our mistakes before the larger projects began.

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#### **Our Approach**

- Differing Philosophies:
  - · Proactive vs. Reactive
  - High Early Effort vs. Status Quo
  - · Bottom Line vs. Service Oriented
  - Schedule Driven vs. No Rush
  - Study Options vs. Good Enough
  - · Collaborative vs. Yours and Mine
  - · Team Oriented vs. Finger Pointing



#### **Our Approach**

- Options in Providing Design-Build Services:
  - Team with another GC who holds the contract with the Owner
  - Joint venture with another GC
  - Hold the contract with the Owner and hire a GC
  - Hire a licensed contractor as a full time employee
  - Integrate design and construction philosophies in house.

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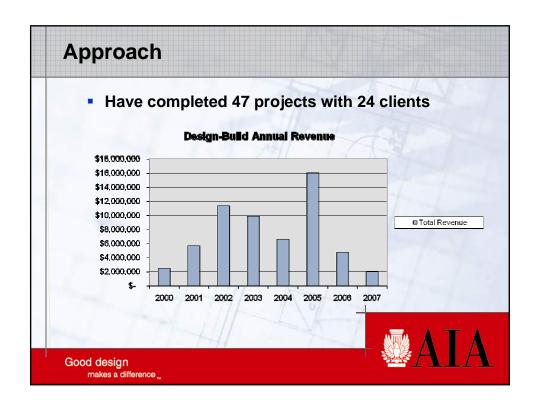


#### **Approach**

- Started with "simple" project with clear boundaries
- Existing clients, known building types
- Expanded to complex, "messy" projects
- Responded to RFPs from new clients







#### Office Personnel

#### Office Personnel:

- CEO (general counsel, financial backing, advice)
- · President (overall management and direction)
- Vice President (operations and marketing)
- Director of Construction (general contractor)
- Project Executive (oversight of projects)
- Architectural Interns (production, project management)
- Superintendents (on site construction)
- Office Manager (accounting, clerical)



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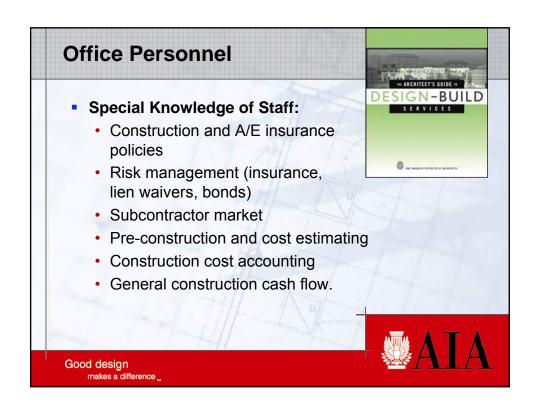
#### Office Personnel

#### Architect's Goals:

- Quality design
- Very best solution that meets the Owner's program
- Direct communication with Owner
- Sufficient time to explore options
- Meet all code requirements (health, safety, general welfare)
- Satisfied Owner at completion.







# Personnel No employees Lease management staff from Parent Firm Train managers on expanded skill sets Project accountant with prior Contractor experience Good design makes a difference



#### **Risk Management Tools**

- Risk Management Tools:
  - Insurance (CGL) occurrence based
  - Worker's compensation class codes, salary
  - Bonds for public projects premiums
  - Safety manual
  - Legal advice
  - Quality assurance checks
  - On site coordination, meetings.



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#### **Risk Management Tools**

- Contracts Used:
  - AIA A141 (Owner/Design-Builder Agreement with Terms and Conditions)
  - AIA C142 (Architect/Consultant Agreement)
  - AIA A401 (General Contractor/Subcontractor Agreement)
  - Owner Specific Agreements
  - · Proposals for small scope projects
  - Purchase orders
  - AIA Single Purpose Entity Contract.



#### **Risk Management Tools**

- Recent AIA Contract Documents:
  - Updated in 2004, five new contracts, terms and conditions for A141
  - · Intentionally owner friendly
    - Two Part → One Part
    - Exhibits permit more flexibility
    - Neutral party is possible for dispute resolution
    - CA duties offered to Owner
    - Independent peer review of documents permitted by Owner.



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#### **Risk Management**

- Family of Contracts developed by Chicago Attorney based on AGC
  - Non project specific teaming agreement with GC partners
  - Single Source Contract with Owner
  - Project Specific Agreement with GC
  - Short form Agreement with Parent Company for design services
- Have also used Owner developed Contract (CHA)
- Have negotiated revisions modeled on AIA
- Dual Obligee Bond by GC
- Umbrella insurance coverage



#### **Risk Management**

- Contracts and insurance provide some protection when things go wrong
- Relationship based on trust and respect provides protection before things go wrong
- Take on added risks in a Design/Build relationship
- Less risky when:
  - Communication is good
  - Contractors understand design intent
  - Team members are incentivized to solve problems

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#### **Policies and Procedures**

- Pre-Requisites for All Projects:
  - Signed agreement before start of work
  - · Current insurance certificates before first payment
  - Understood scope of work with milestones
  - Payment procedures understood
  - · Timely submittal of applications for payment
  - Conditional waiver of liens prior to payment
  - Timely close-out.



#### **Policies and Procedures**

- Payment Schedule:
  - Subcontractor application and request for change orders due on the 25<sup>th</sup>
  - Project application for payment due to the Owner on the 1<sup>st</sup>
  - Payment from the Owner due by the 21st
  - Payment by the Design-Builder to subcontractors and consultants due by the 24<sup>th</sup>.

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#### **Policies and Procedures**

- Capital Construction Grant Program:
  - Grants for rural school districts
  - Volunteer to write grant
  - Completion of facility master plan
  - Understand school district needs
  - Award of grant
  - Selection as design-builder for architecture, engineering, construction management and general construction services.



#### **Policies and Procedures**

- Other Grants Available:
  - Qualified Zone Academy Bonds (QZAB)
  - Energy Impact Grants
  - · Colorado Wind for Schools Program
  - Historic Preservation
  - National School Grants
  - High Performing Public Schools Act.

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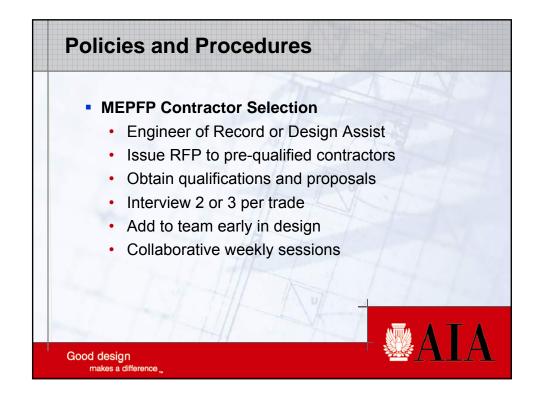
#### **Policies and Procedures**

- Insurance
  - Certificate of Insurance from all subcontractors and providers
  - · Umbrella insurance thru Colony Insurance
  - MEPFP subcontractors who provide design services carry their own E&O coverage



## Policies and Procedures Payment Typically GMP contract Contingency management Pay application cover sheet Timely payment for both construction and design services Good design

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#### Manzanola Public Schools

· Project: Multiple Projects

· Location: Manzanola, Colorado

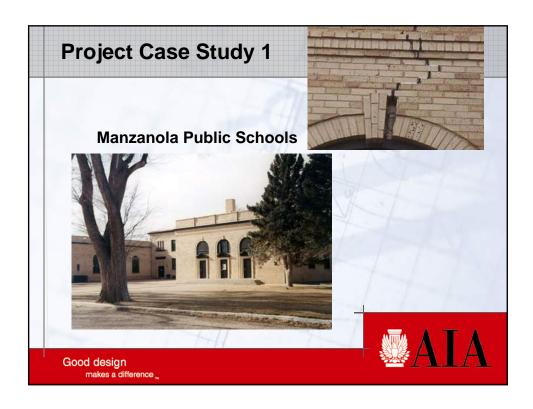
· Area: 20,700 sf

Construction Cost: \$356,800

Design Start: June, 2002

· Construction Complete: August, 2003

 Description: Facility master plan. Exterior renovation including masonry. Interior remodel of public areas and Classrooms.



#### Karval Public Schools

· Project: Multiple Projects

· Location: Karval, Colorado

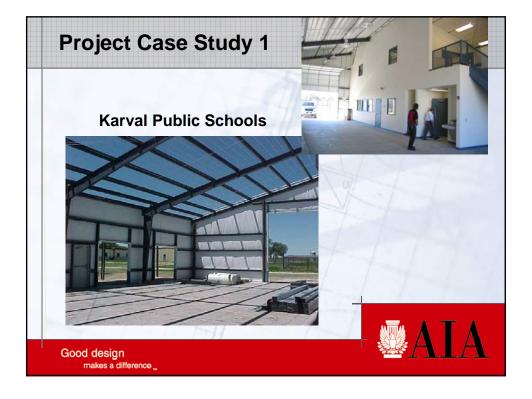
· Area: 6,400 sf

Construction Cost: \$407,800

• Design Start: September, 2003

· Construction Complete: September, 2004

 Description: Remodel of four restrooms. New two story Vo-Ag Building with work area, metal shop, wood shop, and Classroom.



#### Weld County School District

 Project: Hudson Elementary Library Remodel

· Location: Hudson, Colorado

· Area: 2,500 sf

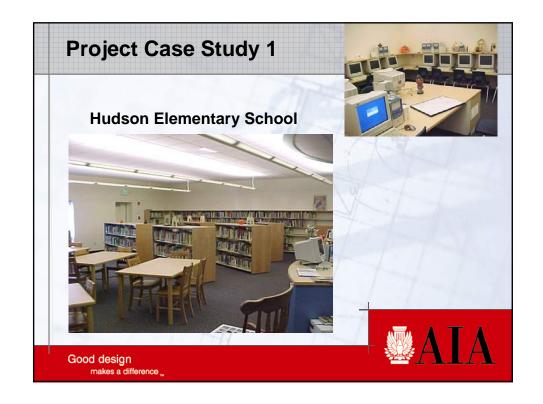
Construction Cost: \$201,500

Design Start: May, 2003

· Construction Complete: August, 2003

 Description: Interior remodel of an existing Gymnasium into a Library and Computer Lab.





#### Jefferson County School District

· Project: Charter School Addition

· Location: Broomfield, Colorado

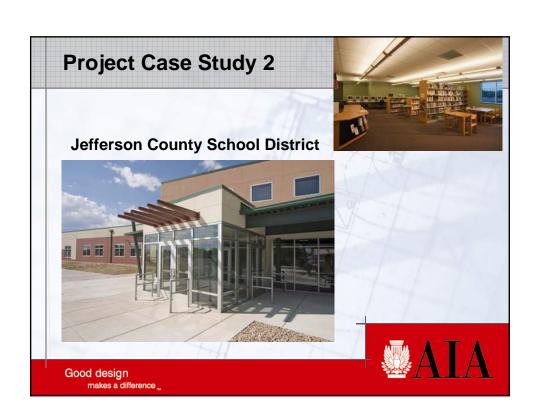
· Area: 17,600 sf

Construction Cost: \$2,680,000

· Design Start: March, 2005

· Construction Complete: July, 2006

 Description: Middle school addition for a charter school, including five Classrooms, Media Center, Commons, and Stage.



#### Jefferson County School District

· Project: Elementary School Kitchen Remodels

· Location: Lakewood, Colorado

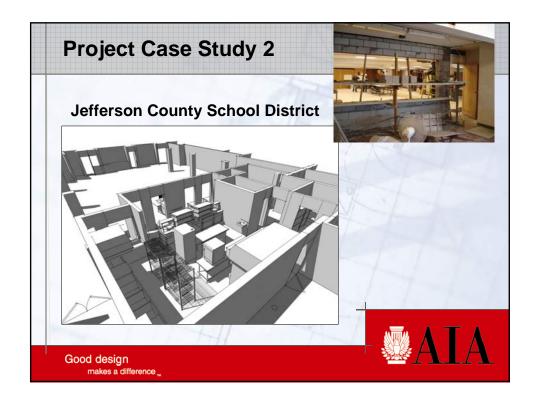
· Area: 1,000 sf

• Construction Cost: \$428,600

· Design Start: February, 2007

· Construction Complete: August, 2007

 Description: Complete remodel of an existing elementary school Kitchen, including all food service equipment.



#### Center for Advanced Dermatology

· Project: Medical Office Building

· Location: Lakewood, Colorado

· Area: 8,000 sf

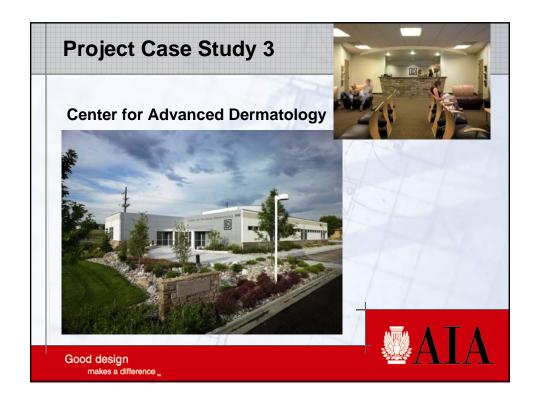
• Construction Cost: \$1,080,000

· Design Start: March, 2003

· Construction Complete: March, 2004

 Description: Medical office building with exam and treatment rooms, lobby, aesthetician, retail, and offices.





#### Dayton Place Retirement Community

Project: Dining Room Addition

· Location: Aurora, Colorado

· Area: 1,660 sf

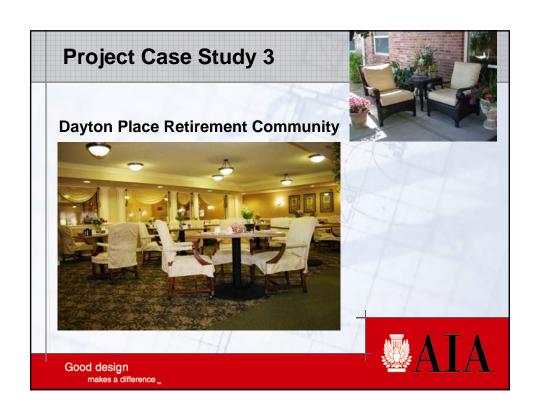
Construction Cost: \$903,600

• Design Start: January, 2006

· Construction Complete: May, 2007

 Description: Below grade addition to Dining Room with exterior courtyard, remodel of other public areas, and FFE procurement.





#### Edison Elementary School Building

Project: New Elementary School

Location: Yoder, Colorado

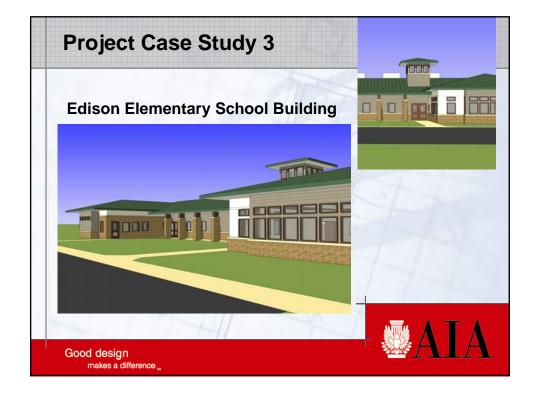
· Area: 13,900 sf

Construction Cost: \$2,322,700

· Design Start: May, 2007

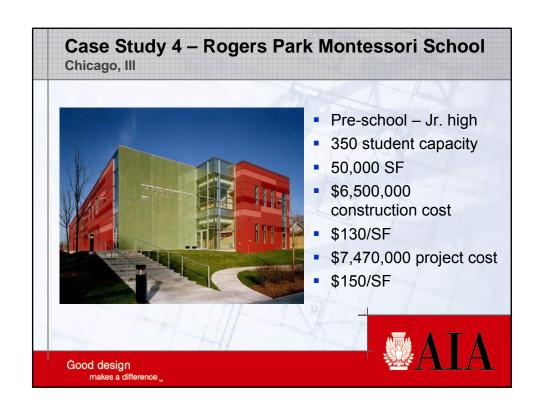
· Construction Complete: December, 2008

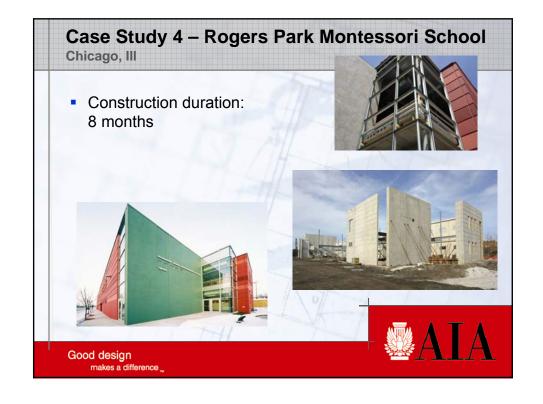
 Description: New school building with seven Classrooms, Library, Computer Lab, Cafeteria, Kitchen, and other support areas.

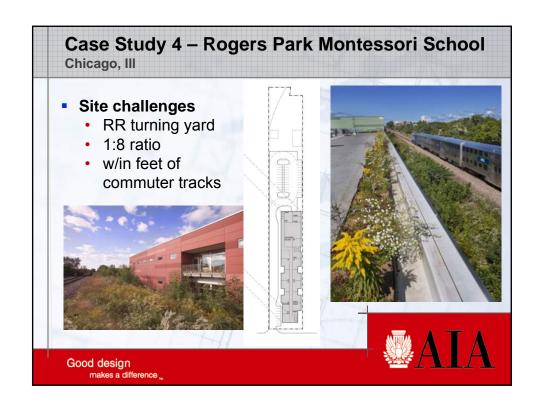


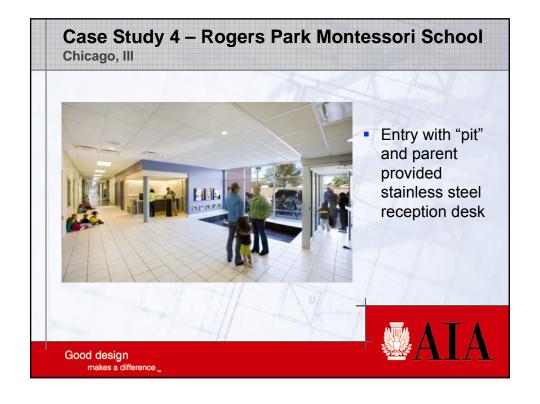
# Case Study 4 – Rogers Park Montessori School Chicago, III Client with no building experience Strong sense of what they wanted Once in a lifetime project Challenging building site Limited budget ROGERS PARK MONTESSORI SCHOOL established 1966 Good design makes a difference

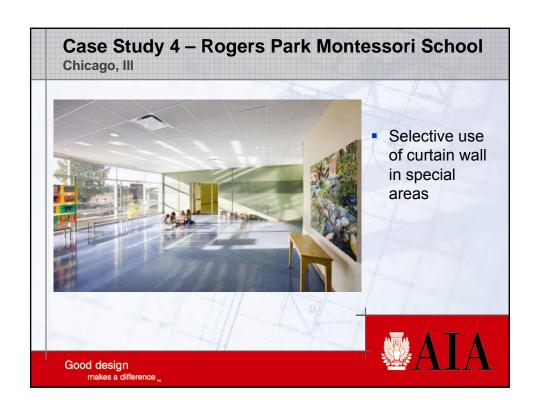


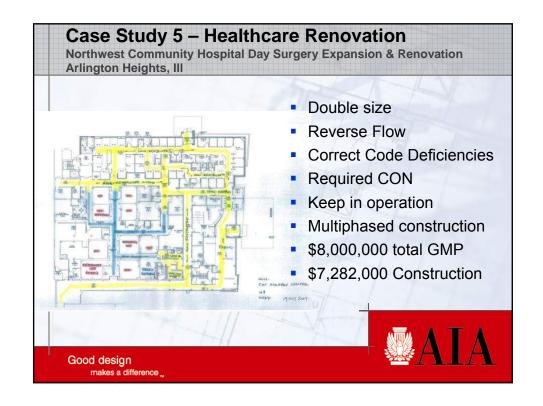






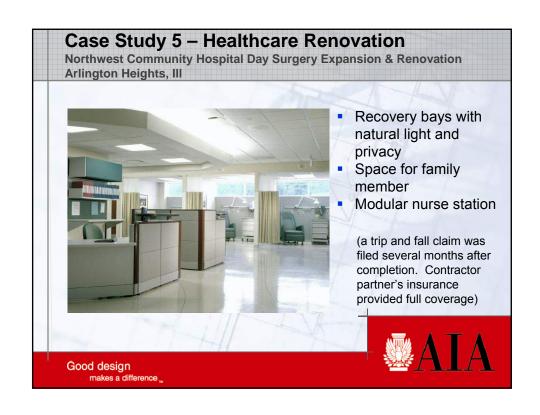


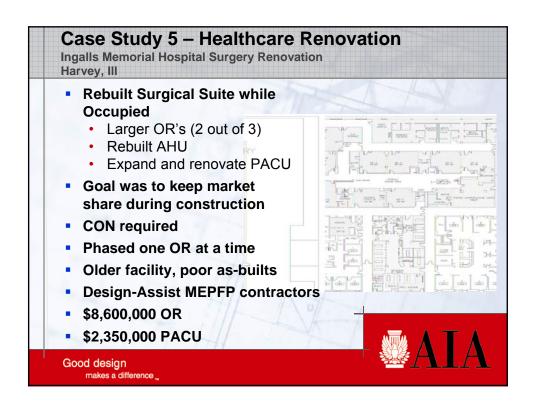






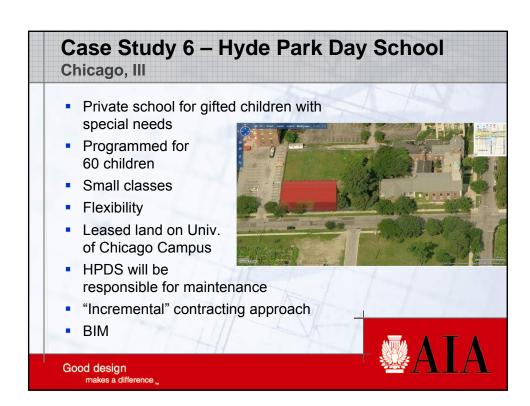


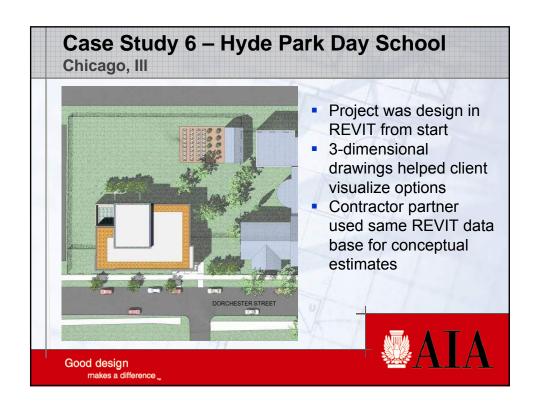


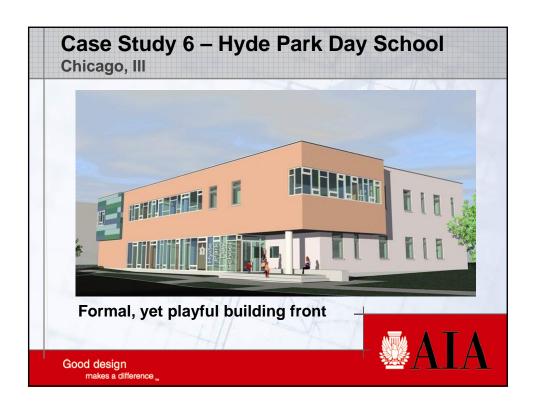




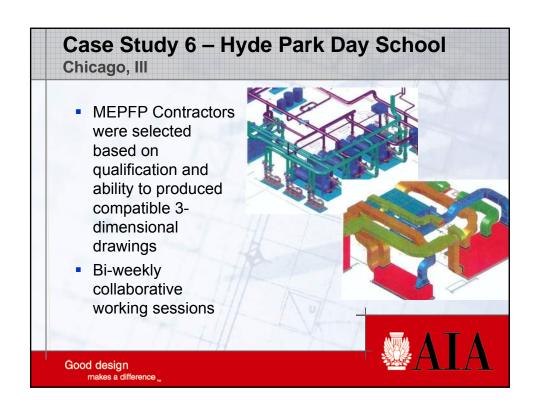


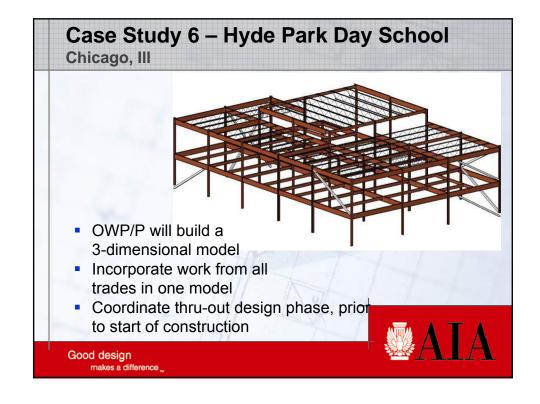




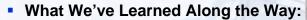








#### **Project Case Studies**



- Design does not have to be compromised
- Value construction as integral to the project
- · Architects and contractors can get along
- · Quality people are priceless
- In house pre-construction services are priceless.
- · Construction can be very profitable. \_



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#### **Lessons Learned**

- How to Convince the Skeptics:
  - Design-build is best suited for simple clients as a one stop shop
  - Shop the major trades and share costs with the client
  - Commit to a completion date and agree to liquidated damages if requested
  - Become the client's trusted advisor and agent during construction
  - Share savings at the end.



#### **Lessons Learned**

- How We've Become Better Architects:
  - Keep an open mind about subcontractor feedback
  - Overcome initial personality differences and seek common ground
  - Be realistic about the best value for the project
  - Less value engineering on projects
  - Wear work boots and get dirty on the job site
  - Realize construction documents from a contractor's point of view.





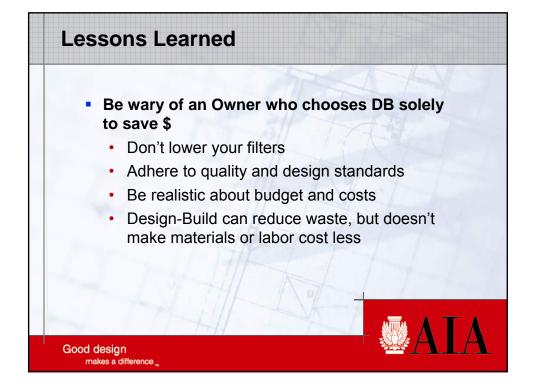
#### **Lessons Learned**

- The importance of alignment of goals
  - Driven home by a bank project
  - Client goals evolved and changed after team was assembled and budget was set
  - Tensions arose due to disconnect between new client goals and original budget and team selections
  - Award winning project, but not optimal relationship or profitability









#### How We've Been Changed

- From the Inside Out:
  - We're better collaborators in team environments
  - We now incorporate computer models on projects
  - Design is tested regarding other factors, including cost and schedule
  - · We see architecture within a greater context
  - Architects and contractors each have their weaknesses
  - Coming to work is fun!



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#### How We've Been Changed

#### From the Outside In:

- We provide more value for the client
- Clients see the value in the services we have to offer
- · Legislation is pushing design-build services
- We're more profitable
- · We see a future and have a vision
- We are now pursuing development opportunities
- Repeat work is more profitable.







