OSFCs Use of Cx

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AIA Quality Assurance

Learning Objectives

1. What is the OSFC
2. Impact of Cx on OSFCs Construction Process
3. Performance decay Will Occur
OSFC Statistics

• OSFC Established 1998
  ○ Rebuild/ Renovate Ohio's School Facilities
    - 613 School Districts
    - 49 Joint Vocational School Districts
    - 3,380 School Facilities
  ○ Partner with School Districts
  ○ Ohio School Design Manual (OSDM)
OSFC Activity in Ohio
OSFC Statistics

- 1998 – Present (July 1, 2011)
  - 198 School Districts Completed
  - 59 School Districts in Design
  - 863 Facilities Completed
  - 175 Facilities under Construction
  - $9.4 Billion Invested To Date
  - $1 Million per Day Rate of Investment
- Over 475,000 Students
OSFC Statistics

• 2003- OSFC Maintenance Program
• 2004- Cx Pilot Program
• 2005- Cx New Project Requirement
• 2007- OSFC Adopts LEED Standards
• 2009- Cx Guidelines Expanded
• 2011- 64,113,846 Sq Ft
Ohio LEED® Projects

LEED Projects – 259
Version 2.0 – 157
Version 3.0 – 95
Pending Access - 7

- Gold: 101
- Silver: 46
- Platinum: 7

Certified: 3
3 Certifications
6 Certifications
19 Certifications
OSFC Cx: Scope

2005 – 2007
- 3rd Party Independent
- HVAC MEP
- Building Controls
- Acoustics
- Lighting Levels

2007 – Present
- 2005 Scope Plus
- LEED EAcr3
  - Electrical
  - Domestic Water
- Building Envelope
OSFC Cx: Future

• 2011 – 2012 plus
  ○ Enhance Envelop Cx
    - Thermographic Imaging
    - Expanded Site Time
  ○ Technology Cx
    - Developed Process
    - Beta Testing @ Huber Heights City School District
  ○ Integrate into Project Management/ Control
    - Automate
    - Integrate into Compliance/ QA Processes
OSFC Cx: Focus

• Success and Growth
  ○ Catch Issues Early
  ○ District Staff More Involved
  ○ Expanding Scope
  ○ Project Cost Savings
  ○ Better Baselines for Building Performance
Recommended CxA Critical Focus

- Develop a Strong Commissioning Specific OPR
  - Still difficult for the A/E to Develop
  - Necessary for the CxA
- Define the Cx Schedule
- Define CxA Role and Responsibilities
- Define Deliverables
- CxA to Help Assign Responsibility
Performance Decay Warning Signs

- A Hands-Off Owner
- Construction Close-Out
  - Control System Overrides and Drift
- H.B. 264 School Energy Conservation Financing Program
  - Deferred Maintenance
  - Controls Upgrades, Enhancements, Replacements
  - New Technology
- Energy Star Portfolio Manager
  - Stop Tracking May Proceed a Decline
Performance Decay PM

• PROFESSIONAL TRAINING
  ○ Initial Skills Assessment
  ○ Continuous Education

• Holistic Tracking
  ○ Energy Monitoring
  ○ CMMS
  ○ Move from IAQ to EQ Sustainable Operation
  ○ Dedicated Energy Manager (Dedicated to PM)
  ○ Facility Inspections (ODH School Inspection)
Avoid Cx Decay

- Integrate Cx into a Partnership
  - Include Occupants
  - Common Reward
- Plan for Continued Success
  - What’s Next
  - Budget Constraints
  - The “What have you done for me lately?” Factor
- Establish Multiple for Measuring Owner Success Goals
  - Who are the other Stake Holders
  - What are the Benefits to them
OSFC Action

• OSFC Construction Process
  ○ Engage Early the CxA and Owner
  ○ Designed Target for Energy Performance
  ○ Portfolio Manager
  ○ Facility Staff Training
    - BOC
    - Controls
    - Energy Management
  ○ Facility Maintenance Plan (includes Cx Systems Manual)

• Ohio Public Facilities Maintenance Association (opfma.org)
• **We Know the CxA is the…**
  - Technical Expert
  - Process Expert
Learning Objective #3

The best place to hide something is in plane sight... Sherlock Holmes

• Communication
  o Know when to…
    - Document
    - Talk
  o Time Stamp
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Thank You

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