Managing School Security

Tom Sorrell, RCDD, InfraGard, LEED AP BD+C, NICET
Principal / CMTA Technology Solutions
Managing School Security

Safety must be a priority for all campuses, large and small!

Today’s Objective:

✓ Assess legacy facility security systems
✓ Evaluate security technology solutions available
✓ Integrate video, access control and emergency notification
✓ Importance of following Industry Standards
Managing School Security

Existing ESS Practices working to your advantage?

Multiple Legacy Systems?

Central Management?

Updated Campus Security Standards?
Managing School Security

Trending: What is being done on other campuses?

Convergence!

Video (VMS) + Access Control (SMS)
+ Panic Alarms = Analytics

Usable Information / Lockdown
Managing School Security

Does Video Detection Enhance Security?

- Threat Deterrent / Situational Awareness
- Faster Response Time / Video Forensics
- Improved Safety

Reassurance/Peace of Mind for All!

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Managing School Security

Multi-Layered Approach
For a Complete Solution!

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Managing School Security
Crime Prevention Through Environmental Design (CPTED)

“Your School Here” Path is a series of recommended walking routes through a campus that provides the community with a convenient means of traversing campus on a network of popular paths.
Questions?

Tom Sorrell, RCDD
tsorrell@cmta.com
Mission Impossible: Combating Technophobia

Christy Miller
Caitlin Brudnicki
BCL IT Consulting
Whatever You do, do NOT Panic!
AV Club Membership Comes with Complimentary D&D membership
Training is Mandatory...There is a package for that.
Work Smarter-
Not Harder....
Professional Development is Never a Bad Thing...

Professional Development:

Before: What's a PD???
I want one!!!

After: I've just sucked one hour of your life.
Tell me... How do you feel?
Ask the kids, this technology isn’t scary to them.
Questions?

Christy Miller
cmiller@bclitconsulting.com
Caitlin Brudnicki
cbrudnicki@bclitconsulting.com
Solutions to Protect your New Construction Sites

Chris Jones
Axis Communications
Analytics – Benefits of Analytics

1. **Cost savings** - less video sent over the network reduces the network load and storage requirements.

2. **Time savings** - monitoring and searches in recorded video become easier, allowing operators to manage more cameras.
Analytics – Benefits of Analytics

3. **Greater efficiency** - automatically monitoring video for security incidents helps prevent crime, rather than simply reacting after the event.

4. **Creation of business value** - integrating video data into other systems, such as headcounts from entrance cameras in retail stores, means the surveillance system can contribute insights and new solutions for other business functions.
Solution Example: Perimeter Protection

- **Intrusion**: When one or more persons or vehicles enter a predetermined zone.

- **Zone crossing**: When a person or vehicle passes through two predetermined zones in a predetermined order and direction.

- **Loitering**: When a person or a vehicle remains in a predetermined zone for more than a certain number of seconds.

- **Conditional zone crossing**: When a person or a vehicle enters a predetermined zone without starting in or passing through one or more predetermined zones.
Solution Example: Perimeter Protection

- **Free system-management application:** Connect to and manage all cameras from a single interface

- **Free system-design tool:** Drag and drop “cameras” on a map and immediately see approximate detection ranges and blind spots

- **Optional VMS integration modules:** Visualize the cause of an alarm by outlining the person or vehicle triggering it in the video.
Building your Solution

Audio

PTZ Camera

Multi-sensor Cameras
Building your Solution

Timelapse

Thermal Cameras

Radar
Questions?

Chris Jones
chris.jones@axis.com
Lessons Learned: General Contracting

Ramzi Najjar
Program Manager | K-12 North
General Information

• OFCC has started 180 GC projects since January 2012
• GC projects range in value from $49K to $29M
• Most diverse scale and type of projects in comparison to other delivery methods used by OFCC
Lessons Learned

• Need for Preconstruction Stage Support
  – Estimating experience
    • Conducted at end of each Design Stage
    • Independent validation
  – Knowledge of market conditions
  – Ability to perform compliance/constructability review
  – Basic knowledge of means & methods
  – Assistance in phasing construction

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Lessons Learned

- Public Bidding Challenges (similar to Multiple Prime)
  - Soliciting sufficient GC bidder interest to ensure competitive prices
    - Scope, scale, timing and location of project
    - Bonding capacity
  - Lack of transparency to Subs
    - Harder to identify true cost drivers
  - Potential need for rebidding (>10% over estimate)
- First-hand knowledge of market conditions
  - Confidence varies with number of bids received
Lessons Learned

• Need to Verify Quality of Schedule
  – While GC is responsible for schedule performance by all Subs, Owner team still needs to evaluate and carefully monitor schedule (both technical development of schedule & its outcomes)
    • Schedule logic (predecessors/successors)
    • Relationship types (finish to start, etc)
    • Durations
    • Constraints
    • Float (total, free)
    • Lags
Questions?

Ramzi Najjar
ramzi.najjar@ofcc.ohio.gov
Business Opportunities

Jeff Westhoven, OFCC
John Siebert, Miami University
Beth McGrew, University of Cincinnati
Audience profile

- Architectural/Design: 26%
- Consulting Firm: 5%
- Contracting/Subcontracting: 20%
- Engineering/Surveying: 12%
- Public Owner: 26%
- Other: 11%

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Business Opportunities: Topics

• Finding opportunities
• Cultural facilities projects
• Finding background on other capital projects
• Upcoming K-12 projects
• Upcoming state agency/higher education projects
Finding Opportunities ...
Opportunities Map

- A/E
- CxA
- Planning

- CMR
- D-B
- Energy PC

- GC
- MP

Website Opportunities

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Finding Opportunities ...

Cultural Facilities Projects

• Community projects
  – Economic development projects of local or regional importance
  – OFCC, DNR, higher education; others
  – $149 Million in new capital bill

• $78 million assigned to OFCC for cultural facilities projects

• Theaters, museums, historical sites, others that support culture

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Finding Opportunities …

Cultural Facilities Projects

• Local grantees award contracts
  – Non-profit organizations
  – Local government
• Not all publicly advertised
• Mostly renovation work
• Local match
• $5,000 to $5,000,000 (avg. $330 K)
Finding Opportunities ...

Opportunities Map: Cultural Facilities Projects

- **Approved**
  - 129 projects
  - $50 M state
  - $230 M total

- **To be approved**
  - 227 projects
  - $86 M state
  - $? M total
Finding Opportunities ...

Opportunities Map: Cultural Facilities Projects

<table>
<thead>
<tr>
<th>County and Funding Agency</th>
<th>Fund</th>
<th>Line Item</th>
<th>Item/Project Name</th>
<th>Appropriations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Natural Resources</td>
<td>7035</td>
<td>C72E2</td>
<td>Stanbery Park Pavilion</td>
<td>$360,000</td>
</tr>
<tr>
<td>Department of Natural Resources</td>
<td>7035</td>
<td>C72E2</td>
<td>Symmes Township Home of the Brave Phase 2</td>
<td>$300,000</td>
</tr>
<tr>
<td>Department of Natural Resources</td>
<td>7035</td>
<td>C72E2</td>
<td>Delhi Township Bicentennial Pavilion</td>
<td>$62,000</td>
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<tr>
<td>Department of Natural Resources</td>
<td>7035</td>
<td>C725U5</td>
<td>The Banks</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>Department of Rehabilitation and Correction</td>
<td>7027</td>
<td>C50100</td>
<td>Hamilton County Justice Center Capacity &amp; Recovery Expansion</td>
<td>$2,500,000</td>
</tr>
<tr>
<td>Ohio Facilities Construction Commission</td>
<td>7030</td>
<td>C230FM</td>
<td>Cincinnati Contemporary Arts Center Learning Center Renovation</td>
<td>$500,000</td>
</tr>
<tr>
<td>Ohio Facilities Construction Commission</td>
<td>7030</td>
<td>C230FM</td>
<td>Cincinnati Art Museum Building Envelope Improvements</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Ohio Facilities Construction Commission</td>
<td>7030</td>
<td>C230FM</td>
<td>Cincinnati Museum Center STEM and Space Galleries</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>Ohio Facilities Construction Commission</td>
<td>7030</td>
<td>C230FM</td>
<td>Cincinnati Playhouse in the Park Theater Project</td>
<td>$1,200,000</td>
</tr>
<tr>
<td>Ohio Facilities Construction Commission</td>
<td>7030</td>
<td>C230FM</td>
<td>Everedale Cultural Arts Center ADA Compliance</td>
<td>$125,000</td>
</tr>
</tbody>
</table>

Project Size (State $):

- < $250,000: 68%
- $250K - $1M: 24%
- > $1 Million: 8%
Finding Background on Other Capital Projects

Legislative Service Commission: Capital Projects by County

- Service needed
- Project size
- Location
- Timing
- Delivery model
- Owner

<table>
<thead>
<tr>
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<th>Item/Project Name</th>
<th>Appropriations</th>
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<tbody>
<tr>
<td>Statewide</td>
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<tr>
<td>Adjutant General</td>
<td>7026</td>
<td>C74535</td>
<td>Renovations and Improvements</td>
<td>$5,561,505</td>
</tr>
<tr>
<td>Adjutant General</td>
<td>3420</td>
<td>C74537</td>
<td>Renovation Projects - Federal Share</td>
<td>$10,330,366</td>
</tr>
<tr>
<td>Adjutant General</td>
<td>7026</td>
<td>C74541</td>
<td>Armory Technology Infrastructure</td>
<td>$120,000</td>
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<tr>
<td>Adjutant General</td>
<td>5340</td>
<td>C74542</td>
<td>Renovations and Improvements</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Department of Agriculture</td>
<td>7057</td>
<td>C70009</td>
<td>Clean Ohio Agricultural Easement</td>
<td>$12,500,000</td>
</tr>
<tr>
<td>Department of Administrative Services</td>
<td>7026</td>
<td>C10011</td>
<td>Statewide Communications System</td>
<td>$7,000,000</td>
</tr>
<tr>
<td>Department of Administrative Services</td>
<td>5K02</td>
<td>C10035</td>
<td>Building Improvement</td>
<td>$39,424,700</td>
</tr>
<tr>
<td>Department of Developmental Disabilities</td>
<td>7033</td>
<td>C59004</td>
<td>Community Assistance Projects</td>
<td>$24,000,000</td>
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<tr>
<td>Development Services Agency</td>
<td>7046</td>
<td>C19050</td>
<td>Coal Research and Development</td>
<td>$5,000,000</td>
</tr>
<tr>
<td>Department of Natural Resources</td>
<td>7061</td>
<td>C72514</td>
<td>Clean Ohio Trail Fund</td>
<td>$12,500,000</td>
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<tr>
<td>Department of Natural Resources</td>
<td>7031</td>
<td>C72549</td>
<td>Facilities Development</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>Department of Natural Resources</td>
<td>7035</td>
<td>C725A0</td>
<td>State Parks, Campgrounds, Lodges, Cabins</td>
<td>$57,554,343</td>
</tr>
</tbody>
</table>
Finding Background on Other Capital Projects

Legislative Service Commission: Capital Appropriations, Complete Analysis, pp. 65-183

- Service needed
- Project size
- Location
- Timing
- Delivery model
- Owner

Administrative Building Fund

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Building Renovations</td>
<td>$200,000</td>
</tr>
<tr>
<td>BCI London Renovations</td>
<td>$969,752</td>
</tr>
</tbody>
</table>

This capital appropriation will support general renovation projects in facilities operated by the Attorney General. The Ohio Facilities Construction Commission has identified a number of small projects where building renovations are necessary to remediate issues that absent this capital money might require the Office of the Attorney General to use money appropriated for its operating budget.
Upcoming K-12 Projects ...

K-12 Completion Status 2017

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Upcoming K-12 Projects...
New K-12 Projects 2018-2019

1 Brunswick
2 Southwest
3 Wynford
4 Northeastern
5 Miami Valley CT
6 Berkshire
7 Northeastern
8 Indian Creek
9 Wayne
10 Elida
Upcoming Capital Projects:  
Miami University

John K. Seibert  
Director of Planning, Architecture & Engineering

<table>
<thead>
<tr>
<th>Project</th>
<th>Construction Budget</th>
<th>Method</th>
<th>A/E Selection</th>
<th>BVS/Bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic and Administrative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campus Feeder J - high voltage upgrade</td>
<td>$ 550,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
<tr>
<td>Center for Career Exploration - Expansion</td>
<td>$ 500,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
<tr>
<td>Art Building - Corridor Improvements</td>
<td>$ 420,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
<tr>
<td>Cole Service Building - Renovations</td>
<td>$ 280,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
<tr>
<td>Center for Performing Arts - Waterproofing</td>
<td>$ 350,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
<tr>
<td>Patterson Place - Envelope/ Roof Rehab</td>
<td>$ 350,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
<tr>
<td>Roofing (Hoyt, Yager, Gross)</td>
<td>$ 1,500,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
<tr>
<td>Walks and Drives hardscape / paving repairs</td>
<td>$ 680,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
<tr>
<td>Western Bridge to Presser Hall Renovation</td>
<td>$ 1,050,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
</tbody>
</table>

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### Upcoming Capital Projects: Miami University

John K. Seibert  
Director of Planning, Architecture & Engineering

<table>
<thead>
<tr>
<th>Project</th>
<th>Construction Budget</th>
<th>Method</th>
<th>A/E Selection</th>
<th>BVS/Bid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Housing and Dining</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dodds Hall - Rehabilitation</td>
<td>$ 15,000,000</td>
<td>Design-Build</td>
<td>Late Fall 2018</td>
<td>Winter 2019</td>
</tr>
<tr>
<td>Equestrian Center - Erosion Control</td>
<td>$ 350,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
<tr>
<td>HVAC upgrades at 5 Residence Halls</td>
<td>$ 1,750,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
<tr>
<td>Multiple Hall Bathroom Renovations</td>
<td>$ 500,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
<tr>
<td><strong>Intercollegiate Athletics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field Hockey - Turf Replacement</td>
<td>$ 630,000</td>
<td>TBD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women's Soccer Stadium - Upgrades</td>
<td>$ 700,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
<tr>
<td>Yager West - HVAC replacement</td>
<td>$ 1,050,000</td>
<td>GC</td>
<td>Fall 2018</td>
<td>Early Spring 2019</td>
</tr>
</tbody>
</table>
# Upcoming Capital Projects: University of Cincinnati

Mary Beth McGrew  
Senior Associate Vice President, University Architect

<table>
<thead>
<tr>
<th>Project</th>
<th>Construction Budget</th>
<th>Method</th>
<th>A/E Selection</th>
<th>BVS/Bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vontz Exterior Phase 2</td>
<td>$ 8 M</td>
<td>GC</td>
<td>Completed</td>
<td>Early 2019 Bid</td>
</tr>
<tr>
<td>College of Law, Renovation Project</td>
<td>$ 40 M</td>
<td>CMR</td>
<td>Completed</td>
<td>Fall 2019 Bid</td>
</tr>
<tr>
<td>Rieveschl Lab Renovations</td>
<td>$ 10 M</td>
<td>GC</td>
<td>Completed</td>
<td>Fall 2019 Bid</td>
</tr>
<tr>
<td>Library Square Plaza and Roof</td>
<td>$ 1.5 M</td>
<td>GC</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Mary Emery Roof</td>
<td>$ 4.2 M</td>
<td>GC</td>
<td>Completed</td>
<td>Winter 2018 Bid</td>
</tr>
<tr>
<td>UC Clermont Chiller/Boiler</td>
<td>$ 3.7 M</td>
<td>GC</td>
<td>Completed</td>
<td>Fall 2018</td>
</tr>
</tbody>
</table>
Contact Information

Jeff Westhoven
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John Siebert
seiberjk@miamioh.edu

Beth McGrew
mcgrewm@ucmail.uc.edu

Thank you!
ASK OFCC

Craig Weise
Chief of Projects
This concludes The American Institute of Architects Continuing Education Systems Course

Provider Name: Ohio Facilities Construction Commission  
Provider #: G442  
Contact: sue.meyer@ofcc.ohio.gov

Reminder:  
Pick up your Certificate of Participation at the Registration desk.