

Quality in Construction (QIC)

Microsoft Teams Meeting

February 17, 2021

9:00 am - 12:00 pm

Attendees:

- Michelle Crowder, UT
- Brian Wilson, STREAM
- Paul Marshall, THEC
- Jason Medeiros, (AGC)
- Jim Cobb, TTU
- Chris Byerly, OSA
- Chuck Milam, ETSU
- Richard Lutz, ETSU
- Chloe Shafer, OSA
- Kasey Anderson, ACEC
- Austin Oakes, UT
- Marty Gibbs, AGC
- Patti Miller, THEC
- Kurt Boyd, ACEC
- Tom Lampe, AGC
- Jim Prillaman, ACEC
- John Gromos, AGC
- Ted Hayden, STREAM
- Eddie Harkleroad, ETSU
- Bryan Hay, ABC
- Bill Waits, MTSU
- Rich McNeil, AIA
- Alan Robertson, OSA
- Ann McGauran, OSA
- John Kenny, ACEC
- Ashely Cates, AIA
- Vicky Rodriguez, OSA
- Jennifer Murphy, STREAM
- Trey Wheeler, AIA

Discussion:

- I. All attending members were identified through each attendee's on-screen MS Teams attendee list.
- II. OSA Updates and Current Activities - BIM Update – Chris Byerly (OSA)
 1. OSA hosted a BIM Version 2 Webinar overview in November and December of 2020 and a link is posted to the presentation for download on the OSA website.
 2. OSA will be inquiring as to the need of future webinars that target the specific BIM requirements for designers, contractors and SPAs.
 3. OSA is aware of two projects coming forward in 2021 that will require BIM deliverables, and reminded SPAs to submit RFQ drafts to OSA for review of the SPA's BIM requirements. Chris further noted OSA as a resource for SPA's during BIM kickoff meetings.
- III. OSA Updates and Current Activities - HPBr Update – Chris Byerly (OSA)
 1. OSA is in the process of compiling 2021 HPBr and project team evaluation tracking lists to provide to SPAs. Chris reminded SPAs that the tracking lists should be annotated when HPBr and evaluation documentation is not required.
 2. OSA is developing a presentation to summarize basic compliance checks and formatting requirements for HPBr and team evaluation documentation and will be contacting SPAs to coordinate dates for OSA to provide this presentation.
 3. OSA will be updating the HPBr manual and checklist workbook in its next publication, planned for July 2021.
- IV. OSA Updates and Current Activities – Designer Registration / SPA Support - Ann McGauran (OSA)
 1. OSA is evaluating a proposed update to the outdated OSA designer registration system noting that the proposed update would ideally have improved data acquisition, data coordination, ease of use and automation. Ann solicited input from SPAs regarding potential system tools and functionality.
 2. An area of emphasis for OSA this year is the continued support of SPAs in SBC approval processes.

- a. Bryan Hay asked if QIC task force members will be surveyed to provide feedback for topics of interest for subsequent QIC meetings.
 - b. Ann McGauran recognized the value of the members' time and responded that OSA will be sending out a survey to all QIC members to inquire about future QIC meeting topics.
- V. THEC Updates and Current Activities – Patti Miller (THEC)
 - 1. Patti Miller spoke about the Capital Budget process.
 - 2. She noted that the capital outlay budget proposed by the governor included 12 projects recommended by THEC and 6 projects recommended by the governor. The 6 projects recommended by the governor have a total budget of \$283,235,000. Patti said that capital maintenance projects in the amount of \$153,251,000 were recommended by the governor will be going forward representing 70 projects from the SPA higher education institutions.
 - 3. In the coming years, renovations to buildings in response to COVID should be expected as well as renovation relating to space efficiency.
 - a. Ann McGauran confirmed that the projects proposed in the capital budget were posted on the OSA website and that OSA would be posting information on the projects that require designer selections later in the budget process.
- VI. THEC Updates and Current Activities –Paul Marshall (THEC)
 - 1. Paul Marshall spoke about ongoing efforts around campus security.
 - 2. Paul noted that there is a state-wide initiative to conduct campus safety and security assessments by Tennessee Homeland Security at all interested campuses implementing the Crime Prevention Through Environmental Design (CPTED) format. THEC has developed a checklist in cooperation with Tennessee Homeland Security to aid in campuses in the assessment and that they had recently completed their first assessment at APSU. The assessment process will culminate in a final report issued by Tennessee Homeland Security. Paul stated that MTSU will be the next campus conducting an assessment.
 - 3. In parallel with the security assessments, Emergency Operations Plan (EOP) validations for all campuses are ongoing. Additionally, THEC is providing a 16-hour class on tactical emergency care training for anyone on campus staff that is interested in participating.
 - 4. Once each campus has completed security assessments, EOP validation and emergency care training, THEC plans to conduct a crisis response drill with each campus in cooperation with TEMA and campus security.
 - a. Alan Robertson asked if these assessments will result in projects requiring renovations or upgrades.
 - b. Paul stated that these assessments will likely result in projects, noting that THEC will provide the assessment reports and that the ultimate decision to bring forward projects in response to the report will be at the system or campus level.
 - c. Chris Byerly asked where more information regarding the security assessments could be found.
 - d. Paul Marshall said that with the approval of Homeland Security, that he could provide a general checklist synopsis. See attached.
- VII. SPA Updates and Current Activities - Austin Oakes (UT)
 - 1. There are two new major capital projects coming forward for UT: A \$65,000,000 renovation and expansion of the nursing building in Knoxville and the build out of the top two floors of the Nash Building. About \$60,000,000 in proposed capital maintenance projects are spread across all campuses in the UT system.
 - 2. UTK will be bringing forward the Carousel Theatre project currently estimated at about \$15,000,000 and will seek BIM deliverables on this project but not COBie deliverables. He expects UT to not require COBie deliverables in the near-term, recognizing the time required for systems growth to efficiently implement COBie deliverables.

3. In the coming weeks, UT will commence solicitation for 10-year master plan projects at the UT Martin, UT Chattanooga and UT Knoxville campuses and he anticipates finalizing these plans in summer 2022.
 - a. Alan Robertson asked for an update on the impact of the COVID pandemic on project planning, design and construction.
 - b. Austin Oakes responded that all projects under construction have stayed active. He noted that 30-40 projects in various stages were temporarily paused but that many have restarted adding that he is optimistic about future projects as conditions with the pandemic improve.
- VIII. SPA Updates and Current Activities – Brian Wilson (STREAM)
1. There are 88 projects in general government identified in the capital budget totaling almost \$483,000,000.
 2. Brian anticipates BIM deliverables on some projects and is in discussions with facilities management to assess the level of interest in implementing COBie deliverables for facility management on BIM projects. Brian will follow up with Chris Byerly regarding STREAM’s intended use of COBie deliverables based on his discussions with facilities management. He does not anticipate a near-term requirement for COBie deliverables while facilities management establishes a structure to implement processes and systems for COBie implementation.
 3. Several Corrections projects were put on hold due to COVID. Brian noted that all but 3 have resumed.
- IX. SPA Updates and Current Activities – Jim Cobb (TTU)
1. The engineering building is currently nearing completion of the design development phase and TTU will be coordinating with OSA regarding the EDP which the designer is targeting for April 2021 and construction is expected to commence in early July 2021.
 2. All 5 recommended projects from TTU for capital maintenance are reflected in the governor’s list.
 3. There are currently 24 active TTU projects totaling \$280,000,000. TTU is performing additional work in the recreation center and the anticipated completion of the lab science building in the coming weeks.
 4. TTU has held a designer kickoff meeting for the Innovation Center Residence Hall and anticipates the RFP for CMGC to be released by the end of February. Jim added that the current estimated project budget is \$29,500,000.
 5. TTU currently has numerous delegated authority projects underway.
 - a. Alan Robertson asked if there were any COVID-related impacts on TTU projects.
 - b. Jim Cobb responded that the biggest COVID-related delays have involved doors, door hardware and HVAC equipment.
- X. SPA Updates and Current Activities – Bill Waits (MTSU)
1. Upcoming MTSU projects include roof projects and site utility projects.
 2. Pending budget approval, MTSU plans to move forward with the design phase for the flight engineering building in July 2021.
 3. The design phase for the School of Concrete and Construction Management is completed and that Phase 1 site utility and demo is underway. Bill stated that this project experienced an early delay on construction fencing due to COVID.
- XI. SPA Updates and Current Activities – Eddie Harkleroad (ETSU)
1. ETSU has current capital maintenance projects pending capital budget approval.
 2. The fine arts building was completed in November 2020 and classes are being conducted in the building, but performances are not being scheduled due to COVID.
 3. The Culp Center is slated to be completed in March 2021, weather permitting.
 4. The main campus electrical upgrade project will add two main feeds.

5. The COVID pandemic resulted in the pause of the Buc Ridge Buildings P & Q project in 2020. Eddie stated this project was resuming and that ETSU expects bids in the following week.
 6. Current ETSU chiller and campus HVAC projects are scheduled to be completed within a couple of months.
 7. A code-corrections project at the “mini dome” (Memorial Center) is underway and most of the work will be completed during the summer academic session.
- XII. Industry Updates and Current Activities – Ashley Cates (AIA)
1. The AIA is working with legislators and industry to reinforce support for capital project throughout the state.
 - a. Alan Robertson asked if the AIA conference will be virtual in 2021.
 - b. Ashley Cates stated that all AIA conferences will be virtual throughout 2021 and noted that pending the level of COVID restrictions, that AIA TN may plan a celebration of architecture projects across the state.
 2. The AIA will have a justice, equity, diversity and inclusion talk in October 2021.
 3. Ashley thanked THEC for providing AIA members an update on potential projects that were requested in the governor’s budget.
- XIII. Industry Updates and Current Activities – Kasey Anderson, Jim Prillaman (ACEC)
1. Kasey emphasized the value of advocacy as legislators consider capital project budgets.
 2. Jim stated that the revised BIM standard improves practical application of BIM. He stated that COBie implementation should be careful and deliberate in order to realize value.
 - a. Ann McGauran thanked industry for researching the impact of COBie deliverables on the design community. Ann noted that OSA is interested in continuing to assess COBie and the desired scope, use and implementation of COBie deliverables by the SPAs. Today’s discussion has shown that SPAs are not currently requiring a COBie deliverable so resolution will likely be delayed until after there are projects to evaluate.
- XIV. Industry Updates and Current Activities – John Gromos (AGC)
1. Supply chain, escalation and building efficiency in a COVID-safe environment are current project challenges. John noted increases in commodity prices such as steel and lumber.
 2. John reiterated the importance of aligning project budget and scope given uncertainties surrounding commodity volatility and escalation.
 3. AGC’s continues to stress awareness of financial constraints for smaller subcontractors at risk for default due to the impacts of COVID.
 - a. Kasey Anderson asked John Gromos if lumber had recently reached a record high in cost. John responded that lumber had reached 2-3 times its cost over the prior year.
 - b. Alan Robertson asked if John knew what was causing the increase.
 - c. John Gromos responded that high demand in private consumer and commercial wood-framed projects coupled with an inability of the lumber market to meet demand due to COVID likely factors into increasing lumber prices.
 - d. Jason Medeiros (AGC) noted a shortage in joists and recommended post and beam construction when possible.
 - e. Ann McGauran noted lumber shortages may also being impacted by wildfires.
 - f. Rich McNeil (AIA) noted supply shortages in lumber and HVAC equipment and stated delays reaching 3 months due to COVID.
 - g. Austin Oakes cited a project experiencing a 6-month lead time on electrical switch gear due to the impacts of COVID.
- XV. Open Discussion
1. Ann McGauran noted that the design and construction industry had remained strong and flexible throughout the COVID pandemic to date citing continued construction and the economic benefits.

2. Alan Robertson stated that OSA would solicit input from QIC members on future topics of interest and opened discussion on the subject.
 - a. Rich McNeil stated that he appreciated the format of round table updates by the QIC members and had found these educational even though there were not questions.
 - b. John Kenny thanked OSA leadership and noted the QIC task force's success in executing and completing major agenda items. John suggested the possibility of inviting the State Fire Marshal's Office to a future QIC meeting. John requested an update on the progress of the project team evaluation data. John Kenny agreed that a questionnaire regarding topics of interest would be valuable.
 - c. Alan Robertson responded that he will be reaching out to the fire marshal's office and keep the QIC members informed of matters of interest especially as it pertains to code adoption cycle. Alan encouraged QIC members to consider other guest agencies for invitation to present at future QIC meetings.
3. Alan Robertson stated that he and Chris Byerly have worked to develop the project team evaluation dashboard and OSA would like to add more data to the evaluation data set in order to achieve a representative sample of evaluations prior to sharing. Chris Byerly added that OSA currently has most of the 2019 team evaluation data compiled into a working data model and that SPA's will be soon receiving a request for 2020 team evaluations for substantially completed projects. Chris noted that acquisition of 2020 data will effectively double the amount of team evaluation data bringing the data set closer to the representative sample required to prepare for publication.
4. Ann McGauran thanked the QIC members for their engagement and their thought leadership toward initiatives of the QIC group.
5. Alan Robertson stated that the next meeting was scheduled for May 12, 2021. The next meeting will likely be virtual but if the meeting is in-person, members would be notified. OSA will also work to provide virtual access to future in-person meetings.

Action Items:

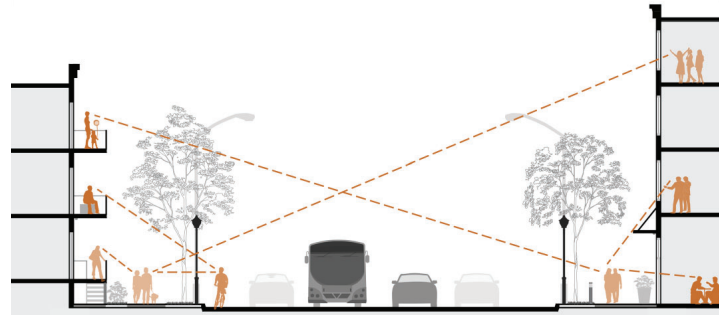
- Brian Wilson to follow up with OSA (Chris Byerly) on anticipated near-term level of interest in COBie deliverables for facility management
- Alan Robertson to send out questionnaire to the QIC members on topics of interest
- Alan Robertson to coordinate with the State Fire Marshal's Office to attend a future QIC meeting
- All QIC members to consider topics of interest for future QIC meetings and to communicate these topics including potential guest speakers to OSA.

Next Meeting: May 12, 2021
Microsoft Teams Meeting

4 Basic Principles of Crime Prevention Through Environmental Design (CPTED)

Natural Surveillance -

- Increases visibility within and around a building or site
- Operates from within the building to the outdoors as well as allowing clear view of the building exterior from outdoors.



Shows clear lines of sight

Natural and Mechanical Access Control-

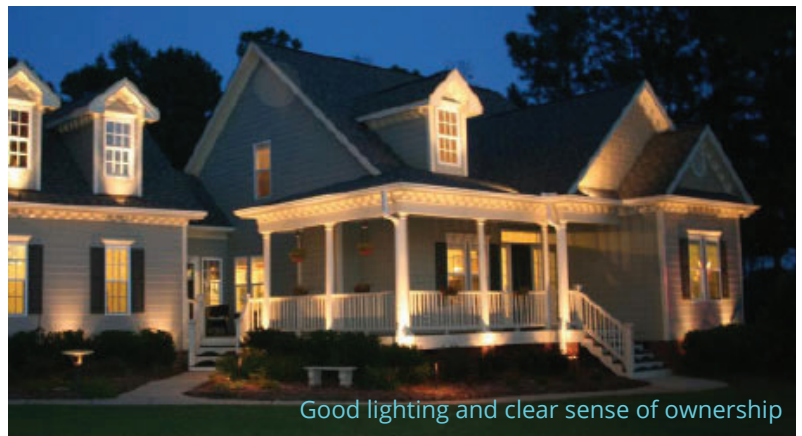
- Creates a real and perceived boundary to deny access to targeted property
- Spatial and circulation patterns can create naturally occurring features to control access
- The intent is to deny ease of access to commit a crime or to prevent escape if a crime is committed



Creates clear boundaries

Territorial Reinforcement-

- Establish a clear sense of ownership by legitimate users and occupants
- Encourages users to challenge unknown persons or unauthorized activity
- Human means of formalizing this are watch groups, neighborhood watch, etc...
- Mechanical means to accomplish this may be items such as motion sensors, cameras, and lighting



Management and Maintenance-

- Spaces must be maintained to an appropriate standard to reflect the building use and importance
- Properly maintained landscape and building exterior demonstrate that the property is cared for and that any irregularity will quickly be noticed and addressed
- Overlaps with the concept of access control by making anything out of place stand out so that legitimate users can easily identify it and investigate.



Exceptional maintenance and poor maintenance

THEC Campus Security Assessment Process Overview

- **Past Milestones in Security Improvement**
 - The Tennessee Board of Regents published their Campus Safety and Security Task Force report to Chancellor David Gregory on September 16, 2016.
 - The primary focus of this report was to prioritize classroom safety through outswing doors and lockable doors from within the classroom (Phase I), replace all egress path panic hardware with updated hardware to prevent unauthorized locking of buildings or doors (Phase II), properly located security lighting and cameras (Phase III)
 - Security funding was provided to the SPAs each year following the TBR report to make significant improvements in these three primary areas.
 - THEC worked with campuses to distribute over 2000 bleeding control stations statewide to provide at least 1 station per regularly occupied building on all main campuses
- **Current THEC Security Initiatives**
 - THEC is continuing to offer Tactical Emergency Casualty Care (TECC) classes as training for the use of the bleeding control stations.
 - This training is offered primarily to campus police and public safety personnel but is open to all campus staff or faculty that wish to participate
 - THEC has partnered with Tennessee Department of Homeland Security (TDOHS) to offer comprehensive campus safety and security assessments for all state campuses wishing to participate in this program.
 - THEC is confirming that all campuses have a current Emergency Operations Plan (EOP)
- **Future Security Goals**
 - Conduct on-campus tabletop crisis response drills with campus staff, local emergency providers by region, and a team of subject matter experts coordinated by THEC staff
 - Offer an advanced higher-ed response course for select campus police department officers that have completed TECC and have a completed security assessment and validated EOP
 - THEC will continue to support safety and security improvements for statewide campuses and systems for all compliant initiatives and programs