
Meeting No.: 10 - Design Development (Day 2 of 2)
Topic: Design Development – Mechanical, Electrical, Plumbing, Site, Landscape, IT, AV and Security Review
Present: Refer to attached Attendance Sheet

1 - Meeting Agenda/Order

The order of review was as follows:

- Mechanical – Electrical – Plumbing (Arup and DSA)
- Site – Landscaping (Wilcox and BRI)
- IT, AV and Security (Sextant)

2 - CMU Review Comments

CMU distributed “CMU Building Committee Review” spreadsheets that summarize their DD review comments:

- Design Development Review Comments OWNER’S NARRATIVE REVIEW (1)
- Design Development Review Comments PLANS (2)
- Design Development Review Comments SPECIFICATION REVIEW (3)

Refer to attached “CMU Building Committee Review” spreadsheets for discussions on each issue.

3 – Additional Consultant Comments

The following comments were made during the review of the drawings. These comments were above and beyond such comments noted on the “CMU Building Committee Review” spreadsheets:

a. Landscape (BRI)

- North parking lot to reflect what is shown on civil’s plan.
- Northeast sidewalk to align with major north-south sidewalk across street.
- DSA to review the existing trees intended to remain and coordinate with snow fencing limits for tree protection.
- Revise north parking lot dimensioning to 18-24-18 rather than 20-20-20.
- DSA to add tunnel location to the site plans.
- Timber edging detail (adjacent to crushed stone paving) – DSA will investigate use of a flexible plastic material (but not metal landscape edging) for edging adjacent to crushed stone paving.
- Raised garden timber planters – will be redesigned with plastic edging.

- Garden and play area fencing – comments and questions were raised regarding using the premanufactured fencing that has been used previously on campus for this fencing instead of the Ametco grid style fencing detailed and specified. The premanufactured decorative fencing is not available with a 3.5" maximum clear space between pickets, a requirement for any state licensed childcare facility. As such, the alternative grid fencing, which is also much more cost effective, was selected. Cut sheets will be provided to CMU for approval.

b. IT, AV and Security (Sextant)

- The campus IT department has reviewed the data and security drawings and will continue to work with DSA as the drawings progress. CMU approves DD layout of IT/AV boxes. Data/phone ports need to be coordinated and shown.
- A question regarding the automatic sprinkler system was briefly discussed and how the programming and control of the devices occurs. It was determined that since the proposed system (TORO) was already in use around the campus that the system was either stand alone or used the campus wireless network and had no impact.
- The plan for locating cameras in all observation rooms and allowing real time viewing and recording of the sessions is to be via a digital video system. It was determined by the campus IT department that they would rather have this reside on their network rather than a separate AV video only network.
- The Sextant Group will start to validate the current design to determine the impact that the video will have on the campus IT network.
- Smart Technologies are the current standard on campus for electronic whiteboards and the newest model 600i with the integral projector is currently being planned for.
- After a discussion of the AV source equipment racks located in the classrooms, the AV department determined that they preferred the slide out type racks rather than a rack on wheels. A minimal amount of ventilation will be needed. Sextant suggested an opening near the toe kick and upper portion of the AV cabinet to create a chimney effect would be sufficient. A fan will be implemented if needed.
- A long discussion of the lectern ensued and it was determined that the KI lectern, although aesthetically pleasing, cannot support the requirements of the instructors. Several other lecterns were shown to the group with no one manufacturer singled out. The functionality of the lectern was determined. It must house a monitor, keyboard and mouse for the resident computer (which will reside remotely in the AV rack). The control system touch panel can double as the monitor to save space if needed but was not a favored solution. There must be room for a laptop, which will be brought in by the instructor. The document camera (visualizer) must reside in the lectern on a drawer or attached to the lectern permanently. A total podium shelf width was suggested to be 32" wide. CMU agreed that it was not a problem to use the AV closet for dvd and video cassette usage. CMU did stress a concern that if equipment is not available at the lectern, the instructors would be less likely to use it. Also, it was suggested that the podium be fixed to the floor to allow for an easier power solution. CMU was in favor of this idea. The idea of designing a custom lectern was discussed and a local company Heartwood Studio was brought up as having done work for the university in the past.
- The Sextant Group will coordinate the lectern selection/design with DSA.

- A question regarding where the acoustical criteria for the project came from was discussed. The acoustical report was created using the American National Standard Institute (ANSI) standards for classroom. (The actual standard is ANSI S12.60-2002 – Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools) This report has been and will continue to be used by the design team in the construction document phase, which will then be reviewed by The Sextant Group's acousticians.
- The following services will be powered during a power failure – emergency lighting, elevator and sump pump. CMU agreed that there isn't a need to keep the server running with power from the generator. A rack mounted UPS will be provided. The cooling system in the server room does not need to run with power from the generator.
- Charter Schools has a server off site.
- Safety doors will shut during power failure.
- From an acoustical stand point, the ceilings at the classrooms and circulation spaces are critical issues (specifically areas located near the glazing wall that run from 1st to 4th floors).
- A security discussion was requested. Such discussion will take place at the December 7th meeting.

4 – Additional Owner Comments

The following comments were noted as areas of concern per CMU:

- CMU is in favor of keeping the display cases on the south wall of circulation 103.
- 3M security system will be specified at the IMC.
- The Food Prep 126A design needs to be re-evaluated. Reducing the size of the Teacher Prep 129A is not acceptable.
- Prequalification must occur 30 days prior to bid date. Contractors to contact CMU only. 989.774.6551. All visits shall be declined. DSA to keep list of interested parties.
- Comments from the DMB shall be addressed as soon as possible. CMU to review comments and responses before resubmission to the DMB.
- CMU to provide a hard copy of CMU standards that the team should be using. DSA will advise with concerns/questions.
- FRP type doors need resolution at the December 7th meeting.
- More time is requested to review future submissions (50% CD drawings, for example) with consultants.
- CMU expressed that the narrative is a vital part of the submission process.
- CMU requested the September 21st meeting minutes.
- CMU requested to review the project schedule and bid date at the December 7th meeting.



- LEED points need to be evaluated. Will the wood chip boiler be worth a point?
- DSA to schedule conference call or meeting between MEP consultants and CMU regarding controls.
- DSA to review structural comments.
- CMU expressed their concern with the several slopes at the metal roofs. DSA explained that they were necessary to achieve the 3:12 slope.

The above represents the items discussed and conclusions reached. If there are any required clarifications please contact the undersigned.

Melanie Hall

Distribution: Central Michigan University
Attendees
DSA project file