
Meeting No.: Design Development 3
Topic: Building Committee Meeting
Present: See attached Attendance Sheet

1. Exterior Finishes – Committee Review and Approval

- 1.1. Slate: Two thickness of slate veneer, 2" and 1 ¼", were presented for review. The color proposed, Grayson Slate by Vermont Structural Slate Company, includes subtle graphite inclusions that provide some material shimmer. DSA is suggesting a natural cleft finish panel that is approximately 15"x30" in size. Pending further technical review, the slate will be placed over a CMU backup. The material is typically installed in a manner similar to other naturally quarried stone and will be set using narrow mortar joints. DSA suggests a dark mortar to enhance a monolithic aesthetic. DSA will review the previous cost estimate to confirm scope / cost of the proposed slate cladding.
- 1.2. Glazing: DSA presented a green tinted glazing (Viracon VE2-2M). The light coloration will balance the reds in the terra cotta and offers some benefits for solar gain. Where spandrel is required, DSA proposes a light gray frit on the number 4 face of glazing. DSA will review current technical data to address possible glazing failure due to internal heat build-up. CMU expressed concern that the recently completed Health Professions building had an internal heat build-up within the thermal unit that caused limited lite failure.
- 1.3. Glazing: DSA presented a clear glazing for limited accent use at entry area. The clear glazing will reduce the possibility of color shifting at these areas.
- 1.4. Metal Panels: DSA presented a composite metal panel system for use as both wall cladding and finished soffit material. The proposed system incorporates most of the rain screen or ventilated wall characteristics that have been discussed with the proposed terra cotta cladding. DSA proposes using a 3 coat (cold weld 300) finish system for both durability and aesthetics.
- 1.5. Terra Cotta Cladding: DSA presented a 33x12 terra cotta cladding panel for proposed use on the exterior of the building. The proposed product would be uniformly colored and would be installed using a stack bond pattern. DSA presented a full-scale mock up of the proposed cladding assembly. The proposed system can be mounted on either a concrete masonry unit (CMU) or cold-formed metal framing (CFMF) back-up system. Many institutional owners prefer the stiffness that a CMU back up assembly offers particularly when constructing masonry veneer buildings. Due to un-grouted nature of the proposed ventilated wall system, DSA is currently reviewing the suitability of using CFMF behind areas clad with terra cotta. The benefits of CFMF include lower installed weight (leading to a reduction in the sizes of structural steel framing members), quick installation times, and ease of installation during winter conditions. CFMF can also offer lower installed costs when used in lieu of a CMU back up. In a typical installation, the CFMF would be sheathed using water-resistive gypsum based sheathing and covered using a weatherproofing membrane.
 - 1.5.1. CMU Comments: CMU has contacted the reference project DSA provided in Des Moines, Iowa. That owner likes the product but noted that it does scuff and scratch and that the product corners are fragile. The contacted owner recommended that the product be detailed to limit pedestrian reach. Currently the CDC is the only location where the terra cotta comes tight to ground. CMU noted that while they like the aesthetic, they remain cautiously interested. Based on input from their contact in Iowa, CMU figures a 20% surcharge over brick. 20% may be \$500,000 premium and CMU remains concerned over the amount currently held in the Owner's contingency. CMU is also concerned that only limited applications of the product have been completed domestically.
 - 1.5.2. A review of possible weather barriers included the following:

- 1.5.2.1. The reference project in Des Moines utilized a layer of ice and water shield behind the support system. In lieu of using mineral wool insulation, DSA is investigating the appropriateness of using a spray-applied, closed cell foam insulation on this project. The system may allow for a more continuous insulative barrier and would also offer superior vapor resistive qualities around the many girts and clips. Option for using spray applied foam. Nice fit with a girt based system.
 - 1.5.3. Summary:
 - 1.5.3.1. DSA to review bidding options with the state: given a limited number of qualified installers within the state, is this an acceptable product to use on a DMB financed project?
 - 1.5.3.2. DSA to investigate possibility of alternate material to keep bidding competitive: could the design proceed using a voluntary alternate?
 - 1.5.3.3. CMU to await information from Germany on installation of the Moeding product.
 - 1.5.3.4. CMU to talk with installers from Ann Arbor, North Oakland, and Iowa to identify possible challenges. DSA provided CMU with the name of the North Oakland YMCA installer. CMU will follow-up with installers in Des Moines and Ann Arbor.
 - 1.5.4. Operable Windows: Operable windows will be provided in assignable offices only. Windows should include operator limiters for safety. Remove handles within offices that are not immediately assigned to a responsible party.
 - 1.5.5. Board of Trustees: The Board of Trustees will convene informally on September 13, 2006 for a review of the proposed project. DSA will assist CMU in this process and will be present to address questions by the Board.
2. **Building Plans Update:** Committee Review and Approval: DSA presented current building plans for all floors. These plans include comments received from CMU on August 7 and represent the approved plans for Design Development. The following comments were noted during the review of all floors:
- 2.1. North Wing and Child Development Center Updates: DSA presented a revised plan for the North Wing. This development addresses a number of outstanding design issues including the orientation of the pre-function space, a more successful presentation of the auditorium, and a more refined spatial integration of the North Wing into the larger whole. The sculptural form acts as a foil to the more rigorously planned south tower and provides additional area for Mechanical. Cost and Complexity Benefits: proposing a slate cladding for the North Wing. Introduces people into the auditorium. Vertically oriented panels to soften radii... pre-function interior character. Working with the university, DSA would like to option possible display and presentation areas.
 - 2.2. Child Development Centers: DSA presented some information given at a recent national conference on the design and planning of Child Development Centers. Many of the conference goals aligned with the attitude and direction previously provided by CMU. DSA continues to investigate the development of a complex environment that includes variety of colors, lighting qualities, materials, and opportunities for exploration. Transitions and arrival between the center and the outside world remains an area of significant study and interest. It is important to provide a sense of arrival and identity.
 - 2.2.1. Storage and Display: while the proposed corridor display areas have a limited and largely internal "audience", display areas are extremely important to the end users. Students at CMU are tasked with instructional bulletin boards and these areas would offer students a real world environment. Chalkboards low mounted for foul weather and integral floor games striping would be useful options for consideration as the design progresses. CMU recommends including one small, tall cabinet in each classroom for immediate clean-up. Drain in floor at the mud-room. DSA continues to monitor the relative efficiency of the plans.
 - 2.3. Loading Dock: DSA proposes a building recess in lieu of canopy at the loading area.

- 2.4. Auditorium: the proposed auditorium is configured with 200 seats. A sound and data control room has been provided at the back of the auditorium. DSA is working with design team to verify the acoustical requirements of the space. CMU expressed concern over the durability of standard fabric wrapped panels. "Fuzz" behind wood slat (similar to a product used at the University of Michigan) may be a possibility. DSA has used this product successfully on past projects, though a perforated wood panel may also offer similar benefits.
 - 2.5. Reading area: storage / observation areas are present but will be labeled differently in subsequent releases.
 - 2.6. Doors into the toilet rooms may be on hold opens – DSA continues to review code requirements with functional needs of CMU.
 - 2.7. Food Prep Area: A horizontally acting, tambour style door would be appropriate in lieu of a standard coiling grille.
 - 2.8. Utilities: DSA will continue its review of the proposed remote mechanical area with the design team. CMU requests additional information on how utilities and systems are carried into and out of the proposed remote mechanical area. The basement level mechanical room will likely be reduced in basement. DSA does not have final sizing information on mechanical units, but if reduced, 2 means of egress from the basement may not be required. DSA to investigate.
 - 2.9. Centers area: DSA proposed swapping the electrical and janitor's closets on all floors. The switch will address a couple of outstanding plan challenges including space constraints within the centers and also the size of the main floor janitor's closet. CMU will provide a list of equipment for main janitor's closet that includes the size and infrastructure requirements for typically stored items.
 - 2.10. Roofing: DSA proposes using the approved green roof assembly for the single story roof areas including the Auditorium and CDC area.
 - 2.11. Number of toilet stalls: do the current plans indicate an appropriate distribution of fixtures throughout the first floor? DSA will review the code required number of fixtures and will place fixtures based on anticipated usage and efficient construction methods.
 - 2.12. DSA continues to investigate options for closing off the South Wing during special events.
 - 2.13. Departmental Comment and Review: Review of the Green Sketches
 - 2.13.1. Omit "Testing" and "Interview" labels from offices having that designation currently.
 - 2.13.2. Charter Schools: Tech, Finance, Exec. Director in the corner. CMU noted that the comments made by Charter Schools were largely incorporated into the plans; they will be pleased with the results.
 - 2.13.3. North wall of the South Wing has high levels of articulation – Why? Programmatic challenges... (3) Planes on one wall.
 - 2.13.4. Level 2 – Okay; no comments.
 - 2.13.5. Level 3 – DSA will add a door near counseling and the existing small conference room (per meeting sketch). DSA will rotate the GTA to make a better workroom per meeting sketch.
 - 2.13.6. Level 4 – CSS / TEPD testing, CSS interview (label generically). Comment by Diane: CSS / TEPD – visual continuity should the students be away.
 - 2.13.7. Dean's Suite: The Associate Dean's office (currently 188 sf) should be greater than 150 sf in the final configuration. DSA will continue development within the Dean's Suite and will provide additional design information at future meetings.
3. **Schedule Update:** Committee Review and Approval
- 3.1. Review of revised Agenda Schedule: As noted in the meeting held July 28, 2006, DSA believes that the project is approximately 4 weeks behind the previously published schedule dated June 6, 2006. A revised schedule dated August 10, 2006 was distributed for review and comment. The revised schedule reflects recent efforts by CMU and the Design Team to confirm and finalize departmental programming and spatial configuration requirements. Based upon the discussion of this meeting (August 10) the plans as presented were approved for use throughout Design



Development. Based upon the revised schedule, CMU will be reviewing Design Development documents beginning on November 3, 2006.

- 3.2. Review of DMB process: DSA has retained the previously proposed schedule for submitting information to the Department of Management and Budget. Currently our Preliminary Design Development (Phase 400) submittal is scheduled for October 25, 2006.

4. **Next Meeting:** August 24, 2006

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

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Distribution: Meeting attendees
Project Design Team
DSA project file