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Facilities  
Office of the University Architect

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**CAMPUS DESIGN REVIEW PANEL**  
**MEETING MINUTES – August 26, 2020**  
**Zoom Meeting**  
**1:30 – 2:30 PM**

<b>Attendees:</b>	Bill Davis	Imran Aukhil	Patrick Deaton
	Chip Andrews	Julieta Sherk	Sumayya Jones-Humienny
	Eric Hawkes	Lisa Johnson	Tom Skolnicki
<b>Additional</b>	David Hill	Doug Morton	Meg Calkins
<b>Distribution:</b>	Donna McGalliard		
<b>Guests:</b>	Lynn Swank	Srinath Ekkad	Allen Boyette (for D. Morton)

**Approval of Minutes**

The panel approved the July 29, 2020 meeting minutes with no exceptions.

**Project for Review:**

1. **Engineering Building III Aircraft Display**, Submittal #169

Site: Centennial Campus Precinct

Hardscape Design: Lynn Swank, Capital Project Management, Facilities Division

Display Representative: Srinath Ekkad, Mechanical and Aerospace Engineering (MAE) Department Head, College of Engineering

- a. **Project Description:** The scope comprises installation of a small aircraft on the north side of Engineering Building III for Mechanical and Aerospace Engineering and hardscaping. The donated aircraft is a Rutan Long EZ. It will be a non-functioning display used as an educational tool as well as an artful installation. The Public Art Acquisition Committee, University Communications, and user group have approved the aircraft wrap design (graphics). The siting of the display and modifications to the site require CDRP review.
- b. **Master Plan Summary:** Shared Open Spaces provide opportunities for the display of university community projects, research, etc. that reveal the character of the activities in the neighborhood. As a Campus Green, the edges of The Oval feature a variety of gathering spaces while leaving the center of

the main space dominated by an expanse of lawn. The aircraft display provides a focal point for one of these side spaces that speaks to the learning and research of both Mechanical Engineering and Aerospace Engineering disciplines.

### **Project Background:**

Lisa Johnson noted that review by the CDRP, responsible for site selection and modifications, complements that of the Public Art Committee, responsible for art and/or display design and graphics. Other such art acquisition installations include: The Global Courtyard, which developed the courtyard around the “Dream of Flight” sculptures; the “Coaches Corner” sculpture/tatues; the J.C. Raulston Arboretum entry gates; the Randall B. Terry, Jr. Companion Animal Veterinary Medical Center “Swimming Retriever”; and the Wolf Plaza “Woven Bronze Wolves.” Additional information on the Public Art Committee can be found at: <https://facilities.ofa.ncsu.edu/resources/public-art/>

University Communications developed the wrap design. The MAE student chapter will maintain the display and remove it, if/when necessary. The MAE department will provide any needed funding.

Srinath Ekkad explained the father and son donors are both alumni of NC State University. The father, who has since passed away, built and flew this experimental aircraft to test this unique design. The plane is stationary with the intent of having students touch it and view the cockpit that will be unlocked for educational tours.

### **Presentation:**

This is the panel’s first review of the project.

1. Lynn Swank reviewed the several site locations considered, noting the site chosen at the northwest corner of Engineering Building III (EB III) provides proximity to the MAE department, a visible connection to The Oval, and the appropriate scale for the 26’-0” wide by 16’-0” long aircraft. The plane display will also help to activate the otherwise little-used courtyard.
2. Pavers in a semicircle will be added around the plane sloping at 2% to a relocated catch basin. The plane will be mounted into five concrete footings below the pavers with anchor brackets.
3. The vinyl graphic wrap has both NC State and MAE department branding with an anticipated five-year lifespan.

### **Panel Discussion:**

1. Do the new pavers around the plane adjacent to the existing walk have enough tactile differentiation to provide warning to visually impaired people for cane detection of objects projecting farther out than four inches, per ADA regulations? Yes, pavers providing this tactile differentiation warning will be installed.
2. What prevents or discourages people from climbing on the plane? Signage will be installed and the area will be monitored. If warranted, a rail around the plane may be installed.
3. Were options for mounting the plane to mimic flight considered? Yes, but the intent is for students to interact with the plane. In addition, the plane is too heavy and would need more structural modifications, which are cost-prohibitive.
4. Were other finishes and designs considered? Yes, and the selected option is truest to the original design and simpler than the others. The vendor can either re-wrap the vinyl to freshen it when the colors fade/stain, or remove the vinyl with a heat torch and install a new wrap over the entire aircraft. This is a simpler process than painting, which requires sanding, priming, and painting steps.
5. The paver area around the plane doesn’t appear wide enough for groups of people to gather and walk around it. The paver area can be expanded, although the intent was to make use of as much as possible of the existing pavers.
6. Add moveable furniture to further activate the space for study and other outdoor activities. Furniture funded by a different effort is slated to go there to enable students to sit outside.

**Panel Action:**

The panel approved the site and site design and requested that the following directives be incorporated:

1. *Extend the new paving further east into the courtyard to allow better access around the display.*
2. *Installation and maintenance costs will be the responsibility of the Department of Mechanical and Aerospace Engineering.*
3. *Final exterior material selections will be based on samples reviewed on site by the Office of the University Architect.*

**Status of Projects in Planning:**

Upcoming projects include:

1. Mann Hall Structural Repairs including window replacement and column wraps.
2. STEM Building: The state legislature approved split funding for the new \$160M “Integrative Sciences Building”. \$7M is designated for the planning phase, starting with site selection analysis. Designer selection will be complete in October. Design and construction phases will each last about 2-1/2 years.

**Status of Projects in Construction:**

1. The Academic Success Center at DH Hill Library is completing now.
2. The Fitts-Woolard Hall classrooms were completed for use this fall. The exterior Partners Way plaza and punch list items are still in progress. A phased move-in of occupants is underway.
3. Carmichael Wellness and Rec Center will complete this fall.

**Next Meeting(s)**

The next meeting is scheduled for September 30, 2020 from 1:30 – 4:00 PM via Zoom.

**The meeting adjourned at 2:15.**



**CAMPUS DESIGN REVIEW PANEL**  
**MEETING MINUTES – July 29, 2020**  
**Zoom Meeting**  
**1:30 – 3:00 PM**

<b>Attendees:</b>	Bill Davis	Eric Hawkes	Meg Calkins
	Chip Andrews	Imran Aukhil	Patrick Deaton
	David Hill	Lisa Johnson	Sumayya Jones-Humienny
<b>Additional</b>	Donna McGalliard	Julieta Sherk	Tom Skolnicki
<b>Distribution:</b>	Doug Morton	Mike Kapp	

**Approval of Minutes**

The committee approved the May 27, 2020 meeting minutes with no exceptions.

**Project for Review:**

1. **Greek Village Phase 4 Infrastructure, Townhouses, and Apartments**, Submittal #168

Site: South Campus Precinct

Architect: Jenkins Peer Architects (Ben Benson), KWK Architects (Paul Wuennenberg, Javier Esteban), Stewart (Courtney Landoll, Joe Puckett)

Facilities Project Manager: Mike Kapp

Fraternity and Sorority Life Director: Shelly Brown-Dobek

- a. **Project Description:** The Project includes development of approximately 13.6 acres and 105,188 square feet of new construction. Project details include: A new four-Story Apartment Building (63,156 GSF) with 147 beds in primarily 3- and 4-bed apartments; A new three-story Townhouse A (24,050 GSF) with 75 beds spread over 3 Townhomes, a commercial kitchen, dining; A new three-story Townhouse B (17,980 GSF) with 57 beds spread over 6 Townhomes; Five new chapter house lots (lots 5,6,7, 15, and 21); and the demolition of two existing chapter houses and four field lab structures. Grading, roadways, utilities, parking (+/-120 new parking spaces) to support the new buildings are included in the scope.
- b. **Master Plan Summary:** As an anchor building for Greek Village, the apartment building is an opportunity to strengthen the character of the Great Lawn, a Campus Green that has potential to be a memorable, iconic Shared Open Space that promotes a sense of community and identity. Since it faces a primary entrance to the village, Townhouse B should have an appropriate level of detail and reflect the

character of the village. The density of the townhouses and apartments should be leveraged to increase the vibrancy of Greek Village by creating thoughtful connections and interstitial spaces such as porches and balconies. The Dan Allen Drive streetscape is an important connection to Central Campus, and the streetscape of this Connector Path shall create a comfortable, safe experience for pedestrians.

**Presentation:**

This is the panel's second review of the project. A CDRP working group, comprised of David Hill, Meg Calkins, Patrick Deaton, Lisa Johnson, Tom Skolnicki, and Sumayya Jones-Humienny, worked with the design team to address the panels' previous review comments. The design team presented following responses:

1. *Provide more information on the storm water management strategy and design for large and small events:*
  - a. *What is the nature of the wet ponds and their plant palettes?*

The wet pond integrates biodiversity for storm water cleansing with a plant palette that produces year-round color. There are six levels of plantings to provide more visual variety: lower-shelf emergents; upper-shelf emergents; groundcover; shrubs; understory trees; and canopy trees. The wet pond could not be located in the oval because of conflicting grades and Duke Energy's existing power transmission line easement restrictions.
  - b. *Can more devices be closer to the sources throughout this phase?*

Three bio-retention devices have been strategically located at the storm water infrastructure to treat storm water before it flows to the pond. These are planted with multiple-species – massing them by type. These areas are readily visible from the buildings, sidewalks, and parking lots as educational opportunities.
  - c. *Can the larger devices be amenities for the neighborhood?*

The year-round color and variety provided by the plantings will enhance the pond as a visual amenity and functional, sustainable storm water cleanser. A sidewalk surrounds the majority of the pond area perimeter and the pond edge grading, ranging from 6:1 to 3:1 slopes, allows for some casual access; however, the water's edge is heavily planted to discourage pond entry.
  - d. *How will the devices be maintained?*

The pond edge grading, ranging from 6:1 to 3:1 slopes, also allows for maintenance vehicles around the entire pond perimeter.
  - e. *What safety measures and fall protection are needed for maintenance at any steep slopes and retaining walls?*

There are no steep drops in grade. The retaining wall is seat height on either side. The maximum slope is 3:1 or 33%.
2. *Add shade trees on the south and west sides of all three buildings to ameliorate seasonal heat.*

Canopy shade trees have been added along the south and west sides of the buildings and integrated into the bio-retention areas. The tree palettes in Phase 4 blend with those in Phases 1-3.
3. *The Apartments' front arcade needs a grander expression to mitigate the scale of the building. Consider extending the arcade in width, depth, and/or height.*

A front entry has been raised to a two-story height using the same architectural language as the entry tower for a grander expression.

4. *Townhouse A's front porch columns differ in architectural style from the side porches. Select one style over the other to maintain consistency, while differentiating scale to define entrance hierarchy.*  
Raised, light-colored brick bases were added to the front porch columns for consistency with the side porch columns. The front porch columns remain taller to differentiate main entrance hierarchy.
5. *Establish a stronger relationship between the apartment building and the rear parking lot. Contemplate a hierarchy for the sidewalks to the primary and secondary entrances for intuitive wayfinding.*  
Additional landscaping has been added between the parking lot and rear of the Apartment building to dress up the entrance areas and walks.

To provide hierarchy, walks have been categorized by different widths: 8'-0" widths complement Greek Village precedent connector paths and designate access to the main entrance of the Apartment building; 6'-0" widths designate secondary access to other building entrances; and 5'-0" widths designate tertiary access to unit entrances.

ADA access to Townhouse B has been increased to the entire building perimeter by adding red brick site walls to raise the walks up to the entrances. All site walls in this phase are now the same red brick material.

6. Provide a cost per bed estimate by building type, with separate line items for site and infrastructure improvements.  
The cost-per-bed analysis by building type showed that these costs fall within the projected cost ranges of the Student Housing Master Plan, completed last year.

**Panel Action:**

The panel recommended approval and requested that the following design directives be incorporated in the design:

1. *Final exterior material selections will be based on field-erected sample panels reviewed by the Office of the University Architect.*

**Status of Projects in Planning:**

Upcoming projects include:

1. Airplane Display at Engineering Building III
2. Ricks Hall 2<sup>nd</sup> Floor Renovation
3. Page Hall Renovation
4. Mann Hall Structural Repairs (window replacement)
5. Varsity Drive Parking Lot: this project has been placed on hold due to coronavirus greatly reducing parking fees, which were supposed to fund this project.
6. STEM Building: The state legislature approved split funding for the new \$160M "Integrative Sciences Building". 7\$M is designated for the planning phase, starting with site selection analysis. Designer selection will begin in August and complete around October. Design and construction phases will each last approximately 2-1/2 years.

**Next Meeting(s)**

The next meeting is scheduled for August 26, 2020 from 1:30 - 3:30 PM via Zoom.

**The meeting adjourned at 2:45.**



**CAMPUS DESIGN REVIEW PANEL**  
**MEETING MINUTES – May 27, 2020**  
**Zoom Meeting**  
**1:30 – 4:00 PM**

**Attendees:** Chip Andrews Patrick Deaton Donna McGalliard  
Imran Aukhil Eric Hawkes Ven Poole  
Meg Calkins David Hill Tom Skolnicki  
Bill Davis Sumayya Jones-Humienny

**Additional Distribution:** Shelly Brown Dobek Mike Kapp Julieta Sherk  
Lisa Johnson Doug Morton

**Approval of Minutes**

The committee approved the February 26, 2020 meeting minutes with no exceptions.

**Project for Review:**

**1. Greek Village Phase 4 Infrastructure, Townhouses, and Apartments, Submittal #168**

Site: South Campus Precinct

Architect: Jenkins Peer Architects (Ben Benson), KWK Architects (Paul Wuennenberg, Javier Esteban), Stewart (Courtney Landoll, Joe Puckett)

Facilities Project Manager: Mike Kapp

- a. **Project Description:** The Project includes development of approximately 13.6 acres and 105,188 square feet of new construction. Project details include: A new four-Story Apartment Building (63,156 GSF) with 147 beds in primarily 3- and 4-bed apartments; A new three-story Townhouse A (24,050 GSF) with 75 beds spread over 3 Townhomes, a commercial kitchen, dining; A new three-story Townhouse B (17,980 GSF) with 57 beds spread over 6 Townhomes; Five new chapter house lots (lots 5,6,7, 15, and 21); and the demolition of two existing chapter houses and four field lab structures. Grading, roadways, utilities, parking (+/-120 new parking spaces) to support the new buildings are included in the scope.
- b. **Master Plan Summary:** As an anchor building for Greek Village, the apartment building is an opportunity to strengthen the character of the Great Lawn, a Campus Green that has potential to be a memorable, iconic Shared Open Space that promotes a sense of community and identity. Since it faces a primary entrance to the village, Townhouse B should have an appropriate level of detail and reflect the

character of the village. The density of the townhouses and apartments should be leveraged to increase the vibrancy of Greek Village by creating thoughtful connections and interstitial spaces such as porches and balconies. The Dan Allen Drive streetscape is an important connection to Central Campus, and the streetscape of this Connector Path shall create a comfortable, safe experience for pedestrians.

**Presentation:**

- a) Several factors, including budget considerations and the need to leave the MEAS Field Lab in place, caused the need to rethink the master plan for Greek Village. The revisions eliminate a driveway entrance onto Varsity Drive, improve the relationships of the chapter houses to each other, and result in a more balanced distribution of parking spaces. The solution calls for developing 4 house sites originally slated for Phase 5. Building these sites in Phase 4 contributes to a significant reduction in project costs, and will result in a village that appears more finished as compared to the original phasing plan.
- b) Storm Water Management. The plan will expand the pond south of the townhouses to address storm water for all proposed and future development. There is a separate storm water control measure for lots 5, 6, 7, and 15.
- c) Parking: The lot to the south of the primary SCM is intended to serve the apartments. The townhouses and lot 21 are served by an addition to the parking built in Phase 2. Lots 5, 6, 7, and 15 are served by parking south of those lots.
- d) The apartment building has two major entries (north and south), and 4 independent entrances to emphasize identity for those organizations. The building is on axis with the round-about, and the materials are in keeping with those already in the village. The roof on the center tower is metal standing seam, with two-toned shingles on the remainder. The facades feature subtle brick patterns to provide interest, and two textures on the fiber cement siding (textured board and smooth battens) for detail.
- e) Townhouse A contains 3 units of 25 beds each plus 1 staff apartment. The intent is to keep the building residential in scale and to provide unique entries and porch space for each unit. Similar materials to the apartments are used, while working to give each unit a unique identity. Porches provide place of prospect.
- f) Townhouse B is a more complex footprint, with a pinwheel layout around a central stair and elevator to provide a common core for 6 units of varying numbers of beds. Four units are 2 stories tall, and two are 3 stories. A mechanical room to serve all units is tucked into attic space.

**Discussion:**

- a) Regarding the economic relationships of the organizations with the university: Organizations contribute toward common development. The university keeps 2/5% for administrative overhead to collect rents, pay all house directors' salaries, and pass any remainder through the chapters.
- b) What if units do not fill up? House corporations leasing in Townhouse A are responsible to fill 25 beds and certify they have insurance to cover their liability. Apartments will function more like University Housing apartments, signing individual leases with students. Apartments are targeted to support chapter members, but won't exclude non-members.
- c) On the apartment building, the one-story arcade is not a big-enough gesture to handle the scale of the building, and to transition to human scale.
- d) Are most people coming in from the parking lot side to these buildings? What is the relationship of the buildings to the parking?
- e) Shade trees seem to be needed on the south and west sides of the buildings.
- f) The storm water strategy was discussed. The panel members asked why a more distributed strategy was not being employed, hearing that the proposed solutions builds on the 2006 Greek Village master plan, which established a regional storm water approach.



- g) The grades of some slopes seem excessive when considering the safety of people maintaining those areas.

**Panel Action:**

The Panel recommends the below design directives be incorporated and presented to the Panel at a future meeting. A CDRP working group was identified as a resource for these directives.

1. *Provide more information on the storm water management strategy and design for large and small events:*
  - a. *What is the nature of the wet ponds and their plant palettes?*
  - b. *Can more devices be closer to the sources throughout this phase?*
  - c. *Can the larger devices be amenities for the neighborhood?*
  - d. *How will the devices be maintained?*
  - e. *What safety measures and fall protection are needed for maintenance at any steep slopes and retaining walls?*
2. *Add shade trees on the south and west sides of all three buildings to ameliorate seasonal heat.*
3. *The Apartments' front arcade needs a grander expression to mitigate the scale of the building. Consider extending the arcade in width, depth, and/or height.*
4. *Townhouse A's front porch columns differ in architectural style from the side porches. Select one style over the other to maintain consistency, while differentiating scale to define entrance hierarchy.*
5. *Establish a stronger relationship between the apartment building and the rear parking lot. Contemplate a hierarchy for the sidewalks to the primary and secondary entrances for intuitive wayfinding.*

**The meeting adjourned at 2:45.**



**CAMPUS DESIGN REVIEW PANEL**  
**MEETING MINUTES – February 26, 2020**  
**Primrose Hall Conference Room**  
**1:30 – 4:00 PM**

- |                      |                |                        |                  |
|----------------------|----------------|------------------------|------------------|
| <b>Attendees:</b>    | Chip Andrews   | Eric Hawkes            | Ven Poole        |
|                      | Imran Aukhil   | David Hill             | Julieta Sherk    |
|                      | Meg Calkins    | Lisa Johnson           | Tom Skolnicki    |
|                      | Bill Davis     | Doug Morton            |                  |
| <b>Additional</b>    | Patrick Deaton | Sumayya Jones-Humienny | Donna McGalliard |
| <b>Distribution:</b> | Melanie Butler | Ken Satterwhite        |                  |

**Approval of Minutes**

The committee approved the October 21, 2019 meeting minutes with no exceptions.

**Project for Review:**

1. **College of Veterinary (CVM) Medicine Dairy Facility**, Submittal #166

Site: West Campus Precinct

Architect: HH Architecture (Siler Ransmeier, Nicholas Zastrow), Erdy McHenry Architecture (David McHenry), Surface 678 (Eric Davis)

Facilities Project Manager: Melanie Butler

- a. **Project Description:** The new CVM Dairy Facility (10,940 GSF) will be located on the Teaching Animal Unit (TAU) farm adjacent to the CVM academic facilities. The facility includes an animal housing area for the resident dairy herd, a new milking parlor, a veterinarian’s room, milk room, equipment room, restroom, and observation area. The design features an efficient and modern layout, with all-weather observation and direct access for cows to pasture, as well as improved treatment stalls and new equipment for milking, feed delivery, water, and waste handling. The facility will allow the Dairy Unit to expand the herd to 35-40 cows and will help ensure the College can continue to meet the highest standards for the DVM professional curriculum.
- b. **Master Plan Summary:** The Pastures at CVM are one of the university’s nine Hallowed Places. The new barn design and siting should enhance the character of the current pastures and should not impact the views to the historic barns from Hillsborough Street.

**Presentation:**

- a) A primary goal of the project is to provide a state-of-the-art facility for learning in which students see and experience dairy cows in the context of all aspects of a modern dairy operation.
- b) The building is arranged to streamline the workflow of the dairy, provide safe access of the cows to pasture, and afford areas for students to observe the operations in the milking parlor and milking pit.
- c) The south end of the building is open allowing the cows to have unrestricted access between the free stalls and the pastures. The north end of the building is more enclosed to control access.
- d) The sides of the barn are relatively open, being covered with a bird screens and rolling shades. Gables are covered with polycarbonate panels for sun control.
- e) Options for the structure being explored in glulam, steel and hybrids systems.
- f) A concrete structure adjacent to the barn receives solid waste that is flushed from the barn so that it can be dried, stacked and removed.

**Discussion:**

- a) Would eaves or overhangs provide better shading to reduce heat gain in the barn? The design team's strategy is to use passive ventilation through the open sides for cooling.
- b) How does materiality fit with the existing context of the historic barns? Why not use masonry? Given the open design of the barn, there is not a good opportunity for a masonry base.
- c) Why doesn't the roof shape match those of the historic barns? The goal for this building is to keep the roof no higher than is needed for the program so that the dairy facility remains subordinate to the historic barns.
- d) On the south gable, the peak at the bottom of the polycarbonate seems odd. Suggest carrying the bottom straight across and use punched openings like on the historic barns.
- e) Shade trees, especially on the southwest corner of the building would shade the building and provide shade to the herd outside of the barn. In addition to the challenge of keeping trees healthy with the herd underneath them, the college wants to minimize roosting of birds in and around the building as the pose a health risk.
- f) In the feed lane, how easy the roll-up doors are to operate may dictate if they get closed routinely (to reduce access for birds.)

**Panel Action:**

The panel recommended approval and requested that the following design directives be incorporated in the design:

1. *Consider other shape options that better relate to the historic barns for the south elevation – the polycarbonate material in the gable end.*
2. *Final exterior material selections will be based on field-erected sample panels reviewed by the Office of the University Architect.*

The panel recommended adding trees near the barn to assist with climate control and aesthetics but **subsequent to the meeting** Dean Lunn requested that trees not be planted near the barn as they would be a potential nesting place for song birds. The birds can be vectors for disease such as salmonella which they get from the local resident geese. The college plans to rely on moving large amounts of air through the barn when it is hot out. They wet the cows down periodically throughout the day during hot weather and use the air circulation to provide evaporative cooling.

**Status of Projects in Planning**

L. Johnson noted that there are no projects slated for review in the next couple of months, therefore, the next couple of meetings will more than likely be canceled.

**The meeting adjourned at 2:30.**