# National Architectural Accrediting Board, Inc.

March 10, 2014

Ann Weaver Hart President Administration Building, Room 712 1401 East University Boulevard P.O. Box 210066 Tucson, Arizona 85721-0066

Dear President Hart:

At the February 2014 meeting of the National Architectural Accrediting Board (NAAB), the board reviewed the Visiting Team Report for Initial Accreditation (VTR-IA) for the University of Arizona, School of Architecture.

As a result, the professional architecture program:

### **Master of Architecture**

was formally granted a three-year term of initial accreditation. The accreditation term is effective January 1, 2013. The program is scheduled for its next accreditation visit in 2016. As stated in the 2012 Procedures for Accreditation, Amended, following an initial three-year term, at the next scheduled review, the program must receive an eight-year term of accreditation.

Continuing accreditation is subject to the submission of Annual Statistical Reports, which are submitted online through the NAAB's Annual Report Submission system and are due by November 30 of each year. This report captures statistical information on the institution in which a program is located and the degree program.

A complete description of the Annual Statistical Report process can be found in Section 10 of the NAAB Procedures for Accreditation, 2012 Edition, Amended. The program is not required to submit an Interim Progress Report.

Finally, under the terms of the 2012 Procedures for Accreditation, programs are required to make the Architecture Program Report, the VTR-IA, and related documents available to the public. Please see Section 3. Paragraph 8 (page 22), for additional information.

The visiting team has asked me to express its appreciation for your gracious hospitality.

Shannon B. Kraus, FAIA, NCARB, MBA, ACHA President-elect

Robert Miller, AIA, Director Marzette Fisher, Visiting Team Chair

Visiting Team Members



1101 Connecticut Avenue, NW

Suite 410

Washington, DC 20036

tel 202.783.2007

fax 202.783.2822

www.naab.org

info@naab.org

CC:

Enc.

University Arizona School of Architecture: CALA

# **Initial Accreditation Visiting Team Report**

M. Arch (professional degree + 59 graduate credit hours))

The National Architectural Accrediting Board 25 September 2013

The National Architectural Accrediting Board (NAAB), established in 1940, is the sole agency authorized to accredit U.S. professional degree programs in architecture. Because most state registration boards in the United States require any applicant for licensure to have graduated from an NAAB-accredited program, obtaining such a degree is an essential aspect of preparing for the professional practice of architecture.

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# I. Summary of Team Findings

# 1. Team Comments & Visit Summary

The University of Arizona's College of Architecture and Landscape Architecture offers the oldest design and urban planning programs in the state. The College of Architecture's goal is to develop a professional M. Arch degree that leverages existing academic and physical resources to complement its keystone five-year B. Arch degree—the only five-year B. Arch degree offered in Arizona.

The College of Architecture, Planning, and Landscape Architecture (CAPLA) is guided by Dean Janice Cervelli and Director Robert Miller whose collective vision, leadership, and resourcefulness cannot be understated. They have skillfully navigated financial challenges (both anticipated and unanticipated) and developed creative answers to program delivery that should serve as models by other colleges in the university.

Faculty and staff are dedicated, passionate, and talented. Students are bright, articulate, and hard-working, which is common in a master's program. Student designs are thoughtful and responsive to current issues of environment, energy, and context. Students have the opportunity to work on projects with students from the Illinois Institute of Technology. The Chicago experience is a departure from the Sonoran desert, serving to broaden the opportunity for academic and cultural exposure.

Having just graduated its first cohort, the master's program is working to reach its potential. Faculty and students are adjusting to the rigor of a demanding professional program. Student performance outcomes are mixed and somewhat below the expectation for a program at this stage in its development. The team has confidence the program will achieve its potential.

### 2. Conditions Not Met

A4 Technical Documentation (Ability)

B2 Accessibility (Ability)

B4 Site Design (Ability)

B5 Life Safety (Ability)

**B6** Comprehensive Design (Ability)

B11 Building Service Systems (Understanding)

C3 Client Role in Architecture (Understanding)

C7 Legal Responsibilities (Understanding)

C8 Ethics and Professional Judgment (Understanding)

## 3. Causes of Concern

### **Condition I.2.4 Financial Resources**

In recent years, financial resources and university administrative support have been unstable, causing the school to react to reduced state funding in a careful and strategic manner. The current thinking is the period of instability has passed; however, budget and resource concerns remain.

# **B. 6. Comprehensive Design**

Student design work did not satisfy a majority of the SPC required for this criterion. The team felt design principles embodied in each criterion were not properly represented, indicating a lack of ability to make design decisions across scales and integrate required SPC in the designs.

# 4. Progress Since the Previous Site Visit (2011)

**2009 Condition I.2.4, Financial Resources:** An accredited degree program must demonstrate that it has access to appropriate institutional and financial resources to support student learning and achievement.

**Previous Team Report (2011)**: Final budgets are not yet completed. There is a lot of stress due to financial considerations of the state of Arizona and its funding that places major impact on the budget. Some substantial increase in tuition has been made already and it may mean that more may have to occur.

The school needs to develop scholarship and fellowship funding to support the M. Arch program's recruitment and enrichment efforts.

**2013 Team Assessment:** Financial Resources are a cause for concern. See comment above.

**2009 Condition I.2.5, Information Resources:** The accredited program must demonstrate that all students, faculty, and staff have convenient access to literature, information, visual, and digital resources that support professional education in the field of architecture

Further, the accredited program must demonstrate that all students, faculty, and staff have access to architecture librarians and visual resources professionals who provide information services that teach and develop research and evaluative skills, and critical thinking skills necessary for professional practice and lifelong learning.

Previous Team Report (2011): The Architecture Library is housed amidst the Science and Engineering Library some ways across campus, thus not easily accessible from the CAPLA buildings (though it is a pleasant place to study). Although the collection is adequate, the university library system has been dealing with budget cuts and reorganization. This has meant that CALA has only one-fifth of a devoted library staff person to oversee and manage their collection, or to engage the school population to develop the students' research skills, or help faculty with teaching materials. The central library is utilizing some ingenious acquisition strategies that may overcome this lack of user-need attention, but the team is still concerned that there seems to be less of a library culture than one might want in a school hoping to provide a deep and broad education. (Perhaps of concern too is the lack of access to an image collection for teaching support and student research. However, this is possibly less and less of a problem in the age of Flikr and the like. And the school has some self-generated alternative solutions that help, such as its Imagine system.)

2013 Team Assessment: Although the library is across campus from CAPLA, library staff work regularly with assistant and associate professors Robinson and Schrenk to keep architecture titles current. Relevant digital periodicals are available online and new title requests are rarely denied. The previous team's concern over the need for a library culture in a professional program is desirable; however, significant breadth and depth of resources are available in the main library. The Internet and its associated digital media are having a marked impact on the culture of reading and access to resources. The team did not share the previous team's concerns and found access to media not ideal, but workable.

**2009 Criterion A.2, Design Thinking Skills:** Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

# 2013 Team Assessment: This criterion is met.

**2009 Criterion A.3, Visual Communication Skills**: *Ability to* use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion A.4, Technical Documentation:** *Ability* to make technically clear drawings, write outline specifications, and prepare models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: Models and drawings in ARC 510f do not clearly identify materials and systems. Student work from ARC 510f and ARC 541 did not indicate an ability to prepare outline specifications or life safety code reviews. Student work from ARC 541 did not indicate an ability to integrate building service systems in building designs, resolve life safety and accessibility issues, use dimensioning protocols, and relate drawings and specifications to the actual building design. This criterion is not met.

**2009 Criterion A.6, Fundamental Design Skills:** *Ability to* effectively use basic architectural and environmental principles in design.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion A.7, Use of Precedents:** *Ability* to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion A.8, Ordering Systems Skills:** *Understanding* of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

Previous Team Report (2011): The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion A.9, Historical Traditions and Global Culture:** Understanding of the basic principles and legal aspects of practice organization, financial management, business planning, time and project management, risk mitigation, and mediation and arbitration as well as an understanding of trends that affect practice, such as globalization, outsourcing, project delivery, expanding practice settings, diversity, and others.

**Previous Team Report (2011)**: ARC 530 is a robust and well-conceived course, exposing students to a wide breath of world architecture. Yet, while it provides an initial foundation for achievement of this SPC, it does not fulfill all of the required aspects. Future teams will be able to assess this criterion once the remaining three courses in this sequence have been offered.

**2013 Team Assessment**: Critical reviews, analyses, and examination essays from ARC 533 provide evidence of compliance using examples of geographical range and historical precedent from Europe and Central and South America. Similar examples were found in exam essays and sketch/notebook examples from ARC 571s. This criterion is met.

**2009 Criterion A.10, Cultural Diversity:** *Understanding* of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion A.11, Applied Research:** *Understanding* the role of applied research in determining function, form, and systems and their impact on human conditions and behavior.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion B.1, Pre-Design:** Ability to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion B.2, Accessibility:** Ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

**2013 Team Assessment:** Student work observed did not show evidence of an ability to design sites and buildings to accommodate individuals with disabilities or an ability to properly integrate accessible design principles in building solutions. This criterion is not met.

**2009 Criterion B.3, Sustainability:** Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion B.4, Site Design:** *Ability* to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

**2013 Team Assessment:** The team did not find evidence of students' ability to meet this criterion in designated course 510d or an *ability* to design for watershed (site drainage), topography (grading plans), selection of appropriate plant material, hardscape, or site lighting. This criterion is not met.

**2009 Criterion B.5, Life Safety:** Ability to apply the basic principles of life-safety systems with an emphasis on egress.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

**2013 Team Assessment:** Courses ARC 541 Contract Documents and ARC 510f Advanced Studio 3: Technical Investigation Comprehensive Design are designated to meet this criterion. Evidence was not found that supports students' ability to apply principles of life safety in building design. This criterion is not met.

**2009 Criterion B.6, Comprehensive Design:** Ability to produce a comprehensive architectural project that demonstrates each student's capacity to make design decisions across scales while integrating the following SPC:

- A.2. Design Thinking Skills
- A.4. Technical Documentation
- A.5. Investigative Skills
- A.8. Ordering Systems
- A.9. Historical Traditions and Global Culture
- B.2. Accessibility
- **B.3. Sustainability**
- B.4. Site Design
- B.5. Life Safety
- B.7. Environmental Systems
- **B.9.Structural Systems**

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

**2013 Team Assessment:** The team did not find evidence of students' abilities in the following areas:

- · outline specifications
- ramps slopes/safety, awareness of ADAAG guidelines
- site drainage, site lighting, utilities, specification of hardscape, or plant material
- · minimum life safety exits for occupancy type
- conceptual understanding of basic mechanical system types and their integration in building designs.

This criterion is not met.

**2009 Criterion B.7, Financial Considerations:** *Understanding* of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and construction estimating with an emphasis on life-cycle cost accounting.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009** Criterion B.8, Environmental Systems: Understanding the principles of environmental systems' design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion B.9, Structural Systems:** *Understanding* of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion B.10, Building Envelope Systems:** *Understanding* of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion B.11, Building Service Systems:** *Understanding* of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

**2013 Team Assessment:** In reviews of courses Arc. 510f, Arc. 520f, and Arc. 541, the team did not find evidence of the students' understanding of building service systems and how to integrate them in a building design. Also in Contract Documents (Arc. 541) systems such as plumbing, electrical, vertical transportation, security, and fire protection were not consistently shown. This criterion is not met.

**2009 B.12, Building Materials and Assemblies Integration:** *Understanding* of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion C.1, Collaboration:** Ability to work in collaboration with others and in multidisciplinary teams to successfully complete design projects.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion C.2, Human Behavior:** *Understanding* of the relationship between human behavior, the natural environment and the design of the built environment.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion C.3, Client Role in Architecture:** *Understanding* of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

**2013 Team Assessment:** Student work in courses 541 or 559a did not show consistent evidence of the students' understanding of the architect's obligation to understand the needs of the people who use, commission, or pay for the buildings they design. This criterion is not met.

**2009 Criterion C.4, Project Management:** *Understanding* of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion C.5, Practice Management:** *Understanding* of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion C.6, Leadership:** *Understanding* of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

**2009 Criterion C.7, Legal Responsibilities:** *Understanding* of the architect's responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

**2013 Team Assessment:** The team did not find evidence of students being exposed to registration laws and responsibilities, building codes/regulations, zoning and subdivision ordinances, historic preservation, and accessibility laws. This criterion is not met.

**2009 Criterion C.8, Ethics and Professional Judgment**: *Understanding* of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues, and responsibility in architectural design and practice.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

**2013 Team Assessment:** Evidence was not found that ARC 559a presented issues of professional judgment in practice or evaluation of case studies of ethical situations. A stated goal of ARC 559a is to cover professionalism and the architect's ethical responsibility to address the current climate crisis, the 2030 Challenge, and case studies of well-known ethical situations. Evidence of an understanding of these issues was not consistent in examples of student work. This criterion is not met.

**2009 Criterion C.9, Community and Social Responsibility:** *Understanding* of the architect's responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.

**Previous Team Report (2011)**: The program has not yet reached the point in the curriculum when this course work is offered.

2013 Team Assessment: This criterion is met.

# II. Compliance with the Conditions for Accreditation

Part One (I): INSTITUTIONAL SUPPORT AND COMMITMENT TO CONTINUOUS IMPROVEMENT

Part One (I): Section 1. Identity and Self-Assessment

# I.1.1 History and Mission:

[X] The program has fulfilled this requirement for narrative and evidence.

**2013 Team Assessment:** As stated in the APR and reinforced by the draft 2013–2018 Strategic Plan, CAPLA has embraced the role of advancing the University of Arizona's commitment to environmental sustainability, entrepreneurialism, and health with the development of several initiatives including the Sustainable City Project, a master's in Real Estate Development, and the Institute for Place and Well-Being. It also fulfills its primary mission of developing highly skilled design professionals by pursuing a program strategy rooted in practice-based principles. This approach is driven by the curriculum, coupled with the inclusion of professionals from the community as adjunct faculty. Eight of fifteen current faculty members are practicing professionals—a relatively high percentage. This also supports the academic mission.

CAPLA also recognizes its role within a major research university and supports faculty research. According to faculty work displayed, four of the tenure-track faculty, who primarily teach in the graduate program, are engaged in research in areas such as regional modernism, performance movement and space, chronicling world's fairs and exposition history, and an analysis of the impact of traditional campus centers within the university culture.

The program recognizes the need to develop both stronger interdisciplinary and outreach opportunities for the graduate program.

## I.1.2 Learning Culture and Social Equity:

 Learning Culture: The program must demonstrate that it provides a positive and respectful learning environment that encourages the fundamental values of optimism, respect, sharing, engagement, and innovation between and among the members of its faculty, student body, administration, and staff in all learning environments both traditional and non-traditional.

Further, the program must demonstrate that it encourages students and faculty to appreciate these values as guiding principles of professional conduct throughout their careers, and it addresses health-related issues, such as time management.

Finally, the program must document, through narrative and artifacts, its efforts to ensure that all members of the learning community: faculty, staff, and students are aware of these objectives and are advised as to the expectations for ensuring they are met in all elements of the learning culture.

Social Equity: The accredited degree program must provide faculty, students, and staff—irrespective of race, ethnicity, creed, national origin, gender, age, physical ability, or sexual orientation—with a culturally rich educational environment in which each person is equitably able to learn, teach, and work. This includes provisions for students with mobility or learning disabilities. The program must have a clear policy on diversity that is communicated to current and prospective faculty, students, and staff and that is reflected in the distribution of the program's human, physical, and financial resources. Finally, the program must demonstrate that it has a plan in place to maintain or increase the diversity of its faculty, staff, and students when compared with diversity of the institution during the term of the next two accreditation cycles.

[X] The program has demonstrated that it provides a positive and respectful learning environment.

[X] The program has demonstrated that it provides a culturally rich environment in which each person is equitably able to learn, teach, and work.

**2013 Team Assessment** The school fosters a positive and respectful learning environment for students, staff, faculty, and administrators. This is seen in the school policy on studio culture, the director's directive on studio policy, the technology policy, and the student code of conduct.

The program demonstrates a culturally rich environment in which students, staff, faculty, and administrators are equally able to learn, teach, and work. This is seen in cross-disciplinary collaboration with the School of Landscape Architecture and Planning (ARC 510b and ARC 526) and CAPLA's lecture series. Students and faculty, however, have noted that a higher level of integration within the college is necessary. Students expressed a desire to have more opportunities to take electives in other disciplines, especially those related to the major, such as ones offered in the School of Landscape Architecture and Planning.

The school is diverse in its faculty and student population.

**I.1.3 Response to the Five Perspectives**: Programs must demonstrate through narrative and artifacts, how they respond to the following perspectives on architecture education. Each program is expected to address these perspectives consistently within the context of its history, mission, and culture and to further identify as part of its long-range planning activities how these perspectives will continue to be addressed in the future.

A. Architectural Education and the Academic Community. That the faculty, staff, and students in the accredited degree program make unique contributions to the institution in the areas of scholarship, community engagement, service, and teaching.¹ In addition, the program must describe its commitment to the holistic, practical and liberal arts-based education of architects and to providing opportunities for all members of the learning community to engage in the development of new knowledge.

[X] The program is responsive to this perspective.

**2013 Team Assessment** The program makes unique contributions to architectural education and the academic community in scholarship, community engagement, service, and teaching. Evidence is seen in design-build pedagogy, invited participation in the Solar Decathlon (solar house prototype), the design of bus shelters for the cities of Tucson and Marana, and the Camp Architecture initiative (for high school students).

The faculty also brings diverse backgrounds, cultural experiences, and perspectives to the classroom and studio, creating a unique learning opportunity for students. Students embrace the knowledge and skill sets of the faculty via peer-based learning exchanges of ideas expressed in discussions with the NAAB team. The faculty is focused on a practitioner-based studio education.

The program also embraces a liberal arts–based education, providing opportunities for faculty to engage in pursuit of new pedagogical strategies demonstrated by CAPLA's belief in Boyer's five pillars of teaching and learning: scholarships of discovery, integration, application, teaching, and engagement. The liberal arts learner–centered approach focuses on principles of:

- 1. Development of self-reliance and the love of learning
- 2. Teaching-scholarship link
- 3. Effective domain development
- 4. Experiential learning
- 5. Preparation for professional practice

<sup>&</sup>lt;sup>1</sup> See Boyer, Ernest L. Scholarship Reconsidered: Priorities of the Professoriate. Carnegie Foundation for the Advancement of Teaching. 1990.

B. Architectural Education and Students. That students enrolled in the accredited degree program are prepared: to live and work in a global world where diversity, distinctiveness, selfworth, and dignity are nurtured and respected; to emerge as leaders in the academic setting and the profession; to understand the breadth of professional opportunities; to make thoughtful, deliberate, informed choices and; to develop the habit of lifelong learning.

# [X] The program is responsive to this perspective.

**2013 Team Assessment** The program promotes a learning environment in which diversity is addressed through respect for the individual's thoughts, work, and life experiences. Students are exposed to diversity through daily interaction with their peers who arrive from culturally diverse backgrounds. The program attracts students from a variety of demographic regions, across the nation and other countries, creating a special and unique mix. A high percentage of students are the first generation from working-class families to pursue a higher degree.

The program supports a variety of leadership organizations available to graduate students. They include Student Council, AIAS, Freedom by Design, and U.S. Green Building Council. Efforts are under way to get graduate students more involved in these organizations; AIAS has hosted photography competitions, portfolio charrettes, faculty dinner auctions, Tucson and Phoenix firm crawls, a Beaux Arts ball, and Canstruction. During our visit, the AIAS hosted a dodge-ball tournament in which faculty and undergraduate and graduate students all participated.

The program offers citizenship and service committee opportunities; committees include curriculum, graduate admissions, faculty search, accreditation, and lecture series. Students who participate gain valuable life experiences and insights into the culture of working in a firm. These opportunities help students develop thinking skills and make informed professional and lifelong learning choices.

From discussion with graduate students as well as alumni, the team sensed a group of motivated leaders with a strong desire to expand their knowledge. These students value hard, hands-on work and participating with professionals in the workforce. Students are eager to expand their academic horizons in multiple disciplines through electives.

C. Architectural Education and the Regulatory Environment. That students enrolled in the accredited degree program are provided with: a sound preparation for the transition to internship and licensure within the context of international, national, and state regulatory environments; an understanding of the role of the registration board for the jurisdiction in which it is located, and; prior to the earliest point of eligibility, the information needed to enroll in the Intern Development Program (IDP).

# [X] The program is responsive to this perspective.

2013 Team Assessment According to Dean Cervelli, a stated objective for the M. Arch. curriculum is that it be practice-based; accordingly, approximately 68% of faculty are credentialed practitioners. Lecturer Michael Kothke is the Intern Development program coordinator. Courses ARC 541 Contract Documents and ARC 550c Ethics and Practice introduce students to professional topics and the value of the IDP program. Historically, NCARB has provided lecturers who discuss the value of the intern experience and becoming registered. The program plans to make the lectures permanent annual events.

D. Architectural Education and the Profession. That students enrolled in the accredited degree program are prepared: to practice in a global economy; to recognize the impact of design on the environment; to understand the diverse and collaborative roles assumed by architects in practice; to understand the diverse and collaborative roles and responsibilities of related disciplines; to respect client expectations; to advocate for design-based solutions that respond to the multiple

needs of a diversity of clients and diverse populations, as well as the needs of communities and; to contribute to the growth and development of the profession.

# [X] The program is responsive to this perspective.

2013 Team Assessment The team found the program leadership and faculty are committed to preparing students for the practice of architecture. The dean and chair presented a clear vision and commitment to leveraging the school's physical and human resources to prepare students for practice. The new Master of Architecture program builds on the strengths of its successful and well-regarded Bachelor of Architecture program. Faculty teach in both the B. Arch. and M. Arch. programs. The school's professional engagement is evidenced by both the high percentage of licensed faculty (66% overall) and the high percentage of adjunct faculty practicing in the community; approximately 75% of course credits are delivered by adjuncts, which provides students with excellent professional role models.

Students interviewed were clearly aware of the path to professional practice and excited about the prospect. While the program is clearly committed to preparing students for practice, the team found that a number of criteria representing students' actual preparedness for practice were not met. While excellent evidence of design fundamentals was seen, evidence of ability with regard to critical professional criteria such as accessibility, site design, life safety, and comprehensive design was inconsistent. There was little evidence in either syllabi or student work regarding the significance of building codes, which codify our profession's responsibility to public health, safety and welfare. The team did not find examples of specification writing in course work presented.

It is clear to the team that faculty members have not yet fully brought to bear their wealth of professional skills and knowledge as they have their excellent design experience in order to prepare master's students for practice. While not yet relevant to the master's program, it was noted the University of Arizona's examination pass rates equaled or exceeded the national average in four of seven divisions; therefore UA graduates are performing well in achieving their professional credentials.

E. Architectural Education and the Public Good. That students enrolled in the accredited degree program are prepared: to be active, engaged citizens; to be responsive to the needs of a changing world; to acquire the knowledge needed to address pressing environmental, social, and economic challenges through design, conservation and responsible professional practice; to understand the ethical implications of their decisions; to reconcile differences between the architect's obligation to his/her client and the public; and to nurture a climate of civic engagement, including a commitment to professional and public service and leadership.

# [X] The program is responsive to this perspective.

**2013 Team Assessment** The CAPLA has created the Drachman Institute and the Drachman Design-Build Coalition, well-known and respected for community engagement, planning, urban sustainability, service learning, and construction. Although there wasn't yet enough evidence that graduate students are engaged in these programs, there is an understanding of the role these resources have in the overall program and the profession.

**I.1.4 Long-Range Planning**: An accredited degree program must demonstrate that it has identified multiyear objectives for continuous improvement within the context of its mission and culture, the mission and culture of the institution, and, where appropriate, the five perspectives. In addition, the program must demonstrate that data is collected routinely and from multiple sources to inform its future planning and strategic decision making.

[X] The program's processes meet the standards as set by the NAAB.

**2013 Team Assessment** The team found evidence the program has multiyear objectives for continuous improvement through a strategic plan. Evidence was also relayed in discussions with the dean and the director of the program. A current strategic plan for the college was presented guiding future directions for the program; however, the team found no evidence of significant roles played by faculty, staff, or students in the plan.

# **I.1.5 Self-Assessment Procedures**: The program must demonstrate that it regularly assesses the following:

- How the program is progressing towards its mission.
- Progress against its defined multi-year objectives (see above) since the objectives were identified and since the last visit.
- Strengths, challenges and opportunities faced by the program while developing learning opportunities in support of its mission and culture, the mission and culture of the institution, and the five perspectives.
- Self-assessment procedures shall include, but are not limited to:
  - Solicitation of faculty, students', and graduates' views on the teaching, learning and achievement opportunities provided by the curriculum.
  - o Individual course evaluations.
  - o Review and assessment of the focus and pedagogy of the program.
  - o Institutional self-assessment, as determined by the institution.

The program must also demonstrate that results of self-assessments are regularly used to advise and encourage changes and adjustments to promote student success as well as the continued maturation and development of the program.

# [X] The program's processes meet the standards as set by the NAAB.

**2013 Team Assessment** The dean has a clear vision for the college and presented a draft of a strategic five-year plan with very specific objectives, tactics, metrics, and accountable faculty identified. These goals are aligned with university research priorities to create a "100 percent engaged" student body, while establishing partnerships with business, community, and government. The director personally conducts exit interview meetings with graduating students for constructive feedback. Self-assessment activities include the annual Distribution of Effort (DOE) report, Annual Performance Reviews (APR), and the Faculty Status Committee's reviews of tenure track and adjunct status.

The curriculum committee reviews and addresses school curricula by program (B. Arch, M. Arch, MS Arch) and stream (studio, design communications, history/theory, practice, and technology). Committee members are peer-elected. The evolution of courses and corresponding student performance criteria confirm the chair's and curriculum committee's commitment to improvement through self-assessment. According to faculty review comments, a challenge to the curriculum review process is adequate representation of graduate faculty on the committee. In a school with a relatively large, established undergraduate professional program, it is important for those teaching graduate courses to be heard to include relevant courses reflecting student and faculty reviews, pedagogical objectives and assessment. Students participate in course and faculty evaluations at the end of each semester; the surveys are now obtained digitally. The fact that the program is responsive to student feedback was borne out by current students and recent graduates who cited particular areas of recent improvement, such as increased contact with the Landscape Architecture program and stronger seminars.

The program imposes multiple levels of self-assessment and implementation. Regular feedback is solicited from students, staff, administrators, professionals, and internal and external faculty; for example:

- The director meets weekly with the dean and CAPLA administrators.
- The curriculum committee, with stream coordinators, meets biweekly to review and tune curricula.
- Studio professors post sample high- and low-work from every studio after final reviews every semester for input from other studio and nonstudio professors and the director.

- The director visits and offers comments on every studio and lecture course during the semester.
- Each semester, every studio hosts outside critics for final juries.
- Each semester, the dean hosts a college retreat for input on teaching and the academic culture.
- The director conducts an annual exit interview with graduating students.
- The director submits an annual report on the architecture program to the NAAB.
- Every eight years, the university undergoes an academic program review.

Self-assessment procedures include special surveys of students and faculty on specific issues, focus meetings with students on specific concerns to the school such as the AIAS meeting on studio culture, special studies and reports on issues impacting the program such as the director's report on the "Impact of Differential Tuition," and the university-led strategic planning effort.

The 2013–2018 strategic plan for the College of Architecture and Planning and Landscape Architecture was made available for the team's review by the dean.

# PART ONE (I): SECTION 2 - RESOURCES

# I.2.1 Human Resources & Human Resource Development:

- Faculty & Staff:
  - O An accredited degree program must have appropriate human resources to support student learning and achievement. This includes full and part-time instructional faculty, administrative leadership, and technical, administrative, and other support staff. Programs are required to document personnel policies which may include but are not limited to faculty and staff position descriptions<sup>2</sup>.
  - o Accredited programs must document the policies they have in place to further Equal Employment Opportunity/Affirmative Action (EEO/AA) and other diversity initiatives.
  - An accredited degree program must demonstrate that it balances the workloads of all faculty and staff to support a tutorial exchange between the student and teacher that promotes student achievement.
  - An accredited degree program must demonstrate that an IDP Education Coordinator has been appointed within each accredited degree program, trained in the issues of IDP, and has regular communication with students and is fulfilling the requirements as outlined in the IDP Education Coordinator position description and regularly attends IDP Coordinator training and development programs.
  - An accredited degree program must demonstrate it is able to provide opportunities for all faculty and staff to pursue professional development that contributes to program improvement.
  - Accredited programs must document the criteria used for determining rank, reappointment, tenure and promotion as well as eligibility requirements for professional development resources.

# [X] Human Resources (Faculty & Staff) are adequate for the program

**2013 Team Assessment** The program has capable, full- and part-time instructional faculty, administrative leadership, and technical, administrative, and support staff to provide student learning and achievement. Personnel policies for faculty, staff, and the student handbook were available in the team room including:

Policy statement on academic appointment, promotion, tenure, and post tenure criteria for tenure-eligible faculty

Statement on the faculty distribution of effort assignment

Policy on funding faculty development

The guide for faculty searches

EEO/AA diversity policy is available at http://www.equity.arizona.edu/equal\_employment\_policy and http://www.hr.arizona.edu/policy/100, which documents program policies in place to further Equal Employment Opportunity/Affirmation and other diversity initiatives.

The program's annual distribution of effort (DOE) assignment document confirms the goal to balance the workloads of faculty and staff. Each faculty member has a distribution of effort assignment sheet that documents the balance of work between, teaching, student advising, research/scholarship/creative works, service/outreach, administration, and special assignments. A typical workload for tenure/track faculty is 60% teaching, 20% research/creative activity, and 20% service. According to comments made in meetings with adjunct faculty, specific workloads vary and do not include research; but do include service activities.

<sup>&</sup>lt;sup>2</sup> A list of the policies and other documents to be made available in the team room during an accreditation visit is in Appendix 3.

The program's IDP coordinator, Michael Kothke, is an NCARB certificate holder and meets regularly with students. He communicates with NCARB's and Arizona's IDP coordinators. He also reinforces the IDP message through courses ARC 493/593.

Opportunities for faculty and staff professional development contributing to program improvement is limited, but is evident in opportunities for travel and participation in conferences and exhibitions, and also the materials labs that ably support faculty teaching and outreach.

Finally, evidence for criteria used for determining rank, reappointment, tenure, promotion, and eligibility requirements for professional development resources is found in the faculty, staff and, student handbook of the College of Architecture, Planning and Landscape Architecture adopted 1/25/11.

# Students:

- An accredited program must document its student admissions policies and procedures. This documentation may include, but is not limited to application forms and instructions, admissions requirements, admissions decisions procedures, financial aid and scholarships procedures, and student diversity initiatives. These procedures should include first-time freshman, as well as transfers within and outside of the university.
- An accredited degree program must demonstrate its commitment to student achievement both inside and outside the classroom through individual and collective learning opportunities.

# [X] Human Resources (Students) are adequate for the program

**2013 Team Assessment** Student admissions policies and procedures are documented in the university catalogue at <a href="http://catalog.arizona.edu/2012-13/">http://catalog.arizona.edu/2012-13/</a>. Admission documents, including application forms and instruction, admissions requirements, admission procedures, financial aid and scholarship procedures are on the web site. Web site documents include procedures for first-time freshman and transfer students within and outside the university; however, links on information on student diversity initiatives were not found.

The M. Arch. admissions committee is composed of the program chair, graduate advisor, and two faculty members in the M. Arch. studio. There are placement and advanced placement policies.

According to meetings with administrators, staff and the academic advisor, students are directly monitored for achievement through their respective academic advisors. Graduate students have the support and guidance from their program chair and graduate advisor. For IT support, students have access to full- and part-time staff; for material lab support, two staff members and shop monitors are available.

# I.2.2 Administrative Structure & Governance

Administrative Structure: An accredited degree program must demonstrate it has a measure of administrative autonomy that is sufficient to affirm the program's ability to conform to the conditions for accreditation. Accredited programs are required to maintain an organizational chart describing the administrative structure of the program and position descriptions describing the responsibilities of the administrative staff.

# [X] Administrative Structure is adequate for the program

**2013 Team Assessment:** Administrative autonomy is clear and documented by the administrative structure and governance chart. The organizational chart, position descriptions, and responsibilities are available in the faculty, staff, and student handbook of the College of Architecture, Planning and Landscape Architecture, the College bylaws, and at http://cala.arizona.edu.

 Governance: The program must demonstrate that all faculty, staff, and students have equitable opportunities to participate in program and institutional governance.

# [X] Governance opportunities are adequate for the program

**2013 Team Assessment:** College governance is administered through bylaws reflecting equitable opportunities for faculty, staff, and students to have a voice. This governance protocol is in the faculty, staff, and student handbook of the College of Architecture, Planning and Landscape Architecture, the College and at http://cala.arizona.edu.

**I.2.3 Physical Resources**: The program must demonstrate that it provides physical resources that promote student learning and achievement in a professional degree program in architecture. This includes, but is not limited to the following:

- Space to support and encourage studio-based learning
- Space to support and encourage didactic and interactive learning.
- Space to support and encourage the full range of faculty roles and responsibilities including preparation for teaching, research, mentoring, and student advising.

# [X] Physical Resources are adequate for the program

**2013 Team Assessment:** The newly completed CAPLA east wing contains generous graduate studio space, faculty (part- and full-time) offices, and a 7,000 sq. ft. materials lab and fabrication studio. Studios have dedicated work space for each student and ample pin-up space. Classrooms are located in the new wing and original building. The program does not require hot desks. The materials lab includes a remarkable range of spaces and tools for fabrication, including a state-of the-art digital fabrication lab. The University of Arizona's entry in the 2009 U.S. Department of Energy's Solar Decathlon Solar House Competition (SEED – POD) was actually constructed in the lab. Administrative offices, including those for the dean, School of Architecture director, and graduate advising offices, are ample and accessible on the first and second floors.

**I.2.4 Financial Resources**: An accredited degree program must demonstrate that it has access to appropriate institutional and financial resources to support student learning and achievement.

# [X] Financial Resources are adequate for the program

2013 Team Assessment: Dean Cervelli and Director Miller have managed the program's financial resources admirably under repeat stresses of university-imposed cuts, changing university administrations, and a decrease in program enrollment. In spite of these obstacles, the program has not laid off personnel or compromised curriculum. The near-term budget forecast is not totally resolved; however, with new university president Hart, stability and transparency have been restored and future funding challenges will be met collaboratively, with program input.

**I.2.5 Information Resources**: The accredited program must demonstrate that all students, faculty, and staff have convenient access to literature, information, visual, and digital resources that support professional education in the field of architecture.

Further, the accredited program must demonstrate that all students, faculty, and staff have access to architecture librarians and visual resources professionals who provide information services that teach and develop research and evaluative skills, and critical thinking skills necessary for professional practice and lifelong learning.

# [X] Information Resources are adequate for the program

**2013 Team Assessment:** In discussion with history professors Clare Robinson and Lisa Schrenk, as well as the team's visit to the central library, the team found facilities and resources to be adequate. Library resources dedicated to the program include approximately 23,300 books, 3,663 e-books, 1,497 electronic resources, 5,075 serials, 212 videos, and over 10 databases. Within reason, librarians order any title requested by faculty and students. The library's resource budget has proven to be sufficient to support necessary program resources. The librarian also noted that, as a member of the Association of Architectural School Librarians, the library endeavors to comply with the AASL's recommended core list of periodicals.

### PART I: SECTION 3 - REPORTS

**I.3.1 Statistical Reports**<sup>3</sup>. Programs are required to provide statistical data in support of activities and policies that support social equity in the professional degree and program as well as other data points that demonstrate student success and faculty development.

- Program student characteristics.
  - Demographics (race/ethnicity & gender) of all students enrolled in the accredited degree program(s).
    - Demographics compared to those recorded at the time of the previous visit.
    - Demographics compared to those of the student population for the institution overall.
  - Qualifications of students admitted in the fiscal year prior to the visit.
    - Qualifications of students admitted in the fiscal year prior to the upcoming visit compared to those admitted in the fiscal year prior to the last visit.
  - o Time to graduation.
    - Percentage of matriculating students who complete the accredited degree program within the "normal time to completion" for each academic year since the previous visit.
    - Percentage that complete the accredited degree program within 150% of the normal time to completion for each academic year since the previous visit.
- Program faculty characteristics
  - Demographics (race/ethnicity & gender) for all full-time instructional faculty.
    - Demographics compared to those recorded at the time of the previous visit.
    - Demographics compared to those of the full-time instructional faculty at the institution overall.
  - Number of faculty promoted each year since last visit.
    - Compare to number of faculty promoted each year across the institution during the same period.
  - Number of faculty receiving tenure each year since last visit.
    - Compare to number of faculty receiving tenure at the institution during the same period.
  - Number of faculty maintaining licenses from U.S. jurisdictions each year since the last visit, and where they are licensed.

# M. Arch

[X] Statistical reports were provided and provide the appropriate information

**2013 Team Assessment:** Information on student and faculty characteristics is found in the APR (page 90 and pages 150–186).

**I.3.2.** Annual Reports: The program is required to submit annual reports in the format required by Section 10 of the 2009 NAAB Procedures. Beginning in 2008, these reports are submitted electronically to the NAAB. Beginning in the fall of 2010, the NAAB will provide to the visiting team all annual reports submitted since 2008. The NAAB will also provide the NAAB Responses to the annual reports.

The program must certify that all statistical data it submits to NAAB has been verified by the institution and is consistent with institutional reports to national and regional agencies, including the Integrated Postsecondary Education Data System of the National Center for Education Statistics.

The program is required to provide all annual reports, including statistics and narratives that were submitted prior to 2008. The program is also required to provide all NAAB Responses to annual reports transmitted prior to 2008. In the event a program underwent a Focused Evaluation, the Focused

<sup>&</sup>lt;sup>3</sup> In all cases, these statistics should be reported in the same format as they are reported in the Annual Report Submission system.

Evaluation Program Report and Focused Evaluation Team Report, including appendices and addenda should also be included.

# [X] Annual Reports and NAAB Responses were provided and provide the appropriate information

**2013 Team Assessment:** Hard-copy annual reports were provided during the visit and were also found on the university web site: <a href="http://architecture.arizona.edu/accreditation-status-and-professional-registration">http://architecture.arizona.edu/accreditation-status-and-professional-registration</a>.

**I.3.3 Faculty Credentials**: The program must demonstrate that the instructional faculty are adequately prepared to provide an architecture education within the mission, history and context of the institution.

In addition, the program must provide evidence through a faculty exhibit that the faculty, taken as a whole, reflects the range of knowledge and experience necessary to promote student achievement as described in Part Two. This exhibit should include highlights of faculty professional development and achievement since the last accreditation visit.

### M. Arch

[X] Faculty credentials were provided and demonstrate the range of knowledge and experience necessary to promote student achievement.

**2013 Team Assessment:** Faculty credentials were included in the APR and found in the faculty exhibit in the team room and on the second floor of the CAPLA west building. Registration rates are 64% for permanent, 67% for adjunct, and 66% for faculty overall.

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<sup>&</sup>lt;sup>4</sup> The faculty exhibit should be set up near or in the team room. To the extent the exhibit is incorporated into the team room, it should not be presented in a manner that interferes with the team's ability to view and evaluate student work.

PART ONE (I): SECTION 4 - POLICY REVIEW

The information required in the three sections described above is to be addressed in the APR. In addition, the program shall provide a number of documents for review by the visiting team. Rather than be appended to the APR, they are to be provided in the team room during the visit. The list is available in Appendix 3.

# [X] The policy documents in the team room met the requirements of Appendix 3

**2013 Team Assessment:** The APR provided supplementary policy statements, and these also were supplied in the Team Room such that all required in Appendix 3 were found. Policies found were:

- Studio Culture Policy
- Self-Assessment Policies and Objectives
- · Personnel Policies including:

Position descriptions for all faculty and staff

Rank, Tenure, and Promotion

Reappointment

EEO / AA

Diversity (including special hiring initiatives)

Faculty Development, including but not limited to:

research, scholarship, creative activity, or sabbatical.

Student-to-Faculty ratios for all components of the curriculum

(i.e., studio, classroom/lecture, seminar)

2012-2013 student: teacher ratios were:

M. Arch III - 12:1

M. Arch II - 13:1

M. Arch I — 10:1

- Square feet per student for space designated for studio-based learning
- Square feet space per faculty member designated for support of faculty activities and responsibilities
- · Admission requirements
- Advising policies: including policies for evaluation of candidates admitted from preparatory or preprofessional programs where SPC are expected to have been met in educational experiences in non-accredited programs
- · Policies on use and integration of digital media in architecture curriculum
- Policies on academic integrity for students (e.g., cheating and plagiarism)
- Policies on library and information resources collection development
- · A description of the info. literacy program and how it is integrated with the curriculum

# PART TWO (II): EDUCATIONAL OUTCOMES AND CURRICULUM

PART TWO (II): SECTION 1 – STUDENT PERFORMANCE -- EDUCATIONAL REALMS & STUDENT PERFORMANCE CRITERIA

**II.1.1 Student Performance Criteria:** The SPC are organized into realms to more easily understand the relationships between individual criteria.

Realm A: Critical Thinking and Representation:

Architects must have the ability to build abstract relationships and understand the impact of ideas based on research and analysis of multiple theoretical, social, political, economic, cultural and environmental contexts. This ability includes facility with the wider range of media used to think about architecture including writing, investigative skills, speaking, drawing and model making. Students' learning aspirations include:

- Being broadly educated.
- · Valuing lifelong inquisitiveness.
- · Communicating graphically in a range of media.
- Recognizing the assessment of evidence.
- · Comprehending people, place, and context.
- · Recognizing the disparate needs of client, community, and society.
- A.1. Communication Skills: Ability to read, write, speak and listen effectively.

M. Arch [X] Met

**2013 Team Assessment:** Evidence of compliance was found in courses ARC 471s/ARC 571s Urban Design History and Theory taught by Adjunct Lecturer Robert Vint and in Assistant Professor Clare Robinson's course History III, Critical Reference 1.

Students are articulate and confident in their speaking skills.

A. 2. Design Thinking Skills: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

M. Arch [X] Met

**2013 Team Assessment:** Evidence was found in ARC 909 Advanced Studio 4, project: Research and the California top vegetable producer project, an urban outdoor market.

A. 3. Visual Communication Skills: *Ability to* use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.

M. Arch

**2013 Team Assessment:** The team found examples of the students' visual communication abilities in the Advanced Studio 1 (510d), project 3, and in Advanced Studio 2 (510e), project 1 - Engaging Public

Realm and Re-qualifying Habitable Spaces. Projects indicate visualization of designs through articulate plans, concept diagrams, and perspective views.

Development of digital technology has been a priority. Students are provided resources and knowledge on how to use the programs. The team met Koabi Brooks, technology director, who informed us of recent updates to the school's computer lab. Software programs Auto-CAD, Revit, Rhinos, Ecotech, Rendering-max, Animation-max, sketch-up and Grasshopper are taught. He discussed plans to install a "mini cloud" to allow programs such as Adobe Creative Suite to be made available to all students.

Student access for printing and plotting is available on a 24-hour, 7-day basis. Plots are charged perjob on the students' "Cat Cash Card." Students complain that plotting is expensive, which causes presentations to suffer.

A.4. Technical Documentation: *Ability* to make technically clear drawings, write outline specifications, and prepare models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.

M. Arch
[X] Not Met

**2013 Team Assessment:** Although models and drawings in ARC 510f show ability to prepare models and drawings illustrating assembly of materials and systems, projects shown do not appropriately identify materials and systems. Neither ARC 510f nor ARC 541 contained consistent student work indicating an ability to prepare outline specifications or perform basic life safety code reviews. Student work in ARC 541 did not consistently integrate building systems, resolve life safety and accessibility deficiencies, use proper dimensioning protocols, or comprehend the relationship between drawings and specifications to accomplish the building design.

A.5. Investigative Skills: *Ability to* gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.

M. Arch [X] Met

**2013 Team Assessment:** The team found evidence of this criterion in site analyses for ARC 909. In the studio portion of ARC 909 (Advanced Studio 4) evidence of the application of Investigative skills was found.

A. 6. Fundamental Design Skills: *Ability to* effectively use basic architectural and environmental principles in design.

M. Arch [X] Met

**2013 Team Assessment:** The team has found evidence of the students' comprehension of basic architectural and environmental principles in Advanced Studio 1: Poetics and Place (510d); throughout the course students were taught a whole range of basic design skills from spatial and material ordering to a building's relationship to site and environment.

Throughout Project 3 in course (510d), students demonstrated the ability to communicate their intentions through clear, competent use of a variety of visual communication tools. Plans, sections,

elevations, perspectives, and wall sections were cross-referenced, facilitating an understanding of the design intent. Lastly, the use of physical study and final models demonstrated spatial understanding and how to physically express a design concept.

A. 7. Use of Precedents: Ability to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.

M. Arch [X] Met

**2013 Team Assessment:** The team found evidence of this criterion in courses 510d, 520g, and 520e. Precedent studies of program, accessibility, materiality, and circulation through graphically clear diagrams of relevant projects were found in 510d. In 510e and 520g, clear precedents of building sections and structural diagrams of local and well-known buildings were found.

A. 8. Ordering Systems Skills: *Understanding* of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

M. Arch [X] Met

**2013 Team Assessment:** The team found evidence of this criterion in course 520d. Two- and three-dimensional studies produced at the beginning of the semester indicate an understanding of natural and formal ordering systems. Evidence was also found in precedent studies of structures in course 520g.

A. 9. Historical Traditions and Global Culture: *Understanding* of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.

M. Arch [X] Met

**2013 Team Assessment:** Critical reviews, analyses, and examination essays from ARC 533 provide evidence of compliance using examples of geographical range and historical precedent from Europe and Central and South America. Similar ranges of examples were found in exam essays and sketchs/notebooks from ARC 571s.

A. 10. Cultural Diversity: Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.

M. Arch [X] Met

**2013 Team Assessment:** Evidence was found in courses ARC 510e Advanced Studies: Urban Focus, and ARC 571s History 4: Theory of Urban Design in the form of book critiques and case studies of urban form. Geographic areas explored included Latin America, arid regions including the Sonoran desert, and case studies of urban environments in Helsinki, Lille (France), Seattle, Beijing, Montreal, and Beirut.

Arc 57 included a study on transplanting a European culture to Latin America found in a written precedent analysis.

A.11. Applied Research: *Understanding* the role of applied research in determining function, form, and systems and their impact on human conditions and behavior.

M. Arch
[X] Met

**2013 Team Assessment:** The team found evidence of this criterion in both the research and studio components of ARC 909.

**Realm A.** General Team Commentary: Students in the M. Arch program are motivated, articulate, and focused; representing a broad range of diverse cultural and educational backgrounds which serve to strengthen levels of respect and interaction, thereby raising overall achievement levels.

Realm B: Integrated Building Practices, Technical Skills and Knowledge: Architects are called upon to comprehend the technical aspects of design, systems and materials, and be able to apply that comprehension to their services. Additionally they must appreciate their role in the implementation of design decisions, and their impact of such decisions on the environment. Students learning aspirations include:

- Creating building designs with well-integrated systems.
- · Comprehending constructability.
- Incorporating life safety systems.
- Integrating accessibility.
- Applying principles of sustainable design.
- B. 1. Pre-Design: Ability to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria.

M. Arch
[X] Met

**2013 Team Assessment:** Evidence of students' ability to assess site conditions and user needs was found in ARC 909; specifically in the project titled LA Project Site Analysis.

B. 2. Accessibility: Ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities.

M. Arch
[X] Not Met

**2013 Team Assessment:** ARC 510d Advanced Studio I: Poetics and Place is designated to meet this criterion. Evidence presented was inconsistent and did not show an ability to properly integrate accessible design principles in building solutions.

B. 3. Sustainability: Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.

M. Arch [X] Met

**2013 Team Assessment:** The team found evidence of an understanding of building design that optimizes natural resources and reduces environmental impact. CAPLA's curriculum promotes concepts centered on energy and water conservation and explores the impact of the physical environment on health care, the preservation of cultural heritage, and natural ecosystems.

B. 4. Site Design: Ability to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.

M. Arch
[X] Not Met

**2013 Team Assessment:** The team did not find ample evidence in drawings or exercises of an *ability* to develop site designs responsive to watershed (site drainage), topography (grading plans), selection of appropriate planting materials, site hardscape integration, or site lighting.

B. 5. Life Safety: Ability to apply the basic principles of life-safety systems with an emphasis on egress.

M. Arch
[X] Not Met

**2013 Team Assessment:** ARC 541 Contract Documents and ARC 510f Advanced Studio 3: Technical Investigation Comprehensive are designated to meet this criterion. Consistent evidence was not found that students could integrate principles of life safety in building design.

B. 6. Comprehensive Design: Ability to produce a comprehensive architectural project that demonstrates each student's capacity to make design decisions across scales while integrating the following SPC:

A.2. Design Thinking Skills

**B.2. Accessibility** 

A.4. Technical Documentation

**B.3. Sustainability** 

A.5. Investigative Skills

**B.4. Site Design** 

A.8. Ordering Systems

**B.5. Life Safety** 

A.9. Historical Traditions and

**B.7. Environmental Systems** 

Global Culture

**B.9.Structural Systems** 

M. Arch
[X] Not Met

**2013 Team Assessment:** The team did not find this criterion met; in particular, the following SPC were not minimally integrated into the work:

A.4. Technical Documentation

B.2. Accessibility

B.4. Site Design

B.5. Life Safety

B.8. Environmental Systems

B. 7 Financial Considerations: *Understanding* of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and construction estimating with an emphasis on life-cycle cost accounting.

M. Arch [X] Met

**2013 Team Assessment:** Evidence was found in ARC 550c, project AFA Design Consultant, LLC & Client Agreement for a public restroom prototype and Tousepi group's design for a custom desk and in course ARC 441 / 541 Contract Documents, 1040 North Olive take off calculations.

B. 8. Environmental Systems: *Understanding* the principles of environmental systems' design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, day lighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools.

M. Arch

**2013 Team Assessment:** Evidence of this criterion was found in course 520f. Assignments analyzing environmental systems in local precedents and course examinations support compliance.

B. 9. Structural Systems: *Understanding* of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.

M. Arch
[X] Met

**2013 Team Assessment:** The students' understanding of structural principles was found in courses 520g and 520e, projects Marina City and Burgo Paper Mill analyses and final examinations in 520e.

B. 10. Building Envelope Systems: *Understanding* of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

M. Arch [X] Met

**2013 Team Assessment:** Compliance was found in courses 520d and 541. Precedent studies of local building envelopes and sectional models in 520d, and development of wall sections of studio projects in course 541 provided clear evidence.

B. 11. Building Service Systems Integration: *Understanding* of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems

M. Arch
[X] Not Met

**2013 Team Assessment:** The team did not find consistent evidence that the curriculum adequately covered this criterion. In courses ARC 510f, ARC 520f, and ARC 541, we did not find the understanding of building service systems displayed in students' work. In the Contract Documents course (ARC 541), systems such as plumbing, electrical, vertical transportation, security, and fire protection were not adequately addressed.

B. 12. Building Materials and Assemblies Integration: *Understanding* of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse.

M. Arch [X] Met **2013 Team Assessment:** Student projects presented in ARC 510f exhibit an understanding of the basic principles of building assemblies via annotated building drawings and scale models including integration of structure, rain screen, and sustainable shading. Work in ARC 520d exhibits an understanding of a range of building assemblies, including curtain walls, masonry and masonry veneer construction.

**Realm B.** General Team Commentary: The team was concerned that student work did not adequately reflect technical knowledge or ability to integrate building systems in the design of buildings; nor consistently convey an adequate knowledge and application of life-safety and accessibility code principles.

Realm C: Leadership and Practice:

Architects need to manage, advocate, and act legally, ethically and critically for the good of the client, society and the public. This includes collaboration, business, and leadership skills. Student learning aspirations include:

- Knowing societal and professional responsibilities
- Comprehending the business of building.
- Collaborating and negotiating with clients and consultants in the design process.
- Discerning the diverse roles of architects and those in related disciplines.
- Integrating community service into the practice of architecture.
- C. 1. Collaboration: Ability to work in collaboration with others and in multi-disciplinary teams to successfully complete design projects.

M. Arch

**2013 Team Assessment:** Evidence of collaborative work was found in courses ARC 541 and ARC 520b.

ARC 520b Building Technology II required students to work in teams of two or three to investigate the nature of materials through creation of a construction joint in the Materials lab. Evidence was found in course notebooks.

ARC 541 Contract Documents required preparation of construction documents as a team project.

C. 2. Human Behavior: *Understanding* of the relationship between human behavior, the natural environment and the design of the built environment.

M. Arch [X] Met

**2013 Team Assessment:** One of ARC 510d's assignments is based on human senses and sensory perception. Solutions represented an understanding of movement through spaces. Course work also indicated analyses of precedent case studies.

C. 3 Client Role in Architecture: *Understanding* of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.

M. Arch
[X] Not Met

**2013 Team Assessment:** Neither course 541 nor 559a indicated adequate evidence of understanding the architect's responsibility to the people who use, commission, or pay for the buildings they design.

C. 4. Project Management: *Understanding* of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods

M. Arch [X] Met

**2013 Team Assessment:** Evidence was found throughout ARC 550c; specifically in project AFA Design Consultant, LLC & Client Agreement for a public restroom prototype.

C. 5. Practice Management: *Understanding* of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.

M. Arch [X] Met

**2013 Team Assessment:** The team found evidence in course 559a (also listed as 550c) through a review of examinations.

C. 6. Leadership: *Understanding* of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities.

M. Arch [X] Met

**2013 Team Assessment:** Through both formal and informal meetings with students, the team recognized students with leadership qualities. Students, both current and graduates, understood skills required for working collaboratively in both the design and construction process. Students have life goals, plans, and ambitions, and they seek an opportunity to advance in their discipline. Students expressed concern for environment, society, and aesthetic issues affecting the community.

C. 7. Legal Responsibilities: *Understanding* of the architect's responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.

M. Arch
[X] Not Met

**2013 Team Assessment:** The team did not find ample evidence of student exposure to registration laws and responsibilities, building codes and regulations, zoning and subdivision ordinances, and accessibility laws.

C. 8. Ethics and Professional Judgment: *Understanding* of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues, and responsibility in architectural design and practice.

M. Arch [X] Not Met

**2013 Team Assessment:** The 2013 APR states an objective of ARC 559a is to cover professionalism and ethical situations including the architect's responsibility for addressing the current climate crisis, the 2030 Challenge, and case studies of well-known ethical situations. The team did not find evidence in the examples of student work that these issues were adequately covered.

C. 9. Community and Social Responsibility: *Understanding* of the architect's responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.

M. Arch [X] Met

**2013 Team Assessment: The** team found evidence in courses 510e and 571s. Course sketchbooks in 571s skillfully documented historic resources and urban conditions that promote quality of life. Course work in 510e provided evidence of an understanding of the architect's responsibility to work for both individual and community interests.

**Realm C.** General Team Commentary: The program is evolving in the area of student leadership and practice. Students are exposed to a wide range of practitioners and experience. The team felt student performance in this realm could be stronger.

# PART TWO (II): SECTION 2 - CURRICULAR FRAMEWORK

II.2.1 Regional Accreditation: The institution offering the accredited degree program must be or be part of, an institution accredited by one of the following regional institutional accrediting agencies for higher education: the Southern Association of Colleges and Schools (SACS); the Middle States Association of Colleges and Schools (MSACS); the New England Association of Schools and Colleges (NEASC); the North Central Association of Colleges and Schools (NCACS); the Northwest Commission on Colleges and Universities (NWCCU); and the Western Association of Schools and Colleges (WASC).

# [X] Met

**2013 Team Assessment:** The University of Arizona is accredited by the North Central Association of Colleges and Schools, which is stated in the document available on the APR on page 99 and was signed on May 20, 2011, by its president, Sylvia Manning.

II.2.2 Professional Degrees and Curriculum: The NAAB accredits the following professional degree programs: the Bachelor of Architecture (B. Arch.), the Master of Architecture (M. Arch.), and the Doctor of Architecture (D. Arch.). The curricular requirements for awarding these degrees must include professional studies, general studies, and electives. Schools offering the degrees B. Arch., M. Arch., and/or D. Arch. are strongly encouraged to use these degree titles exclusively with NAAB-accredited professional degree programs.

# [X] Met

**2013 Team Assessment:** The University of Arizona's M. Arch curriculum includes general studies, professional studies, and electives. General studies are to be satisfied at the undergraduate level. Graduate Programs' Coordinator Kathleen Landeen reviews all applications for compliance with the program (general studies) requirements. Three faculty members also review applications for compliance with curricular requirements.

II.2.3 Curriculum Review and Development

The program must describe the process by which the curriculum for the NAAB-accredited degree program is evaluated and how modifications (e.g., changes or additions) are identified, developed, approved, and implemented. Further, the NAAB expects that programs are evaluating curricula with a view toward the advancement of the discipline and toward ensuring that students are exposed to current issues in practice. Therefore, the program must demonstrate that licensed architects are included in the curriculum review and development process.

# [X] Met

**2013 Team Assessment:** A school curriculum committee meets regularly. Graduate faculty attend committee meetings. Given the status of the master's program, the team felt their presence/participation would evolve as the program grew. Licensed faculty also attend the meetings.

PART TWO (II): SECTION 3 – EVALUATION OF PREPARATORY/PRE-PROFESSIONAL EDUCATION
Because of the expectation that all graduates meet the SPC (see Section 1 above), the program must demonstrate that it is thorough in the evaluation of the preparatory or pre-professional education of individuals admitted to the NAAB-accredited degree program.

In the event a program relies on the preparatory/pre-professional educational experience to ensure that students have met certain SPC, the program must demonstrate it has established standards for ensuring these SPC are met and for determining whether any gaps exist. Likewise, the program must demonstrate it has determined how any gaps will be addressed during each student's progress through the accredited degree program. This assessment should be documented in a student's admission and advising files.

# [X] Met

**2013 Team Assessment:** The program adequately evaluates the preparatory and pre-professional education of incoming students. The graduate advisor and program chair presented evidence of the application and evaluation process including worksheets for evaluating candidate transcripts, statements of interest, and portfolios. For students with preparatory or pre-professional design education to obtain advanced standing in specific courses, the applicant must actively apply for such and provide clear evidence demonstrating their knowledge through a transcript, syllabus, and portfolio. If necessary, the program chair personally contacts previous instructors of students or others familiar with the student to confirm preparedness.

# PART Two (II): Section 4 - Public Information

### II.4.1 Statement on NAAB-Accredited Degrees

In order to promote an understanding of the accredited professional degree by prospective students, parents, and the public, all schools offering an accredited degree program or any candidacy program must include in catalogs and promotional media the exact language found in the 2009 NAAB Conditions for Accreditation, Appendix 5.

# [X] Met

**2013 Team Assessment:** The program supplied a copy of the exact language found in the 2009 NAAB Conditions for Accreditation in the APR and on its web site under the title Accreditation Status and Professional Registration: http://architecture.arizona.edu/accreditation-status-and-professional-registration

# II.4.2 Access to NAAB Conditions and Procedures

In order to assist parents, students, and others as they seek to develop an understanding of the body of knowledge and skills that constitute a professional education in architecture, the school must make the following documents available to all students, parents and faculty:

The 2009 NAAB Conditions for Accreditation

The NAAB Procedures for Accreditation (edition currently in effect)

# [X] Met

**2013 Team Assessment:** The program supplied a link in the APR to its web site where students and parents can access the 2009 NAAB Conditions for Accreditation and the NAAB Procedures for Accreditation: <a href="http://architecture.arizona.edu/accreditation-status-and-professional-registration">http://architecture.arizona.edu/accreditation-status-and-professional-registration</a>

# II.4.3 Access to Career Development Information

In order to assist students, parents, and others as they seek to develop an understanding of the larger context for architecture education and the career pathways available to graduates of accredited degree programs, the program must make the following resources available to all students, parents, staff, and faculty:

www.ARCHCareers.org
The NCARB Handbook for Interns and Architects
Toward an Evolution of Studio Culture
The Emerging Professional's Companion
www.NCARB.org
www.aia.org
www.aias.org
www.aias.org
www.acsa-arch.org

### [X] Met

**2013 Team Assessment:** Links for the subject information is found on the program web site: http://capla.arizona.edu/accreditation-status-and-professional-registration.

# II.4.4 Public Access to APRs and VTRs

In order to promote transparency in the process of accreditation in architecture education, the program is required to make the following documents available to the public:

All Annual Reports, including the narrative

All NAAB responses to the Annual Report

The final decision letter from the NAAB

The most recent APR

The final edition of the most recent Visiting Team Report, including attachments and addenda

These documents must be housed together and accessible to all. Programs are encouraged to make these documents available electronically from their websites.

# [X] Met

**2013 Team Assessment:** The program supplied a link in the APR to its web site where students and parents can access all Annual Reports (including the narrative), NAAB responses to the Annual Report, the final decision letter from the NAAB, the most recent APR, and the final edition of the most recent Visiting Team Report (including attachments and addenda). http://architecture.arizona.edu/accreditation-status-and-professional-registration

### II.4.5 ARE Pass Rates

Annually, the National Council of Architectural Registration Boards publishes pass rates for each section of the Architect Registration Examination by institution. This information is considered to be useful to parents and prospective students as part of their planning for higher/post-secondary education. Therefore, programs are required to make this information available to current and prospective students and their parents either by publishing the annual results or by linking their website to the results.

# [X] Met

**2013 Team Assessment:** Although not yet relevant to the M. Arch program, it provides links to the university's web site for access to pass rates by school and division. <a href="http://architecture.arizona.edu/accreditation-status-and-professional-registration">http://architecture.arizona.edu/accreditation-status-and-professional-registration</a>
This condition is met.

# III. Appendices:

# 1. Program Information

[Taken from the Architecture Program Report, responses to Part One: Section 1 Identity and Self-Assessment]

# A. History and Mission of the Institution (I.1.1)

Reference University of Arizona, APR, pp. 5-7.

# B. History and Mission of the Program (l.1.1)

Reference University of Arizona, APR, pp. 7-9.

# C. Long-Range Planning (I.1.4)

Reference University of Arizona, APR, pp. 23.

# D. Self-Assessment (I.1.5)

Reference University of Arizona, APR, pp. 23-39.

### 1. Conditions Met with Distinction

PART ONE (I): INSTITUTIONAL SUPPORT AND COMMITMENT TO CONTINUOUS IMPROVEMENT

Part One (I): Section 2 - Resources

**I.2.3.** Physical Resources – The newly completed 33,000-square-foot CAPLA east building wing contains a state-of-the art materials lab and shop overseen by laboratory manager Paulus Musters, artist, sculptor, inventor, and valuable resource to students in need of models, physical construction details, questions of process, or materiality. The University of Arizona's entry in the 2009 U.S. Department of Energy's Solar Decathlon Solar House Competition (SEED – POD) was constructed in the materials lab. Latest technology, including both hardware and software, is available in all buildings and is supported by a full-time technician, Koabi Brooks.

PART TWO (II): EDUCATIONAL OUTCOMES AND CURRICULUM

Part Two (II): Section 1 – Student Performance – Educational Realms & Student Performance Criteria

II.1.1 Student Performance Criteria:

**B.9 Structural Systems (Understanding)** – Projects in Course 520g: Marina City, Halle 26, Burgo Paper Mill, and the Inhabitable Bridge and final exams in Course 520e, Structures 2 are excellent examples of building structural system analyses and exercises.

**B.10 Building Envelope Systems (Understanding)** Project 1.0 Building Envelope Fundamentals and Introduction to BIM, Project 2.0 Precedent Building Envelope Detailing, and Project 3.0 Studio Project Envelope Detailing in course 520d Building Technology III represent excellent examples of envelope analysis and comprehension.

# 3. The Visiting Team

Team Chair, Representing the NCARB Marzette Fisher
ArchitectureWorks, LLC
PO Box 130991
Birmingham, AL 35213-0991
(205) 515-4882
marzettefisher@gmail.com

Representing the AIA
Thomas Ahleman, AIA, LEED®AP
Principal
Studio Talo Architecture, Inc.
1234 Sherman Avenue, Suite 202
Evanston, IL 60202
(847) 733-7300
(773) 620-7232 mobile
studiotalo@gmail.com

Representing the AIAS Kaitlyn Dobberfuhl 226 8<sup>th</sup> Street, South Brigantine, NJ 08203 (609) 335-3383 dobberfuh@hartford.edu

Representing the ACSA
Curtis J. Sartor, Ph.D., NOMA, Assoc. AIA
Dean and Professor
Judson University
1151 North State Street
Elgin, IL 60123-1498
(847) 628-1017
(847) 695-3353 fax
csartor@judsonu.edu

Non-voting member Robin Shambach, AIA, LEED®AP Principal BWS Architects 121 E. Birch Avenue, Suite 306 Flagstaff, AZ 86001 (928) 606-3528 (520) 795-2705 mobile rshambach@bwsarchitects.com

Representing the ACSA

Non-voting member

# Representing the NCARB Team Chair Thomas Ahleman, AIA, LEED®AP Team member Representing the AIA Representing the AIA Representing the AIAS

IV.

**Report Signatures** 

Curtis J. Sartor, Ph.D., NOMA, Assoc., AIA Team member

Robin Shambach, AIA, LEED®AP