



**Washington University in St. Louis
College of Architecture
Graduate School of Architecture & Urban Design
Sam Fox School of Design & Visual Arts**

2018 Visiting Team Report

Master of Architecture – MArch 3
(Undergraduate degree in or outside of architecture plus 105 graduate credit hours)

Master of Architecture – MArch 2+
(Undergraduate degree in architecture including architectural studies plus 75 graduate credit hours)

Master of Architecture – MArch 2
(Undergraduate degree in architecture plus 60 graduate credit hours)

The National Architectural Accrediting Board
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Vision: The NAAB aspires to be the leader in establishing educational quality assurance standards to enhance the value, relevance, and effectiveness of the architectural profession.

Mission: The NAAB develops and maintains a system of accreditation in professional architecture education that is responsive to the needs of society and allows institutions with varying resources and circumstances to evolve according to their individual needs.

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I. Summary of Visit

The team wishes to extend its thanks to the architecture program at Washington University in St. Louis for hosting its visit, providing outstanding hospitality, and addressing all of the needs of the visit. The team was pleased to meet with students, staff, faculty, program and school administrators, the provost, and the chancellor. The team room was well organized and easy to navigate, providing an environment conducive to conducting the work associated with the site visit component of the NAAB accreditation process.

The team is particularly thankful to Director Heather Woofter, Interim Graduate Program Chair Adrian Luchini, Coordinator of Graduate Programs Valerie Greer, and Programs Manager Audrey Treece for their thoughtful preparations for the visit on behalf of WUSTL. Together they made the on-site experience very enjoyable, and all were extremely helpful through individual discussions, coordination, and follow up requests for materials.

Through the review of the Architecture Program Report, coordination meetings, and the site visit, the team was able to conduct the specialized accreditation visit. The team was on site for four days, during which they reviewed materials provided by the school and conducted interviews with key participants and stakeholders of the program, in order to produce its findings.

The team found five areas of student performance were met with distinction, including A2-Design Thinking Skills, A3-Investigative Skills, A7-History and Global Culture, A8-Cultural Diversity and Social Equity, and B7-Building Envelope Systems and Assemblies. These areas were addressed throughout the curriculum and seemed to the team to be an indication of the current culture of the school. The team was very impressed with the social equity of the program and the efforts undertaken to reach out to the broader St. Louis community in recent years, through a variety of programs and projects.

The team found three areas of student performance were not met, including B1-Pre-Design, B9-Building Service Systems, and B10-Financial Considerations. The team did not find consistent evidence of these areas of student performance, although they weren't entirely absent. In addition, the team observed that while SPC A1, Professional Communication, was met, there were numerous instances in the team room of errors of grammar, spelling, and idiom in student writing samples.

The program enjoys a significant leadership role in architecture education in the United States and enjoys an international reputation, with world-class faculty. The team wishes to extend its thanks to the entire program for hosting its time at the school for the 2018 NAAB site visit.

II. Progress Since the Previous Site Visit

2009 Student Performance 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 (2012): The course work lacks content on diversity in these categories: values, behavior, societal roles and abilities. The AR 419 Design III (Housing Studio) positioned diversity through formal architectural constructs such as clustering and collective strategies, and not on the human side, such as demographics, race and socioeconomic viewpoints. The AR 512 Design IV International Studios traveled to many locations abroad, but it was not evident in the work that the students interacted with communities and culture from those regions. History is even a more difficult subject in a growing global economy and practice. The core history sequence AR 4283 and AR 4284 offers a superb Western and European review; however, only 5 weeks out of 36 weeks are dedicated to content on Asia and non-Western and non-Christian subject matter.

2018 Visiting Team Assessment: The SPC A7 and A8 address the concern from the previous visit. Evidence of exposure to the topic of cultural diversity was found throughout the history course sequence, the ARCH419 studio, and multiple studios within the comprehensive studio options. The team also observes that the numerous opportunities for international travel and site visits, and the general diversity of the faculty and student body, make for a rich cultural milieu at WUSTL.

2009 Student Performance 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 (2012): There is a clear directive to incorporate accessibility requirements in course syllabi, but little evidence of ability was found in the design project coursework of AR 419. No evidence was found in AR 438. Evidence of understanding was found in AR 346 coursework exams.

2018 Visiting Team Assessment: While the team observed some instances of accessibility in the ARCH439 course in the form of topographic manipulation and ramps and stairs, and also some instances of the topic being covered in ARCH646 lecture course, the team did not observe that the subject is covered in depth. Since this SPC no longer exists and is embedded within the B3, the team defers to the B3 SPC for further elaboration.

2009 Student Performance 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 (2012): AR 646: Professional Practice introduces subjects such as contracts, cost estimating and schedules, but does not cover the fiscal responsibility of the architect in relation to projects. Pre-design activities, building budgets, construction fiscal management, and post construction economic performance are not covered. A few option studios and electives engage students briefly in fiscal concerns. Overall, no definite evidence was found to ascertain a level of understanding was achieved by every student in the program. In the team's meeting with the students, some expressed eagerness and concern to understand the roles architects play in bringing projects and initiatives to fruition in future economic climates.

2018 Visiting Team Assessment: The SPC B10 remains unmet in the opinion of the visiting team. Some aspects of B10 are met in the ARCH646, but not the full scope of the SPC language. Please refer to the assessment in B10.

2009 Student Performance 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 (2012): Evidence was not found in AR 646 Professional Practice that supports an understanding of Ethics and Professional Judgment. It is clearly stated on page two of the AR 646 syllabus (under 'the Ethical Base') that ethics and codes of professional behavior are addressed in an open discussion format. The lack of documentation for the discussions does not allow for a holistic assessment of the degree of student comprehension and performance of the issues associated with ethics and professional judgment. There is secondary evidence found in exams and an arbitration exercise that addresses aspects of the subject matter, but in a more fragmentary way.

2018 Visiting Team Assessment: The course in Professional Practice, ARCH646, contains a comprehensive syllabus that addresses the required knowledge needed to prepare graduate students for the ethics and professional aspects of practicing architecture. Firm interviews conducted by students document discussions in these two areas. The midterm and final exams contain a variety of the issues that confront practitioners on a daily basis, as contained largely in the D Realm of SPC. The visiting team attended a class session that focused on project delivery methodology and stakeholder relationships that was well attended and generally interactive with appropriate questions, answers, and discussion.

2009 Student Performance 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 (2012): The criterion is listed in the syllabi of AR 419 Housing Studio and the option studios AR 511, AR 512, and AR 611. Evidence was not found indicating that all students are required to demonstrate understanding. Demonstration of understanding is uneven, particularly regarding historic resources. Yet, it is clear that the program is committed to community involvement and encourages students to be socially responsible. This is shown in a number of projects such as the design-build studios, the uHome Studio, the pavilion for Tower Grove studio, the New Orleans studio, the San Diego/Tijuana studio, as well as a number of student-led competitions.

2018 Visiting Team Assessment: Though this SPC is now a Perspective, evidence of this former SPC was observed in a number of courses, programs, and activities carried out by the program. Historic resources are explored across many cultures and epochs in classes ARCH4280, Architectural History I, and ARCH4284, Architectural History II. The team found consistent evidence of understanding of this subject area in quizzes, papers, and exams. Community and Social Responsibility is present and understood in numerous design studios, starting with ARCH318 and continuing in examples of student work in ARCH580, Design Thinking, and ARCH616, where students are required to prepare a subsequent degree project on a site in St. Louis, and much of the design work is imbued with the goal of transforming deficient environments with new life and activity.

The Office for Socially Engaged Practice oversees a number of programs that address the topic. For example, the Alberti Program, which brings secondary school students from

the inner city into the department for a summer design program, is one such effort, which the college believes will result in increased minority enrollment both at the undergraduate and graduate levels. The CityStudio program provides internships for architecture students in local architecture practices to work on pro bono projects throughout the city.

Previous Team Report (2012): Causes of Concern

A. Administrative Structure: The Sam Fox School of Design and Visual Arts was created out of the association of the former schools of Architecture and Arts along with expanded programs including the Kemper Art Museum and supporting facilities. A new and equally expanded organizational structure was introduced to meet the new demands of this institution and diverse offerings, now in its 6th year of operations. The administrative structure maintained many of the positions that existed in the original components, and new positions were introduced. The team understands this is an evolving structure, and that it is under review.

However, there is a concern that the organizational structure and lines of communication are not clear and transparent. The roles and responsibilities within the SF School and the needs of the professional units are not fully defined or delineated. Priorities for funding and space allocation are both impacted by this lack of clarity. This confusion is both at the student and faculty levels.

Governance: The visiting team has a concern about a shared perception among some faculty and students that the College and Graduate School of Architecture does not have a purposeful autonomy in administration and governance of their own programs and budgetary matters, and that there is some disparity between architecture and art in matters of facilities and fiscal allocations.

The school has a unique opportunity to offer programs and curriculum that are not available to most architecture programs. The team recognizes the potential of the Sam Fox School and the extraordinary resources available to faculty, students, the university, and the community. It is imperative that differences and misperceptions regarding administrative structure and governance be resolved to ensure the high goals the program has established for itself are met.

2018 Visiting Team Assessment: This area remains a concern of the visiting team. The organizational and governance items noted in the previous VTR have now had a period of time to develop and improve. The dean is very supportive of the architecture program and its new director, and both are committed to the vision of a collaborative school. The dean and advancement office have accomplished a significant fundraising campaign, and the new Sam Fox School facility, designed by Kieran Timberlake, is under construction.

However, the team observed that communication opacity between the dean's office and the professional program remains. The appointment of the new director of architecture (and it must be noted that the appointment included the shift in the professional program leadership nomenclature from a dean to a director) is a step toward galvanizing the organizational clarity of the school. The new director appears to have the support of her colleagues and is also strongly supported by the dean, provost, and chancellor. It remains to be seen, however, whether the program can operate with the kind of autonomy and governance expected of professional programs by the NAAB. The team observed that the new school model, while providing for the promise of increased collaboration and opportunities for growth, has actually hindered some of the workings of the professional program, including its external identity (for example, the architectural world recognizes WUSTL architecture but does not yet recognize the Sam Fox School, and this has an impact on everything from publications to student recruiting); faculty morale with regard to governance, service expectations, and allocation of office space;

facility parity with Art; and limited professional and research opportunities through grants (beyond seed grants) and/or course reductions.

Some of these matters are being addressed, and future interim reports should address progress. While graduate architecture tuition supports a significant portion of the overall School revenue, it is clear that the program is simultaneously being squeezed in terms of allocation of resources. There also seems to be an imbalance of resource allocation between Architecture and Art. The team understands that the new facilities have the potential to redress faculty office issues and critique space deficiencies in architecture. However, the team also understands that while the faculty had some role in very early programming and proposals for the new spaces, many subsequent decisions have been made regarding facilities that have not included as frequent or substantial faculty or staff input. These items are all part of the remaining tangle that the new director will face as she facilitates the program, maintains the excellence the program is known for, and traverses new territory.

B. Physical Resources: The visiting team found that the physical resources of the Sam Fox School of Design and Visual Arts at Washington University are adequate for the M. Arch program within the Department of Architecture. Enough space is allocated for the typical student work area to allow for studio-based as well as didactic and interactive learning, both of which are requisite to promoting architectural education. The uniting of the academic units of Art and Architecture with the Kemper Museum to form the Sam Fox School of Design and Visual Arts in 2006 has significantly increased the physical resources. The addition of the Kemper Art Museum, digital fabrication labs, Art and Architecture Library, lecture halls and other key spaces has expanded the space available to the professional graduate architecture program. The 2007 renovations to Steinberg Hall have further improved studio spaces.

However, the visiting team has some concerns regarding this condition. The doubling of graduate enrollment since 2006 has neutralized many of the improvements simply by over-subscription to the space available. Studio space allocated to the M. Arch has been maximized, and studios are spread among five buildings. These have positive and negative consequences. On one hand, students from the various programs—art, architecture, landscape architecture, and urban design— share spaces. This increases the potential for cross-pollination and improves the chances for developing the interdisciplinary identity the Sam Fox School aims for. On the other hand, M. Arch students are dispersed, impacting their sense of community, and thereby generating some tension. No flexibility remains for increasing future enrollment. A lack of space for design review pin-ups, meetings, and gatherings associated with studio places restrictions on studio life and limits opportunities for interactive learning. The faculty offices are now shared by up to three full-and part-time faculty members. This space limitation results in diminished effectiveness in advising, scholarship, and research work. Also, universal accessibility is challenged, particularly in the areas connecting Givens, Steinberg and Bixby Hall. A member of the academic community or guest with mobility challenges will find the connecting paths confusing and difficult. Student mobility with large models and construction components on connecting stairwells is limited.

The current preplanning for a new facility, including the enhancement of faculty offices for graduate student programs, will allow the return of students and programs now off campus to the new unified Sam Fox School campus. The enthusiasm for this significant additional facility by the chancellor indicates that concerns on this condition will be resolved in the foreseeable future.

2018 Visiting Team Assessment: Many of the items noted in the previous report remain as concerns. The construction of the new Weil Hall addition to the school is underway and is expected to address some of the prior issues, including an increase in studios,

critique spaces, student commons, and school administration. Architecture studios are paired with Art student work spaces on multiple floors, arrayed around a three-story atrium that overlooks a common social space and a living green wall. The co-mingling of art and architecture students is built in to the design and has promise for augmented cross-fertilization and collaboration. There will be five new chair offices in Weil Hall, three designated for Architecture. In addition, the current plan is to expand the number of offices and reduce the number of shared offices in backfill strategies in the existing buildings as the new addition comes online. This will be a lengthy process, and it seems to the visiting team that plenty of opportunity remains for faculty and staff to play a role in the subsequent phasing of improvements.

III. Compliance with the 2014 Conditions for Accreditation

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

This part addresses the commitment of the institution, its faculty, staff, and students to the development and evolution of the program over time.

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

I.1.1 History and Mission: The program must describe its history, mission, and culture and how that history, mission, and culture shape the program's pedagogy and development.

- Programs that exist within a larger educational institution must also describe the history and mission of the institution and how that shapes or influences the program.
- The program must describe its active role and relationship within its academic context and university community. The description must include the program's benefits to the institutional setting and how the program as a unit and/or individual faculty members participate in university-wide initiatives and the university's academic plan. The description must also include how the program as a unit develops multidisciplinary relationships and leverages opportunities that are uniquely defined within the university and its local context in the community.

[X] Described

2018 Analysis/Review: The architecture program at Washington University St. Louis is a world-class program and enjoys a rich heritage. The program is housed within the Sam Fox School of Design & Visual Arts, one of seven schools at the medium-sized private research university. The Architecture, Urban Design, and Landscape Architecture unit includes graduate studies with undergraduate studies in architecture and minors available in urban design and landscape architecture.

As one of the oldest programs in the country and a founding member of the ACSA, it has a long history of leadership within the architecture education community. It is frequently listed in the top rankings of architecture programs throughout the United States. It boasts an internationally diverse student body and faculty. The faculty comprises of educators who are extremely accomplished authors and architects.

The opportunities for collaboration within the Sam Fox School with landscape architecture, urban design, and art are strong and continue to grow. The program will enjoy expanded facilities in 2019 that will complement existing facilities. This will support the rapid growth of the graduate programs in architecture, easing some studio and critique space concerns as well as the continued growth of other areas of the program and school.

As part of the university, faculty members participate in a broad range of endeavors both individually and with the university. The Kemper Art Museum offers opportunities for exhibitions and exhibition-related lectures, for example. In addition, many faculty members have developed strategic partnerships with various programs in the university, including Biology and Plant Sciences, Social Work, Engineering, etc.

Faculty from the program participate in university business through various committees and appointments, including those related to campus planning and facilities.

I.1.2 Learning Culture: The program must demonstrate that it provides a positive and respectful learning environment that encourages 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 nontraditional.

- The program must have adopted a written studio culture policy and a plan for its implementation, including dissemination to all members of the learning community, regular evaluation, and continuous improvement or revision. In addition, the plan must address the values of time management, general health and well-being, work-school-life balance, and professional conduct.
- The program must describe the ways in which students and faculty are encouraged to learn both inside and outside the classroom through individual and collective learning opportunities that include but are not limited to field trips, participation in professional societies and organizations, honor societies, and other program-specific or campus-wide and community-wide activities.

[X] Demonstrated

2018 Analysis/Review: The program at Washington University St. Louis has adopted a written studio culture policy. This policy, with a plan for implementation, is accessible to all students, faculty, and staff through the web. In addition, paper copies are distributed to all incoming students with supplementary discussions at all-school meetings. The policy is reviewed by the Learning Culture Committee at Washington University and directly addresses topics related to time management as well as health and wellness. The document also addresses the values of work-school-life balance and professional conduct.

The program supports learning opportunities inside and outside of the classroom through student organizations, field trips to job sites and domestic and international site visits, and school-wide programs. There is clear evidence in discussions with students, faculty, staff, and administration that a rich culture of learning is the core of the graduate program. Students are challenged by accomplished faculty and instructors committed to a rigorous exploration of design thinking, professional contribution, and social and environmental responsibility. Students emerge with an independent and critical position on making architecture in both the local and global contexts.

I.1.3 Social Equity: The program must have a policy on diversity and inclusion that is communicated to current and prospective faculty, students, and staff and is reflected in the distribution of the program's human, physical, and financial resources.

- The program must describe its plan for maintaining or increasing the diversity of its faculty, staff, and students during the next two accreditation cycles as compared with the existing diversity of the faculty, staff, and students of the institution.
- The program must document that institutional-, college-, or program-level policies are in place to further Equal Employment Opportunity/Affirmative Action (EEO/AA), as well as any other diversity initiatives at the program, college, or institutional level.

[X] Demonstrated

2018 Analysis/Review: The racially charged events in Ferguson, MO, in 2014 have brought to the foreground at Washington University the importance of not only social equity but also the availability of access to opportunities. Since then, under the broader guidance of the university, there have been numerous changes to make the university and, by extension, the Sam Fox School, a more diverse, inclusive, and supportive place to work and learn. The involvement of members of the Sam Fox faculty, including former dean, Bruce Lindsey, indicates that the university-wide policies are established with input

and concerns that come from the architecture school. The resulting policies are widely published and easily accessible through the WUSTL website. Evidence of the material effects and repercussions of these policies and changes can be found in the I.1.3 Social Equity Section of the APR, which briefly addresses hiring and retention of underrepresented populations; in Section I.2.1. where these policies can be shown as having effects on faculty development, student opportunities and services, and the commitment to Equal Opportunity and Affirmative Action; and in the Studio Culture Policy in place since 2012 and available through the Sam Fox School website. Furthermore, there is evidence of initiatives (i.e., The Divided City: An Urban Humanities Initiative) that use St. Louis as a case study to research segregation on the spatial practices within urban space.

While the student body is significantly international, primarily of Asian origin at the time of the visit, the domestic portion of students has increased in diversity. The varied gender, racial, and cultural diversity is evident in studios, leadership groups, and classes. The team notes a slight concern that domestic and international groups can sometimes divide by cultural origin, as the student composition one studio was observed to be uniformly Asian.

The team also notes that there is some disparity in the ability of students to participate in certain studios, given the cost of travel periods expected of many studios.

I.1.4 Defining Perspectives: The program must describe how it is responsive to the following perspectives or forces that affect the education and development of professional architects. The response to each perspective must further identify how these perspectives will continue to be addressed as part of the program's long-range planning activities.

- A. Collaboration and Leadership.** The program must describe its culture for successful individual and team dynamics, collaborative experiences, and opportunities for leadership roles.
- B. Design.** The program must describe its approach for developing graduates with an understanding of design as a multidimensional process involving problem resolution and the discovery of new opportunities that will create value.
- C. Professional Opportunity.** The program must describe its approach for educating students on the breadth of professional opportunities and career paths, including the transition to internship and licensure. .
- D. Stewardship of the Environment.** The program must describe its approach to developing graduates who are prepared to both understand and take responsibility for stewardship of the environment and natural resources.
- E. Community and Social Responsibility.** The program must describe its approach to developing graduates who are prepared to be active, engaged citizens able to understand what it means to be professional members of society and to act ethically on that understanding.

[X] Described

2018 Analysis/Review:

A. Collaboration and Leadership.

Evidence of a culture of individual growth is reflected in the curriculum: after fulfilling a required academic core, personally customized electives facilitate development and self-discovery. Furthermore, the program offers a range of option studios. These option studio activities are evident in the team room and provide diversity to the existing core architecture curriculum. Finally, the curriculum capstones with a final degree project with comprehensive development around a student-driven interest.

The program also promotes collaborative experiences and team dynamics through multiple fields of study, research assistantships, and professional opportunities. These opportunities are supplemented by the Design Internship Network, a partnership of firms and organizations that are committed to providing internships to Washington University architecture students. Leadership opportunities are available through student organizations such as the Graduate Architecture Council (GAC), National Organization of Minority Architects (NOMAS) and Women in Architecture and Design (WIAD).

B. Design

Both the APR and the material presented in the team room highlight how the architecture program addresses complex issues of design (dealing with issues ranging from materials, design process, the role of representation as a tool for discovery, etc.) and allows for interdisciplinary problem solving. The latter is clear in the way, particularly found in ARCH580 and 511/512, that historical and theoretical issues become central to the design process (ranging from the historical understanding of context, materials, and programs to the proposals that address issues of gender, historical time, relationships between art and architecture, etc.). In many cases, the team observed that these issues were explored and materialized throughout the different design investigations, with material explorations and considerations at the level of the technical, structural, and/or environmental system detail.

Evidence of a solid foundation of design thinking and the importance of design process, representational explorations, and the role of 3D models and process can be found in the core sequence (ARCH317, 318, and 419). It is clear that the program carefully develops an understanding and ability of design through introducing students to problems and building upon them through the semester. This process includes, for instance, a sequence that starts with the use of hand drawing as a tool for understanding scale and space, then moves to the introduction of computer-generated drawings and design investigations, to the careful balance between both as well as the introduction of other techniques such as collage, mappings, etc. In tandem with the careful construction of models, it is clear that the students learn the importance of iterative explorations, the value of understanding space and order through representation, and the myriad ways to present ideas and projects.

C. Professional Opportunity: The team observed evidence of robust professional opportunities for students through university and program career services, access to NCARB AXP and licensure information and support, as well as a variety of singular projects like the Solar Decathlon and the Divided Cities project. The team also observed that the structure of the architecture curriculum prepares students for practice and practice leadership opportunities through careful organization of content and a constructive approach to design in the external world. Through conversations with the students, faculty, and administration, a clear priority of conventional practice as well as alternatives to conventional practice share space in the dialogues within the program.

D. Stewardship of the Environment

Two required environmental system courses address environmental factors in the design enterprise. These courses are offered in parallel to design studios to instill strategies that develop responsibility for stewardship of the environment. Design studios also emphasize the importance of environmentally conscious priorities throughout the students' academic careers. A recent elimination of modeling plastics was observed by the team as a conscious effort to address waste and toxins that are byproducts of the design studio. In addition, there are design studios and departments that focus on issues of sustainability such as the Solar Decathlon Crete House studio, Office of Sustainability and Campus Facilities. The new expanded facilities are targeting LEED Gold, indicating a sensitivity in stewardship and sustainability at the facilities level, building upon the existing building stock of the school campus.

E. Community and Social Responsibility

Washington University is committed to the neighboring and St. Louis community and to its role in improving that community through social and employment opportunities, stewardship of the environment, educational partnerships and outreach, and project-based learning. In the team meeting with Chancellor Wrighton, he articulated the role of the university within the broader community as a social network that builds partnerships with, for example, local educational institutions. This is also part of the School of Architecture that routinely runs a summer architecture program at the middle-school level for students in

nearby public schools. In addition, the Office of Socially Engaged Practice similarly develops partnerships with community organizations, providing opportunities for students to work on projects that address local issues.

In the design sequence, the clearest articulation of the involvement with issues of the community and with problems specifically influenced by or directed to the city of Saint Louis can be found in Arch616. From the material presented and from conversations with various faculty members, we learned that there is a requirement that these projects be sited in the city; that they address problems, concerns, or needs of the community or that they resolve some issue that is related to the city, its neighborhoods, landscapes, and material conditions. There is plenty of evidence that these projects address issues/concerns of social equity and consider and propose solutions that could improve the community and the life of its citizens.

I.1.5 Long-Range Planning: The program must demonstrate that it has a planning process for continuous improvement that identifies multiyear objectives within the context of the institutional mission and culture.

[X] Demonstrated

2018 Analysis/Review: The program provided evidence of long-range planning in the form of Sam Fox School strategic planning and planning at the program level. New program leadership has identified the priority of developing a future multiyear plan for advancing the program. Many of these items are tied to the emerging new facilities, several new faculty searches underway this year and into the future, as well as emerging programs. The program provided the team with materials that indicate that long-range planning is in process and some substantial moves are being realized. The team would like to note this as an area that will benefit from continued reporting as the materials are largely in process and not yet solidified at the time of the visit.

I.1.6 Assessment:

A. Program Self-Assessment Procedures: The program must demonstrate that it regularly assesses the following:

- How well the program is progressing toward its mission and stated objectives.
- Progress against its defined multiyear objectives.
- Progress in addressing deficiencies and causes of concern identified at the time of the last visit.
- Strengths, challenges, and opportunities faced by the program while continuously improving learning opportunities.

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

B. Curricular Assessment and Development: The program must demonstrate a well-reasoned process for curricular assessment and adjustments, and must identify the roles and responsibilities of the personnel and committees involved in setting curricular agendas and initiatives, including the curriculum committee, program coordinators, and department chairs or directors.

[x] Demonstrated

2018 Analysis/Review: The team observed that program self-assessment takes many forms and involves all stakeholders including the administration, faculty, alumni, and students. Documentation of progress on the current Sam Fox School Strategic Plan was supplied on site and provided clear evidence that the program faculty were included in many sessions to develop and provide input to the current plan.

It is just being implemented, so progress against the goals and objectives of the plan has not yet been measured.

A great deal of progress and improvement in the school is tied to the construction of the new building addition, which is set to be occupied in 2019. Substantial progress was seen via the construction immediately adjacent to the team room.

The team observed that there is a robust and continuous process of curricular assessment and development. The process involves coordinators, ad hoc faculty subcommittees, and a formal Curriculum Committee. The process is well documented, and the curriculum evolves in a thoughtful and rigorous manner as a result of a diligent process.

Part One (I): Section 2 – Resources

I.2.1 Human Resources and Human Resource Development:

The program must demonstrate that it has appropriate human resources to support student learning and achievement. Human resources include full- and part-time instructional faculty, administrative leadership, and technical, administrative, and other support staff.

- The program must demonstrate that it balances the workloads of all faculty to support a tutorial exchange between the student and the teacher that promotes student achievement.
- The program must demonstrate that an Architecture Licensing Advisor (ALA) has been appointed, is trained in the issues of the Architect Experience Program (AXP), has regular communication with students, is fulfilling the requirements as outlined in the ALA position description, and regularly attends ALA training and development programs.
- The program must demonstrate that faculty and staff have opportunities to pursue professional development that contributes to program improvement.
- The program must describe the support services available to students in the program, including but not limited to academic and personal advising, career guidance, and internship or job placement.

[X] Demonstrated

2018 Team Assessment: There is ample evidence in the APR that the Sam Fox School supports the professional and academic development of its faculty through research and teaching grant opportunities, Faculty Development accounts, and established centers such as the Research Office. The effects of these opportunities are evidenced through the publications, built works, exhibitions (national and international), and participation in the community. It is not clear, however, how the school balances the faculty workload to promote broader interaction between the faculty and students and support for student achievement. As noted during the meeting with the faculty, the balance of teaching and service requirements is not clearly defined, which makes the interaction with the students more limited or during times outside of the workday (i.e., weekends or evenings).

As the AXP advisor, Prof. Chandler Ahrens' wide range of experience in various architecture firms is a great resource to students who have questions about licensing/registration, practice, etc. Ahrens attends to annual training and educational development and participates in NCARB's Licensing Advisors Summit. Through the Graduate Architecture Council of the Sam Fox School, he communicates to students through sessions regarding the AXP and necessary steps to achieve licensure.

There is evidence that students are supported throughout their studies at Washington University through dedicated advisors (with whom they need to meet before enrolling every semester), by the Health and Wellness Center (which provides mental health services, counseling, and social support), by the Graduate School Council that provides information regarding the resources and services of the school and is a locus of social interaction among all participants of the school, and through the Career Service Office of the Sam Fox School. The latter, as part of the school in addition to the career service office for the university, is best placed to advise students on the necessary tools to apply for jobs, internships, professional placements, etc. as well as to connect the students to the network of alumni and previous faculty members worldwide. The evidence presented during the team visit suggests that the Career Services uses multiple resources, workshops, and techniques to best prepare the students for careers in architecture and/or related fields.

I.2.2 Physical Resources: The program must describe the physical resources available and how they support the pedagogical approach and student achievement.

Physical resources include but are not limited to the following:

- Space to support and encourage studio-based learning.
- Space to support and encourage didactic and interactive learning, including labs, shops, and equipment.
- Space to support and encourage the full range of faculty roles and responsibilities, including preparation for teaching, research, mentoring, and student advising.
- Information resources to support all learning formats and pedagogies in use by the program.

If the program's pedagogy does not require some or all of the above physical resources, the program must describe the effect (if any) that online, on-site, or hybrid formats have on digital and physical resources.

[X] Described

2018 Team Assessment: The team observed the current state of facilities through visits to existing spaces, reviews of the future space allocation planning with the dean, and through conversations with the faculty, program chairs, and the director. The facilities seem to meet the needs of the program with regard to classroom, lab, studio, and shop spaces/amenities. The faculty note that critique spaces, a central requirement for conventional studio instruction, are severely lacking. Even seminar faculty noted difficulty in meeting the needs of their courses.

There are lingering problems with regard to adequate faculty office space for a professional program in architecture. On the one hand, faculty have endured shared offices, sometimes as many as four or five per space, for so many years that it has become a cultural reality. On the other hand, the merger with Art has confused the different needs between art faculty and architecture faculty. They are completely different cultures and have very different needs. The administration has been slow to acknowledge the different needs of the two disciplines, but there are signs of progress in the conversation.

I.2.3 Financial Resources: The program must demonstrate that it has appropriate financial resources to support student learning and achievement.

[x] Demonstrated

2018 Team Assessment: As part of a private institution of research and learning, the graduate architecture program is funded through donations, grants, endowments, and other private sources and is largely dependent on tuition to meet expenses. There is an ongoing fundraising campaign that recently exceeded the 2018 goal (of \$75M) with \$80M committed toward the Sam Fox School for programs, operations, scholarships, and capital improvements. Currently, enrollment and tuition are lagging for the first time in many years and are cause for some concern, as expressed by the program and the provost. This concern was amplified by recognition that the currently changing immigration rules may jeopardize future enrollment patterns related to the international component of the student body. Many external factors seem to play a role in the future financial health of the program, and while immediate issues do not exist, it seems possible that they could emerge quite quickly. The team does not observe that financial issues exist at this time, only that the conditions exist for them to emerge in the future without careful enrollment management and consideration of future enrollment patterns.

I.2.4 Information Resources: The program must demonstrate that all students, faculty, and staff have convenient, equitable access to literature and information, as well as appropriate visual and digital resources that support professional education in architecture.

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

[X] Demonstrated

2018 Team Assessment: The Kranzberg Art and Architecture Library, one of the libraries of the Washington University Library system, is located within the quadrangle where the art and architectural programs are located. The library has a subject librarian who is responsible for acquisition and expansion of the collection. This latter supports curricular needs and faculty research areas; supports research and understanding of contemporary and historical issues regarding practice, technology, and environmental research; and the school's programs' computational and representational needs. The commitment of the library to the architectural program is clear in the increased acquisition of architecture publications (adding 2,682 volumes since 2011), videos (+31 since 2011), and print/electronic journal subscriptions (+623 since 2011) [seen in the APR's Arts + Architecture Library Collection chart, p.41]. With the advent of image databases, the visual resource department in libraries has lost the centrality and importance it once had, this is also the case at Washington University. However, as noted in the APR, the Visual Resources Center of the school has made 55,000 digital images available and maintains subscriptions to the two most important digital image indexes/databases (p. 43).

The library supports student teaching and research through orientation sessions (such as in the new graduate student orientation) and in-class and individual research instruction (that focus on basic research skills, building critical thinking skills). Research guides on subject areas are regularly maintained and easily available through the library's webpage. The same staff supports faculty research, provides library instruction, and technical and copyright support. The library is open and accessible to the students 75.5 hours per week (on average, close to 11 hrs/day). Finally, the Kranzberg Library is highly rated by the students: this suggests that it is both meeting its expectations for availability of materials but also of supporting them with their research needs (its last rating was 4.74 out of 5). While there has been some concern or critique of the new rolling stack system as opposed to leisurely access to the material, according to our discussion with faculty this was considered to be a better solution than to have the material off site.

I.2.5 Administrative Structure and Governance:

- **Administrative Structure:** The program must describe its administrative structure and identify key personnel within the context of the program and school, college, and institution.
- **Governance:** The program must describe the role of faculty, staff, and students in both program and institutional governance structures. The program must describe the relationship of these structures to the governance structures of the academic unit and the institution.

[X] Described

2018 Team Assessment: Administrative Structure: The administrative structure is clearly presented in organizational charts for both the institution, the Sam Fox School of Design and Visual Arts, and the College and Graduate School of Architecture. These charts are easily accessed through the university's website and in the Sam Fox School's 2018 APR. The key personnel are identified on the website and in the APR and the team met individually with Chancellor Mark Wrighton, Provost Holden Throp, Dean Carmon Colangelo, and Director of Graduate Architecture Heather Woofter on multiple occasions. We also met with the current program chairs of graduate architecture, undergraduate architecture, landscape architecture, and urban design.

Governance: Governance is clearly described in the APR and was validated by and large during the visit. In addition to the leadership structure, there are seven operational committees, made up of full-time faculty and some with students. There are five academic committees and three ad hoc committees. All full-time faculty are expected to serve on committees, and there was some indication that expectations

sometimes exceeded contract obligations, but that in general, the sense at the faculty meeting was pride in the school and a general sense that the excellence of the institution was worth the extra time offered by the faculty on its behalf.

Given that this current governance structure was recently enacted, and that there is a new program director (formerly dean title) in place, the effectiveness of the current structure is not fully tested to date. However, in large and small interactions with faculty and staff, there was confidence expressed in the current leadership, which seems to confirm that the program leadership and support is strong and clearly delineated.

CONDITIONS FOR ACCREDITATION

PART TWO (II): EDUCATIONAL OUTCOMES AND CURRICULUM

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

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

Realm A: Critical Thinking and Representation: Graduates from NAAB-accredited programs must be able to build abstract relationships and understand the impact of ideas based on the study and analysis of multiple theoretical, social, political, economic, cultural, and environmental contexts. Graduates must also be able to use a diverse range of skills to think about and convey architectural ideas, including writing, investigating, speaking, drawing, and modeling.

Student learning aspirations for this realm include

- Being broadly educated.
- Valuing lifelong inquisitiveness.
- Communicating graphically in a range of media.
- Assessing evidence.
- Comprehending people, place, and context.
- Recognizing the disparate needs of client, community, and society.

A.1 Professional Communication Skills: *Ability* to write and speak effectively and use representational media appropriate for both within the profession and with the public.

[X] Met

2018 Team Assessment: Throughout the material presented in the team room (but, in particular in ARCH580 and ARCH616), we found compelling evidence that shows a careful and complex understanding of different ways of presenting information to both a professional and lay audience: this includes different notational systems, diagrams, photographs, bound books (which show a keen awareness of graphic design conventions), models and drawings at different scales and with different degrees of information appropriate to express the core ideas. There was a concern that some of the written work in the examples presented showed poor grammar and/or spelling mistakes.

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.

[X] Met

2018 Team Assessment: Met with Distinction: Evidence of student achievement at the prescribed level was found in ARCH419: Architectural Design III. Students investigated their design subject in depth, developed many potential design approaches, and pursued their ultimate approach in depth, expressed in 2D, 3D, and photomontage drawings and presentations.

A.3 Investigative Skills: *Ability* to gather, assess, record, and comparatively evaluate relevant information and performance in order to support conclusions related to a specific project or assignment.

[X] Met

2018 Team Assessment: Met with Distinction: Evidence found in ARCH4284 and ARCH538C shows an ability of the students to investigate and understand the relevant issues related to architecture projects and general research skills. The latter is most clearly addressed in ARCH4284 Architectural History II, where class presentations define research skills that are to be applied to the production of the final paper. In ARCH538C, this is demonstrated with the research into different precedents of different scale and character and understanding their principles and applicability to evaluate their project. The video presentations prepared by students show a careful investigation of the different precedents, systems, materials, etc. and how they can be used to inform design decisions and further investigations into more specific solutions.

A.4 Architectural Design Skills: *Ability* to effectively use basic formal, organizational, and environmental principles and the capacity of each to inform two- and three-dimensional design.

[X] Met

2018 Team Assessment: Evidence of student achievement at the prescribed level was found in student work prepared for ARCH419, Architectural Design III, and ARCH511/512, Architectural Design IV, V. Detailed study of design problems was found in student work that expressed understanding of formal ideas, organizational matrices and principles, and site-specific characteristics and features. Two- and three-dimensional work was well-developed, fully explored, and compelling in form and detail.

A.5 Ordering Systems: *Ability* to apply the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

[X] Met

2018 Team Assessment: Evidence of student achievement at the prescribed level was found in student work prepared for ARCH511/512. A variety of approaches to the topic of order was observed across multiple sections of these courses.

A.6 Use of Precedents: *Ability* to examine and comprehend the fundamental principles present in relevant precedents and to make informed choices about the incorporation of such principles into architecture and urban design projects.

[X] Met

2018 Team Assessment: Evidence in ARCH538C shows research into different precedents of different scale and character and understanding their principles and applicability to evaluate their project. Student work shows the focus of the investigation to be centered on certain principles or issues (such as natural light, privacy, structural systems, etc.) to evaluate, inform and/or influence their project. The evidence shown in ARCH580 demonstrates that students are able to look at a wide range of precedents (artistic, architectural, technical, etc.) that are intended to help them make choices regarding materials, formal and site decisions, and theoretical issues and questions

A.7 History and Culture: *Understanding* of the parallel and divergent histories of architecture and the cultural norms of a variety of indigenous, vernacular, local, and regional settings in terms of their political, economic, social, ecological, and technological factors.

[X] Met

2018 Team Assessment: Met with Distinction: Evidence of student understanding of this SPC was shown to be met in a compelling and impressive manner in ARCH4280, Architectural History I, and ARCH4284, Architectural History II. Both courses present complete and thorough views of Western and

non-Western architecture, cities, and monuments. A very deep and cross-cultural approach to the course exposes the students to a wide diversity of world cultures, over many periods, and student papers and examinations, even at the low-pass level, indicate understanding of this varied and wide-ranging topic.

The class visit to ARCH4280 showed a clear articulation of the importance of understanding the relationships (through comparative means) of Western and Islamic examples that focused on empires, for instance. In ARCH4284, students look at and are asked to understand examples not traditionally focused on, such as the modern architecture of Brazil, and issues that are pertinent to the concerns of modern architecture, such as housing and the problems that modernism generates.

A.8 Cultural Diversity and Social Equity: *Understanding* of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the responsibility of the architect to ensure equity of access to sites, buildings, and structures.

[X] Met

2018 Team Assessment: Met with Distinction: Evidence of student achievement is met in many courses throughout the curriculum, such as ARCH419, Architectural Design III, where students are tasked with developing housing at sites located around the world, beginning with studying social norms, cultural values, and spatial preferences. The international options for design study are impressively wide. The cultural diversity of the faculty infuses their worldliness throughout course work and the range of studies at the school. As for social equity, this criterion is more elusive, but appears to be a value embodied in programming, site planning, and building type selections in ARCH 419 and ARCH 616. The team also found compelling examples of how cultural diversity is addressed in the ARCH4280 and 4284 Architectural History sequence, where examples from different cultures, places, and social conditions are considered.

Realm A. General Team Commentary: The team was generally impressed with the importance placed by the program on research, history and precedents, and design execution. Throughout the work of the program, we found an engagement in research, both into topics related to studios, and into design precedents. Many works addressed issues where the cultural awareness of different places, people, and customs became central to the architectural response. Many examples of student work also proposed addressing and solving issues of social equity through designs in areas of blight, for underrepresented peoples, and for programs that are positioned to have a positive social impact on the people that they were intended to serve.

Realm B: Building Practices, Technical Skills, and Knowledge: Graduates from NAAB-accredited programs must be able to comprehend the technical aspects of design, systems, and materials, and be able to apply that comprehension to architectural solutions. In addition, the impact of such decisions on the environment must be well considered.

Student learning aspirations for this realm include

- Creating building designs with well-integrated systems.
- Comprehending constructability.
- Integrating the principles of environmental stewardship.
- Conveying technical information accurately.

- B.1 Pre-Design:** *Ability* to prepare a comprehensive program for an architectural project that includes an assessment of client and user needs; an inventory of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria.

[X] Not Met

2018 Team Assessment: Evidence of student achievement at the prescribed level was not found consistently in the courses identified in the SPC Matrix, or in other areas that the team explored in the team room, or through requests of the program for additional material. Fragments of evidence were found throughout the curriculum, but the team was not able to point to a particular place where every graduate is ensured of consistent application of the topics of this SPC.

- B.2 Site Design:** *Ability* to respond to site characteristics, including urban context and developmental patterning, historical fabric, soil, topography, ecology, climate, and building orientation, in the development of a project design.

[X] Met

2018 Team Assessment: Evidence of student achievement at the prescribed level was consistently found in student work prepared for ARCH438 and in fragments throughout the curriculum, particularly in the Degree Project, ARCH616.

- B.3 Codes and Regulations:** *Ability* to design sites, facilities, and systems that are responsive to relevant codes and regulations, and include the principles of life-safety and accessibility standards.

[X] Met

2018 Team Assessment: Evidence of student achievement at the prescribed level was found in student work not only in ARCH646 Professional Practice but also in ARCH438 Environmental Systems 1. In the first, the exams show the students addressing zoning and local ordinances, code definitions within the IBC, and other issues associated with life-safety concerns (such as requirements for fire suppression systems in regards to space requirements). In ARCH438, the work shown presents students' design of ADA accessible ramps and routes.

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

[X] Met

2018 Team Assessment: Evidence of student achievement at the prescribed level was found in student work prepared for ARCH 445, Building Systems, and ARCH 538C, Advanced Building Systems. The team agreed that the consistent quality of technical documentation throughout the curriculum outweighed the lack of consistent evidence of preparing an outline specification, though it should be noted that evidence in syllabi and lectures demonstrated that the topic was covered in lecture format.

- B.5 Structural Systems:** *Ability* to demonstrate the basic principles of structural systems and their ability to withstand gravitational, seismic, and lateral forces, as well as the selection and application of the appropriate structural system.

[X] Met

2018 Team Assessment: Evidence was demonstrated through ARCH447A Structures I and ARCH448A Structures II. Evidence of competency was found in examples of homework and midterm and finals exams. Evidence of application was also found in ARCH616 Degree Project.

B.6 Environmental Systems: *Ability* to demonstrate the principles of environmental systems' design, how design criteria can vary by geographic region, and the tools used for performance assessment. This demonstration must include active and passive heating and cooling, solar geometry, daylighting, natural ventilation, indoor air quality, solar systems, lighting systems, and acoustics.

[X] Met

2018 Team Assessment: Evidence of student achievement at the prescribed level was found in student work prepared for ARCH438 and ARCH439 through precedent and case studies, projects and very compelling video documentary style presentations.

B.7 Building Envelope Systems and Assemblies: *Understanding* of the basic principles involved in the appropriate selection and application of building envelope systems relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

[X] Met

2018 Team Assessment: Met with Distinction: Evidence of student achievement at the prescribed level was found in student work prepared for ARCH438 and ARCH439 through precedent and case studies, projects and very compelling video documentary style presentations. Additionally, ARCH 445, Building Systems, demonstrated a substantial level of accomplishment in the preparation of drawings and models of building envelope systems and assemblies. Evidence of conceptual application of envelop principles and variations was evident in ARCH616, Degree Project.

B.8 Building Materials and Assemblies: *Understanding* of the basic principles used in the appropriate selection of interior and exterior construction materials, finishes, products, components, and assemblies based on their inherent performance, including environmental impact and reuse.

[X] Met

2018 Team Assessment: Evidence was found in ARCH 445, Building Systems, through work that showcases the students' understanding of basic principles. Understanding of construction materials, finishes, products, components, and assemblies are described through both 2D and 3D representations as well as project documentation with proper R-Values, environmental considerations.

B.9 Building Service Systems: *Understanding* of the basic principles and appropriate application and performance of building service systems, including lighting, mechanical, plumbing, electrical, communication, vertical transportation, security, and fire protection systems.

[X] Not Met

2018 Team Assessment: Evidence of student achievement at the prescribed level was not found consistently in the courses identified in the SPC Matrix, in other areas that the team explored in the team room, or through requests of the program for additional material. While many components of this SPC were found consistently in courses ARCH439, Environmental Systems II, and ARCH538C, Advanced Building Systems, the visiting team could not find consistent evidence of plumbing and fire protection systems.

B.10 Financial Considerations: *Understanding* of the fundamentals of building costs, which must include project financing methods and feasibility, construction cost estimating, construction scheduling, operational costs, and life-cycle costs.

[X] Not Met

2018 Team Assessment: Evidence of student achievement at the prescribed level was not found consistently in the courses identified in the SPC Matrix, in other areas that the team explored in the team room, and through requests of the program for additional material. Fragments of B10 were found in ARCH580, Design Research, and ARCH646, Professional Practice, but the team was unable to find consistent evidence of the entire scope of B10 in the curriculum.

Realm B. General Team Commentary: Overall, Realm B elements have been met through a variety of classroom and studio work as evident in reports, exams, papers, physical models, and hand and digital 2D and 3D drawings. Seven of the ten SPC in this realm have been met, including SPC B7 with distinction. Three SPC's were not met as there was not clear evidence presented for all or part of the required criteria. The program addresses the bulk of Realm B questions very well, and the demonstrated understanding and application of technical and professional content contained within this Realm is a strength of the program as a whole.

Realm C: Integrated Architectural Solutions: Graduates from NAAB-accredited programs must be able to demonstrate that they have the ability to synthesize a wide range of variables into an integrated design solution.

Student learning aspirations in this realm include:

- Comprehending the importance of research pursuits to inform the design process.
- Evaluating options and reconciling the implications of design decisions across systems and scales.
- Synthesizing variables from diverse and complex systems into an integrated architectural solution.
- Responding to environmental stewardship goals across multiple systems for an integrated solution.

C.1 Research: *Understanding* of the theoretical and applied research methodologies and practices used during the design process.

[X] Met

2018 Team Assessment: Evidence found in ARCH4284, Architectural History II, and ARCH580, Design Thinking, shows an ability of the students to understand the relevant issues related to architecture projects through the development of general research skills. Architectural History II defines what types of research skills are appropriate to use, and these are applied to the production of the final paper. In ARCH580, this is demonstrated in the research and preparatory work for the subsequent Degree Project. The evidence demonstrated that students engage in investigations into conceptual and philosophical issues that will help structure their understanding of the problem.

C.2 Integrated Evaluations and Decision-Making Design Process: *Ability* to demonstrate the skills associated with making integrated decisions across multiple systems and variables in the completion of a design project. This demonstration includes problem identification, setting evaluative criteria, analyzing solutions, and predicting the effectiveness of implementation.

[X] Met

2018 Team Assessment: Evidence of student achievement at the prescribed level was found in student work prepared for ARCH611, Architectural Design VII, and ARCH616, Degree Project. In-depth analysis of multiple factors was seen in graphic representations, drawings, and models for the upper level design classes.

C.3 Integrative Design: *Ability* to make design decisions within a complex architectural project while demonstrating broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies.

[X] Met

2018 Team Assessment: The team found evidence that C-3 Integrative Design is met in ARCH538C Advanced Building Systems, in particular by a series of narrated videos produced by students that examine and document case studies of a variety of building types. Integrative design is also evident in ARCH616 Degree Project through narratives and graphic representations that depict thoughtful individually developed projects.

Realm C. General Team Commentary: The team observed strong research approaches that result in compelling architectural studies spanning the yearlong Design Thinking/Degree Project combination. Research and investigation is particularly strong at WUSTL, and it appears to the team that this translates into exceptional architecture projects in ARCH611, Architectural Design VII, and ARCH616, Degree Project, in particular.

Realm D: Professional Practice: Graduates from NAAB-accredited programs must understand business principles for the practice of architecture, including management, advocacy, and the need to act legally, ethically, and critically for the good of the client, society, and the public.

Student learning aspirations for this realm include:

- Comprehending the business of architecture and construction.
 - Discerning the valuable roles and key players in related disciplines.
- Understanding a professional code of ethics, as well as legal and professional responsibilities.

D.1 Stakeholder Roles in Architecture: *Understanding* of the relationships among key stakeholders in the design process—client, contractor, architect, user groups, local community—the architect’s role to reconcile stakeholders needs.

[X] Met

2018 Team Assessment: Evidence of student achievement at the prescribed level was found in student work prepared for ARCH646, Professional Practice.

D.2 Project Management: *Understanding* of the methods for selecting consultants and assembling teams; identifying work plans, project schedules, and time requirements; and recommending project delivery methods.

[X] Met

2018 Team Assessment: This SPC is met through ARCH646 - Professional Practice, as evident within material covered through the course work. The Professional Practice course is evaluated through exams and student-presented lecture work. These deliverables express an understanding of selecting

consultants, assembling teams, identifying work plans, project schedules, time requirements and project delivery methods.

D.3 Business Practices: *Understanding* of the basic principles of a firm's business practices, including financial management and business planning, marketing, organization, and entrepreneurship.

[X] Met

2018 Team Assessment: Evidence of student achievement at the prescribed level was found in student work prepared for ARCH646, Professional Practice.

D.4 Legal Responsibilities: *Understanding* of the architect's responsibility to the public and the client as determined by regulations and legal considerations involving the practice of architecture and professional service contracts.

[X] Met

2018 Team Assessment: This SPC is met through ARCH646, Professional Practice, as evidenced by the syllabus and the presentation of 8 lectures dealing with the legal framework of architecture practice. Representative exam work reflected a high level of understanding on the part of the students.

D.5 Professional Ethics: *Understanding* of the ethical issues involved in the exercise of professional judgment in architectural design and practice and understanding the role of the NCARB Rules of Conduct and the AIA Code of Ethics in defining professional conduct.

[X] Met

2018 Team Assessment: Evidence of student achievement at the prescribed level was found in student work prepared for ARCH646, Professional Practice.

Realm D. General Team Commentary: The entire Realm D area is met in one course, ARCH646 Professional Practice. While the team agrees that each of the SPC in Realm D is met, it seems to the team that relying on one course to meet all five of the Realm D SPC results in a very light touch on subject matter that is critical to the professional practice of architecture. This is especially true for a program that pays close attention to practice leadership and preparation. It was a little surprising that more of Realm D content wasn't present in other aspects of the curriculum and creatively explored as territory of further investigation.

Part Two (II): Section 2 – Curricular Framework

II.2.1 Institutional Accreditation

For a professional degree program in architecture to be accredited by the NAAB, the institution must meet one of the following criteria:

1. The institution offering the accredited degree program must be or be part of an institution accredited by one of the following U.S. 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); or the Western Association of Schools and Colleges (WASC).

2. Institutions located outside the United States and not accredited by a U.S. regional accrediting agency may pursue candidacy and accreditation of a professional degree program in architecture under the following circumstances:
 - a. The institution has explicit written permission from all applicable national education authorities in that program's country or region.
 - b. At least one of the agencies granting permission has a system of institutional quality assurance and review which the institution is subject to and which includes periodic evaluation.

[X] Met

2018 Team Assessment: The team observed evidence that the university maintains regional accreditation. <https://wustl.edu/academics/accreditation/>

II.2.2 Professional Degrees and Curriculum: The NAAB accredits the following professional degree programs with the following titles: 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 optional studies.

The B. Arch., M. Arch., and/or D. Arch. are titles used exclusively with NAAB-accredited professional degree programs. The B. Arch., M. Arch., and/or D. Arch. are recognized by the public as accredited degrees and therefore should not be used by nonaccredited programs.

Therefore, any institution that uses the degree title B. Arch., M. Arch., or D. Arch. for a nonaccredited degree program must change the title. Programs must initiate the appropriate institutional processes for changing the titles of these nonaccredited programs by June 30, 2018.

The number of credit hours for each degree is specified in the *2014 NAAB Conditions for Accreditation*. All accredited program must conform to the minimum credit hour requirements:

[X] Met

2018 Team Assessment: The program meets this requirement in its program offerings. The M. Arch. accredited degree is the sole degree offered by the institution using this nomenclature. Advanced degrees use the Master of Science degree nomenclature. The three tracks to the M. Arch. degree meet the minimum credit hour requirements.

Part Two (II): Section 3 – Evaluation of Preparatory Education

The program must demonstrate that it has a thorough and equitable process for evaluating the preparatory or preprofessional education of individuals admitted to the NAAB-accredited degree program.

- Programs must document their processes for evaluating a student's prior academic course work related to satisfying NAAB student performance criteria when a student is admitted to the professional degree program.
- In the event a program relies on the preparatory educational experience to ensure that admitted 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.
- The program must demonstrate that the evaluation of baccalaureate-degree or associate-degree content is clearly articulated in the admissions process, and that the evaluation process and its implications for the length of a professional degree program can be understood by a candidate before accepting the offer of admission. See also Condition II.4.6.

[X] Met

2018 Team Assessment: The program provided evidence to the team that it reviews the transcripts and portfolios for any applicants that petition for advanced placement in the MArch 2+ or MArch 2 tracks. Waivers are allowed for a maximum of seven courses in the professional program (ARCH4280, ARCH4284, ARCH438, ARCH439, ARCH445, ARCH447A, and ARCH448A). As part of its "Graduate Architecture Course Waiver Process," the program reviews the materials and the faculty teaching these courses are enlisted to assist the programs manager in awarding a waiver. The faculty reviews the syllabus and work from the class requested as a waiver and determines adequate equivalence of content and SPC. Evidence was provided to the team regarding the policy and practice of the waiver process in the team room through student files and waiver policies and worksheets.

Part Two (II): Section 4 – Public Information

The NAAB expects programs to be transparent and accountable in the information provided to students, faculty, and the public. As a result, the following seven conditions require all NAAB-accredited programs to make certain information publicly available online.

II.4.1 Statement on NAAB-Accredited Degrees:

All institutions offering a NAAB-accredited degree program or any candidacy program must include the *exact language* found in the *NAAB Conditions for Accreditation*, Appendix 1, in catalogs and promotional media.

[X] Met

2018 Team Assessment: The team found evidence that printed and web materials contain the required language.

II.4.2 Access to NAAB Conditions and Procedures:

The program must make the following documents electronically available to all students, faculty, and the public:

The 2014 NAAB Conditions for Accreditation

The Conditions for Accreditation in effect at the time of the last visit (2009 or 2004, depending on the date of the last visit)

The NAAB Procedures for Accreditation (edition currently in effect)

[X] Met

2018 Team Assessment: The team found evidence on the school website under the Accreditation tab that the NAAB documents are present.

II.4.3 Access to Career Development Information:

The program must demonstrate that students and graduates have access to career development and placement services that assist them in developing, evaluating, and implementing career, education, and employment plans.

[X] Met

2018 Team Assessment: The team noted an abundance of evidence that career development information and mentoring are actively provided by the program through the website, university and school career services, and through faculty and alumni mentoring.

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 electronically available to the public:

- All Interim Progress Reports (and narrative Annual Reports submitted 2009-2012).
- All NAAB Responses to Interim Progress Reports (and NAAB Responses to narrative Annual Reports submitted 2009-2012).
- The most recent decision letter from the NAAB.

- The most recent APR.^[1]
- The final edition of the most recent Visiting Team Report, including attachments and addenda.

[X] Met

2018 Team Assessment: All applicable public reporting requirements are accessible via the school website: <http://samfoxschool.wustl.edu/node/5539>. (Because the current term of accreditation is 6-year under the 2009 Conditions for Accreditation, Interim Reporting was not required.)

II.4.5 ARE Pass Rates:

NCARB publishes pass rates for each section of the Architect Registration Examination by institution. This information is considered useful to prospective students as part of their planning for higher/post-secondary education in architecture. Therefore, programs are required to make this information available to current and prospective students and the public by linking their websites to the results.

[X] Met

2018 Team Assessment: The ARE Pass Rates are publically accessible via the school website: <http://samfoxschool.wustl.edu/node/5539>. The page links directly to the ARE Pass Rates website managed by NCARB.

II.4.6 Admissions and Advising:

The program must publicly document all policies and procedures that govern how applicants to the accredited program are evaluated for admission. These procedures must include first-time, first-year students as well as transfers within and outside the institution.

This documentation must include the following:

- Application forms and instructions.
- Admissions requirements, admissions decision procedures, including policies and processes for evaluation of transcripts and portfolios (where required), and decisions regarding remediation and advanced standing.
- Forms and process for the evaluation of preprofessional degree content.
- Requirements and forms for applying for financial aid and scholarships.
- Student diversity initiatives.

[X] Met

2018 Team Assessment: The team reviewed admissions processes and found evidence in many of the items found on the program website: <http://samfoxschool.wustl.edu/node/4121>. The team also reviewed the advising files of a cross-section of students and found admissions and advising materials to contain additional evidence of clear admissions and advising policies and practices.

II.4.7 Student Financial Information:

- The program must demonstrate that students have access to information and advice for making decisions regarding financial aid.
- The program must demonstrate that students have access to an initial estimate for all tuition, fees, books, general supplies, and specialized materials that may be required during the full course of study for completing the NAAB-accredited degree program.

[X] Met

2018 Team Assessment: The team observed publicly accessible information regarding student tuition costs, financial aid, grants, and scholarships available. The school website publishes this information, though the program points out that costs associated with attending the program are complicated because so much of the cost is reduced through tuition remission, in addition to grants and other forms of support. One area of concern addressed earlier in the VTR included the apparent difficulty of some of the students in the program being able to financially bear the cost of travel programs for regular curriculum. The team observed that this had the tendency to limit participation based on economic means.

PART THREE (III): ANNUAL AND INTERIM REPORTS

III.1 Annual Statistical Reports: The program is required to submit Annual Statistical Reports in the format required by the *NAAB Procedures for Accreditation*.

The program must certify that all statistical data it submits to the 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.

[X] Met

2018 Team Assessment: The Annual Statistical Reports are publically accessible via the school website: <http://samfoxschool.wustl.edu/node/5539>.

III.2 Interim Progress Reports: The program must submit Interim Progress Reports to the NAAB (see Section 10, *NAAB Procedures for Accreditation*, 2015 Edition).

[X] Met

2018 Team Assessment: Because the current term of accreditation is 6-year under the 2009 Conditions for Accreditation, Interim Reporting was not required.

IV. Appendices:

Appendix 1. Conditions Met with Distinction

A2 Design Thinking Skills

A3 Investigative Skills

A7 History and Global Culture

A8 Cultural Diversity and Social Equity

B7 Building Envelope Systems and Assemblies

Appendix 2. Team SPC Matrix

2018 WUSTL Student Performance Criteria Matrix (As Observed by the Visiting Team)

	Realm A	Realm B	Realm C	Realm D
A.1 Professional Communication Skills (A)			C.1 Research (U)	D.1 Stakeholder Roles in Architecture (U)
A.2 Design Thinking Skills (A)			C.2 Integrated Evaluation and Decision-Making Design Process (A)	D.2 Project Management (U)
A.3 Investigative Skills (A)			C.3 Integrative Design (A)	D.3 Business Practices (U)
A.4 Architectural Design Skills (A)		B.7 Building Envelop Systems and Assemblies (U)		D.4 Legal Responsibilities (U)
A.5 Ordering Systems (A)		B.8 Building Materials and Assemblies (U)		D.5 Professional Conduct (U)
A.6 Use of Precedents (A)		B.9 Building Service Systems (U)		
A.7 History and Global Culture (U)		B.10 Financial Considerations (U)		
A.8 Cultural Diversity and Social Equity (U)				
B.1 Pre-Design (A)				
B.2 Site Design (A)				
B.3 Codes and Regulations (A)				
B.4 Technical Documentation (A)				
B.5 Structural Systems (A)				
B.6 Environmental Systems (A)				

ARC317	ARCH DESIGN I
ARC318	ARCH DESIGN II
ARC419	ARCH DESIGN III
ARC511/512	ARCH DESIGN IV, V
ARC611	ARCH DESIGN VII
ARC616	DEGREE PROJECT
ARC323A	ARCH REP I
ARC323B	ARCH REP II
ARC339	CONCEPTS AND PRINCIPLES
ARC4280	ARCH HISTORY I
ARC4284	ARCH HISTORY II
ARC438	ENV. SYSTEMS I
ARC439	ENV. SYSTEMS II
ARC447A	STRUCTURES I
ARC448A	STRUCTURES II
ARC445	BUILDING SYSTEMS
ARC538C	ADV. BUILDING SYSTEMS
ARC580	DESIGN THINKING: RESEARCH AND DESIGN
ARC646	PROFESSIONAL PRACTICE

[illegible]

Not Met	B1	B9	B10
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Met with Distinction	A2	A3	A7	A8	B7
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Appendix 3. The Visiting Team

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V. Report Signatures

Respectfully Submitted,



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Team Chair



Glenn Fellows, AIA
Team Member



Margo Jones, FAIA
Team Member



Michael Chang
Team Member



Luis E. Carranza, Ph.D.
Non-Voting Team Member