



Rensselaer

ALAN BALFOUR
DEAN, SCHOOL OF ARCHITECTURE

April 14, 2004

Mr. DeLon Howell
Accreditation Manager
National Architecture Accrediting Board
1735 New York Avenue, NW
Washington, DC 20006

Dear Mr. Howell:

I am broadly satisfied with the Visiting Team Report, and found the visit both constructive and valuable. I have the following observations:

- On page 1, under *Study Abroad*, I am unaware of any intention to cut back on foreign language offerings. While the number of German language electives has been reduced since the last accreditation, Japanese I-IV and Chinese I-III language courses have been added, thus the Institute has broadened its overall language selection. Additionally, I believe the School of Humanities and Social Sciences has plans to further extend their language classes.
- A detail on page 2 under *Technical Integration Throughout the Curriculum*: Rensselaer is the oldest *non-military* technical institution in the English speaking world.
- On *Causes of Concern*:
 - *Social Equity*: I am pleased to see the report notes that Diversity is a central element of the Rensselaer Plan, and in my view this institution is more committed to achieving Social Equity than any I have been part of.
 - *Financial Resources*: Rensselaer is experiencing the same economic stress as other universities; however, the Institute has been responsive and supportive of our graduate program growth while continuing its strong commitment to our accredited undergraduate program.
- On *Conditions Not Met*:
 - *National and Regional Traditions*: On National and Regional Traditions the team was very helpful in drawing our attention to an area that we accept needs strengthening.
 - *Accessibility*: This is an aspect of the architect's public responsibility that we take very seriously. We have instruction in the principles of universal access for the disabled, and cover all requirements of the ADA. All projects within the capstone Design Development Studio must satisfy ADA requirements. But again, I trust the team's judgment and will ensure that we strengthen this in our instruction and within the broader range of studio offerings.
 - *Program Preparation*: I am pleased that the team recognized that the teaching of programming had been addressed since the last visit and that progress had been made. Implicitly, the report recognized that the final project and thesis work was developed and programmed independently by each student, but because the topics varied widely and were not always specific building projects, the team felt the

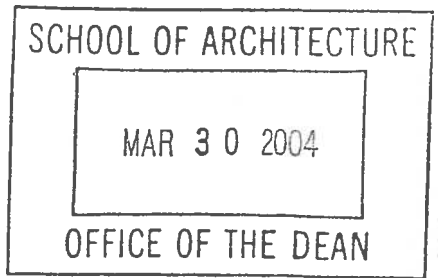
experience failed to adequately establish clear programming ability. Although I support the faculty belief in cultivating a broad approach to programming and problem definition, I assure you that a much more formal programming component will be a required part of the future curriculum.

I thank you for your supportive administration of this complex process.

Sincerely,

A handwritten signature in dark ink, appearing to read "Alan Balfour", with a long, sweeping horizontal stroke extending to the right.

Alan Balfour
Dean



**Rensselaer Polytechnic Institute
School of Architecture**

Visiting Team Report

**Bachelor of Architecture (5 years)
Master of Architecture (degree + 3 1/2 years)**

**The National Architectural Accrediting Board
February 25, 2004**

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.

MAR - 9 2004

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I. Summary of Team Findings

1. Team Comments

This accreditation team was asked to review two degree programs, a 5-year Bachelor of Architecture degree and a Master of Architecture program consisting of a Bachelor's degree plus 3 1/2 years. While the team reserved the option to release a separate Visiting Team Report for each program, we concluded that it was best to develop a single report with separate indications of "met/not met" for each condition and criterion. As the report indicates, the team found that the response to both programs was nearly identical in terms of all categories of team findings. There are specific comments in this report that do reference observations specific to one particular degree program.

Students and Faculty

The students and faculty at the School of Architecture at Rensselaer Polytechnic Institute (RPI) form a tight-knit group of articulate and talented individuals. Students are involved in the life of the school, including participation in committees and organizations such as AIAS. They are committed to the first stage of building careers that are directed towards internship, registration, and practice, and they are knowledgeable about the steps and standards that lead through this process. There appears to be little distinction socially between the students of the two degree programs, perhaps in part because the MArch students represent a small minority of the overall student body.

Students find that the faculty is approachable, both in the studio and classroom setting, as well as for advising, both formal and informal.

The strong faculty has grown over the past few years with several important additions. Since clinical and research faculty play an important role in school programs, it was valuable to observe that distinctions between these and instructional tenure and tenure-track faculty appear to be slight. The team was pleased to find that there is a strong sense of faculty working together as a single entity, with a good balance, for the present, of experience and new ideas. While many faculty are actively engaged in research and practice, some faculty appear so devoted to instructional responsibilities and the challenges to improve and refresh the curriculum each year, that efforts on scholarly work and publications may take a back seat.

Issues related to the need to improve diversity with new faculty appointments are discussed in detail below (Causes of Concern).

The staff, both in the Dean's office and in the fine library, is exceptional. Staff members are ready to help both students and faculty, and they seem to be very much a part of the life of the school.

Study Abroad

Rensselaer offers two Study Abroad programs that enrich the life of both the students and faculty who take part in the programs as well as those to whom they present their experiences upon return. A larger program in Rome and a smaller one in Shanghai provide a balance of exposure to both Western and non-Western traditions. Examples of the work brought back from both programs indicate that student experiences go beyond what might customarily be expected and extend into areas that truly broaden the student experience. The school also has had a program in Ahmedabad, India, that was suspended due to political unrest, but is planned to resume operation next spring. In part due to these programs, the School of Architecture has done a much more thorough job of integrating non-Western traditions into the curriculum, an area that was noted as a deficiency in the previous 1998 visit.

The team is concerned by signs that the Institute is cutting back on offerings in foreign language instruction.

Studio Environment and Facility Improvements

In addition to addressing the most critical facility needs to provide accessibility to Greene, with the installation of an elevator and second exit stair, the School of Architecture has also pursued other adaptations of the building that have had a positive effect on both curriculum and the quality of the student experience. These include the development of the Drawing Studio in Room 206, the site of much exciting work, and the provision, in the 4th floor studio area, of a series of four digital projectors with large screens that can be lowered for studio use.

Research Culture and Start Up

RPI President Shirley Ann Jackson has set a strong direction for the institute, emphasizing a research paradigm with a practice orientation. The School of Architecture is playing a strong role in this transformation, integrating several key research initiatives in acoustics, lighting (with the leadership of the Lighting Research Center), and informatics. Thus far, a balance of research and instruction has been maintained, and the curriculum has been strengthened in the process.

As this direction continues, the school is likely to face a number of challenges. The most important of these relate to funding, including allocation of adequate resources for start-up, and the implications for space utilization and expansion for the entire school. As the research model is fully realized within the School of Architecture, it is likely that successes will be balanced by demands on program space that cannot be met in the existing facilities at Greene. It is unknown where this will lead, whether to satellite facilities, perhaps in the city of Troy below the campus, co-location with other schools on campus, or expansion of existing facilities. Whatever the solutions, the school must also ensure that as research programs grow they still maintain a strong connection with the instructional and academic base of the school and its mission.

This issue forms the basis of the second Cause of Concern discussed in the report below.

Strength of Relationship Between School and Institution

As RPI has begun to move through the transformation initiated by the President, the school has accepted a leadership role within the institute, finding new ways to adapt and integrate the new research paradigm within the school's mission. This includes the effort of the Dean to maintain a strong funding base for school operations while working with new directions established by the President and Provost. Through such efforts, the Dean has been able to serve as an effective advocate for the deans of the colleges that comprise the Institute. The school has also led the way in collaborative models that include other programs at the institute, including the Product Design Initiative, several joint appointments, and teaming of engineering students in some studio projects including the Design Development Studio.

Technical Integration Throughout the Curriculum

The School of Architecture has a unique position as a component of the oldest technical institute in the English-speaking world. Student and faculty work exhibits a mature approach to the integration of technology in the architecture enterprise. The team was impressed by these efforts. Of note is the balance in the curriculum, for first year undergraduates, of courses that emphasize computer-generated design process and presentation techniques with hands-on approaches including free-hand representation (as in the Extreme Drawing class) and physical model construction. A fine shop, complete with a three-axis milling machine, augments this effort.

PhD Program

A new PhD program in architectural science was approved days before the Visiting Team arrived at RPI. This holds much promise for the enrichment of the entire program, as well as providing opportunities to build the faculty base of the school. As with the growth of the research model, attention should be paid to ensuring that core academic programs maintain strength as this exciting new program matures.

On-site Building Experiences

The school has taken advantage of the construction of the new Biotechnology & Interdisciplinary Studies Research Center building to provide the framework for a class that is an expansion of the Professional Practice Curriculum, including student/faculty visits to the construction site, tied to specific learning opportunities. There are encouraging signs that this type of experience will also be available as RPI develops the exciting new EMPAC (Electronic Media and Performing Arts Center), the drawings for which are already made available for study by students in the Design Development Studio.

2. Progress Since the Previous Site Visit

The previous visiting team found in its report that four conditions were not met.

Criterion 12.9: *Ability to provide a coherent rationale for the programmatic and formal precedents employed in the conceptualization and development of architecture and urban design projects.*

Previous Team Report: *The team observed a greater awareness of precedent in submitted graduate work.*

Although there is limited exposure to design precedents, the team did not observe the ability to apply material learned in the case studies. As demonstrated by the assessment of faculty from the prepared materials submitted in the Team Room, this conclusion was drawn from written and stated faculty presentations. This conclusion was confirmed by observation in the design studios.

The Team found that this criterion has been addressed and resolved.

The Team saw evidence that the use of precedents has become far more pervasive, in studio curriculum as well as in several of the other required courses. This includes case study exercises found in both the second year and Design Development studios. A foundation for the use of precedents is found in the Contemporary Design Approaches course offering.

Criterion 12.11: *Awareness of the parallel and divergent canons and traditions of architecture and urban design in the non-Western world.*

Previous Team Report: *The team did not observe a substantial dedication to the canons of non-Western thought in any of the required courses of the B.Arch. or M.Arch. curriculum.*

The Team found that this criterion has been addressed and resolved.

The Team found clear evidence in both coursework and in the studio context that a concerted effort has been made to include non-Western traditions into the curriculum in a meaningful way. Material on Islamic and Asian architecture has been included in the Building and Thinking Architecture required history/theory sequence and the Shanghai Study Abroad program, although not designed for a large number of participants, nevertheless has an impact on the level of student awareness, through presentations and discussions of work by returning students.

Criterion 12.13: *Understanding of the basic principles of ecology and architects' responsibilities with respect to environmental and resource conservation in architecture and urban design.*

Previous Team Report: *In the B.Arch. and M.Arch. curricula the team observed an awareness of the basic principles of ecology and resource conservation; however, evidence was not provided to demonstrate an understanding of these principles in student work.*

The Team found that this criterion has been addressed and resolved.

The School of Architecture has made significant strides in strengthening this criterion, both in the hiring of new faculty with specialties related to the fields of ecology, sustainability and the environment, but also in coursework, such as some of the vertical studios. Two of the faculty searches currently under way should help strengthen this area further.

The visiting team observed an active exploration of ecological and resource efficiency principles in the studio work, that builds on the environmental systems and building systems courses. Bioclimatic analysis, dynamic building envelopes, natural ventilation, solar shading, material life cycle assessment, renewable energy systems, and waste reduction/resource efficiency are evident in the projects done from the initial design courses through the advanced design development studios.

Criterion 12.30: *Ability to assemble a comprehensive program for an architecture project, including an assessment of client and user needs, a critical review of appropriate precedents, an inventory of space and equipment requirements, an analysis of site conditions, a review of the relevant laws and standards and an assessment of their implications for the project, and a definition of site selection and design assessment criteria.*

Previous Team Report: *The team did not observe the practices of programming, needs assessment, and post occupancy evaluation in any aspect of the studio work and classroom activity. The programming activity was noticeably absent from thesis and final project books. Further, this criterion was not demonstrated in any aspect of the curriculum in either the M.Arch. or B.Arch. requirements. The team is concerned about this absence of consideration given developments in the conduct of the profession.*

The Team found that this criterion is still not met.

While the APR raises the example of case studies in the second level studio as an example of improved focus on this criterion, the Team found that the program still does not meet the conditions for compliance. In part, because the exercise is introduced in the early years of both programs, the level of ability achieved with respect to programming is not that which is indicated by the term "comprehensive". Where in some schools' programs a final project or thesis focused on a particular building project might result in a preliminary programming exercise of a comprehensive nature, the theoretical and exploratory nature of most final project and theses in the two RPI programs suggests that compliance with this criterion would best be developed elsewhere in the curriculum.

Significant progress toward 'Understanding' has been made on this front with the introduction of programming into the second year, and increased programming activities in a few of the vertical studios. However, this criterion has been set at the performance standard of 'Ability' for accreditation, and it is the position of this team that 'Ability' has yet to be attained by all students. The standard of "Ability" is not likely to be achieved if the only exposure is to students at the earliest stages of professional education, before a full understanding of the interrelationship of design issues and human factors can be developed.

3. Conditions Well Met

8. Information Resources

12.1 Verbal and Writing Skills

12.10 Western Traditions

4. Conditions Not Met

12.12 National and Regional Traditions

12.14 Accessibility

12.30 Program Preparation

5. Causes of Concern

4. Social Equity

The Team registers a serious concern regarding diversity issues with respect to faculty hiring and student recruitment:

The Institute's Strategic Plan identifies improved diversity of the faculty and student body as a top priority. The new position of Vice Provost for Diversity has been created, and financial underwriting for salaries has been set aside to assist with this effort. Diversity in intellectual position, geographic location, gender and cultural/ethnic background are the metrics for diversity in the Rensselaer Plan.

Although more progress needs to be made in all areas, those requiring the greatest attention are of gender and cultural/ethnic diversity among the faculty.

Meeting diversity objectives remains more an ambition than a reality in the School of Architecture. The last report highlighted diversity as an area needing attention. Since the spring 1999 visit, the school has filled six tenure and tenure-track searches with men (as noted in Section "F"), and there are only two women among 17 tenure and tenure-track faculty. With four searches underway, and more in the near future, every effort should be made to enrich the faculty search process (e.g., using search firms, aggressive person to person recruitment plans, searches of venues of scholarly production), to seek out women, minority candidates and those of diverse ethnic backgrounds. Moreover, a climate of hospitality and mentoring of women and minority faculty needs to be engendered and maintained. Perhaps, most importantly, the School of Architecture must look on this challenge as an opportunity, for growth and development of the faculty as well as the enrichment of the life of the school as a whole.

The Institute has taken the lead on student recruitment on an institutional-wide front. However, the School should support this effort by working toward additional means to identify, recruit, and retain students from under-represented minority groups.

9. Financial Resources:

There is sufficient funding to support the accredited programs of the school (80% of the student compliment). Resources were made available to upgrade facilities to enhance building accessibility, including an elevator and a second exit stair, but there are yet some additional accessibility elements that need to be improved. While the Institute budget has grown as a result of various initiatives, the Education and General (E&G) budget has been under stress; allocations to the school have been flat or slightly declining, at a greater rate than that for the reductions due to centralization of certain activities and costs (e.g., facilities & admissions). The evolving paradigm to a research and practice-centered mission, and the newly approved PhD in Architectural Sciences, have a concomitant requisite for greater financial support for faculty start-up and additional funding to enable reduced teaching loads to foster scholarship of both an unfunded and funded nature.

In addition, the School may be facing potentially greater space needs, particularly as the research programs grow – requiring central capital support beyond what grants are likely to provide. Although the time when this increased demand for space has not yet been identified, the development of a plan to address this likelihood would be well-advised.

In summary, there is sufficient funding to support the accredited programs of the school. These resources need to be maintained while growing the research productivity of the school, allowing for continued improvement of building accessibility, and planning for the space needs of the future.

II. Compliance with the Conditions for Accreditation

1. Program Response to the NAAB Perspectives

Programs must respond to the relevant interests of the five constituencies that make up the NAAB: education (ACSA), members of the practicing profession (AIA), students (AIAS), registration board members (NCARB), and public members.

1.1 Architecture Education and the Academic Context

The program must demonstrate that it both benefits from and contributes to its institutional context.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [x] | [] |
| M.Arch | [x] | [] |

The School of Architecture is respected and supported by RPI's new administration, which has successfully stabilized the Institute's finances. The School's mission of research combined with professional practice is aligned with the Institute's emphasis on funded research programs. In addition, the Institute administration indicated that they would support both greater diversity among faculty and staff in the School as well as a larger emphasis on community engagement, which might lead to additional research curricular and faculty development and would also support the school's globalization experiments in IT-based course collaborations with international schools.

Both the Institute and School benefit from Architecture's engagement in interdisciplinary programs in acoustics, lighting, informatics, and Product Design Innovation. The EMPAC programs and facilities should enhance this symbiotic relationship. Cooperative programs among the faculties of engineering, architecture and IHSS are active and favorably viewed by all participants, including the PDI interface in the first year of the undergraduate architecture program and the civil engineering capstone project which is integrated with the Design Development studio. These programs provide potential to make an impact in required coursework in the accredited degree programs as well as in the M.Arch. II, M. Arch. I thesis and Undergraduate final projects. Architecture students also have access to Institute programs and School concentrations for selected minors, although scheduling conflicts, as well as the architecture major's core requirements, make this access challenging.

1.2 Architecture Education and Students

The program must demonstrate that it provides support and encouragement for students to assume leadership roles during their school years and later in the profession, and that it provides an interpersonal milieu that embraces cultural differences.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [x] | [] |
| M.Arch | [x] | [] |

Both undergraduate and graduate students generally feel their interests are heard and well represented to the school administration. Advising appears to be reasonably effective, providing students with the resources necessary for them to make decisions related to specific course selections as well as broader personal academic and career

issues. The program provides diverse opportunities for students to participate on school committees and assume other leadership positions through the AIAS, and a significant number of students have done so actively.

Both categories of student also feel they can facilitate and navigate individual learning agendas within the architecture curriculum to take advantage of the excellent resources afforded by the larger campus, including the manufacturing, lighting, and robotics laboratories.

Undergraduate students are able to take advantage of excellent study abroad programs involving them in design projects with students in other countries as well as developing their understanding of the built environment in other societies. Opportunities for the graduate students to cooperate with, assist, and share decision making with students from cultures other than their own are significantly less available given the manner in which the curriculum is currently structured.

Although the undergraduate students are well connected with one another and operate as a core body of individuals, there is some concern on the part of the Team that the M.Arch. graduate students across years of study are less aware of each other within the program.

1.3 Architecture Education and Registration

The program must demonstrate that it provides students with a sound preparation for the transition to internship and licensure.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

Students exhibit an awareness of the processes and issues involved in the transition to licensure, including an apparently clear understanding of the Intern Development Program (IDP). A notably high percentage of students indicated a desire to pursue and obtain architectural registration.

1.4 Architecture Education and the Profession

The program must demonstrate how it prepares students to practice and assume new roles within a context of increasing cultural diversity, changing client and regulatory demands, and an expanding knowledge base.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

There is a substantial involvement by practicing professionals in both required and elective courses, which encourages students to recognize the need for continued advancement of their knowledge throughout their architectural careers. The combination of the design development and professional practice courses addresses the roles of associated professionals and the requirements of ethics/integrity in practice. However,

there is limited support by the School for local AIA activities including encouragement of AIA membership by the faculty.

The School offers practicing professionals the opportunity to build new areas of expertise such as building conservation, lighting, and acoustics. However, the opportunities for Continuing Education programs for local professionals have not been realized. The School has exceptional possibilities for such programs. There is no participation in the established AIA CE program; such participation is not only encouraged but can also be a source of income.

1.5 Architecture Education and Society

The program must demonstrate that it not only equips students with an informed understanding of social and environmental problems but that it also develops their capacity to help address these problems with sound architecture and urban design decisions.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

Although there are several projects that engage the students in the cities of Troy and Albany, the level of public service associated with these projects could be strengthened. There are extensive opportunities in this arena for students to gain an understanding of architecture as a social art and to become familiar with the multiple stakeholders responsible for shaping the quality of the local built environment.

Students possess a good understanding of social and environmental issues, and they have increasingly selected Final Project topics of social import. Commitment to community involvement is more in the promise for the future, and past rather than the present. A COPC grant is in its final year; a community based studio and the community design charette is only periodically offered. There is a clear commitment from the President and the Institute to be more engaged; the addition of former Mayor Pattison to the adjunct faculty; the re-emergence of Troy/Capital region sites; and a general sense that architecture affects larger landscapes and quality of life are important examples, but direct community participation is limited.

2. Program Self-Assessment

The program must provide an assessment of the degree to which it is fulfilling its mission and achieving its strategic plan.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

The committees, as noted in the Self-Assessment, are functioning as described. The Design Discovery Week remains to be implemented. New faculty positions identified in the Self-Assessment have yet to be filled, but there are searches well under way to fill these. The School of Architecture received word that the PhD program has been approved, immediately prior to the visit of the accreditation team. The laboratories proposed have been implemented as described.

3. Public Information

The program must provide clear, complete and accurate information to the public by including in its catalog and promotional literature the exact language found in appendix A-2, which explains the parameters of an accredited professional degree program.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

4. Social Equity

The program must provide all faculty, students, and staff—irrespective of race, ethnicity, creed, national origin, gender, age, physical ability, or sexual orientation—with equitable access to a caring and supportive educational environment in which to learn, teach, and work.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

This has been noted above as a Cause of Concern.

While the Team considers this condition to have been met on the whole, this condition has been noted above as a Cause of concern. More progress needs to be made in all areas of diversity, particularly in the areas of gender and cultural/ethnic diversity among faculty.

5. Human Resources

The program must demonstrate that it provides adequate human resources for a professional degree program in architecture, including a sufficient faculty complement, an administrative head with enough time for effective administration, administrative and technical support staff, and faculty support staff.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

The team finds that this condition has been met. However, with the Institutional emphasis on funded research, the School of Architecture should be careful to protect faculty and staff support of teaching and scholarship central to the mission of the two accredited degree programs. To allow for this, the School should provide adequate release time from teaching to enable faculty to pursue research, scholarship, and professional and creative activities sufficient for advancement towards tenure and promotion.

6. Human Resource Development

Programs must have a clear policy outlining both individual and collective opportunities for faculty and student growth within and outside the program.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

See note at paragraph 5: Human Resources, and comments in Causes of Concern regarding Financial Resources.

7. Physical Resources

The program must provide physical resources that are appropriate for a professional degree program in architecture, including design studio space for the exclusive use of each full-time student; lecture and seminar spaces that accommodate both didactic and interactive learning; office space for the exclusive use of each full-time faculty member; and related instructional support space.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

Since the previous Accreditation visit accessibility and code compliance concerns have been addressed by the provision of an elevator, a new stairway, and a ramped entry bridge. These address the most critical needs, but others remain and should be scheduled for attention in the near future. These include provision of directional and door identification graphics, replacement of door knobs with levers, provision of handrails on both sides of stairways, provision of accessible drinking fountains, and correction of non-compliant accessory mounting heights in restrooms. There are insufficient maneuvering clearances in restroom vestibules, however the correction of this deficiency may not be structurally feasible. Aesthetic and functional improvements to the main entry to the building remain a most necessary previously identified need.

8. Information Resources

The architecture librarian and, if appropriate, the staff member in charge of visual resource or other non-book collections must prepare a self-assessment demonstrating the adequacy of the architecture library.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

This is a condition well met.

The library resources available to students and faculty are exceptional. Students and faculty are both involved in the selection process for new collections. In addition, the space is both a pleasant and inspiring place to research, study, and explore. The faculty members of the library committee have been critical in upgrading the library's acquisitions, and this effort deserves special note.

As the research initiatives of the school continue to grow, special attention should be paid to providing adequate funding to maintain the quality of this exceptional resource. This will be required to continue to develop the core professional program library and visual resources while adding new specialized materials for anticipated research direction.

9. Financial Resources

Programs must have access to institutional support and financial resources comparable to those made available to the other relevant professional programs within the institution.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

While the Team considers this Condition to have been met, this Condition has been noted above as a Cause of Concern.

There is sufficient funding to support the accredited programs of the school. While the Institute budget has grown as a result of various initiatives, the Education and General (E&G) budget has been under stress; allocations to the school have been flat or slightly declining, at a greater rate than that for the reductions due to centralizations of certain activities and costs (e.g., facilities and admissions). These resources need to be maintained while growing the research productivity of the school, allowing for continued improvement of building accessibility, and planning for the space needs of the future.

10. Administrative Structure

The program must be a part of, or be, an institution accredited by a recognized accrediting agency for higher education. The program must have a degree of autonomy that is both comparable to that afforded to the other relevant professional programs in the institution and sufficient to assure conformance with all the conditions for accreditation.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

The School of Architecture, under the leadership of the Dean's office but through the faculty body as well, can take pride in the fact that it has established itself in a leadership role on many issues within the Institute as a whole. This is of particular importance, as RPI has been engaged on a process of reinvention under the leadership of President Jackson.

11. Professional Degrees and Curriculum

The NAAB only accredits professional programs offering the Bachelor of Architecture and the Master of Architecture degrees. The curricular requirements for awarding these degrees must include three components—general studies, professional studies, and electives—which respond to the needs of the institution, the architecture profession, and the students respectively.

| Met | Not Met |
|-----|---------|
|-----|---------|

| | | |
|--------|-----|-----|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

The curricular requirements of both the B.Arch. and M.Arch. degree programs include the three required components – general studies, professional studies and electives – in the proportions specified by the NAAB.

12. Student Performance Criteria

The program must ensure that all its graduates possess the skills and knowledge defined by the performance criteria set out below, which constitute the minimum requirements for meeting the demands of an internship leading to registration for practice.

12.1 Verbal and Writing Skills

Ability to speak and write effectively on subject matter contained in the professional curriculum

| | | |
|--------|-----|---------|
| | Met | Not Met |
| B.Arch | [x] | [] |
| M.Arch | [x] | [] |

This is a condition well met.

Extensive writing assignments in courses throughout the curricula including design studio sequence demonstrate highly commendable abilities in the articulation of ideas and course-related knowledge. This evidence was found not only in work at the end of students' careers (Final Projects and Theses) but also in less formal writing in course work and examinations.

12.2 Graphic Skills

Ability to employ appropriate representational media, including computer technology, to convey essential formal elements at each stage of the programming and design process

| | | |
|--------|-----|---------|
| | Met | Not Met |
| B.Arch | [x] | [] |
| M.Arch | [x] | [] |

While the team acknowledges that the faculty has made a considerable effort to integrate both traditional drawing skills and computer visualization techniques into the design studios, many faculty and students expressed concern that computer techniques were too dominant in student design development processes and presentations. The Team, too, noted an emphasis on presentation in favor of content in some of the displayed work. It should be noted that this criterion had been identified as a condition well met on the previous visiting Team report but does not meet this highest standard at this time.

12.3 Research Skills

Ability to employ basic methods of data collection and analysis to inform all aspects of the programming and design process

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.4 Critical Thinking Skills

Ability to make a comprehensive analysis and evaluation of a building, building complex, or urban space

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.5 Fundamental Design Skills

Ability to apply basic organizational, spatial, structural, and constructional principles to the conception and development of interior and exterior spaces, building elements, and components

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.6 Collaborative Skills

Ability to identify and assume divergent roles that maximize individual talents, and to cooperate with other students when working as members of a design team and in other settings

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

Although there are opportunities for undergraduate students to work together on teams for design and research projects, including those with students from other schools within the Institute, this kind of learning experience occurs to a lesser degree in the M.Arch. program curriculum.

12.7 Human Behavior

Awareness of the theories and methods of inquiry that seek to clarify the relationships between human behavior and the physical environment

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |

M.Arch [X] []

While this condition is substantially met, the School could address these issues more explicitly with respect to cultural and social factors, for example in identifying differing perspectives on housing in diverse cultures.

12.8 Human Diversity

Awareness of the diversity of needs, values, behavioral norms, and social and spatial patterns that characterize different cultures, and the implications of this diversity for the societal roles and responsibilities of architects

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

See note in 12.7 above.

12.9 Use of Precedents

Ability to provide a coherent rationale for the programmatic and formal precedents employed in the conceptualization and development of architecture and urban design projects

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.10 Western Traditions

Understanding of the Western architectural canons and traditions in architecture, landscape, and urban design, as well as the climatic, technological, socioeconomic, and other cultural factors that have shaped and sustained them

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

The Team concluded that this criterion is well met.

The strength of this is based on the required six-course sequence from “Building and Thinking Architecture” through the new “Cities/Lands” seminar, which all professional degree students share.

12.11 Non-Western Traditions

Awareness of the parallel and divergent canons and traditions of architecture and urban design in the non-Western world

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |

M.Arch [X] []

12.12 National and Regional Traditions

Understanding of the national traditions and the local regional heritage in architecture, landscape, and urban design, including vernacular traditions

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [] | [X] |
| M.Arch | [] | [X] |

While IHSS-1970 Design History and Society introduces this subject area to the undergraduate students at the level of awareness, it is not reinforced later in the required history/theory sequence and brought to a level of understanding. The graduate students are given even less exposure to this subject as IHSS-1970 is not a part of the M. Arch. I program. The graduate students, along with the undergraduates, are exposed to a very limited coverage of this area in Arch-4140 Modernity In Culture and Architecture. The excellent six-course required sequence in the history/theory area, as well as the expertise available in the Building Conservation program, provide ample opportunity to address this deficiency.

RPI's position in Troy places unusually rich traditions and context at the school's disposal. A greater effort should be made to recognize the opportunities offered by these resources, and to use these as a springboard for a greater discussion of national architectural history and character, and of the possibilities of regionalism throughout the country.

12.13 Environmental Conservation

Understanding of the basic principles of ecology and architects' responsibilities with respect to environmental and resource conservation in architecture and urban design

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.14 Accessibility

Ability to design both site and building to accommodate individuals with varying physical abilities

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [] | [X] |
| M.Arch | [] | [X] |

The Team concluded that this criterion is not met. While there are examples in several studios of work showing that some students had wrestled with issues of accessibility, the end results showed a clear lack of ability in this area. Accessibility issues may be taught on several fronts, but the leap to learning and ability is not being made. Accessibility,

when it does appear in student work, appears to be an overlay activity and not the result of an integrated effort.

12.15 Site Conditions

Ability to respond to natural and built site characteristics in the development of a program and design of a project

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

Although this condition has been substantially met, the visiting team has taken note of the fact that a preponderance of the studio assignments involve urban contexts, generally in the Northeast United States. There are limited examples of studios that have involved or emphasized sites where natural characteristics, including topography and landscape features, play a significant role in defining the characteristics and constraints with which architects must contend. While it is logical, and positive, that the School of Architecture should take advantage of its strategic location within reasonably easy travel distance to both New York City and Boston, a full response to this particular condition would also exhibit assignments that derive their challenges from very different sites.

There appears to be an assumption that urban projects are somehow inherently more complex, without the recognition that non-urban challenges in the natural landscape can present significant complexities regarding a wide range of considerations. One exception to this trend, a studio addressing accessibility issues for a fishing site on a local stream, indicates the possibilities that are not being realized. The Team encourages the development of a better balance between urban projects and those that are in less urbanized, rural, or natural landscapes.

12.16 Formal Ordering Systems

Understanding of the fundamentals of visual perception and the principles and systems of order that inform two- and three-dimensional design, architectural composition, and urban design

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.17 Structural Systems

Understanding of the principles of structural behavior in withstanding gravity and lateral forces, and the evolution, range, and appropriate applications of contemporary structural systems

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

The Team was impressed by and commends the structural design courses. Their effectiveness can be measured by the fact that an understanding of structural concepts was evident in the design development projects. Students appear to find the course in structures engaging, and the result is a ready grasp of structural principles and their application. On more than one occasion, faculty shared with the Team the frustration, and then sense of accomplishment, that students felt when they discovered when working with engineering students in the Design Development Studio, that the architecture students had a broader grasp, at this stage in their academic careers, of structural possibilities than the engineering students

12.18 Environmental Systems

Understanding of the basic principles that inform the design of environmental systems, including acoustics, lighting and climate modification systems, and energy use

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

The Visiting Team noted the valuable role being played by experts associated with the lighting and acoustics programs in teaching portions of the Building Systems and Environment and related courses. The Team encourages a stronger connection between the Lighting Research Center and the undergraduate curriculum.

12.19 Life-Safety Systems

Understanding of the basic principles that inform the design and selection of life-safety systems in buildings and their subsystems

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.20 Building Envelope Systems

Understanding of the basic principles that inform the design of building envelope systems

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.21 Building Service Systems

Understanding of the basic principles that inform the design of building service systems, including plumbing, electrical, vertical transportation, communication, security, and fire protection systems

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.22 Building Systems Integration

Ability to assess, select, and integrate structural systems, environmental systems, life-safety systems, building envelope systems, and building service systems into building design

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

Although the Team finds this condition to be met, it took an extensive review of examples of work from the Design Development Studio to determine that students had developed the ability indicated. While this studio is no doubt the most logical place in the program to address this criterion head-on, it would be advisable to consider integrating these elements to a greater degree in the Vertical Studios. As is often the case, student work appears to focus more heavily on the sub-categories of structural systems and building envelope systems, with less emphasis on the other areas.

12.23 Legal Responsibilities

Understanding of architects' legal responsibilities with respect to public health, safety, and welfare; property rights, zoning and subdivision ordinances; building codes; accessibility and other factors affecting building design, construction, and architecture practice

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

[Refer to comment under 12.31 for further discussion.]

12.24 Building Code Compliance

Understanding of the codes, regulations, and standards applicable to a given site and building design, including occupancy classifications, allowable building heights and areas, allowable construction types, separation requirements, means of egress, fire protection, and structure

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.25 Building Materials and Assemblies

Understanding of the principles, conventions, standards, applications, and restrictions pertaining to the manufacture and use of construction materials, components, and assemblies

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.26 Building Economics and Cost Control

Understanding of the fundamentals of development financing, building economics, and construction cost control within the framework of a design project

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.27 Detailed Design Development

Ability to assess, select, configure, and detail as an integral part of the design appropriate combinations of building materials, components, and assemblies to satisfy the requirements of building programs.

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.28 Technical Documentation

Ability to make technically precise descriptions and documentation of a proposed design for purposes of review and construction

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.29 Comprehensive Design

Ability to produce an architecture project informed by a comprehensive program, from schematic design through the detailed development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building assemblies, as may be appropriate; and to assess the completed project with respect to the program's design criteria

| Met | Not Met |
|-----|---------|
|-----|---------|

| | | |
|--------|-------------------------------------|--------------------------|
| B.Arch | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| M.Arch | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

12.30 Program Preparation

Ability to assemble a comprehensive program for an architecture project, including an assessment of client and user needs, a critical review of appropriate precedents, an inventory of space and equipment requirements, an analysis of site conditions, a review of the relevant laws and standards and an assessment of their implications for the project, and a definition of site selection and design assessment criteria

| | | |
|--------|--------------------------|-------------------------------------|
| | Met | Not Met |
| B.Arch | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| M.Arch | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

While there has been progress since the last visit, particularly in the incorporation of some discussion and analysis of programming in Arch Design 2 and 3, the team finds that there is still insufficient evidence of the students' ability to research, analyze and develop comprehensive programs for architectural design projects. Those examples of programming effort that the Team examined in studio work evidenced an understanding of only a small portion of the spectrum of the knowledge and skills that comprise the area of programming.

Because most undergraduate Final Projects and graduate program Theses are either of a theoretical nature or contend with planning or societal issues, rather than specific building projects for which a thorough programming effort would be a prerequisite, this criterion is not met in the final work of students, as it might be in a different type of program. Rather than re-examining the content of final student work, the School of Architecture should make a more concerted effort to establish a comprehensive effort to develop this ability in each student earlier in the curricula. . The standard of "Ability" is not likely to be achieved if the only exposure is to students at the earliest stages of professional education, before a full understanding of the interrelationship of design issues and human factors can be developed.

12.31 The Legal Context of Architectural Practice

Understanding of the evolving legal context within which architects practice, and of the laws pertaining to professional registration, professional service contracts, and the formation of design firms and related legal entities

| | | |
|--------|-------------------------------------|--------------------------|
| | Met | Not Met |
| B.Arch | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| M.Arch | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

The Team noted a particular challenge with respect to the Professional Practice class. It appears that the subject matter covered in this course allows the curricula to meet the requirements of this criterion and several others (12.23, 12.34, 12.35, 12.36, 12.37), but that the delivery method of the class might warrant an examination to ensure that students are presented with this material in an engaging and challenging way. This is an

issue with many such classes at peer institutions, where much material is relegated to a single class, requiring a one faculty member to deliver an excess of material within a limited time, in a format that does not connect this material to students' other work within the program. Such a plan can easily result in an imbalance in emphasis on one or more parts of the professional practice curriculum at the expense of others. There is indeed connectivity between Profession Practice and the Design Development Studio, yet the Team would also encourage the school to look at means to embed this subject matter in other course and studio work.

The team encourages the utilization of invited outside resource persons in the presentation of some of the more specialized and complex subject matter. Students have commented positively on the benefits of the currently limited opportunities where architectural practitioners have been brought into the class, bringing with them different perspectives and real life experiences.

12.32 Practice Organization and Management

Awareness of the basic principles of office organization, business planning, marketing, negotiation, financial management, and leadership, as they apply to the practice of architecture

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.33 Contracts and Documentation

Awareness of the different methods of project delivery, the corresponding forms of service contracts, and the types of documentation required to render competent and responsible professional service

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

12.34 Professional Internship

Understanding of the role of internship in professional development, and the reciprocal rights and responsibilities of interns and employers

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

[Refer to comment under 12.31 for further discussion.]

12.35 Architects' Leadership Roles

Awareness of architects' leadership roles in project execution from inception, design, and design development to contract administration, including the selection and coordination of allied disciplines, post-occupancy evaluation, and facility management

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

Although the Team has concluded that this criterion has been substantially met, no indication was found of awareness of the post-occupancy evaluation and facility management components. A renewed emphasis in these areas should be developed, both in the professional practice curriculum and in the studio context.

[Refer to comment under 12.31 for further discussion.]

12.36 The Context of Architecture

Understanding of the shifts which occur—and have occurred—in the social, political, technological, ecological, and economic factors that shape the practice of architecture

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

[Refer to comment under 12.31 for further discussion.]

12.37 Ethics and Professional Judgment

Understanding of the ethical issues involved in the formation of professional judgments in architecture design and practice

| | Met | Not Met |
|--------|-----|---------|
| B.Arch | [X] | [] |
| M.Arch | [X] | [] |

While the Team feels that this criterion has been met, it appears to be largely confined to the Professional Practice curriculum and that is related to business practice and codes and ethics.. The Team strongly encourages the development of a greater degree of discussion of ethical issues in a format that is embedded in other coursework, including the studio context where decisions about site, program, and materials engage ethical concerns..

[Refer to comment under 12.31 for further discussion.]

III. Appendices

Appendix A: Program Information

1. History and Description of the Institution

The following text is taken from the 2003 Rensselaer Polytechnic Institute Architecture Program Report:

Founded in 1824, Rensselaer Polytechnic Institute is the oldest private technological university in the English-speaking world. A nonsectarian, coeducational institution, the university offers degrees from five schools: Engineering, Science, Architecture, Humanities and Social Sciences, and the Lally School of Management and Technology, as well as interdisciplinary degrees in information technology.

The Institute's long-standing reputation for research and educational distinction draws students from every state and more than 80 foreign countries.

Approximately 4,300 undergraduates and 2,000 graduate students are involved in 140 degree programs in nearly 60 fields leading to bachelor's, master's, and doctoral degrees. Students are encouraged to work in inter- and cross-disciplinary programs which allow them to combine scholarly work from several departments or schools. The university provides rigorous, engaging, interactive learning environments and campus-wide opportunities for leadership, communication, and creativity.

Over nearly two centuries, Rensselaer has maintained its reputation for providing an undergraduate education of undisputed intellectual rigor based on exceptional pedagogical innovation in the laboratory and classroom.

As a research university, Rensselaer has built an outstanding faculty whose research programs include such areas as biotechnology, nanotechnology, advanced materials, microelectronics, information technology, computational modeling and simulation, and electronic arts.

The Institute is especially well-known for its success in the transfer of technology from the laboratory to the marketplace so that new discoveries and inventions benefit human life, protect the environment, and strengthen economic development.

2. Institutional Mission

The following text is taken from the 2003 Rensselaer Polytechnic Institute Architecture Program Report:

Rensselaer educates the leaders of tomorrow for technologically based careers. We celebrate discovery, and the responsible application of technology, to create knowledge and global prosperity.

Rensselaer's mission statement was approved by the Board of Trustees in May 2000. Its adoption, along with The Rensselaer Plan, articulates a strategic vision and delineates the means to achieve it. An "evergreen" plan designed to be revised on a regular basis, The Rensselaer Plan guides Institute decisions and provides the framework for school and divisional performance plans that serve as the basis for each year's operating plan and budget. Performance plans define means and metrics, and when prioritized, create the case for major new resources. A copy of The Rensselaer Plan and the 2002 President's Report can be found in Appendix A.

3. Program History

The following text is taken from the 2003 Rensselaer Polytechnic Institute Architecture Program Report:

As early as 1848, Rensselaer's director (president) Benjamin Franklin Greene proposed a program in architecture for his young Institute, asserting that architecture is essential in any polytechnic worthy of the name." Greene's recommendation became reality in 1929, and the first architecture students graduated in 1933.

The Department of Architecture (later, the School of Architecture) remained small in its early years, emphasizing a pragmatically oriented professional program. Professor Turpin Bannister, one of the founders of the Society of Architectural Historians, introduced the study of history into the program in the 1930s (the Society of Architectural Historians was founded while he was on the faculty at Rensselaer). After World War II, the program grew in size and developed depth in structures and building construction. A design emphasis emerged in the 1960s, with concern for urban and community issues.

Today, the School of Architecture offers two professional degree programs leading to NAAB-accredited bachelor of architecture (B.Arch.) and master of architecture (M.Arch.) degrees. The bachelor of architecture program has been continuously accredited by NAAB since 1945. The master of architecture (first professional degree) was first accredited by NAAB in 1979.

This has been and continues to be a school whose major concern is to prepare its graduates for a successful future in practice. At the core of the undergraduate and graduate architecture programs at Rensselaer are mastering new technologies, globalization, interdisciplinary teamwork, sustaining innovation, and a strong emphasis on creativity. The school emphasizes a design culture that encourages study and research between disciplines; a studio environment that supports the ambitious applications of information-based design and technology, and that places high value on critical innovation. Design, at the core of the undergraduate experience, is taught by a strong, permanent faculty of 15 professors complimented by clinical and adjunct professors drawn from research and practice in New York, Boston, and Montreal. The school has international programs in Italy, India, and China.

New graduate programs and research have developed from the success of the master's program in lighting in the Lighting Research Center (LRC), (the nationally preeminent laboratory for lighting research). The Lighting Research Center, now in its fifteenth year, is under the direction of senior professors in architecture and has established itself with the industry and with public clients as the international leader in lighting research. Unique among research centers at the Institute, the LRC also offers a post-professional master's degree—the MS in Lighting. The new graduate programs that have developed in the wake of the MS in Lighting—Architectural Acoustics, Building Conservation, Architectural Sciences, and Informatics and Architecture—fall under the general category of architectural science.

The undergraduate program has, in recent years, increasingly benefited from the development of new graduate programs. The programs have attracted to the school gifted faculty from architecture and kindred fields, the majority of whom have advanced degrees in areas of specialization significant to architecture. They have added minor areas of concentration to the undergraduate curriculum in acoustics and lighting. The expanded student body is more mature and diverse, and the research culture develops in

the student a healthy respect for the need for research in architecture and for the benefits of bringing knowledge from other disciplines.

(Four of these areas of concentration—Architectural Acoustics, Building Systems, Informatics in Architecture and Lighting—comprise the major areas of activity within the proposed Doctor of Philosophy in Architectural Sciences. This degree is aimed at producing a context for advanced study and research between architecture and appropriate areas of science, engineering, and the humanities—and with the new technologies that these disciplines are creating.)

There are three essential characteristics to proposed doctoral study in architectural sciences at Rensselaer:

- It will be framed by issues arising from architectural and urban environments--spatial and physical, virtual and real;
- It will actively bring knowledge and method from across disciplines to problems in architecture and urbanism;
- It will be directed to developing new knowledge able to effect and transform the design of the experienced world.

4. Program Mission

The following text is taken from the 2003 Rensselaer Polytechnic Institute Architecture Program Report:

Mission: To prepare the most effective practitioners of architecture and its related fields for international practice in the 21st Century.

Vision: Restructure the School of Architecture to become an international center for the integration of innovations in technology and science into design at many scales from products to community.

Our current mission statement was developed in late 2001 as part of the initial performance planning process. It was approved by the administration.

5. Program Strategic Plan

The following text is taken from the 2003 Rensselaer Polytechnic Institute Architecture Program Report:

The School of Architecture's strategic plan emerged from *The Rensselaer Plan*, the first major act of the presidency of Dr. Shirley Ann Jackson. This plan initiated a process of constant review and adjustment to achieve the goals.

The performance plan that follows is the most recent iteration of this process, the sequence of plans for the previous two years are given in **Appendix A**.

Executive Summary

"Education and research are inextricably linked in world-class Universities"

The three major objectives of the School of Architecture Performance Plan are to support the Institute Highest Priorities, to maintain the strength of the undergraduate professional program, and to expand graduate programs and research in a form

appropriate to Rensselaer, establishing the distinct character of advanced study in architecture.

In support of Institute Highest Priorities the School is developing its strengths in Information Technology, particularly in visualization, modeling and simulation, and working closely with the development of EMPAC. On the First Year Experience, the School believes that design should be an integral part of the activities and proposes a plan for a Design Discovery Week.

In building both the undergraduate and advanced programs, including the LRC, new tenure and tenure track faculty will be sought in areas that will continue to shape the distinct character of the School—in acoustics and computational design, for example. There is a strong commitment to achieve greater diversity in the makeup of the permanent faculty. The much neglected facilities (untouched for thirty years in places) will be renovated, and new equipment—milling machines, laser cutters—added.

At the graduate level, new master's degrees are being considered in structures conservation and community design and technology, and a proposal to restructure the present five-year B.Arch into a combination of B.S. and professional M.Arch, is being prepared for review at the accreditation visit of the National Architectural Accreditation Board. A proposal to offer a Doctor of Philosophy in Architecture is currently under review.

The success of the LRC has been the stimulus to School, developing new areas of advanced study able to attract research. Activity in multi disciplinary design practice, community design, sound modeling and transmission, energy generating and conserving design and rigidified pneumatic structures have been funded in the last year. Institute seeding has led to potentially significant work in areas such as immersive tele-collaborative environments. There is a need to learn how to build on this success. The LRC continues to lead national research in Solid State Lighting, and is developing support for research into transportation lighting and light's role in enhancing safety. Potentially, the most important new direction will be the strong commitment to effect of light on health.

Building the basis for substantial research activity in architecture is a sea change for the School (and would be for most Schools of Architecture). Within the Performance Plan the case is made for the need for the Institute to recognize of the limitations of the School's budget to support this transition, and help seed the change in areas such as cost sharing and startup packages comparable to science and engineering, where we looking for faculty in acoustics, for example.

The architecture faculty believes that the School has never been stronger; and this must in some clear measure be due to effective planning.

Appendix B: The Visiting Team

Team Chair, Representing the NCARB
Cornelius (Kin) DuBois, AIA, NCARB
klipp
1512 Larimer St.-Bridge Level
Denver, CO 80202
(303) 893-1990
(303) 893-2204 fax
kin@klipparch.com

Representing the ACSA
Gregory S. Palermo, FAIA
Department of Architecture
College of Design, Room 156
Iowa State University
Ames, IA 50011-3093
(515) 294-7163
(515) 294-1440 fax
gpalermo@iastate.edu

Representing the ACSA
Judith Sheine
Department of Architecture
College of environmental Design
California State Polytechnic University, Pomona
3801 W. Temple Avenue
Pomona, CA 91768
(909) 869-2706
(909) 869-4331 fax
jesheine@csupomona.edu

Representing the AIA
Morton Levy, FAIA
Levy Associates Architects
3333 Eastside Suite 100
Houston, TX 77098
(713) 528-2912
(713) 528-2915 fax
levyarch@swbell.net

Representing the AIAS
Kirin Joya Makker
452 Bartlett Hall
University of Massachusetts
Amherst, MA 01003
(413) 659-2243
kmakker@english.umass.edu

Observer
Harry Gordon, FAIA
Senior vice President and COO
Burt Hill Kosar Rittelmann
1056 Thomas Jefferson Street, NW
Washington, DC 20007
(202) 333-2711
harry.gordon@burthill.com

Appendix C: The Visit Agenda

Saturday, February 21

Team arrival and check-in at the hotel

Franklin Square Inn & Suites
1 Fourth Street
Troy, New York 12180-3225
Ph: 518-274-8800 or 866-708-2233 toll free
Fx: 518-274-0427

Enterprise Car Rental – Confirmation #995069
Kin DuBois only

- 4:30pm** Franklin Square Inn & Suites
Kin DuBois, Alan Balfour
- 6:00pm** Team assemble in hotel lobby
- 6:30pm** Dinner
River Street Café
429 River Street
Troy, New York 12180
Team, Dean Alan Balfour, Associate Dean Mark Mistur
- 8:00pm** Team Orientation
Franklin Square Inn & Suites
Hospitality Suite

Sunday, February 22

- 8:00am** Breakfast
Franklin Square Inn & Suites
Hospitality Suite
Team only
- 9:00am** Transport to RPI
- 9:15am** Team room overview, Greene 204
- 9:30am** Tour building
Team, Alan Balfour, Mark Mistur
- 10:30am** Initial review of exhibits, records and APR
Greene 204
Team only
- 12:00pm** Lunch with program administrators
Greene 117, Marriott
Team, Alan Balfour, Mark Mistur, Mendel Kleiner, Peter Parsons, Russell Leslie, Ted Krueger, David Bell, Brian Lonsway, Wally Kroner
- 2:00pm** General Faculty Meeting
Greene 206, refreshments
Team, all faculty

- 3:00pm** International Programs
Greene 206
Team, Mark Mistur, Frances Bronet, David Bell, Ken Warriner, Anna Dyson, David Riebe, Brian Lonsway, Michael Oatman
- 4:00pm** MArch Program
Greene 206
Peter Parsons, Anna Dyson, Ken Warriner
- 5:00pm** Continued review exhibits & records
- 7-10:00pm** Dinner/continued review exhibits & records
Greene 204, Old Daley Inn Catering
Team only

Monday, February 23

- 7:45am** Breakfast
Franklin Square Inn & Suites, Hospitality Suite
Team, Alan Balfour
- 8:45am** Transport to RPI
- 9:00am** The Honorable Shirley Ann Jackson, PhD, President
President's Suite, Troy Building 3000
Team only
- 10:00am** Dr. G.P. Peterson, Provost
Troy Building 3000
Team only
- 11:00am** Continued review of records and APR
Greene 204
Team only
- 12–1:15pm** Lunch with selected faculty
Fischbach Room, Folsom Library, Marriott
Team, Rendell Torres, Anna Dyson, Frances Bronet, Brian Lonsway, Ning Xiang, William Massie, Michael Oatman, David Bell, Jefferson Ellinger, David Riebe
- 1:30-2:30pm** All School Meeting
CII 4050, Lunch, Marriott
Students only
- 2:45pm** Observation of studios
First year – Ken Warriner
- 3:15pm** Second year – Bill Massie
- 3:45pm** Vertical studio – David Bell
- 4:15pm** Vertical studio– David Riebe
- 4:45pm** Design Development – Mark Mistur
- 5:15pm** Vertical studio– Ted Krueger
- 6:00pm** Reception
Greene Gallery, by invitation

Team, faculty, administrators, alumni, local practitioners, 5th year, graduate students

8-10pm Continued review and debriefing
Greene 204
Team only

Tuesday, February 24

8:00am Breakfast
Franklin Square Inn & Suites, Hospitality Suite
Team, Alan Balfour

9:00am Transport to RPI

9:15am Review of general studies, electives, and related programs
Greene 206, refreshments
Kate Hill, Oliver Holmes, Barb Nelson, Walter Kroner, Peter Parsons, Ken Warriner,
David Bell, Kate Boyer, Russ Leslie, Mendel Kleiner, Gary Gabrielle, David Hess, Mark
Mistur, Sam Wait

10:15am Observation of lectures and seminars
Building & Thinking, 10-12pm, Greene 120
Workshop, 10-12pm, Greene 403
Professional Practice, 12-2pm, Lally 102
Building Design & Construction Processes, 3-5pm, Biotech Trailer
Final Project Studio – 5th year, throughout day, Greene 118, 208, 301
Demo – Milling machine – 4pm, Greene 403

11:00am Library Tour
Greene 117
Team, Fran Scott, Jeanne Keefe, Loretta Ebert, Ken Warriner

12:00pm Lunch
JEC 5030, Marriott
Team, Dean's student advisory group, AIAS, student representatives

1:00pm General Faculty Meeting
Greene 206, refreshments
Team, all faculty

2:00pm Complete review of exhibits, records, APR
Additional meetings with faculty or staff as needed

5:00pm Optional tour of Lighting Research Center

6:00pm Dinner
Monument Square Café
254 Broadway
Troy, New York 12180
Team only

7:30pm Accreditation deliberations and drafting the VTR
Greene 204
Team only

Wednesday, February 25

- 7:30am** Breakfast
Franklin Square Inn & Suites, Hospitality Suite
Team, Alan Balfour
- 8:30am** Hotel check-out and transport to RPI
- 9:00am** Exit meeting
Dr. G.P. Peterson, Provost
Troy Building 3000
Team, Alan Balfour
- 10:00am** Exit meeting
Sage 3303, all students, faculty, staff
- 12:00pm** Box lunch available for team members
Greene 204