University of Florida

Rinker School of Construction Management

Bachelor of Science in Construction Management Degree

Quality Improvement Plan

Draft February 2015

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I. RINKER SCHOOL STRATEGIC PLAN (2014-2019)

INTRODUCTION

The Strategic Plan is a living document that provides a roadmap that will be reviewed annually at the School's August retreat and updated if needed to enable the School to accomplish its mission and attain its vision.

Document structure and Contents

The strategic plan has 13 sections. Each section consists of the following subsections.

Goals and Rationale

This section describes the high level goals and motivation for the area. The goals and rationale should be clearly related to the mission and vision of the school. The high level goals generally will not change substantially nor frequently over time. For example, "The goal of the undergraduate program is to prepare graduates for an outstanding professional career in the construction industry …"

Objectives and Measures

Objectives break down the goals and provide measures for evaluating progress. Objective assessments are trended over time and the objectives and measures can change over time. For example, there are several ways that the level of student preparation can be assessed and one or more can be used over time.

Implementation and Review

This section documents the results of the annual review of goals and objectives. Activities include review results and measures, set or revise targets for the measures, and document the strategies, resources, and timeline for meeting the objectives. This section outlines the short term, e.g., less than one year, and longer term activities that are identified to address the objectives. For example, if it is discovered through the annual review process that students are not being adequately prepared in information technology, a short term initiative can be developed to address curriculum along with a longer term initiative to create a source of funding for equipment.

2. VISION AND MISSION

The vision of the M.E. Rinker Sr., School of Construction Management is to be the preeminent institution for construction education and research. The intent is that the "Rinker School," is immediately synonymous with excellence in construction education, research, and collaboration with and service to the industry. Similar to the identity that the name Wharton School has as the best institution in business education, "Rinker School" will be identified as the finest university construction program.

The vision for the School is simple in concept but extremely difficult to attain. There are many excellent construction programs in the U.S. and around the world so the vision establishes a high level of achievement for the School. To be considered in the very top tier among many fine institutions will require the School's dedication and resources.

The vision will be made tangible not only through the performance of faculty, staff, and students but also reflected in the School's hiring, programs, and strategic alliances with industry.

MISSION STATEMENT

The mission of the M.E. Rinker, Sr. School of Construction Management is to be the center of excellence for construction. The Rinker School will pursue this by:

1. Promoting professional and ethical behavior in education and practice,
2. Advancing the industry by creating new knowledge through research and scholarly activities,
3. Educating individuals in the principles, knowledge and skills required to be successful in their professional careers, and
4. Providing service and transferring knowledge to the citizens of Florida, the construction industry, professional societies, the nation, and the world.

The Rinker School will achieve this mission by fostering a core culture of value and quality.

3. FACULTY AND STAFF

The faculty and staff are the core of the Rinker School. The faculty members hold a vital role in the educational mission of the School. The faculty and staff of the Rinker School are the only ongoing entity of the School to which former students have a true attachment. In general, faculty and staff are expected to become long-term employees within the School. Faculty members within the School generally have academic backgrounds in construction, engineering, and architecture and have industry experience. Experience may include employment with general contractors, subcontractors, architects, as well as previous experience at other universities. Faculty members generally hold doctoral or law degrees and engage in a wide variety of research and scholarly activities. The Rinker School places strong emphasis on activities beyond teaching such as research and scholarly work. This emphasis parallels the standing of the University of Florida as a preeminent Tier 1 Research and Graduate Education institution among state universities in Florida.

Regardless of position or rank, all faculty members have equal status within the Rinker School. The only exception occurs when tenured faculty members vote on applications for tenure, and so on.

The staff hold a vital role in the support of the overall mission of the School. The staff within the School generally have education and experience in student support, alumni and industry support, assistance in job placement, and management. Experience may include prior employment outside of academia, as well as, in other departments at the University of Florida or other academic institutions.

3.1.A Faculty Goals and their Rationale

Goals:

- The faculty are qualified through experience and education.
- The number of faculty shall be sufficient to carry the teaching, research, and service load of the School.
- The faculty are engaged in the School's activities and service.
- The combined expertise of the faculty shall satisfy the needs of the Schools teaching and research needs.
- The faculty load will be distributed over teaching, research and service to satisfy the School's responsibilities in all three areas.

Rationale:

- Support the School's vision to be the preeminent institution for construction education and research.

Goal:

- The teaching, research, and service assignments of faculty will support their career development.

Rationale:

- Increase the productivity and value of each faculty member and support the School's vision to be the preeminent institution for construction education and research.

3.1.B Staff Goals and their Rationale

Goals:

- The staff are qualified through experience and education.
- The number of staff shall be sufficient to provide support to the faculty, students, alumni, and guests of the School.
- The staff are engaged in the School's activities and service.

Rationale:

- Staff are critical to support the School's vision to be the preeminent institution for construction education and research.

Goal:

- The staff's assignments will support their career development.

Rationale:

- Increase the productivity and value of each staff member and support the School's vision to be the preeminent institution for construction education and research.

3.2.A Faculty Objectives and Measures

Objectives:

- The faculty are qualified
- The faculty effort allocation is adequate to support the teaching mission of the School.
- The faculty effort allocation is adequate to support the research mission of the School.
- The faculty effort allocation is adequate to support the service mission of the School.
- Faculty meet the teaching, research and service missions of the School.

See associated spreadsheet for measures and their target values.

3.2.B Staff Objectives and Measures

Objectives:

- The staff are qualified
- The total staff effort allocation is adequate to support the overall mission of the School.

See associated spreadsheet for measures and their target values.

3.3.A Faculty Implementation and Review

Action items for AY 2014-2015:

- Undergraduate coordinator and school director to develop proposal to define goal for faculty experience to be reviewed by the Faculty Advisory Committee and presented at the mid-fall faculty meeting.
- Director to calculate student-faculty ratio (lower, upper, masters) and present at the mid-fall faculty meeting.
- School director to meet with program coordinators to set SCH goals by program and report back at the mid-fall faculty meeting. For example, admitting 60 undergraduate students fall and spring yields about 12,000 SCH.

See associated spreadsheet for measures and their actual values.

3.3.B Staff Implementation and Review

Action items for AY 2014-2015:

See associated spreadsheet for measures and their actual values.

4. UNDERGRADUATE PROGRAMS

At present, the Rinker School offers the following undergraduate programs and certificates:

1) Bachelor of Science in Construction Management
2) Bachelor of Science in Fire and Emergency Services (covered in section 7)
3) Certificate in Construction Management

4.1 Goals and their Rationale

Goal:

- To prepare diverse graduates for an outstanding professional career in the construction industry and related fields through an appropriate curriculum delivered with expert instruction to achieve a high level of student learning.

Rationale:

- This will support the Rinker School's vision to be the preeminent institution for construction education and research.

This goal is supported by the experienced and dedicated faculty as well as the infrastructure and technology provided by the Rinker School. By supporting this goal through monitoring of objectives and measures the program should fulfill its potential of being the preeminent construction management undergraduate program in the country.

The program is focused on both lower division and upper division construction management students. Historically enrollment for both lower and upper divisions ranges between 250 and 500 students. The number of undergraduate students graduating ranges from 25 to 65 students each fall and spring semester. Total number of graduates from the program is over 6,000.

4.2 Objectives and Measures

Objectives:

- The School's students should be academically high achieving
- The student body should reflect the diverse population of students attending the University of Florida.
- Provide a curriculum and educational experience relevant to a career in construction management with expert instruction that results in a high level of student learning
- Provide diverse career opportunities for students.
- Provide graduates for the construction industry

See associated spreadsheet for measures and their target values.

4.3 Implementation and Review

Action items for AY 2014-2015:

- Undergraduate assessment plan proposal to be developed by ACCE re-accreditation team (Chini, Oppenheim, Sullivan and Ries) and presented at mid-fall faculty meeting.

See associated spreadsheet for measures and their actual values.

5. MASTERS PROGRAMS

At present, there are seven programs that are, at least partially, under the umbrella of the Director of Master's Programs. These are:

1) Master of Science in Construction Management (MSCM)
2) Master of Construction Management (MCM)
3) Master of Science in Fire and Emergency Sciences (MSFES) See FES section for more information on MSFES.
4) Master of International Construction Management (MICM)
5) Certificate in Sustainable Construction (through ICM)
6) Certificate in Construction Management (through ICM)
7) Certificate in Fire and Emergency Services (through FES). See FES section for more information on MSFES.

5.1 Goals and their Rationale

Goals:

- Provide world class construction managers for all four major areas of construction: residential, commercial building, heavy / highway, and industrial.
- Provide a mechanism for students who have graduated from other disciplines to convert to construction management.
- Provide a mechanism for students who have graduated from non-US undergraduate programs to acquire a construction management degree from a US based institution.
- Prepare students who desire to further their education with a PhD with the knowledge and skills to design and execute an experiment and write a thesis on their findings; and to, in this way, support the research efforts of the school.
- Provide a world-class online program that offers the MCM program to diverse students that are not able to attend on campus.
- Produce graduates from diverse geographic and educational backgrounds that have the highest professional and ethical standards while exhibiting the ability to interpret construction project designs, manage a construction project with entry-level skill, formulate a plan to execute a research experiment, understand and properly apply basic statistics to data and information obtained, and then communicate verbally and in writing the results of their project management or research experiences.

Rationale:

- To support the School's vision to be the preeminent institution for construction education and research.

5.2 Objectives and measures

Objectives:

- The student body should reflect the diverse population of students attending the University of Florida.
- Provide an opportunity for career change
- Provide international students with a US-based degree
- Provide graduates for the construction industry

See associated spreadsheet for measures and their target values.

5.3 Implementation and Review

Action items for AY 2014-2015:

- Graduate program coordinator to work with grad committee and director to set up processes for:
  - Evaluation of curriculum by industry
  - Evaluation of curriculum by peer faculty or peer institutions
  - Graduating student exit survey
  - Student's informal discussion with industry advisory board members
  - One and five year alumni surveys
  - Career outcomes of graduates
- Graduate program coordinator to work with the director and faculty to develop a proposal and schedule for on-line program development and existing course updates. Goals are to update 2-3 courses per year until a) all courses currently offered in a classroom setting can be offered online; and (b) 16 courses are available in the ICM program.
- Graduate program coordinator to work with the director and faculty in AY 2014-15 to determine which courses, if any, will be core required ICM courses.
- Director to work with grad program coordinator to review options (including, for example, supporting PhD students) for self-funded program development, including marketing, recruiting, faculty workload, and budget, and review the options at the December 2014 faculty meeting.

See associated spreadsheet for measures and their actual values.

6. DOCTORAL PROGRAM

The doctoral program is a college level program, however, the Rinker School has its own concentration in Construction Management.

6.1 Goals and their Rationale

Goal:

- To be recognized as the preeminent institution for construction doctoral education and doctoral research in the US.

Rationale:

- This will play a part in helping UF achieve its goal of being one of the top 10 public research universities in the US.

Goal:

- To support the research agenda of individual DRF faculty.

Rationale:

- This will help faculty increase their research productivity (including the number of refereed journal publications) and help establish their international reputation.

Goal:

- To graduate construction management faculty for academic research institutions in the US and around the world.

Rationale:

- This will increase the reputation of the school globally and lead to other synergistic activities such as pursuing intercollegiate research projects.

Goal:

- Increase the cooperation between industry and the school on doctoral education and research.

Rationale:

- This will increase the financial support for both the program and of individual students by industry, and more broadly help support faculty research.

6.2 Objectives and Measures

Objective:

- The Rinker School will:
    - have the preeminent doctoral program in construction, i.e., a School program and a STEM CIP code
    - support faculty research.
- The PhD program will interact with industry in research

See associated spreadsheet for measures and their target values.

6.3 Implementation and Review

Action items for AY 2014-2015:

- PhD coordinator will work with the graduate committee and the director to review the PhD program in Construction Management. The assessment will be ready for faculty review at the May 2015 faculty meeting.
  PhD coordinator will solicit the PhD student needs of DRF faculty in August and report to the faculty at the October meeting. By 2017, increase to around 55 active PhD students and by 2020, increase the number of students graduating to over 11 students per year on a five year rolling average (a critical Graduate School Fellowship threshold). (*see related objective in Faculty section: Increase DRF to 15 and number of PhD students/faculty to around 4*)
- Improve the academic standard of new students in terms of GRE scores.
- The PhD coordinator will work with the graduate committee, centers, and the director to explore an industry based PhD program and its potential demand and benefits. The program would provide financial support for PhD students and address the specific research needs of construction companies. The PhD coordinator will report back to the faculty at the December 2014 faculty meeting.
- The PhD coordinator will work with the graduate committee and the director to explore a BS to PhD admissions process.
- PhD coordinator will work with the director and the director of development to develop a proposal to establish an endowed fund with a value of about $4 million providing 4 years of support for one new PhD student every year.
- PhD Coordinator and the director will examine the recent funding for PhD students and develop a proposed funding model for a 55 student cohort and increase the percentage of support for PhD students from externally sponsored research to around 50%.
- The PhD coordinator will work with the graduate committee and the director to establish a process to monitor the post-graduation career progress of our students and solicit their feedback on the program. The proposal will be reviewed at the October 2014 faculty meeting.

See associated spreadsheet for measures and their actual values.

7. FIRE AND EMERGENCY SERVICES PROGRAM

At present, there are five programs that are under the umbrella of the Coordinator of FES Programs. These are:

1) Bachelor degree in Fire and Emergency Services (BSFES)
2) Master of Science in Fire and Emergency Sciences (MSFES)
3) Certificate in Fire & Emergency Services Management (through FES)
4) Certificate in EMS Management (through FES)
5) Certificate in Fire and Emergency Services (through FES)

7.1 Goals and their Rationale

Goals:

- Be a recognized undergraduate, graduate, and research program in fire, emergency medical services, and emergency management nationally and internationally.
- Prepare graduates for an outstanding professional career in the fire and emergency science industry and related fields through an appropriate curriculum delivered with expert instruction to achieve a high level of student learning.

Rationale:

- To support the School's vision to be the preeminent institution for fire, EMS, and emergency management education and research.

7.2 Objectives and Measures

Objective:

- Recruit and hire nationally recognized leaders in fire, EMS, and emergency management as faculty to deliver expert instruction.
- Courses:
  - Create and/or update undergraduate and graduate courses to reflect current education standards and change course delivery format to be more interactive and dynamic.
  - Provide an educational experience that takes full advantage of the use of technology in delivering material.
- Increase program recognition
- Be a recognized leader in the research of fire and emergency services programs

See associated spreadsheet for measures and their target values.

7.3 Implementation and Review

Action items for AY 2014-2015:

- FES program coordinator will develop a recruiting plan immediately and begin recruiting faculty with significant current industry experience and skills as well as academic accomplishments
- FES program coordinator will work with the director to recruit and hire 8 new faculty by December 2014
- FES program coordinator will work with CITT to schedule the updating of 6 courses in AY 2014-15

- Increase % of courses updated from 50% to 100%.
- FES program coordinator will identify the tracks and courses required for FESHE by October 2014
- FES program coordinator will develop a schedule by December 2014 to update all courses during the next five years.
- FES program coordinator will complete the necessary steps to meet and apply for FESHE recognition in 2014.
- FES program coordinator will develop a marketing and recruiting plan by October 2014 to:
- Increase the number of students in the bachelor's and master's programs annually over the next five years to double the total number of current students.
- FES program coordinator will work with the director to review undergraduate and graduate curriculum and develop new course proposals by December 2014.
- FES program coordinator and the director will work with Bill Tilson and UFIC to outline a study abroad program by summer 2015.
- FES program coordinator will begin a concerted effort to partner with the Florida State Fire College to conduct research in the industry.
- FES program coordinator will develop a proposal for a fire and an EMS track in the master's degree program.
- FES program coordinator will work with the PhD program coordinator and the director to explore the potential for a doctoral degree in fire and emergency services.

See associated spreadsheet for measures and their actual values.

8. RESEARCH AND OTHER SCHOLARLY ACTIVITIES

8.1 Goals and their Rationale

Goal:

- To be recognized as the preeminent institution for construction research, both applied and fundamental, in the US.

Rationale:

- This will play a part in helping UF achieve its goal of being one of the top 10 public research universities in the US.
- There is an increasing demand for graduate studies, and graduate students are more likely to select schools with an active, high quality research program.
- Programs with an excellent research reputation are more likely to attract higher quality graduate students and research faculty. This, in turn, will improve the quality and quantity of research output from the school.
- US contractors must operate within an increasingly competitive global market. One way in which they can maintain their competitive edge is by direct access to the latest applied research.
- There is an increasing public demand for higher quality built facilities, and a reduction in the cost of constructing, operating, and maintaining those facilities. In addition, there is an increasing public awareness of the importance of environmental issues, with the construction industry having one of the biggest impacts on environmental quality. As part of a publicly funded university, the Rinker School has a responsibility to help reduce the life-cycle costs of built facilities, increase their performance, and improve the quality of the environment. The school can help achieve these goals through an appropriate set of applied and fundamental research programs.
- The benefits of a strong research program (increased revenue, higher quality research faculty and students, and an increase in reputation) will also indirectly enhance the quality and reputation of the School's degree programs.

8.2 Objectives and Measures

Objectives:

- Increase research expenditures that support the School's vision
- Disseminate the School's research
- Increase the recognition and the quality of the School's research

See associated spreadsheet for measures and their target values.

8.3 Implementation and Review

Action items for AY 2014-2015:

- Director to work with the Faculty Advisory Committee and centers to review research including productivity and levels of internal and external research funding and develop strategies to achieve the School's goals in terms of research expenditures, dissemination, and quality. Proposal to be developed by May 2015.

See associated spreadsheet for measures and their actual values.

9. INDUSTRY RELATIONS AND CONTINUING EDUCATION

The Rinker School has enjoyed a close and long-standing relationship with the construction industry. This relationship is sustained by a multi-faceted approach which includes the Executive Committee of the Advisory Council, the Advisory Council, the Job Placement office, Career Fair, Professor-for-a-Day program, newsletter (Orange and Blueprints), various Regional Clubs, industry review of the BCN curriculum, student organizations, recognition programs, and other activities that strengthen the relationship between the Rinker School and the construction community. Recognition programs are sustained to visibly demonstrate appreciation for the contributions of the construction community and individuals to the Rinker School.

9.1 Goals and their Rationale

Goals:

- Ensure the relevance of and support the School's educational programs.
- Ensure the relevance of and support the School's research program.
- Support the School administrative initiatives.

Rationale:

- Industry relations will support the School's vision to be the preeminent institution for construction education and research.

9.2 Objectives and Measures

Objective:

- Industry is engaged with the School's educational programs
- Industry is engaged with the School's research programs
- Industry supports the School's initiatives through funding for facilities, scholarships, and endowments.

See associated spreadsheet for measures and their target values.

9.3 Implementation and Review

Action items for AY 2014-2015:

- The Director, alumni coordinator, and College development director to review the Advisory Council and Executive Committee structure to find opportunities to engage an alumni group targeted towards leadership development.
- The Director and alumni coordinator will develop a database of industry speakers and topics for guest lectures (the professor-for-a-day program).
- The Director, alumni coordinator, and College development director will develop a plan for increasing the number of alumni clubs.
- The Director and College development director will develop a fundraising plan for upgrading the Construction Hall of Fame area.

See associated spreadsheet for measures and their actual values.

10. ENDOWMENTS AND FUNDRAISING

Currently the Rinker School has 42 endowment funds with a total value of $29 Million (as of September 30, 2014). These funds have been endowed for different purposes as shown in the following table.

Category	**Fund**
Endowed Professorships	$8,194,280
PhD Fellowships	$5,584,911
MS Fellowships	$843,485
Student Scholarships	$1,709,552
Research Centers	$4,713,063
General	$7,951,725
Total	**$28,997,020**

In addition, each year the Rinker School receives financial supports from its industry advisory board members, alumni and friends, BCN regional clubs, and construction companies. The amount of these supports range from $200,000 to $300,000 annually.

10.1 Goals and their Rationale

Goal:

- The funds allocated to the Rinker School by the University are not sufficient to provide competitive salaries for faculty and support staff, educational materials and supplies, and equipment that are necessary for the program to achieve its stated mission, goals, and objectives. The Rinker School has to supplement its budgeted funds from the University by fundraising and creating endowments.

Rationale:

- The Rinker School's endowments and fundraising support the Rinker School's vision to be the preeminent institution for construction education and research.

10.2 Objectives and Measures

Objectives:

- Increase the endowment value
- Establish new endowments
- Increase the annual amount donated to the Rinker School

See associated spreadsheet for measures and their target values.

10.3 Implementation and Review

Action items for AY 2014-2015:

- Director to work with the endowment committee and the College development director to develop a long- and short-term alumni and industry engagement plan
- Current priorities for endowment: Endowed School Director

- See other sections for additional initiatives

See associated spreadsheet for measures and their actual values.

11. FACILITIES

Facilities as used here is broadly defined to mean space such as office, classroom, and laboratory; and equipment such as IT hardware and software, telecommunications, networking, classroom, and laboratory.

11.1 Goals and their Rationale

The facilities support the School's vision to be the preeminent institution for construction education and research.

Goal:

- Provide state of art facilities that satisfy the educational, research and administrative needs of the school and are sustainable.

Rationale:

- Facilities enhance communication and capabilities in education, research, and administration.

11.2 Objectives and Measures

Objectives:

- Provide adequate facilities for faculty for teaching, research, and administration
- Provide adequate facilities for students for teaching, learning, and research
- Provide adequate facilities for staff for administration
- Provide adequate facilities for centers for teaching, research, and administration

See associated spreadsheet for measures and their target values.

11.3 Implementation and Review

Action items for AY 2014-2015:

- Review of space needs by director and report to faculty by December 2014
- Computing committee with a director to prepare a statement of needs and budget.
- Convert to virtual environment, with wireless and Ethernet access, VPN clients from off campus.
- Dr. Kibert, Issa, Srinivasan to develop a white paper on a long-term facility vision with the Facilities Committee (interim in mid-fall, final in December faculty meeting).

See associated spreadsheet for measures and their actual values.

12. RESEARCH CENTERS

The research centers support the School's vision to be the preeminent institution for construction education and research.

The research centers are designed to provide faculty and graduate students with an environment in which to concentrate their interests on a common topic. Within the Rinker School, there are four such research centers:

A. Center for Advanced Construction Information Modeling (CACIM)
B. Powell Center for Construction and Environment (Powell Center)
C. Fluor Program for Construction Safety (Fluor Program)
D. Shimberg Center for Housing Studies (Shimberg Center)

The research centers are designed to provide faculty and graduate students with an environment in which to concentrate their interests on a common topic.

12.A CENTER FOR ADVANCED CONSTRUCTION INFORMATION MODELING (CACIM)

The Center for Advanced Construction Information Modeling intends to be one of the premier sources of education and research for members of the AECO industry related to new and emerging information modeling technologies and the promotion of an improved information exchange process among the various industry sectors.

The mission of CACIM is to educate and facilitate the adoption by members of the AECO industry of new and emerging technologies and to promote an improved information exchange process among its various sectors through the implementation of advanced construction information modeling (ACIM), Virtual Design and Construction (VDC), and Information Technology in the delivery of construction projects.

12.A.1 Goals and their Rationale

Goals:

- Transformation: to integrate information modeling into all aspects of project delivery in order to help improve AECO industry productivity and the quality of its final deliverables.
- Collaboration: serving as a hub connecting industry members, researchers, resources and ideas to improve the project delivery process.
- Service: to be accessible, responsive and respectful to all of the research teams, partners and communities it serves.
- Trust: to earn the trust of its many stakeholders through transparency, accountability and openness in its decision-making.

Rationale:

- Collaboration is essential to achieving CACIM's mission and collaborative knowledge sharing is the essence of information modeling.

12.A.2 Objectives and Measures

Objectives:

- Identify and solicit funding to establish an endowment for CACIM to support its mission in terms of IT staff, students and knowledge sharing.
- Identify, define, offer, measure and promote measures to increase research capacity and number of graduate students participating in CACIM.
- Strengthen collaboration across the university, state and nation by bringing researchers and industry participants together to solve construction industry IT related problems.
- Create new research capabilities for information modeling by opening new avenues for research and improvements through exploration of the latest IT innovations.
- Develop construction industry human capital by conducting workshops and seminars to transfer the latest knowledge and discoveries in the area of information modeling.

See associated spreadsheet for measures and their target values.

12.A.3 Implementation and Review

Action items for AY 2014-2015:

- Recruit and mentor graduate students.
- Strengthen collaboration by establishing partnerships with industry and other universities.
- Conduct industry workshops.
- Develop targets for measures

See associated spreadsheet for measures and their actual values.

12.B THE POWELL CENTER FOR CONSTRUCTION AND ENVIRONMENT (THE POWELL CENTER)

The *Powell Center for Construction and Environment* was founded in 1991 as the *Center for Construction and Environment*. It was renamed the *Powell Center for Construction and Environment* in 2003 when Steve Powell, a Rinker School graduate, generously endowed the Center. The Powell Center is engaged in a wide range of research and professional education programs, focusing on the concept of sustainable construction and allied issues such as green building rating systems, closing materials loops, manufactured construction, life cycle assessment and costing, optimizing the building hydrologic cycle, appropriate interfacing of human and natural environments, energy modeling, value engineering, BIM interfacing, and building health. The Powell Center provides a physical location in Rinker Hall for graduate students to meet, and interact, as well as equipment for conducting research. It also serves as a node of collaboration and support for Rinker School faculty with research and teaching interests in sustainability

12.B.1 Goals and their Rationale

Goals:

- The Powell Center conducts and disseminates research on sustainability and its application to the design, construction, operation, and disposal of the built environment.
- The Powell Center collaborates with the undergraduate and graduate programs in the school and supports graduate students financially and with facilities and equipment.
- The Powell Center collaborates with faculty from other academic units at the University, other international and US academic institutions in research, education programs, and service.
- The Powell Center collaborates with University of Florida Facilities in research and professional education programs.

Rationale:

- The Powell Center has led successful green building initiatives and provided education and training for over 5,000 building industry professionals. The Center should continue to have a major influence in sustainable construction.

12.B.2 Objectives and Measures

Objectives:

- The Powell Center faculty develop and teach courses in the undergraduate and graduate programs in the school.
- Collaboration:
    - The Powell Center faculty collaborate with faculty from other academic units at the University and other international and US academic institutions.
    - The Powell Center faculty collaborate with University of Florida Facilities in research and professional education programs.
- Conduct research in sustainable built environments
- Outreach and dissemination of research
- Support graduate students

See associated spreadsheet for measures and their target values.

12.B.3 Implementation and Review

Action items for AY 2014-2015:

- Work with Rinker School faculty and Director to develop a proposal by April 2015 for a sustainable construction laboratory for research and instructional purposes.
- Develop two new undergraduate and graduate on-campus and online courses in sustainable construction by May 2015.
- Develop a proposal by August 2015 with the Shimberg Center and other Rinker and Bergstrom Center for Real Estate faculty to enhance the Rinker residential construction track, including a concentration in affordable housing, focusing on course design, teaching, and enrollment.
- Work with director and development director to explore a proposal for a $1.2 million endowment for four sustainable construction PhD students (see Endowment section).
- Near-term project focus areas include manufactured construction, guidance for design and construction of net zero energy schools, strategic planning for Florida responses to climate change over the next 75-100 years, international research activities in net zero buildings.

See associated spreadsheet for measures and their actual values.

12.C FLUOR PROGRAM FOR CONSTRUCTION SAFETY (FLUOR PROGRAM)

12.D SHIMBERG CENTER FOR HOUSING STUDIES (SHIMBERG CENTER)

The Shimberg Center was founded in 1988 by the Florida legislature to serve as the state's affordable housing research arm. The Center's mission is to facilitate the provision of safe, decent, and affordable housing and related community development throughout the state of Florida, and thereby to establish Florida as a national model for successful affordable housing delivery. Certainly construction, design and the wide-ranging context of the built and natural environments are essential components of that broad mandate. Jim Shimberg's investment in the Center through the Shimberg family's generous endowment further cemented those relationships and propel the Center's statewide mission. Moreover, there is a broad confluence of interests in the School's and the Center's research goals touching on affordability, sustainability and the relationship between health outcomes and building performance. We support the School's vision to be the preeminent institution of construction education and research.

12.D.1 Goals and their Rationale

Goals:

- Collaborate with Rinker Undergraduate and Graduate programs as well as faculty from the Departments of Urban and Regional Planning and Real Estate to broaden the residential construction track to explicitly include the affordable housing delivery system and expand the housing curriculum into multi-family development with a particular focus on the affordable multi-family sub-market.
- Expand partnerships with Rinker faculty on collaborative research proposals and projects, utilizing intellectual resources, data, and industry and policy contacts cultivated by the Shimberg Center. Specifically support Rinker's goal of developing applied research programs that target building performance, environmental quality, and life-cycle costs by establishing an exemplary and productive research agenda on indoor environmental quality (IEQ) and health performance assessment of housing. Research and insight into health performance qualities of residential structures would also augment the School's research proficiency in health and safety issues in construction.

Rationale:

To be added

12.D.2 Objectives and Measures

Objective:

- Collaborate with Rinker faculty and Real Estate faculty from the Bergstrom Center in course design, teaching, and enrollment to expand the Rinker residential construction track to include a concentration in affordable housing:
- Develop interrelated research projects on IEQ and health performance of housing that advance scientific knowledge, industry practice and housing policy, and that positions Shimberg Center and Rinker School among the foremost research authorities in this area.
- Collaborate with Rinker faculty and doctoral students on research proposals and projects:

See associated spreadsheet for measures and their target values.

12.D.3 Implementation and Review

Action items for AY 2014-2015:

- Develop “brown bag” forum for Rinker faculty/students and Shimberg researchers presenting ongoing work and proposing collaborative projects.
- Develop and adopt three Rinker housing courses for inclusion in the ICM on-line degree, of four on-line courses necessary for a concentration in housing;
- In partnership with the Bergstrom Center, design, develop and teach a course in affordable housing finance and development with a focus on the affordable multi-family sub-market.
- Organize a conference on IEQ/health aspects of housing that attracts regional attendees and receives national attention.

See associated spreadsheet for measures and their actual values.

13. PROGRAM ASSESSMENT

The Rinker School's outcomes assessment is a systematic process of gathering and interpreting information to discover if the School is meeting established objectives and then using that information to enhance the program. Information includes surveys and interviews taken from the following sources: graduates, employers of the graduates, industry advisory board, exit interviews, comprehensive exams, capstone projects, and other systematically structured information. The intent is to verify that the School is making progress in achieving its mission, objectives, and learning outcomes, and that it takes the outcomes assessment results into consideration in the development of its degree programs.

Evaluation of the programs objectives and learning outcomes are compared to the stated performance criteria to determine whether stated objectives and learning outcomes were achieved and if there is a validated need for improvement in any areas. The results of each assessment cycle is documented in a systematic manner. After each assessment cycle, the entire process is reviewed and updated with plans for improvement including any revisions to the School's assessment plan.

The previous sections of the strategic plan identified measures and targets for each objective. The following tables specify the annual assessment process for each section.

Each table has nine columns:

- Column 1: Measure (see the corresponding section for each measure)
- Column 2: Target to meet
- Column 3: Name of the individual responsible for collecting and proving data
- Column 4: Due date for submitting data to the appropriate committee
- Column 5: Date the appropriate committee should meet to review the data and determine if the target has been met and if any action is necessary.
- Column 6: Action items suggested by the review committee including any changes recommended for the assessment process.
- Column 7: The suggested action items should be reviewed and approved by the School faculty in their annual August meeting.
- Column 8: Implementation plan for action items that require minor changes and can be completed within the next academic year.
- Column 9: Implementation plan for action items that require major changes and need more time to complete.

Faculty Implementation and Review								
Measures	**Target**	**Person responsible for data collection**	**Due Date for data collection**	**Review by the School faculty Advisory Committee - met target?**	**Suggest action items**	**Review and approve by BCN faculty**	**Implement changes (minor)**	**Implement changes (major)**
			30-May	10-Jun	20-Jun	20-Aug	This academic year	Next academic year
Percent tenured/tenure-track, lecturer and adjunct faculty		Office Manager						
Percent with a Ph.D. or equivalent in a related field		Office Manager						
Number of years of industry experience for tenured/tenure-track,		Office Manager						
Student credit hours by degree program		Registrar Officer						
Student credit hours by a percentage of a baseline year		Registrar Officer						
Actual course FTE compared to available FTE		Registrar Officer						
Number of graduates by degree program		Registrar Officer						
Number of conferences organized (e.g., as chair or co-chair)		Graduate Secretary						
Number of conferences with a role in organization (e.g., scientific, editorial, advisory committees)		Graduate Secretary						
Average number of conferences with presentation		Graduate Secretary						
Number of journal editorships		Graduate Secretary						
Average number of journal editorships		Graduate Secretary						
Number of journals faculty reviewed for		Graduate Secretary						
Average number of journals faculty reviewed for		Graduate Secretary						
Tenured/tenure-track faculty activity baseline		Director						
Lecturer faculty activity baseline		Director						
Each faculty member will be an active participant in at least one		Director						
Have a faculty/student ratio of no more than X to 1.		Director						

Undergraduate Program Implementation and Review								
Measure	**Target**	**Person responsible for data collection**	**Due Date for data collection**	**Review by the Undergrad Committee - met target?**	**Suggest action items**	**Review and approve by BCN faculty**	**Implement changes (minor)**	**Implement changes (major)**
			30-May	10-Jun	20-Jun	20-Aug	This academic year	Next academic year
Average SAT score and GPA of pre-BCN courses	1100 / 3.0	Undergrad Secretary						
Percentage of underrepresented groups	20%	Registrar Officer						
Direct Student Learning Outcome Assessments	At least 70% of class score C- or above*	Faculty						
AC exam results	Average area score => 70%	Undergrad Director						
Placement of competition teams in regional and national (open) events	70% in Top 3	Undergrad Director						
Number of Rinker School students participating in competition teams annually	30	Undergrad Director						
Number of students participating in the Rinker School's international exchange programs	15	Undergrad Director						
Number of courses with hands on experiments	8	Undergrad Director						
Number of courses that effectively integrate technology	6	Undergrad Director						
Number of construction jobsite visits	10	Undergrad Director						
Graduating seniors exit survey	3.5/5	Job Place. Coor.						
One and five year alumni survey	3.5/5	Job Place. Coor.						
Employer survey	3.5/5	Undergrad Secretary						
Assessment of the quality of instruction in each course by students	Above College Average	Job Place. Coor.						
Placement rate within 3 months after graduation	100%	Job Place. Coor.						
Percentage of students completing an internship	95%	Job Place. Coor.						
Diversity of companies attending the career fair	Min. 5 from each segment	Job Place. Coor.						
Upper division enrollment	240	Registrar Officer						
Number of graduates each semester	60	Registrar Officer						
* C- is 70 to 72.9								
See Sequence Table								

Masters Programs Implementation and Review								
Measure	**Target**	**Person responsible for data collection**	**Due Date for data collection**	**Review by the gradute committee - met target?**	**Suggest action items**	**Review and approve by BCN faculty**	**Implement changes (minor)**	**Implement changes (major)**
			30-May	10-Jun	20-Jun	20-Aug	This academic year	Next academic year
% students in underrepresented groups		Graduate Secretary						
graduates with non-construction management undergrad		Graduate Secretary						
% graduates who have a non-US degree prior to joining the Rinker School		Graduate Secretary						
% graduates who write a thesis		Graduate Secretary						
% graduates who publish at least one peer-reviewed conference or journal paper within 18 months of graduation		Graduate Secretary						
Number of students enrolled in MSCM/MCM		Graduate Secretary						
Number of applicants for MSCM/MCM per year		Graduate Secretary						
% acceptance rate for MSCM/MCM applicants		Graduate Secretary						
% matriculation rate of MSCM/MCM applicants		Graduate Secretary						
percentage of international students in MSCM/MCM with domestic internships		Graduate Secretary						
Number of graduates with MSCM/MCM degree per year		Graduate Secretary						
Number of active ICM students		Graduate Secretary						
Number of applicants for ICM per year		Graduate Secretary						
% acceptance rate for ICM applicants		Graduate Secretary						
% matriculation rate of ICM applicants		Graduate Secretary						
Number of graduates with ICM degree per year		Graduate Secretary						
Number of years for the average time to complete ICM degree		Graduate Secretary						

PhD Program Implementation and Review								
Measure	**Target**	**Person responsible for data collection**	**Due Date for data collection**	**Review by the gradute committee - met target?**	**Suggest action items**	**Review and approve by BCN faculty**	**Implement changes (minor)**	**Implement changes (major)**
			30-May	10-Jun	20-Jun	20-Aug	This academic year	Next academic year
% students in underrepresented groups		PhD Coordinator						
Number of students enrolled in PhD program before 2017		PhD Coordinator						
Number of students enrolled in PhD program in 2017		PhD Coordinator						
Number of applicants for PhD per year		PhD Coordinator						
% acceptance rate for PhD applicants		PhD Coordinator						
% matriculation rate of PhD applicants		PhD Coordinator						
median GRE score of admitted students		PhD Coordinator						
Graduate 8 to 10 students per year on a five year rolling average		PhD Coordinator						
Number of graduates with PhD degree per year on a five year rolling average before 2020		PhD Coordinator						
Number of graduates with PhD degree per year on a five year rolling average after 2020		PhD Coordinator						
number of peer reviewed journal paper based on PhD student research accepted/published per student, measured one year post		PhD Coordinator						
number of peer reviewed conference paper based on PhD student research accepted/published per student, measured one year post		PhD Coordinator						
amount of support for PhD students from externally sponsored research - $ per year.		PhD Coordinator						
establish an endowed fund with a value of about $4 million providing 4 years of support for one new PhD student every year		PhD Coordinator						
statrt an independent Construction Management PhD program		PhD Coordinator						
explore an industry based PhD program and its potential demand and benefits		PhD Coordinator						
establish a process to monitor the post-graduation career progress of our students and solicit their feedback on the program		Director						

FES Program Implementation and Review								
Measure	**Target**	**Person responsible for data collection**	**Due Date for data collection**	**Review by the Advisory Board - met target?**	**Suggest action items**	**Review and approve by BCN faculty**	**Implement changes (minor)**	**Implement changes (major)**
			30-May	10-Jun	20-Jun	20-Aug	This academic year	Next academic year
number of undergraduate courses by track		FES Secretary						
number of graduate courses		FES Secretary						
number of undergraduate courses aligned with FESHE requirements		FES Coordinator						
number of courses updated per year		FES Coordinator						
% of courses updated		FES Coordinator						
number of graduate level fire courses		FES Secretary						
number of graduate level EMS courses		FES Secretary						
number of courses reviewed by Advisory Board		FES Coordinator						
number of courses reviewed by industry focus group		FES Coordinator						
number of students attending and participating in national FES organization conferences and seminars		FES Secretary						
number of students participating in study abroad		FES Secretary						
FESHE requirements yes/no		FES Coordinator						
meet FESHE EMS requirements yes/no		FES Coordinator						
number of FESHE and EMI committee and symposium participations for marketing		FES Coordinator						
number of local, state, national, and international trade shows attended for marketing		FES Coordinator						
number of community college /university and fire department visits for recruiting		FES Coordinator						
number of media communications /activities for marketing		FES Secretary						
number of students enrolled		FES Secretary						
number of international activities		FES Secretary						
number of research projects conducted and published		FES Coordinator						

FES Program Implementation and Review								
Measure	**Target**	**Person responsible for data collection**	**Due Date for data collection**	**Review by the Advisory Board - met target?**	**Suggest action items**	**Review and approve by BCN faculty**	**Implement changes (minor)**	**Implement changes (major)**
			30-May	10-Jun	20-Jun	20-Aug	This academic year	Next academic year
develop a recruiting plan and begin recruiting faculty with significant current industry experience and skills as well as academic accomplishments		FES Coordinator						
recruit and hire two new faculty		FES Coordinator/ Director						
number of courses to be updated each year		FES Coordinator						
identify the FES tracks and courses required		FES Coordinator						
complete the necessary steps to meet and apply for FESHE		FES Coordinator						
develop a marketing and recruiting plan		FES Coordinator						
develop new course proposals for undergrad and grad programs		FES Coordinator/ Director						
work with the College and UFIC to outline a study abroad program		FES Coordinator/ Director						
partner with the Florida State Fire College to conduct research in the industry		FES Coordinator						
develop a proposal for a fire and an EMS track in the master's degree		FES Coordinator						

II. ASSESSMENT PLAN FOR BSCM DEGREE

1. Mission Statement for BSCM Degree

The mission of the undergraduate program is to prepare diverse graduates for an outstanding professional career in the construction industry and related fields through an appropriate curriculum delivered with expert instruction to achieve a high level of student learning.

2. Objectives for BSCM Degree

- The School's students should be academically high achieving
- The student body should reflect the diverse population of students attending the University of Florida.
- Provide a curriculum and educational experience relevant to a career in construction management with expert instruction that results in a high level of student learning
- Provide diverse career opportunities for students.
- Provide graduates for the construction industry

3. Learning Outcomes for BSCM Degree

3.1 Program Learning Outcomes

PLO 1. Apply knowledge of engineering, materials, methods, equipment, and processes to safely construct buildings and structures.
PLO 2. Survey and quantify building components to estimate project costs, analyze progress, and control expenditures.
PLO 3. Create an effective planning, scheduling and control system by identifying, evaluating and organizing the diverse elements of a construction project.
PLO 4. Set up and manage project administration and management systems to efficiently document and monitor the construction process.
PLO 5. Communicate technical and financial data effectively in speech and in writing to all stakeholders in the construction process.

3.2 ACCE Student Learning Outcomes

1. Create written communications appropriate to the construction discipline.
2. Create oral presentations appropriate to the construction discipline.
3. Create a construction project safety plan.
4. Create construction project cost estimates.
5. Create construction project schedules.
6. Analyze professional decisions based on ethical principles.
7. Analyze construction documents for planning and management of construction processes.
8. Analyze methods, materials, and equipment used to construct projects.
9. Apply construction management skills a member of a multi-disciplinary team.
10. Apply electronic-based technology to manage the construction process.
11. Apply basic surveying techniques for construction layout and control.
12. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
13. Understand construction risk management.
14. Understand construction accounting and cost control.
15. Understand construction quality assurance and control.
16. Understand construction project control processes.

17. Understand the legal implications of contract, common, and regulatory law to manage a construction project.
18. Understand the basic principles of sustainable construction.
19. Understand the basic principles of structural behavior.
20. Understand the basic principles of mechanical, electrical and piping systems

4. Assessment Tools for BSCM Degree

4.1 Assessment Tools for the BSCM Degree Objectives

4.1.1 The Rinker School's students should be academically high achieving.
- Measures: Average SAT score and GPA of pre-BCN courses measured each semester

4.1.2 The student body should reflect the diverse population of students attending the University of Florida.
- Measure: Percentage of underrepresented groups measured each semester

4.1.3 Provide a curriculum and educational experience relevant to a career in construction management with expert instruction that results in a high level of student learning.
- Measure:
  - ACCE accreditation every six years
  - Student Learning Outcome assessments
    - Direct Student Learning Outcome assessments through projects, assignments, and exams of Capstone, Project Management, and other courses - measured each semester by faculty
    - AC exam results – provided by testing agency
  - Placement of competition teams in regional and national (open) events annually
  - Number of Rinker School students participating in competition teams annually
  - Number of students participating in the Rinker School's international exchange programs annually
  - Number of courses with hands on experiments and/or demonstration of crafts work annually
  - Number of courses that effectively integrate technology to enhance the learning annually
  - Number of construction jobsite visits each semester
  - Graduating seniors exit survey each semester
  - One and five year alumni survey annually
  - Employer survey annually
  - Assessment of the quality of instruction in each course by students each semester

4.1.4 Provide diverse career opportunities for students
- Measure: Placement rate within 3 months after graduation each semester
- Measure: Percentage of students completing an internship annually
- Measure: Diversity of companies attending the career fair each semester

4.1.5. Provide graduates for the construction industry
- Measure: Upper division enrollment each semester
- Measure: Number of Fall and Spring graduates

4.2 Assessment Tools for the BSBC Degree Program Learning Outcomes – measured each semester

PLO 1. BCN 4787 Assignment 6; AC Exam Sections 2, 4, 8, and 9
PLO 2. BCN 4787 Assignment 7; AC Exam Sections 5 and 6
PLO 3. BCN 4787 Assignment 8; AC Exam Section 7
PLO 4. BCN 4787 Assignments 9, 10, 11, and 12; AC Exam Sections 3 and 10
PLO 5. BCN 4787 Project Presentation; AC Exam Section 1

4.3 Assessment Tools for the ACCE Student Learning Outcomes – measured each semester

SLO 1. BCN 4709 Writing Assignment; AC Exam Section 1; Alumni/Employer Survey
SLO 2. BCN 4787 Project Presentation; Alumni/Employer Survey
SLO 3. BCN 3730 Safety Project; AC Exam Section 8; Alumni/Employer Survey
SLO 4. BCN 4612 Bid Simulation; AC Exam Section 5; Alumni/Employer Survey
SLO 5. BCN 4720 Final Project; AC Exam Section 7; Alumni/Employer Survey
SLO 6. BCN 4709 Ethics Assignment; Alumni/Employer Survey
SLO 7. BCN 4720 Final Project; Alumni/Employer Survey
SLO 8. AC Exam Section 4; Alumni/Employer Survey
SLO 9. BCN 4787 Final Project; Alumni/Employer Survey
SLO 10. BCN 4787 Final Project; Alumni/Employer Survey
SLO 11. BCN 3281 Final Report; AC Exam Section 9; Alumni/Employer Survey
SLO 12. BCN 4709 Delivery Methods Assignment; Alumni/Employer Survey
SLO 13. BCN 4709 Risk Assignment; Alumni/Employer Survey
SLO 14. AC Exam Section 6; Alumni/Employer Survey
SLO 15. BCN 4709 QC/QA Assignment; Alumni/Employer Survey
SLO 16. AC Exam Section 10; Alumni/Employer Survey
SLO 17. BCN 3700 Final Exam; Alumni/Employer Survey
SLO 18. BCN 4787 Assignment 5; Alumni/Employer Survey
SLO 19. AC Section 2; Alumni/Employer Survey
SLO 20. BCN 3521 Final Exam, BCN 4510 Submittal Lab; Alumni/Employer Survey

5. Performance Criteria (see Table 9.2.3.5)

Table 9.2.3.5 Undergraduate program measures, targets, and sequence of data collection

Measure	Target	Person responsible for data collection	Sequence
Average SAT score and GPA of pre-BCN courses	1100 / 3.0	Undergrad Secretary	Semester
Percentage of underrepresented groups	20%	Registrar Officer	Semester
Direct Student Learning Outcome Assessments	At least 70% of class score C- or above	Faculty	Semester
AC exam results	Average area score => 70%	Undergrad Director	Semester
Placement of competition teams in regional and national (open) events	70% in Top 3	Undergrad Director	Annual
Number of Rinker School students participating in competition teams annually	30	Undergrad Director	Annual
Number of students participating in the Rinker School's international exchange programs	15	Undergrad Director	Annual
Number of courses with hands on experiments	8	Undergrad Director	Annual
Number of courses that effectively integrate technology	6	Undergrad Director	Annual
Number of construction jobsite visits	10	Undergrad Director	Annual
Graduating seniors exit survey	3.5/5	Job Place. Coor.	Semester
One and five year alumni survey	3.5/5	Job Place. Coor.	Annual
Employer survey	3.5/5	Job Place. Coor.	Annual
Assessment of the quality of instruction in each course by students	Above College Average	Job Place. Coor.	Semester
Placement rate within 3 months after graduation	100%	Job Place. Coor.	Semester
Percentage of students completing an internship	95%	Job Place. Coor.	Annual
Diversity of companies attending the career fair	Min. 5 from each segment	Job Place. Coor.	Semester
Upper division enrollment	240	Registrar Officer	Semester
Number of graduates each semester	60	Undergrad Secretary	Semester

6. **Evaluation Methodology**? (seems to be redundant and should be removed from the Standards)

III. Assessment Implementation Plan

1. Assessment of the BSCM Degree

Evaluation of the programs objectives and learning outcomes are compared to the stated performance criteria to determine whether stated objectives and learning outcomes were achieved and if there is a validated need for improvement in any areas.

Table 9.2.3.6 (a) shows due dates for data collection, comparison with targets, suggested changes, and implementation of the suggested changes. The review will be done annually for all measures except ACCE Student Learning Outcomes that follow Table 9.2.3.6 (b)

Table 9.2.3.6 (a) Due Dates for data collection and evaluation

Due Date for data collection	Review by the Undergrad Committee - met target?	Suggest action items	Review and approve by BCN faculty	Implement changes (minor)	Implement changes (major)
30-May	10-Jun	20-Jun	20-Aug	This academic year	Next academic year

Table 9.2.3.6 (b) Sequence of review of ACCE Student Learning Outcomes

Year	Industry Focus Group	SLOs to be Reviewed
2015-16	Group 1	SLOs 1, 2, 6, 7, 9
2016-17	Group 2	SLO 4, 13, 14
2017-18	Group 3	SLOs 5, 8, 11
2018-19	Group 4	SLOs 7, 10
2019-20	Group 5	SLOs 12, 15, 16, 17
2020-21	Group 6	SLOs 18, 19, 20

2. Results of each Assessment Cycle

The results of each assessment cycle including suggested changes and their implementation plan are documented and will be provided to the Visiting Team

3. Action Items for Goals that have not Been Achieved

The undergraduate committee will evaluate the outcome of each change in achieving the specified target in subsequent semesters to verify the changes has been effective. The results are reported at the annual faculty retreat in August.

4. Improvement of the Assessment Plan

After each assessment cycle, the entire process is reviewed and updated with plans for improvement including any revisions to the School's assessment plan.

IV. Previous Accreditation Actions

During the 2010 accreditation review, no weaknesses were identified by the visiting team.

The visiting team identified four areas of concern:

1. *"Very little clear evidence and formal documentation were provided, which demonstrate assessment results were used and incorporated for the continuous improvement of the educational program courses. Furthermore, some course notebooks lacked sufficient evidence of representative student work. [ACCE Document 103, Section IX]"*

   The Rinker School now has a process in place to document and review student surveys, employer surveys, and course reviews by industry. Graduates of the program and their employers are surveyed one year after the student has graduated and five years after graduation. The faculty have standardized the survey questions and review the results after each survey cycle. Industry representatives annually review courses and provide feedback to the program on course content and delivery. The faculty are provided written feedback and then respond outlining their course changes. The School's Executive Committee of the Advisory Council then reviews and discusses the industry's feedback and the faculty's response.

   An academic quality plan has been developed that measures specific student learning outcomes and specifies the review and review cycle. The assessments include assignments and the American Institute of Constructors Certified Professional Constructors exam. The results from the assessment of the student learning outcomes are reviewed in the undergraduate curriculum committee where changes needed in courses and in the curriculum are identified and implemented.

2. "*A number of faculty have an excessive workload when combining their teaching, research, and service assignments. This appears to be most evident for faculty who teach and mentor in the graduate program. Though two new faculty lines are planned (one from a Construction Endowment and another from Net Zero Energy Building initiative), there appears to be inadequate resources to reduce high faculty workload. [ACCE Document 103, Section IV]*

   The two planned faculty lines were filled in 2010 and 2011. There has also been a reduction in the number of sections taught per semester due to class size.

3. *" An Undeveloped Potential that was reported in the last accreditation report has not been adequately addressed. Faculty and administrators have expressed intention but there is no evidence that courses selected from supporting disciplines have enhanced the interdisciplinary nature of the construction program. [ACCE Document 103, Section III]"*

Interdisciplinary collaboration has been more formalized through the addition of new courses and co-teaching with other programs. A design-build course has been created and offered beginning Fall 2010 that incorporates students from engineering, architecture, interior design, and building construction into multi-disciplinary teams. The course is project-based and the deliverable is a response to a request for proposals. In spring 2011, an Integrated Project Delivery course was started that combines faculty and students from architecture and building construction in studio-based teams. These courses reinforce the interdisciplinary nature of the project delivery process. The Building Construction Capstone course has formalized co-teaching with the Real Estate program. Each semester, a faculty member from the Real Estate program teaches a module on real estate development to the Capstone students. Each spring, a Building Construction faculty teaches Real Estate students conceptual estimating to Real Estate capstone students.

4. *" Enhanced Communication. There is substantial room for improvement for effective communication, coordination and interaction within the BCN unit. [ACCE Document 103, Section III]*

A Faculty Advisory Committee has been created that includes representation across the faculty - professor, associate professor, assistant professor, and lecturer. The school's By-Laws have formalize the committee structure and responsibilities and state:

Responsibilities of the Committee
The Faculty Advisory Committee provides advice and input to the Director of the School on pertinent matters and is available for faculty members to express concerns regarding leadership of the School. The committee will provide counsel to the Director on the strategic direction of the School, the use of financial resources, the state of industry relations, the evolution of the curriculum, and other issues that affect the performance and reputation of the School. The committee will also act as an interface for communications of faculty input on the performance and strategic direction of the School. The Chair of the committee will communicate the committee's activities to all faculty via minutes of its meetings and at each end of semester faculty meeting. The Director may also assign tasks to the committee that are strategic in nature and are in keeping with the general purpose of the committee.