From: Judy Liu, Chair of Architectural Engineering Program Committee
To: W. Jason Weiss, School Head, Civil & Construction Engineering
Date: January 3, 2017
Re: Architectural Engineering Degree Program Proposal

The Civil & Construction Engineering (CCE) Faculty support the proposed new undergraduate degree program in Architectural Engineering. The proposed BS in Architectural Engineering (AE) degree program will provide students with breadth and depth in the engineering sciences of buildings and their systems: structural systems; heating, ventilation and air-conditioning (HVAC) systems; electrical and lighting systems; construction engineering and management. With input from the CCE faculty, the Architectural Engineering Program Committee has developed a curriculum that will emphasize integration across architectural engineering disciplines as well as with the existing civil engineering and construction engineering management programs.

The Architectural Engineering Program Committee, formed in October 2015, was charged with developing the curriculum for a new undergraduate degree program in Architectural Engineering. The committee members included Meghna Babbar-Sebens, Dan Borello, Joe Fradella, Kate Hunter-Zaworski, Jason Ideker, David Sillars, Armin Stuedlein, and David Trejo, representing six different discipline areas within the school of Civil & Construction Engineering. Joe Fradella and I have educational backgrounds in Architectural Engineering (AE); other committee members have conducted collaborative work within AE topic areas.

The committee developed the proposed curriculum based on a survey of existing Architectural Engineering programs, a review of existing courses and curricula in Civil & Construction Engineering, and comparison to ABET accreditation requirements. The proposed course of study is consistent with 4-year Architectural Engineering programs at other universities and strongly leverages existing course offerings. We worked closely with CCE academic advisors to ensure that all course pre-requisites, Pre-Engineering and Professional School requirements were satisfied. Also, an additional version of the proposed AE curriculum was created for students who wish to participate in the Civil Engineering Cooperative Program (CECOP); this version of the curriculum accommodates the two paid industry internships and allows students to graduate on the typical CECOP timeframe.

The committee first presented a proposed curriculum and collected feedback at a CCE faculty meeting on December 4, 2015. A revised version was presented at a February 4, 2016 faculty meeting. After additional input from faculty and revisions, including redesign of an existing course to suit the needs of new Architectural Engineering students as well as Construction Engineering Management students, the proposed curriculum was approved by a vote of the CCE faculty on May 13, 2016. The vote was: 22 in favor, 0 opposed, and 0 abstained.