



Living Building Challenge™ I and II: Planning and Course

THE PROBLEM Solid waste is not only a pervasive global problem, but represents a tremendous loss of valuable environmental and economic resources. The construction and operation of buildings waste contributes significantly to this waste problem in addition to generating other negative environmental impacts. In order to achieve its goals of 40% waste diversion by 2020, the city of Phoenix needs to go beyond conventional diversion strategies and also reflect its resource management vision in its own facilities.

THE PARTNERS The city of Phoenix Public Works Department with additional funding by the Rev. Jenny Norton. Liberty Wildlife Foundation was an additional project beneficiary.

THE SERVICE Creating and executing two consecutive courses at ASU: SOS 494/598 Creating Living Buildings and SOS 498/594 Designing a Living Building. Through these courses, the program engaged faculty and industry professionals as guest lecturers to teach interdisciplinary cohorts of students the closed resource loop principles of the Living Building Challenge™ (LBC).

THE SOLUTION Students applied the LBC's aspirational regenerative design goals and provided multiple design strategies and technology options for a new headquarters of the Liberty Wildlife Foundation to dramatically reduce water consumption. Teams also provided Phoenix with research reports for mobility design, potential businesses to recruit, alternative infrastructure materials, and educational design for the city's 88-acre Resource Innovation Campus (RIC) master plan.

THE OUTLOOK Phoenix has now hired an architectural firm to work with the student design, evaluate alternative sites within the campus and finalize the conceptual design accordingly. The conceptual design will then be used to cost the building and secure funding for the detailed-design and construction phases.

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