

Deep Soil Ecotron Research Facility in JW Martin Lab Building

The Deep Soil Ecotron Research Facility is supported in large part by a National Science Foundation (NSF) grant awarded in 2021. The NSF grant will provide necessary funding to establish the research program, hire staff, support the development of research protocols / pedagogy, and acquire twenty-four 16-foot tall Deep Soil Ecotron (DSE) lysimeter units and related equipment.

This project will support long-term research initiatives looking into the microbial ecosystem of soils at levels currently largely unexplored. It will provide infrastructure upgrades and improvements to multiple building systems. Each Ecotron unit requires a number of utility connections including: power, network, supply & exhaust air, chilled water, fresh water, compressed air, gasses, and a trench drain. The HVAC system required for the Ecotron Units includes a new process chiller and a new air handling unit. The existing floor slab will be replaced with a new level slab-on-grade capable of supporting the heavy loads of the soil lysimeters, each weighing up to 9 tons.

The Design Build Team consists of Quality Contractors, Deary, Idaho and Design West Architects, Pullman, Washington and MSI Engineers of Spokane. The project Design-Build budget is \$3,700,000.

An article about the Deep Soil Ecotron is available in [Science](#).

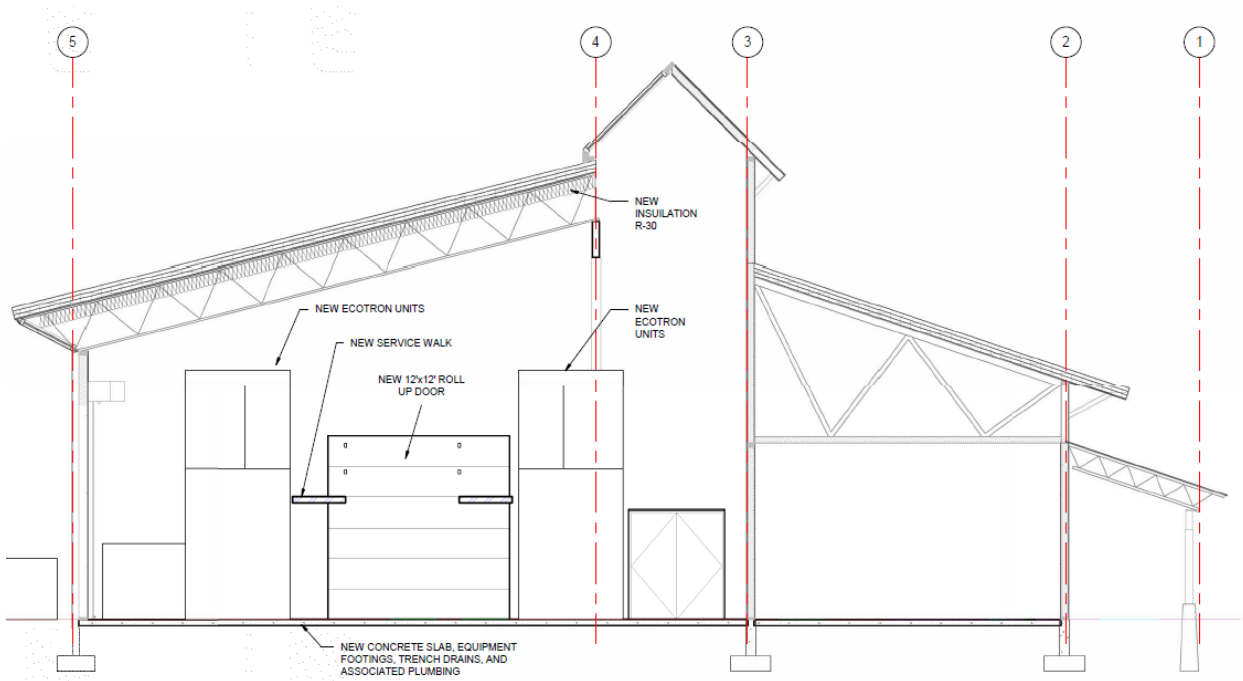


Figure 1 Building Section