

Why a Living Wall?

In 2014, the City is launching an effort called “Nature in the City” to ensure every citizen has access to nature close to where we live and work. This effort will focus on how our built environment can contribute to our sense of nature within the City. One of the deliverables of the project will be design guidelines. The guidelines will show how to successfully implement various techniques designed to enhance access to nature in an urban environment. However, many approaches have not been attempted in our region or climate.

One such approach is a living wall. Living walls provide a myriad of benefits (see below) and represent a pilot project that can be designed and installed in 2014-2015.

The project will be a high profile case study on the feasibility and creation of green walls in arid climates. The wall will be designed to demonstrate what plants work best in a vertical setting, how habitat can be enhanced through a green wall, and what energy savings can be achieved.

Benefits of a Living Wall

Green walls provide a wide variety of benefits: they improve both indoor and outdoor air quality, they provide the building insulation from heat and cold while protecting the wall from water and sunlight and help to lower summer temperatures in cities by reducing the urban heat island effect. Green walls add vegetation to the urban environment and provide habitat for urban species. Studies have shown that viewing and interacting with greenery reduces stress and mental fatigue, while improving feelings of neighborhood safety and overall wellbeing.

WHAT IS A LIVING WALL?

A living wall, also known as a green wall, is a wall partially or completely covered with plants. It includes a structural system and soil media that supports the plants and there is typically a 2-4” separation between the living wall and the building wall for structural purposes.

Project Schedule

The living wall will be designed and constructed in 2014-15 on the following schedule:

- Idea Generation – In May 2014, City staff worked with the CSU Department of Horticulture and Landscape Architecture to generate ideas for the living wall.
- Conceptual Design – From September to October 2014, we will finalize site location and develop a conceptual design.
- Final Design – In November, we will finalize a design and begin the process to obtain building permits.
- Construction – Construction is planned for May 2015.
- Maintenance and Monitoring – Maintenance and Monitoring will be conducted by the City’s Parks Department in collaboration with CSU’s Institute for the Built Environment and the Urban Lab.



Living walls have been installed in many places, but have not been well-tested in the Intermountain West. This example, from Coquitlam, British Columbia, demonstrates that a green wall can be functional and beautiful.

Project Funders and Budget

Several organizations are contributing funding to the project, including the following:

City of Fort Collins Innovation Fund	\$25,000
City of Fort Collins Stormwater Dept	\$ 5,000
Nature in the City Project Budget	<u>\$ 4,000</u>
Total Funding	\$34,000

The project's budget is as follows:

Design and Project Management	\$ 8,500
Materials, Plants, and Structure	\$20,000
Construction	\$ 1,280
Maintenance	\$ 4,000
Interpretive Signs	<u>\$ 720</u>
Total Costs	\$34,000

Project Partners

[Nature in the City Project](#)
[CSU Institute for the Built Environment](#)
[CSU Department of Horticulture and Landscape Architecture](#)
[City of Fort Collins Stormwater Department](#)
[The Urban Lab](#)

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WHAT IS THE PROPOSED DESIGN?

Lead Designer Jessica Doig, CSU Landscape Architecture Student, and Colin Day, Project Manager, The Institute for the Built Environment, have prepared potential conceptual designs. These concepts may be included in proposals to site managers and building owners as the team decides on a location. There are currently seven sites being considered by the project team.

The proposed walls will be approximately 240 square feet combined. Two hypothetical design illustrations follow, and would be modified for site specificity:

