

## UBC Sustainability Scholars Program 2019

The UBC Sustainability Initiative (USI) is pleased to offer current UBC graduate students the opportunity to work on funded sustainability internship projects. Successful candidates work under the mentorship of a partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing organizational sustainability goals.

For more information about the Sustainability Scholars Program and to apply to work on this project, please visit the [Student Opportunities](#) page.

Please review the application guide (PDF) before applying.

Applications close **midnight Monday February 25, 2019.**

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### **Title of Research Project: Assessment of Online Marketplace for Construction & Demolition (C&D) Materials**

#### **1. The purpose of the project is:**

- To evaluate the viability and potential implementation strategies of an online marketplace as an opportunity for C&D waste generators to connect with potential buyers and non-profit organizations to address the gap between the suppliers of reusable building materials and potential users.
- To evaluate the effectiveness of the online marketplace as a central source of information on facilities that receive C&D material in the region for reuse.
- To gain an understanding of the market demand and identify potential users for an online marketplace to assess the effectiveness of the tool compared to other strategies that encourage reuse of C&D materials.
- To estimate the size of the initial user base required for the online market to grow effectively and define a strategy to reach a critical mass of users.

#### **2. How will this project make a contribution to regional sustainability?**

C&D material represents almost one third of disposed waste in the region. Metro Vancouver's Integrated Solid Waste and Resource Management Plan (ISWRMP) has set ambitious regional diversion goals that aspire to reduce the quantity of waste generated per capita within the region.

Even though the C&D sector already experiences high diversion rates due to concrete and asphalt recycling, there is significant room for improvement associated with salvaging and reuse of materials such as wood. High cost of land that prevents sellers from keeping large inventories of salvaged items, and disconnection between industry's stakeholders represent major barriers. These obstacles could be addressed by implementing a variety of strategies, including the creation of a virtual marketplace platform, that provides central information and track the availability/flow of materials throughout the region. This assessment of virtual marketplace will help identify its viability, potential partners, potential users and its effectiveness in increasing the region's diversion goals.

#### **3. Outline the scope of project including how the scholar's work will be used by Metro Vancouver:**

The virtual marketplace will focus on helping homeowners and contractors in identifying opportunities to salvage materials generated from C&D activities. The platform would potentially show virtual inventories of C&D material from each generator and a map of locations of facilities that receive material for reuse in the Metro Vancouver area.

In order to create this virtual marketplace, an assessment of various methodologies, material generation, market demand, and management expertise that support the reuse of C&D materials is needed. Initiatives that would support the reuse of C&D materials can take many forms, including but not limited to the implementation of an online marketplace. Additional or alternative strategies, such as technical assistance provided by a salvaged materials broker may be considered, as appropriate.

The outcomes of the study will help inform Metro Vancouver on further considering the recommended platform as a tool to engage C&D industry stakeholders in the salvage/reuse of resources and provide an opportunity for demolition/deconstruction contractors to connect with charities, non-profit organizations, developers and manufacturers to avoid materials going to waste. The platform is expected to be used as a public-facing tool and potentially as a means for Metro Vancouver to track C&D activity in the region.

With current constraints on C&D material recycling capacity in the region, having further options to salvage and reuse this material will help to reach the region's diversion goals.

#### **4. Project Deliverables:**

- Final report and presentation to Metro Vancouver staff outlining key findings and recommendations:
  - Viability of the platform (the study must include technical/operational, legal and economic feasibility).
  - List of considerations for the development, implementation and administration of the platform.
  - Estimate of potential diversion that could result from the implementation of the platform.
  - Literature review. List of key findings on how similar platforms are being used in other jurisdictions.
  - Shortlist of potential service providers/developers of the tool.
  - Shortlist of additional/alternative strategies.
  - List of recommended next steps.
- Final report/executive summary for the UBC Sustainability Scholars project library.

#### **5. Identify the required/preferred skill set and knowledge base for the ideal Scholar.**

- Excellent research and writing skills
- Strong analytical skills
- Ability to work independently
- Demonstrated time management skills
- Familiar with preparing feasibility studies
- Demonstrated interest in sustainability
- Familiarity with research methodologies and survey techniques
- Project management skills

#### **6. Should the potential Scholar submit a writing sample?**

- Yes
- No

**7. Identify specific requirements required for completing this project**

- Must be able to travel to Metro Vancouver's head office in Burnaby to complete a portion of the work
- Access to a vehicle for field work
- Access to own laptop and software

Applications close **midnight Monday February 25.**

Apply here:

<https://sustain.ubc.ca/student-opportunities>

To learn more about the program here:

<https://sustain.ubc.ca/ubc-sustainability-scholars-program>

Read the application guidelines to confirm your eligibility to participate in the program here:

<https://sustain.ubc.ca/student-opportunities>

Contact Karen Taylor at [sustainability.scholars@ubc.ca](mailto:sustainability.scholars@ubc.ca) if you have questions.