

## **A Planning Tool of Urban Greenroofs**

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### **Abstract**

Current research does not integrate these benefits in the planning of green roof systems. The objective of this research is to develop a planning tool to evaluate storm water and energy benefits of a green roof structure. To demonstrate the planning tool, a case study of urban green roofs was conducted for three different building scenarios: residential, commercial and industrial buildings. Using the data collected at York University's green roof, the seasonal storm water and energy benefits in dollar values of each scenario were simulated.

The study concluded that it is more important to select a proper soil mixture and type of plant when designing a green roof system. By understanding the stormwater and energy benefits, it is hoped that this research could accrue through the adoption of green roofs in Toronto as well as other Canadian cities.