

Approaches towards Sustainable Community Development: An Investigation of Eco-Designed Condominiums

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EXECUTIVE SUMMARY

This report has two main objectives: first to determine which best practices, policies and incentives can encourage developers to develop eco-designed condominiums and second to demonstrate how eco-designed condominiums can contribute to sustainable community development. To this end, this qualitative study examines three eco-designed case studies and one conventionally designed case study through a triangulated approach. The first factor in this approach involved a substantial literature review of the relationship between eco-design practices and sustainable development practices in order to understand the true relationship, if any, between eco-design and sustainable development. The second factor involved the identification of eco and conventional-design practices, observed through the case studies, which would help determine which practices were most beneficial and efficient, and which were not. The third and final factor involved interviews in Ottawa and Hamilton, Ontario, with the developers of the four case studies. This final factor assesses the environmental, social and economic incentives and challenges associated with developing condominiums by eco-design standards.

The information taken from this approach was evaluated through two proprietary rating systems specifically designed for this study. The first system was designed after the LEED Canada-NC (New Construction) rating system. The second was designed after the LEED Canada- ND (Neighborhood Development) rating system and various sustainability indicators. These systems identify environmental, social and economic sustainability practices to assess the eco-design process as an approach towards sustainable community development. The results obtained through the interviews identified the major motivations and challenges developers face when building eco-designed condominiums. To refine this

analysis, the identified themes were subcategorized as either environmental, social, or economic incentives and challenges. Environmental incentives include minimizing the ecological footprint; social incentives include improving the quality of life; and economic incentives include long-term monetary savings, land assets, and income. Environmental incentives were found to hold more motivational power than the identified social and economic incentives, but that social and economic incentives can still play very important roles.

Some of the predominant environmental challenges included the difficulties associated with the LEED certification process, the lack of motivation to develop by eco-design standards, and the environmental constraints associated with the eco-design development process. The predominant social challenge was found to be the affordability. The predominant economic challenges included the lack of financial-assistance incentives and the extra capital costs of developing eco-designed condominiums. These economic challenges were found to be the greatest of the three.

To encourage developers to apply eco-design practices and to follow through with LEED certification requirements, recommendations that mitigate these challenges have been offered. First, this study offers a series of best practices for eco-designed and conventionally designed condominiums to achieve the five sustainability principles of interest to this report. Second, this study recommends financial incentives, such as financial aid programs, to help developers offset the initial costs associated with developing a LEED certified building. Finally, this study recommends new policy development to mandate LEED certification for all new condominium developments.