

### Environment and Climate Expanded Review

This attachment details the links between proposed changes to the Quarters and Belvedere CRL and The City Plan with additional considerations for implementation work where applicable:

GHG Emissions	
Related Project(s) or Plan:	Environment and Climate Interaction:
Rescale The Grid; Hierarchy of Streets; Pulse Points	<p>Public realm improvements that reduce auto-dependency supports the City's target of 50% of all trips being made by transit and active transportation by 2040 in Pathway 3 of the Community Energy Transition Strategy.</p> <p>The integration of future development with transit facilities and the larger multi-modal transportation network enables reductions in greenhouse gas (GHG) emissions by encouraging the use of public and active transportation over personal vehicles. For example, a passenger traveling on a Toronto Transit Commission (TTC) bus produces up to 77% fewer GHG emissions per kilometer than driving a single-occupancy vehicle<sup>1</sup>.</p>
Pulse Points; Attainable Housing Incentive Program	<p>Approximately 34% of community GHG emissions in Edmonton in 2023 were attributed to buildings, providing a significant opportunity to improve energy efficiency and decarbonize this sector to meet the City's 2050 community carbon neutrality goal.</p> <p><u>Consideration:</u> When planning future district energy expansion, Administration could consider how district energy systems could provide lower carbon heating and cooling alternatives for new buildings in the</p>

<sup>1</sup>Canadian Urban Transit Association. (2021). *The GHG reduction impact of public transit*. [https://cutaactu.ca/wp-content/uploads/2021/01/issue\\_paper\\_52\\_-the\\_ghg\\_reduction\\_impact\\_of\\_public\\_transit.pdf](https://cutaactu.ca/wp-content/uploads/2021/01/issue_paper_52_-the_ghg_reduction_impact_of_public_transit.pdf)

	Quarters and Belvedere CRL boundaries to further reduce community GHG emissions.
<b>Natural Areas</b>	
<b>Related Project(s) or Plan:</b>	<b>Environment and Climate Interaction:</b>
System of Parks and Paths	<p>While situated near larger parks and the River Valley with several access points, The Quarters itself has limited parks. Advancing the City's Breathe: Green Network Strategy will enhance ecosystem services and wildlife habitat through increased ecological linkages and green spaces. Green space is negatively correlated to urban heat islands, providing cooling effects and reduced surface temperatures in the built environment.</p> <p><u>Consideration:</u> To enhance landscaping initiatives, Administration could consider further engagement with Indigenous communities to integrate traditional ecological knowledge and/or culturally significant plants as part of new green space creation within the Quarters. Previous engagement sessions for the Boyle Renaissance Phase 3 project's medicine wheel garden indicated community support for this concept, provided that additional engagement opportunities are facilitated.</p>
<b>Sustainable Development</b>	
<b>Related Project(s) or Plan:</b>	<b>Environment and Climate Interaction:</b>
Attainable Housing Incentive Program; Pulse Points	<p>Spurring new mixed-use development to increase urban density reduces wide-spread environmental impacts through "land sparing", where less land is converted to urban land uses in the surrounding areas.</p> <p>The Quarters Downtown Urban Design Plan prioritizes climate resilience through</p>

	<p>sustainable urban design practices. Key environment-focused elements of the plan include a focus on low-impact development (LID) strategies and the incorporation of native plantings to enhance biodiversity within green spaces.</p>
<p><b>Contaminated Sites</b></p>	
<p><b>Related Project(s) or Plan:</b></p>	<p><b>Environment and Climate Interaction:</b></p>
<p>Pulse Points</p>	<p>The Quarters has a variety of both active and brownfield sites within its boundaries that may require environmental site assessments and remediation where required.</p> <p><u>Consideration:</u> Infrastructure improvements and redevelopment projects may be complicated and time intensive where environmental sampling reveals soil contamination. Provincial regulations requiring contaminant management, including possible remediation, may apply, and would lead to additional work before redevelopment or change of use is possible. Existing City processes and standards must be adhered to, as these support development in an orderly and safe manner to protect public health and the environment.</p>

**Linkages to The City Plan:**

- 1.4.1 Support Edmontonians’ transition to a low carbon future in their daily lives.
- 2.4.2 Ensure public buildings and infrastructure are sustainable and resilient.
- 5.1.1 Ensure protection, enhancement and opportunities for access to open space and the river valley and ravine system.