Township of ESQUIMALT

DEVELOPMENT SERVICES

Official Community Plan

DPA No. 7 Energy Conservation & Greenhouse Gas Reduction

Area

Land within the municipal boundaries of the Corporation of the Township of Esquimalt

Designation

Development Permit Area No. 7 is designated for:

- Section 488 (1)(h)- Energy Conservation; and
- Section 488 (1)(j)- GHG emissions reduction. *Note: For DPA justification and exemptions please refer to the Official Community Plan, pages 95-96.*

If you are proposing a development within this DPA, please provide your application details in Section A. In Section B, please comment on how you propose to meet the DPA guidelines.

Section A

Application No.	Project Address	Applicant Name
DP		

Section B

No.	Guideline-	Comments
24.5.1	**Siting of buildings and structures**	
1	Orient buildings to take advantage of site specific climate conditions, in terms of solar access and wind flow; design massing and solar orientation for optimum passive performance.	
2	Build new developments compactly, considering the solar penetration and passive performance provided for neighbouring sites, and avoid shading adjacent to usable outdoor open spaces.	
3	In commercial, residential or commercial mixed-use designated areas with taller developments, vary building heights to strategically reduce the shading on to adjacent buildings.	

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4	Provide space for pleasant pedestrian pathways between buildings.	
5	Strategically site buildings to sustain and increase the community's urban forest tree canopy cover.	
6	Provide space for significant landscaping including varying heights of trees, shrubs and ground covers.	
7	Provide intuitive pedestrian access to storefronts and businesses with site connectivity to nearby amenities and services to help promote walking and the use of other active transportation modes.	
8	Provide usable outdoor amenities such as seating, food gardens, mini-libraries, and play spaces in semi-public areas to enhance the experience of walking and recreating in the neighbourhood.	
9	In residential neighbourhoods, provide space for larger trees and a second row of street trees as this will enhance the pedestrian experience by lowering wind velocity at street level, reducing excessive heating at ground level and absorbing vehicle and other urban noises.	

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24.5.2	Form and exterior design of buildings and structures	
1	Orient larger roof surfaces to the south for potential use of solar panels or photo-voltaic roofing.	
2	Use roof designs that reduce heat transfer into neighbouring buildings, helping reduce the local heat island effect and the need for cooling of buildings in warmer months.	
3	Place more windows on the south side of buildings to increase solar gain, and fewer/ smaller windows on the north side to minimize heat loss.	
4	Use roof over-hangs, fixed-fins or other solar shading devices on south and west facing windows to reduce peak summer heat gain while enabling sunlight penetration in winter months.	
5	Install adjustable overhangs above windows that can help control the amount of sun exposure in warmer months thereby reducing need for cooling.	
6	Provide building occupants with control of ventilation; i.e. windows that open.	
7	Skylights are discouraged as they decrease insulating values and can interfere with solar panel installation.	
8	Add rooftop patios and gardens, particularly food producing gardens, as they can contribute to local resilience, livability, and reduction in greenhouse gas production by reducing food transportation costs.	
9	Install greenhouses for growing food on rooftops where neighbourhood privacy and light intrusion concerns are mitigated.	
10	Avoid heavily tinted windows or reflective glass which will diminish the natural daylighting of interior spaces, thereby requiring increased energy requirements for interior lighting.	

11	In exposed marine locations select durable materials that will withstand weather and sea spray, to ensure low maintenance costs and infrequent replacement needs.	

24.5.3	**Landscaping**	
1	Develop a front yard landscape design that is natural and delightful so residents do not need to leave the neighbourhood to experience nature.	
2	Choose open space and landscaping over dedicating space to the parking and maneuvering of private motor vehicles.	
3	Conserve native trees, shrubs and soils, thereby saving the cost of importing materials and preserving already sequestered carbon dioxide.	
4	Use deciduous trees for landscaping along southern exposures, as they provide shade in the summer and allow more sunlight through in the winter.	
5	Strategically place taller trees and vegetation on the south and west sides of buildings where there is more direct sun exposure.	
6	Strategically place coniferous trees such that they can buffer winter winds.	
7	As context and space allow, plant trees that will attain a greater mature size, for greater carbon storage; removal of healthy trees is discouraged as the loss of the ecosystem services provided by larger trees will take many years to recover.	
8	Plant trees with a larger canopy cover along roadways and sidewalks, thereby providing shading of paved areas, lowering the heating of paved surfaces and reducing the wind velocities in these pedestrian areas.	

9	Plant shorter and sturdier vegetation closer to buildings and other structures, and taller vegetation further away to avoid potential damage from strong winds blowing vegetation against buildings.	
10	For commercial areas, strategically increase green space between buildings, allowing room for landscaped pathways to improve the pedestrian experience, promote walking, and provide for improved light penetration on to sidewalks.	
11	For parking areas and along boulevard/ sidewalk edges; plant trees to provide shade, store carbon and reduce the heat island effect.	

24.5.4	**Machinery, equipment and systems external to buildings and other structures**	
1	For external lighting: • Choose efficient low-energy and long life technologies; • Design lighting to reinforce and compliment existing street lighting; • Use motion-sensitive or solar-powered lights whenever possible; • Layer lighting for varying outdoor needs; and • Provide lighting systems that are easily controlled by building occupants.	
2	Use heat pumps, solar panels, green (living) roofing or an innovative system to improve a building's energy performance.	
3	Use durable, vandalism and graffiti resistant materials where neighbourhood surveillance may be limited.	
4	Design for on-site heat recovery and re-use of water.	

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5	In commercial and industrial areas: design bicycle parking facilities to be inviting for cyclists. Locate bike racks near the main building entrance, with adequate lighting and weather protection.	
6	In commercial areas, provide fast charge electric vehicle charging stations near locations that have quick customer turnover, and ensure the station is easily accessible, well lit, and visible from the public street.	
7	Provide car sharing facilities that are well lit, available for residents, and easily accessed from the public street.	

24.5.5	**Special Features**	
1	Select building materials that have been shown to have a high level of durability for the use intended.	
2	Use wood for construction as a means to sequester carbon dioxide - North American grown and sustainably harvested wood is preferable for building construction.	
3	Select local and regionally manufactured building products whenever possible to reduce transportation energy costs.	
4	Reuse of existing buildings and building materials is encouraged.	
5	Choose materials that have a high likelihood of reuse or recycling at end of life.	