





JAN 27 2020

CORP. OF TOWNSHIP

Official Community Plan

DPA No. 1: Natural Environment

Area

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

Designation

Development Permit Area No. 1 is designated for the purpose of establishing objectives for: Section 488 (1) (a)- protection of the natural environment, its ecosystems and biological diversity Note: For DPA justification and exemptions, please refer to the Official Community Plan, pages 75-77.).

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.

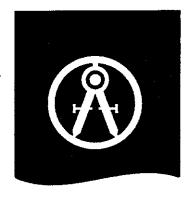
Section A

| Application No. | Project Address | Applicant Name | |
|-----------------|-----------------|----------------|--|
| DP TBC | 937 Colville | Lapis Homes | |

Section B

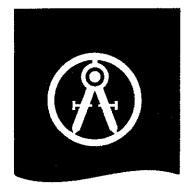
| No. | Guideline | Comments (Please complete with NA where not applicable) |
|--------|---|---|
| 18.5.1 | | |
| 1 | Land within 7.5m of the high watermark of the Gorge Waterway shall be retained in as natural a state as possible. Where the land has been previously altered, the area shall be restored with native trees and plants | N/A |
| 2 | New buildings/ structures shall not be located within 20 m of the high watermark of the Gorge Waterway. | N/A |
| 3 | New buildings/ structures shall not be located within 10 m the high watermark of the Strait of Juan de Fuca. | N/a |





| 4 | Replacement of, expansion of, densification and intensification of the use of existing buildings within 20 m of the high watermark of the Gorge Waterway is discouraged; detached accessory dwelling units are strongly discouraged in this location. | N/A |
|--------|--|---|
| 5 | Replacement of, expansion of, densification and intensification of the use of existing buildings within 10 m of the high watermark of the Strait of Juan de Fuca is discouraged and detached accessory dwelling units are strongly discouraged in this location. | N/A |
| 6 | Variances to 'Building Height' and 'Siting Requirements' will be considered where natural areas and trees are being protected. | No trees being removed on site. |
| 7 | Consider the use of conservation covenants for areas having high ecosystem conservation values. Property owners are encouraged to work with local land trusts to protect natural features and valuable habitat areas through land covenants. | N/A |
| | | |
| 18.5.2 | Natural Features | |
| 18.5.2 | Natural Features Retain existing healthy native trees, vegetation, rock outcrops and soil wherever possible. | No trees being removed. Will use existing soil as much as possible on site. |
| | Retain existing healthy native trees, vegetation, | |
| 1 | Retain existing healthy native trees, vegetation, rock outcrops and soil wherever possible. Preserve and enhance native tree and shrub clusters that overhang the waters edge as these provide shade, protection and feeding habitat for | possible on site. |





| 5 | Design new development and landscaping to frame rather than block public views. | Proposing landscape at the front and sides of the property that will soften and frame the building and provide positive mental health benefits of residents and neighbours. |
|--------|--|--|
| 6 | Avoid disturbing, compacting and removing areas of natural soil as this can lead to invasion by unwanted plant species, poor water absorption and poor establishment of new plantings. Use of local natural soil in disturbed and restored areas will support re-establishment of ecosystem functions. | We will use existing soil as much as possible on this smaller site. |
| 18.5.3 | Biodiversity | |
| 1 | New landscaping shall consist predominantly of native plant and tree species. Plants that are native to the Coastal Douglas-fir biogeoclimatic zone are preferred in landscape treatments as they provide habitat for threatened indigenous flora and fauna. Drought tolerant plants native to western North America, that are known to be non-invasive, are a good alternative choice for landscaped areas. | Have chosen a number of native plant species in our landscaping plan (see plan and green checklist), mixed in with aesthetically interesting non-native species. |
| 2 | In residential locations plan for 'nature out front'; for new landscaping in front and exterior side yards use a variety of site-appropriate, native species; thereby contributing positively to pedestrian friendly urban streets, future greenways and habitat enhanced corridors. | We're proposing trees and vegitation out front to soften the building, with parking and hardscape in the back. |
| 3 | Choose trees and plants for site conditions; consider shade, sunlight, heat, wind-exposure, sea spray tolerance, and year round moisture requirements in their placement. | We chose trees and perennials that can perfom well in both part shade to full sun. All the plants (except the moss in the driveway) require equal amounts of irrigation so no one plant shall suffer |
| 4 | Consider the habitat and food needs of birds, pollinators, and humans in tree and plant species selection and placement; native plantings and food gardens compliment each other. | Plantings and trees are mostly evergreen varieties so can provide some source of all year habitat/food. We considered a food garden but decided to go with a rain garden and storm water mangement system instead. |
| 5 | Encourage native plant and food gardens to spill from private land into boulevards. | While there is no municipal boulevard here, we have chosen a few different plants, yews and English Laurel trees to transition from the bulding to the sidewalk, to soften the building and the concrete. |





| 6 | Avoid monoculture plantings, especially expanses of turf grass outside of playing field sites. | We're proposing a variety of plants and trees. No grass on site for lower maintenance and care. |
|--------|---|--|
| 7 | Snags, logs, driftwood and rock cairns may be used as interesting landscaping features that also provide habitat for native flora and fauna. | |
| 8 | Avoid using fast-growing non-native plants to cover and retain soils as they may become invasive and a constraint to the establishment of other plants. | Proposing a variety of native and non native plantings throughout the property that should compliment each other. |
| 9 | Locate civil servicing pipes/lines under driveways or other paved areas to minimize tree root damage. (Note that the majority of trees have their roots in the top 0.6 m of the soil). | The site is tighter and falls downhill from west to east, so the storm pipe is located on the east side of the building. We're anticipating that it will be at minimum of 0.5 m below the grade and aroun .75m-1m below the magnolias. |
| 10 | Design retaining wall spacing and landscape planting areas of sufficient width and depth to support plantings (eg. provide larger spaces for trees). | We've reviewed the site a number of times to include as much plantings as possible in the area, while keeping sufficient space for soil and roots. |
| 11 | Support the daylighting of portions of the stormwater system for enhanced habitat. | Rain garden proposed with stormtech underground storage and gravel/rock above ground storage to reduce impact of stormwater in area and enhance the habitat/common strata spae. |
| 12 | Aim to meet the Canadian Landscape Standards in all landscaping installations. | Installation will be to the Canadian Landscape Standards. |
| 18.5.4 | Natural Environment | <u>, </u> |
| 1 | Strategically locate leafy trees/ hedges and water features to mask urban noises such as traffic, garbage collection and delivery locations. Consider that leafy rough barked trees, vine covered walls and natural ground cover materials (mulch, soil) will help dampen urban noise. | Proposing vines, shrubs and other planting on some exposed concrete retaining walls, where we have the space for them. |
| 2 | Use International Dark-Sky Association approved lighting fixtures in outdoor locations. Outdoor lighting shall be no brighter than necessary, be fully shielded (directed downward and designed to serve pedestrian needs), have minimal blue light emissions and only be on when needed. Avoid vanity lighting, and lighting directed into the night sky and trees tops. | Will use exterior lighting fixtures that minimize the impact to residents and neighbours with lighting. |





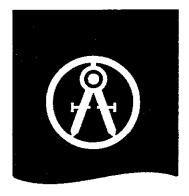
| 3 | Light spillage on to waterways is strongly discouraged. | N/A |
|--------|--|---|
| 4 | Place trees and vegetation near sources of air pollution including busy roadways, to assist in reduction of air pollution through the collection of particulate matter on leaves and needles, and absorption of toxic gases, including but not limited to: ozone, nitrogen dioxide, sulfur dioxide, carbon monoxide, carbon dioxide, cadmium, chromium, nickel and lead. | Proposing trees at the front of the property that will help with this. |
| 18.5.5 | Drainage and Erosion | |
| 1 | Preserve, restore and enhance treed areas. Trees are the most effective form of absorbent landscaping due to their extensive root zones and their ability to both absorb water from the soil and intercept precipitation on leaves, needles and branches. Consider that native conifers are well adapted to local wet winters. | Proposing 11 trees on site to help with water absorbtion, reduce pollution and to soften the building and hardscaping. |
| 2 | Reduce the impact of surges in stormwater on shorelines by designing on-site stormwater retention systems to contain the first 3 centimetres [1.25 inches] of precipitation on site, per precipitation event; and incorporating rainwater collection systems into roof design and landscaping. | Designed a stormwater retention system in the rain garden area to slow and store storm water runoff from the driveway and half the roof and reduce the impact on the stormwater system. |
| 3 | Consider using shared private/ public rain gardens. Direct a portion of stormwater to adjacent public open spaces, when deemed appropriate by the Director of Engineering and Public Works. | See above. No public space next to 937 Colville. |
| 4 | Maximize the ratio of planted and pervious surfaces to unplanted surfaces, and design paved areas to direct water towards vegetated areas, to help reduce surface run off. Where paved surfaces are needed, intersperse with drought resistant vegetation and trees, to help absorb stormwater, provide shade and reduce the local heat island effect. | See above. Hardscape will be directed to softscape and rain garden area wherever possible. |





| 5 | Use porous surfaces to enhance stormwater infiltration, permeable paving is preferable for all open air parking areas. Ensure installation methods contribute to sustained permeability and retention of stormwater on the site. | Proposing brick pavers, which provide a small amount of permeability, and a landscaping strip in the middle of the driveway to enhance stormwater infiltration. Parking area will be graded to direct water to the rain garden area. |
|--------|---|--|
| 6 | Choose absorbent landscaping materials; leaf mulches, wood chips and good quality top soil, over gravel, pavers and concrete. Provide mulch of organic, locally derived materials; leaf mulch from local tree leaves is most desirable. | Will provide new top soil and mulch on all planting areas. Also proposing some mass plantings which will help with early water retention. |
| 7 | Incorporation of rain gardens, bio-swales, rain barrels, and even small depressions (puddles) into landscaping will help reduce surges of stormwater entering local waterways. | Detailed rain garden designed for site to reduce surge of stormwater during rain events. |
| 8 | Planting densities should ensure that vegetated areas will have near 100% plant coverage after two full growing seasons. | Some mass planting techniques being used to ensure good vegation coverage from occupancy. |
| 18.5.6 | Protect, Restore and Enhance Shorelines | |
| 1 | Waterfront property owners are encouraged to become familiar with and adopt a 'soft shore' restoration approach to the care of their foreshore property (i.e. Green Shores for Homes). | N/A |
| 2 | Avoid the expansion of dock area, bulkheads, groins or other shoreline hardening structures. Removal or reductions in the surface area of existing private docks is encouraged. | N/A |
| 3 | Where shoring methods are required to prevent erosion or the sloughing of the shoreline, choose bio-engineering methods over the use of sea-walls or retaining walls. Where sea-walls or retaining walls are the only means of effectively preventing erosion, design in consultation with qualified environmental professionals, as well as engineering professionals. | N/A |

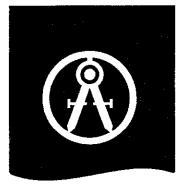




| 18.5.7 | Native Bird Biodiversity | | |
|--------|---|---|--|
| 1 | Protect and enhance habitat features like mature trees, shrub clusters, native fruit bearing shrubs, fresh water ponds and ephemeral damp areas (puddles). | Rear yard is 100% grass. Front yard unable to be retained for driveway and building. | |
| 2 | Encourage increased front yard habitat along quieter streets to reduce bird vehicle conflicts and enhance the pedestrian experience through native plantings. | Proposing trees at the front of the project, as well as plantings down the side of the lots to enhance pedestrian experience. Should compliment side lot plantings on neighbouring project at 955 Colville. | |
| 3 | Sustain a mix of habitat types; including forest, shrub-land, meadow, riparian wetland and coastal shoreline ecosystems in landscaping. | | |
| 4 | Incorporate a vertical vegetation structure [vertical habitat] including layers of ground cover, shrub, understorey and canopy in landscape design. | Proposed plan has some vertical structure where possible. Smaller site, so challenging to create too much of this. | |
| 5 | Choose a range of native plant species and sizes; a mix of coniferous and deciduous trees will enhance bird species diversity. | See above. | |
| 6 | Incorporate architectural features that limit collisions between birds and windows including patterned, frosted or tinted glass, exterior louvers, blinds, sun shades and canopies. | Will install blinds in all windows. | |
| 7 | Cap and screen all ventilation pipes and grates, avoid openings greater than 2.0 x 2.0 cm. | Yes. | |







Official Community Plan

DPA No. 6 Multi-Family Residential

Area

All land designated Multi-Unit Residential on "Development Permit Areas Map (Schedule "H") are part of DPA No. 6

Designation

Development Permit Area No. 6 is designated for the purpose of:

• Section 488 (1) (f)- Establishment of objectives for the form and character of multi-family residential development. Note: For DPA justification and exemptions please refer to the Official Community Plan, page 92.

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.

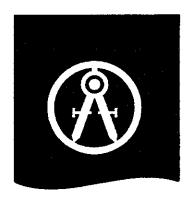
Section A

| Application No. | Project Address | Applicant Name |
|-----------------|-----------------|----------------|
| DP TBC | 937 Colville | Lapis Homes |

Section B

| No. | Guideline- | Comments |
|-----|--|--|
| 1 | The size and siting of buildings that abut existing single- and two-unit and townhouse dwellings should reflect the size and scale of adjacent development and complement the surrounding uses. To achieve this, height and setback restrictions may be imposed as a condition of the development permit. | Proposing a building that we believe will scale down from the three storey development on the corner to the two storey Buddhist temple next door. Proposing to build closer to the curb to hide parking and as a benefit to foster community engagement and interaction between residents and with neighbours |
| 2 | New buildings should be designed and sited to minimize visual intrusion on to the privacy of surrounding homes and minimize the casting of shadows on to the private outdoor space of adjacent residential units. | Building is loaded to the front of the lot, which will reduce impact on neighbouring townhouse behind. Buddhist temple is not residential so outdoor spaces and balconies along eastern property line will have minimal impact there. |
| 3 | High-density multi-unit residential buildings or mixed commercial/residential buildings in commercial areas should be designed so that the upper storeys are stepped back from the building footprint, with lower building heights along the street front to address human scale, public space, and maximum light penetration at street level. | N/A |

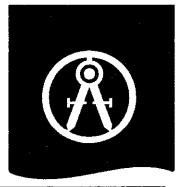




DPA No. 6 Multi-Family Residential

| 4 | Landscaping should emphasize the creation of an | Proposing landscaping down the sidelot, which should |
|----|--|---|
| | attractive streetscape, as well as provide privacy between individual buildings and dwellings, screen parking areas and break up large expanses of paving. | provide some screenage in rear parking. Also including as many trees and other plantings as possible along the front to soften the building and make it more engaging from the curb. |
| 5 | Surface parking areas in developments less than five storeys in height, will be situated away from the street and screened by berms, landscaping or solid fencing or a combination of these three. | N/A |
| 6 | Underground parking should be encouraged for any multi-unit residential buildings exceeding four storeys. | N/A |
| 7 | The retention of public view corridors, particularly views to the water, should be encouraged wherever possible | No public view corridor impacted. |
| 8 | To preserve view corridors and complement natural topography, stepped-down building designs are encouraged for sloping sites. | Building will be more than a half storey below grade on west side of the lot as lot slopes west to east. |
| 9 | Retention and protection of trees and the natural habitat is encouraged wherever possible. | Will retain as much soil as possible to use on site. No trees impacted. |
| 10 | Townhouses will be designed such that the habitable space of one dwelling unit abuts the habitable space of another unit and the common wall overlap between adjoining dwellings shall be at least 50 percent. | While I now conform to this OCP requirement, it reduces innovation in townhouses. I would enocurage it to be removed and would be happy to discuss this with interested folks. |
| 11 | Site lighting should provide personal safety for residents and visitors and be of the type that reduces glare and does not cause the spillover of light on to adjacent residential sites. | See DPA 1 |
| 12 | Avoid excessively long blank walls adjacent to public streets. | Building is broken up by landscaping, windows, stairs and various siding materials. Rear retaining wall has been lowered and we're proposing to plant vines and other landscaping features to mask. |





DPA No. 6 Multi-Family Residential

| 13 | Use architectural emphasis to define street corners. | N/A |
|----|---|---|
| 14 | Provide for building occupants to overlook public | Absolutely! Living room windows, doors, balconies overlook |
| | streets, parks, walkways and spaces, considering security and privacy of residents. | the street and are close to the curb, which should help improve neighbourhood safety and community. We will also install blinds on windows so residents can close them when they want more privacy. |
| 15 | Provide for slightly raised entrances to ground floor residences along with private yards that are accessible from the fronting street or lane to encourage community interaction | Balconies and patios will provide some interaction with street. Entrances for the front units accessed through stairs and a landing that could provide some good itneraction between residents and passerbys. |
| | | Lower units accessed at grade, as dealing with challenge of municipal pipes located in the right of way along western prr |
| 16 | Use of indigenous and adaptive plant species is encouraged. | See DPA 1 |
| 17 | All exterior lighting should avoid excessive stray light pollution and should meet International Dark-Sky standards. | See DPA 1 |
| 18 | Wherever possible, outdoor storage and parking areas should be screened from view. | Parking for the most part is behind the building. One parking spot will be visible from the street, but it will be partially screened (and distracted from) with plantings along the side lot. |





DPA No. 6 Multi-Family Residential

| 19 | Avoid expansive blank walls (over 5 m in length) and retaining walls adjacent to public streets. When blank walls and retaining walls are unavoidable, use an appropriate design treatment, such as the following: • Install a vertical trellis in front of the wall with climbing vines or other plant material. • Set the wall back slightly to provide room for evergreens and conifers to provide year-round screening. • Provide art (a mosaic, mural, relief, etc.) over a substantial portion of the wall surface. • Employ quality materials of different textures and colours to make the wall more interesting visually. • Provide special lighting, canopies, awnings, horizontal trellises or other human-scale features that break up the size of the blank wall surface and add visual interest. • Incorporate walls into a patio or sidewalk café space. • Terrace (step down) retaining walls. | See Q 12 above. |
|----|---|--|
| 20 | Exposed stairway and hallways on the exterior street facing portion of the building are discouraged. | Front stairway will include a landing, which could help foster community. Underside will be planted with shrubs or vines to soften landing area and underside of stairs. |





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 TBC | 937 Colville | Lapis Homes |

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. | Site limits a different orientation of the building. However, the building naturally had decent solar gains and performed well in our energy modelling. |
| 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. | Stacked units with shared walls & floors is one of the best forms of design for compact, energy efficient design. Of particular interest the internal solar heat gains of this design make up approx 50% of the buildings usage. This number drops to 23% in a similarly sized single family home. |
| 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. | NA |





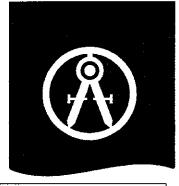
| 4 | Provide space for pleasant pedestrian pathways between buildings. | NA |
|---|---|--|
| 5 | Strategically site buildings to sustain and increase the community's urban forest tree canopy cover. | Proposing trees at the front of the property to increase the urban forest tree canopy cover and soften the building. |
| 6 | Provide space for significant landscaping including varying heights of trees, shrubs and ground covers. | We've included landscaping wherever possible on this site and have layered it to provide visual interest and better water retention. |
| 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. | N/A |
| 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. | The need to put parking at the rear of the property limits our space out front although I really do like this concept. |
| 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. | Including trees, in a layering of landscaping, at the front of the building to soften and reduce impact. |





| 24.5.2 | Form and exterior design of buildings an | d structures |
|--------|--|--|
| 1 | Orient larger roof surfaces to the south for potential use of solar panels or photo-voltaic roofing. | Limited in how we orient the building or roof. However, plenty of space on east and west side for future solar panels. |
| 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. | We've placed windows as necessary to provide as much light as possible to residents and reducing 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. | Roof over-hangs and balconies will provide some shading. Landscaping and trees will provide additional shading. |
| 5 | Install adjustable overhangs above windows that can help control the amount of sun exposure in warmer months thereby reducing need for cooling. | We will install interior blinds that can be controlled by residents. |
| 6 | Provide building occupants with control of ventilation; i.e. windows that open. | Yes. |
| 7 | Skylights are discouraged as they decrease insulating values and can interfere with solar panel installation. | Not planning skylights at this point as attic space is proposed for storage. |
| 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. | Minimal space for food producing gardens, with our proposed rain garden. However, this is a five minute walk to Esquimalt's community garden which may provide options for some residents. |
| 9 | Install greenhouses for growing food on rooftops where neighbourhood privacy and light intrusion concerns are mitigated. | Pitched roof and site spacing won't allow this. |
| 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. | No plans for tinted or reflective glass. |





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

| 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. | Proposing trees and other landscaping along the front to provide some natural delight for neighbours. This will compliment proposed landscaping at 955 Colville. |
| 2 | Choose open space and landscaping over dedicating space to the parking and maneuvering of private motor vehicles. | We've received a reduction in the parking numbers to allow from some landscaping and open space in the rear yard. |
| 3 | Conserve native trees, shrubs and soils, thereby saving the cost of importing materials and preserving already sequestered carbon dioxide. | We will keep as much of the material on site as possible. |
| 4 | Use deciduous trees for landscaping along southern exposures, as they provide shade in the summer and allow more sunlight through in the winter. | Limited space on rear lot for trees, but building will be partly shaded by developments and landscaping to the south and southwest. |
| 5 | Strategically place taller trees and vegetation on the south and west sides of buildings where there is more direct sun exposure. | See 4. |
| 6 | Strategically place coniferous trees such that they can buffer winter winds. | We are not proposing any coniferous trees, as we have limited root space and area for these types of large tree. |
| 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. | No trees being removed. Proposing a number of trees that will work on this lot with limited space and root zones. |
| 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. | See DPA 1 |





| 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. | We're limited in the space we have for planting, but have considered this in our landscaping design. |
|----|--|---|
| 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. | N/A |
| 11 | For parking areas and along boulevard/ sidewalk edges; plant trees to provide shade, store carbon and reduce the heat island effect. | We're proposing trees wherever possible. Trees being installed in neighbouring development lot line will also provide shading, reduce the heat island effect and store carbon from our proposed parking area. |

| 24.5.4 | Machinery, equipment and systems exter | nal to buildings and other structures |
|--------|--|---|
| 1 | For external lighting: • Choose efficient low-energy and long life technologies; | All lighting will be low-energy and long life span. Lighting designed only to provide safety on the site and reducing impact for residents and neighbours. |
| | Design lighting to reinforce and compliment existing street lighting; | This will include motion lighting at lower entrances that can be controlled by residents. |
| | 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. | We considered using heat pumps, but site does not allow it. However, we will install HRV systems and use exterior insulation and a good air barrier system to meet step 3 of the step code (as committed to in covenant). |
| 3 | Use durable, vandalism and graffiti resistant materials where neighbourhood surveillance may be limited. | The orientation of the front and lower units provide a number of "eyes on the street," or natural surveillance which should reduce vandilism and improve safety. |
| 4 | Design for on-site heat recovery and re-use of water. | HRV systems will be used and we will build to step 3 of the step code. |





| 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. | N/A |
|---|--|--|
| 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. | N/A |
| 7 | Provide car sharing facilities that are well lit, available for residents, and easily accessed from the public street. | Residents will have memberships to Modo car share, with convenient access to the car share going in next door. |

| 24.5.5 | Special Features | |
|--------|---|---|
| 1 | Select building materials that have been shown to have a high level of durability for the use intended. | Proposing fibre cement board which is generally durable, tile, hard stone counters and laminate or wood flooring. Bedrooms will likely be carpetted to improve comfort and reduce noise transfer between units. |
| 2 | Use wood for construction as a means to sequester carbon dioxide - North American grown and sustainably harvested wood is preferable for building construction. | Wood framed building and will as much as possible be sourced locally. |
| 3 | Select local and regionally manufactured building products whenever possible to reduce transportation energy costs. | We will source our products through home lumber and Slegg who use some locally manufactured building materials. We will also likely source our windows from a B.C. manufacturer. |
| 4 | Reuse of existing buildings and building materials is encouraged. | We will work with Habitat for Humanity's restore and provide as much existing building material to them as possible. |
| 5 | Choose materials that have a high likelihood of reuse or recycling at end of life. | I will consider this during construction. |