

TSAWWASSEN FIRST NATION INDUSTRIAL AND COMMERCIAL ZONE DESIGN GUIDELINES

MARCH, 2017

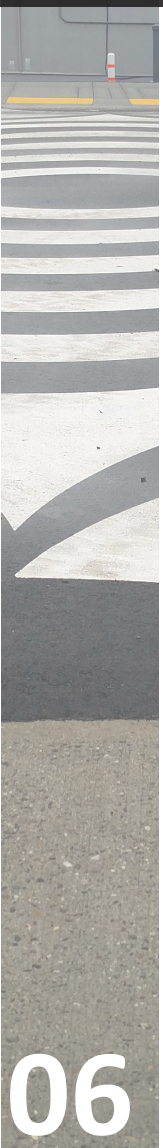


TSAWWASSEN FIRST NATION
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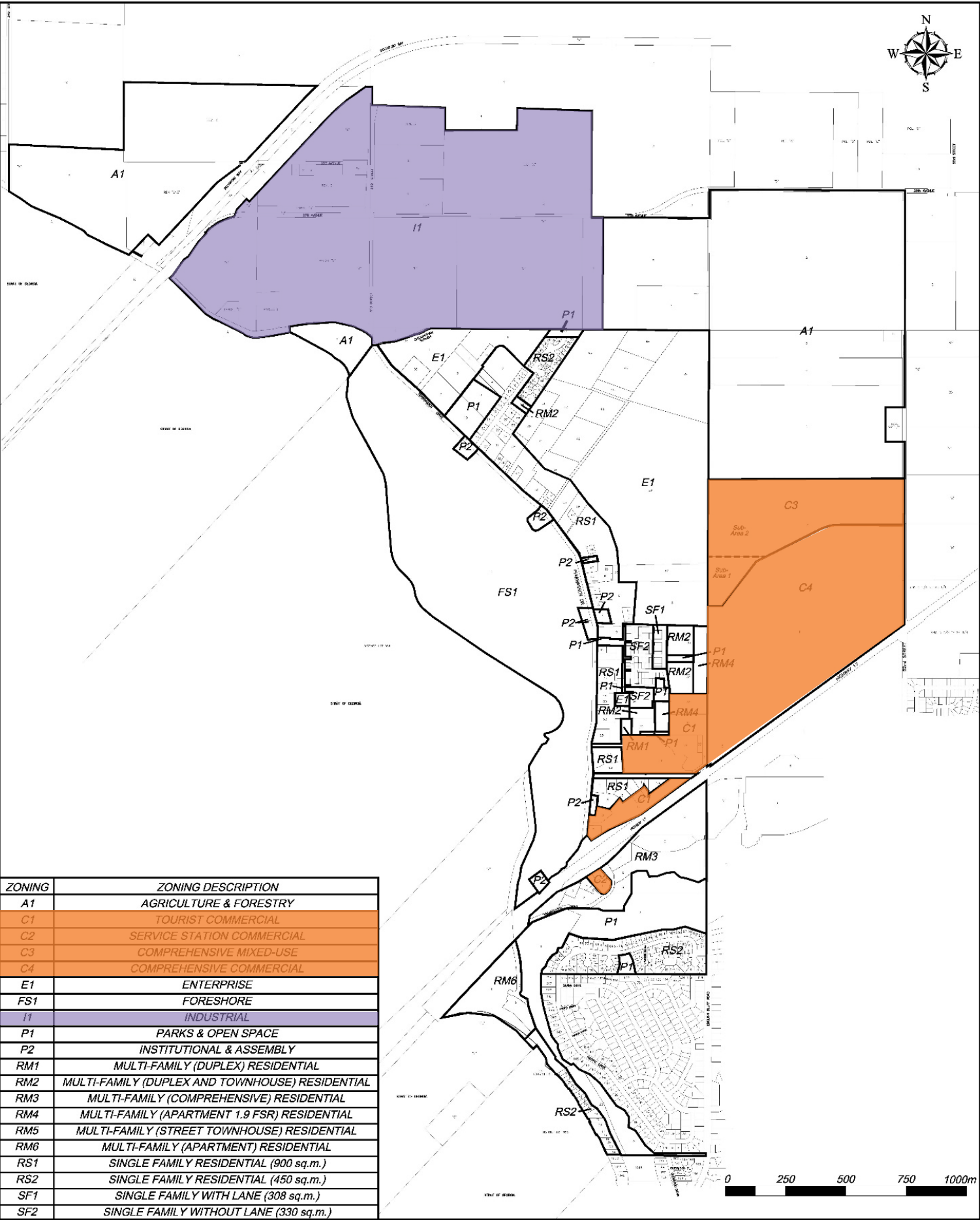
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Figure 1. Lands zoned Commercial and Industrial



INTRODUCTION

As with the Tsawwassen First Nation Design Guidelines developed in 2012 for the Neighbourhood Plan area, these Guidelines for Commercial and Industrial Developments are embedded with the understanding that this developing community will respect and reflect TFN culture, history, and traditions. The Tsawwassen First Nation Design Guidelines 2012 have provided direction for developers in residential areas, and it became apparent that similar guidelines are needed for TFN's commercial and industrial lands to guide the assessment of these emerging developments. These guidelines will ensure urban design standards evident in the residential areas are maintained throughout the community and create a unifying design and character for all TFN lands.

The urban design approach for all new commercial and industrial developments will be consistent with the vision of the Land Use Plan 2009:

“Industrial and commercial development will be active and growing, and will provide significant revenue to Tsawwassen First Nation and CP holders. However, development will not intrude on the environment, views, and idyllic location of TFN lands”.

As per the Guiding Planning Principles, Urban Design and Built form shall reflect community identity by being “distinct, building on the long connection with the water and Coast Salish Heritage. There will be an emphasis on quality development”. Creating a distinct, identifiable community for Tsawwassen First Nation requires thoughtful design elements including consistent lighting, site furniture, signage, and screening that incorporate local Coast Salish cultural inspirations to project a unique sense of place.

The design of buildings, roads, pathways, and public art must represent the cultural identity and values of the established community. Several themes have already emerged including a distinct community crosswalk design, large scale public art installations near commercial shopping developments showcasing local artists and inspiration, wood carved signage, distinctive street signs, and distinctive streetscape and pathway design. It is expected that landscaping will be compatible with existing developments, using local native plants to highlight the natural beauty of TFN lands. Art is intended to encompass not only sculptures, paintings, and buildings, but also the landscaping, lighting, furniture, site design, and connection between buildings and public space to natural elements such as the water, mountains, and vistas given TFN's idyllic coastal location. The design standards of the community must be upheld regardless of the nature of the development, whether a fuel station, warehouse, or commercial shopping centre.

The purpose of providing these guidelines for developers is to provide consistency in review of applications by the Tsawwassen First Nation and consistency in the level of consideration to design elements by the developer. These guidelines are one of many documents that must be considered when preparing a subdivision, rezoning and/or development application on the Tsawwassen First Nation. This document must also be applied in context with other adopted Tsawwassen First Nation documents including:

- Tsawwassen First Nation Land Use Plan (2009)
- TFN Land Use Planning and Development Act
- TFN Zoning Regulation
- Area Wide Transportation Study
- Neighbourhood Transportation Study
- Bulk Water and Trunk Sanitary Sewer System
- Integrated Rainwater Management Plan
- Municipal Servicing Designs
- Sustainability Program and Guidelines

These guidelines apply to all commercial and industrial lands on the Tsawwassen First Nation. While many of these lands are currently zoned for commercial, industrial and enterprise uses, these guidelines also apply to any future rezonings that create new commercial or industrial lands. Figure 1 illustrates those lands currently zoned commercial and industrial.

As with the Neighbourhood Guidelines, the Industrial and Commercial (I/C) guidelines will provide vision for the future commercial and industrial lands. It is understood that the design standards for commercial development will be different than industrial standards for several reasons. Industrial areas have less public access, less pedestrian traffic, more truck traffic and operate outside of the normal business hours.

That being said, all development on the Tsawwassen First Nation is expected to meet very high standards and consider dark sky policies, design that incorporates Crime Prevention Through Environmental Design (CPTED) and incorporate Tsawwassen First Nation culture and art as a consideration in all development. As well, all development should link and connect to the overall pedestrian network of sidewalks, trails and paths.

These guidelines are intended to provide direction and are not a “shopping list.” The Tsawwassen First Nation wants interesting development that provides variety while being functional and practical.

1.0 LIGHTING

Lighting is primarily provided for people. The purpose of lighting is to ensure that the people, both as pedestrians and for vehicular movements, are safe and have good visual access to properties. The site, the use and the needs of the users should determine what kind of lighting is provided. These guidelines provide direction for the developers of commercial and industrial developments to provide the appropriate lighting. In addition to the practical element of lighting, the Tsawwassen First Nation requires that the aesthetics of the light standards be considered and that Salish Coastal cultural components be incorporated when possible. In addition, energy efficiency is a consideration.

Therefore, lighting must incorporate Coast Salish culture and use of local native colours, designs, textures, and/or form. In addition it must also ensure that the lighting of parking and pathways balances user safety with light pollution by not spilling unnecessary light onto adjacent properties and ensuring that light intensity is appropriate to hours of operation, on site activities and neighbouring land uses. Lighting should be of a scale and intensity appropriate to the intended scale and use of the development area requiring illumination. These guidelines take into account a number of important considerations and provide guidance for selecting outdoor lighting that increases energy and cost savings, enhances safety and security, and preserves the nighttime environment.



Lighting on Salish Sea Drive



Lighting on Blue Heron Drive

All commercial and industrial development will be reviewed based on how they meet the following guidelines:

- 1.1** The landscape plan provided as part of the development application should include details on the design of lighting which will be assessed against its incorporation of Coast Salish culture and use of local native colours, designs, textures, and form.
- 1.2** Lighting for commercial and industrial areas should provide focussed, shielded lighting that illuminates the areas intended to be lit and does not waste or spill light into adjacent areas. This will require lower mast and more directional lighting than traditionally provided in commercial and industrial areas, with specific attention to the safety of the pedestrian.
- 1.3** Specifications of proposed parking and pathway lighting must be included in the application on both the site plan and landscape plan including: proposed location and dimension (height) of each light, model number, and type of lighting used (LED, etc). Lighting that creates deep shadows is discouraged. Lighting to be directed to a specific building or entrance way shall not excessively shed light on adjacent areas.
- 1.4** The development permit application must detail any exterior lights intended to be used outside of normal hours of business operation to align with dark sky considerations.
- 1.5** As per the Development Permit Area Regulation Schedule A4 – Industrial Form and Character Development Permit Areas (3)(b)(ii) the development shall minimize impacts on adjacent land uses by requiring: “Wall mounted light fixtures be full cut-off and have horizontally aligned flush mounted lenses. Sage or drop lenses are not permitted.”
- 1.6** As per the Development Permit Area Regulation Schedule A4 – Industrial Form and Character Development Permit Areas (3)(b)(i): “all exterior lights should be oriented away from adjacent properties” to limit off-site light trespass and glare.



Lighting at Tsawwassen Commons



Lighting at Tsawwassen Mills



Lighting at Tsawwassen Mills

2.0 SITE FURNITURE

Site furniture should be designed to withstand the coastal climate with consideration given to maintenance, durability, comfort, number of users, and providing protection from the rain. Durable material such as metal and wood are suitable. Site furniture includes benches, picnic tables, garbage cans, bicycle racks and similar structures. As per the TFN Neighbourhood Plan Area Design Guidelines site furniture “should reinforce the TFN and Coast Salish themes of the community. Wood is used as a prominent element and earth tones are to be used extensively with colourful highlights.”



Bench at Tsawwassen Mills

The following guidelines are provided for all commercial and industrial development:

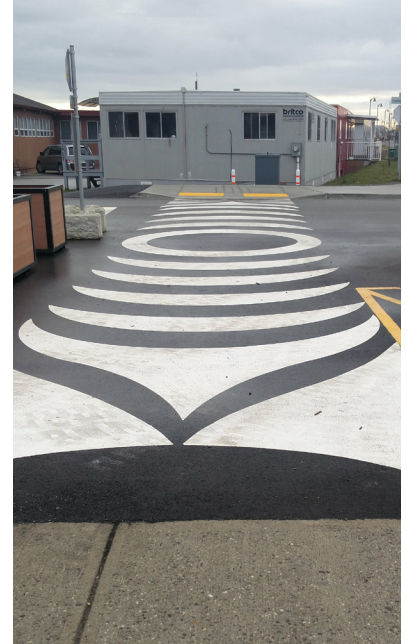
- 2.1** The landscape plan provided as part of the development application should include details on the design and location of site furniture which will be assessed against its incorporation of all the elements noted in the above description.
- 2.2** As per the Development Permit Area Regulation Schedule A4 – Industrial Form and Character Development Permit Areas (5)(e)(i) the development will include: “Outdoor landscaped areas with gathering spaces for employee passive use and outdoor amenity space for employee recreational use.” Outdoor site furniture should be located in employee amenity and recreation areas, and should provide comfort and weather protection.
- 2.3** The number and placement of site furniture, including bicycle racks should be determined by the anticipated pedestrian activity patterns and primary sidewalks and paths.



Examples of site furniture at Tsawwassen Mills

3.0 PARKING

Parking lots should be oriented as to minimize visual obstruction from adjacent properties. Parking should be adequately screened using landscaped buffers of appropriate height and depth. Reduction of visual impacts from adjacent uses will be prioritized (from highest to lowest priority) as follows: residential, institutional/community, mixed use, commercial, industrial. The massing and proportions of landscaped areas should correspond to the scale of the development including the size (height, GFA) of the buildings, the amount of impervious pavement/ asphalt (parking lots, internal roadways, sidewalks), and the financial amount invested in the development. The amount of paved areas for vehicles and pedestrians should be consistent with the scale of the development and offset by a suitable proportion of greenspace and landscaping dispersed equally throughout the development to avoid large void areas of pavement. Semi-pervious materials such as: brick, wood, and stone should be used whenever possible and wherever appropriate. Shared pathways (for vehicles, bikes, and pedestrians) should be clearly identified through special paving (using variety in patterns, colours, materials, etc.) to clearly mark shared roads or changes in speed limits.



Standard TFN crosswalk design

- 3.1** The standard TFN design of a painted cross walk, is to be used for all new crosswalks on TFN lands. Consistency in design and appearance of crosswalks makes their location easily identifiable by pedestrians.
- 3.2** The site plan provided as part of the development application must provide suitable justification as to the location of parking areas and an analysis of visual impacts on adjacent properties. The landscape plan must show how visual impacts on adjacent properties will be mitigated through landscaping or other screening (fencing, walls, etc).
- 3.3** All land on the site not taken up with buildings, parking, sidewalks or other hard surface should be landscaped. This can include hard and soft landscaping.
- 3.4** Large, continuous paved areas should be addressed through the use of landscape buffers and greenspace of appropriate size. For any parking area with more than 10 parking stalls, landscaping must be incorporated into the parking lot. This can be achieved through landscape islands between stalls or as periphery screening of the parking lot. The purpose of periphery screening is to provide a visual screening for adjacent use. “Islands of landscape” in parking lots enhance the pedestrian experience, connect major pedestrian paths from the parking lot to the buildings, and reduce the urban heat island effect, storm runoff, and wind tunnel impacts. Landscaped medians should be provided between parking rows. In addition, parking lots must address visual impacts, during all seasons (including winter), therefore landscape plans are encouraged to consider both coniferous and deciduous trees for seasonal variation and screening. Landscape and site plans shall also clearly mark the dimensions of all parking lots.

4.0 LANDSCAPING

Hardy, drought resistant native plants should be used to reduce maintenance (weeding, trimming, watering) and use of chemicals (pesticides, herbicides, etc.). Landscaping should be appropriate to the given site based on constraints such as shading/ hours of direct sunlight, soil quality / type, water availability and drainage, wildlife species present, climate, etc. A list of suitable trees, shrubs, and groundcovers for use in the landscape design is provided in Appendix A.

- 4.1 A landscape plan, prepared by a professional Landscape Architect, must be provided for any commercial or industrial development at the Development Permit stage.
- 4.2 The landscape plan provided as part of the development application must clearly note any non-native plant species proposed and provide information on the expected maintenance of each required.
- 4.3 The landscape plan submitted as part of the development application must provide a suitable justification to address how the proposed landscaping is appropriate to the site's location and how it incorporates Tsawwassen First Nation culture.
- 4.4 As per the Development Permit Area Regulations Schedule A4 – Industrial Form and Character Development Permit Areas (1)(e) the development shall highlight Coast Salish culture through: “including native foreshore and rural grassland within landscaping.”
- 4.5 The development shall incorporate ecological design principles and demonstrate energy-efficient building design layout as laid out in the Development Permit Area Regulations.



Landscape islands at Tsawwassen Commons

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- 4.6 As per the Development Permit Area Regulations Schedule A4 – Industrial Form and Character Development Permit Areas (5)(d) attractive design should be achieved through incorporating landscaping “that is complementary to the scale and materials of the principal building.”
 - 4.7 Any commercial or industrial development that borders a residential area must provide sufficient screening to block the development visually, provide noise abatement, ensure no light pollution and block dust or any off site impacts. This screening between commercial and industrial and residential uses may take the form of fencing, berming, planting and separation space.
 - 4.8 Any development that creates a wall over 10 meters in length must include architectural detailing, delineation of variety of materials or elevation and/or art along blank walls. The creation of long blank walls deters pedestrian movements, lacks interest and variety and creates unsafe areas.
 - 4.9 The development of industrial uses that have visibility from major streets must pay extra attention to screening the industrial uses. Additional vegetation and berming may be required to block the view of loading bays, blank walls and truck parking.
 - 4.10 All uses, commercial or industrial, are required to have entrance signs that are attractive, clearly identify the public realm and entrance and incorporate Tsawwassen culture.



Landscaping at Tsawwassen Mills

5.0 PUBLIC ART

TFN public art installations should include a strong Coast Salish focus with direct involvement by TFN artists. The physical size, monetary contribution and scale of the art must be proportionate to the scale of development and massing of the buildings. For example, a large industrial warehouse should be complemented by large scale art installations and while the art does not necessarily have to be located on the building, it must be evident on the site, highly visible and of a size that is consistent with the scale of the structure. The level of financial contribution to public artwork should correspond to the scale of the proposed development. Art installations should be located so they can be enjoyed by the public without compromising the privacy or security of building users and the safety or efficiency of building operations. Features should be centrally located within public space to maximize visibility and public interaction. Where appropriate, art features should be placed as gateways or to assist in way finding by being located at street/ path intersections or entrances to districts.



Public art at Tsawwassen Mills

- 5.1 Each developer, as part of the Development Permit process shall provide the Tsawwassen First Nation with a public art proposal. This must be reviewed and approved by staff and potentially Executive Council before a Development Permit will be approved.
- 5.2 The developer will provide a justification in the development application as to the location of the proposed art installation(s) and all art pieces clearly noted with dimensions on the proposed site and landscape plans.
- 5.3 Should a developer not wish to take the responsibility for the provision of the public art, they may provide a cash in lieu payment to the Tsawwassen First Nation solely for the purpose of providing public art at the specific location. This cash amount will equal 1% of the total construction cost of the project. The determination of the art that is commissioned and installed will be determined by the Executive Council.
- 5.4 Public art should be clearly visible from the nearest road and incorporate some form of landscaping, seating, name plate (name of the art and the artist) and mounting in character with the specific art.

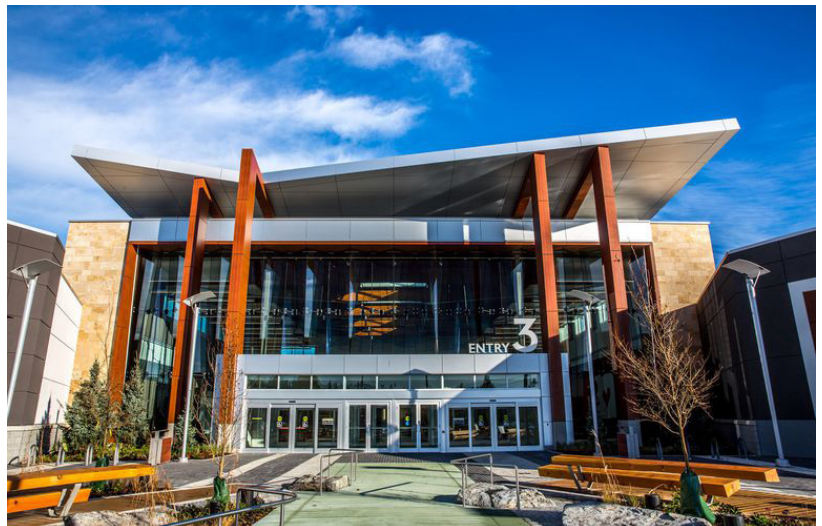


Incorporation of culturally appropriate artwork at Chevron

6.0 BUILDINGS

All buildings shall incorporate Coast Salish culture into their design using appropriate colours, materials and architectural styles which complement existing development and are consistent with character of the TFN community. The scale of large buildings must be addressed through design which breaks up massing through changes in setbacks, provides variation in rooflines, addresses large blank walls through variety in patterns, colours, and textures, provides sufficient landscaping, and establishes art features of appropriate scale in proportion to the size of the building. Buildings shall be oriented to reduce visual intrusion from adjacent properties by orienting loading bays and private entrances to the rear and public entrances to the front. Feature walls and windows should be oriented toward public areas.

- 6.1** The architectural plans and written justification provided as part of the development application must demonstrate significant consideration to Coast Salish themes and incorporation of local indigenous culture in the design of all buildings.
- 6.2** The architectural plans and written justification provided as part of the development application must address bulk and scale of buildings through variation in patterns, colours, and textures. Large monochromatic or wall surfaces not broken up with variety of design, material, art or elevation will be considered unacceptable.
- 6.3** The site plan provided as part of the development application must address building orientation as it relates to visual obstruction from adjacent properties and public streets / sidewalks.
- 6.4** Large blank walls must have material, colour or elevation delineation along with some variety in roof lines to break up the monotony of the blank space and create a more inviting public realm.
- 6.5** The interrelationship and interface between the public and private domain is critical in the incorporation of the proposed building into the community.
- 6.6** Crime Prevention Through Environmental Design criteria should be demonstrated in every development.



Tsawwassen Mills building design

7.0 SIGNAGE AND WAYFINDING

Suitable signage should be provided to direct the public toward art installations, public access, exit points, and areas of interest. It is understood that signage has a practical element in terms of addressing and advertising the firm or goods available at that location. However, signage must be sensitive to the location, the design, and incorporate Tsawwassen culture.

In commercial developments, signs serve to welcome residents and visitors to the community. Signage should be consistent with the character of the community. Proposed developments should incorporate Coast Salish art through the design of signage that establishes a strong sense of place unique to TFN land that is consistent with the identity of present developments on TFN land.

In industrial developments, signage identifies uses, directs traffic, identifies the public and non-public locations on site and reflects the culture of the company. Signage must also reflect the Tsawwassen culture and incorporate Coast Salish art and/or materials. The interface with the public realm in terms of sidewalks, paths and possible open areas for seating must be clear and visible.

- 7.1** As part of the sign permit application, design of signage will be assessed against its incorporation of Coast Salish culture and use of local native colours, designs, textures, and form.
- 7.2** Wayfinding signage for pedestrians and motorists must be clearly outlined as part of the development application.
- 7.3** If the area to be developed includes cycling paths or will eventually include cycling paths, signage should conform to Translink's Wayfinding Guidelines for Utility Cycling in Metro Vancouver (http://www.translink.ca/-/media/Documents/cycling/get_there_by_bike.pdf). It must also receive approval from the Director of Lands, or his or her delegate, prior to installation.



Wayfinding signage at Tsawwassen Mills

8.0 FENCING & SCREENING

Fences, screens and walls should complement the development by incorporating unifying architectural elements, materials, finishes, and textured surfaces. Unappealing elements such as refuse and recycling containers must be screened from public roadways or private properties in a manner which is compatible with the design of the development and nearby projects. Fencing and landscaping should screen required elements without obscuring street and sidewalk views.



Screening of utilities at Tsawwassen Commons

- 8.1** In all commercial and industrial zones enclosures are required for trash, non-organic recycling and organic recycling, with enclosures to be walled and screened from public view. Screening walls shall not be located within a Landscape Buffer. This screening should use materials and landscaping complimentary to the main structure and that reflect Coast Salish design or materials.
- 8.2** Screening wall heights shall be a minimum 0.5m above the tallest container in the collection area. Therefore, if the purpose of the screening is for garbage receptacles, and the garbage bins are 2 metres high, the screening shall be 2.5 metres in height.
- 8.3** No part of any building, structure, landscape element or fence greater than 1.0m in height shall project into the sight triangle on corner lots as identified in Zoning Regulation Part 4 General Regulations
- 8.4** As per the Development Permit Area Regulation Schedule A4 – Industrial Form and Character Development Permit Areas (5)(a) the developer must incorporate: “design features in structures that create attractive architectural character. The use of wood and stone materials are encouraged. Razor wire, chain link with barbed wire, and diagonal latticework are not permitted unless approved by TFN on a specific basis.
- 8.5** All development shall be of a high quality architectural design by locating and screening refuse/recycling areas, shipping, loading areas, utility areas, communication devices, outdoor events, mechanical equipment, roof mechanical equipment, transformers, and outdoor storage shall be screened from roads and adjacent uses.”



Screening of refuse/recycling area at Chevron



Screening of loading area at Tsawwassen Commons

APPENDIX A

Landscape Materials

LANDSCAPE MATERIALS

The Commercial and Industrial Design Guidelines will ensure that new development is complimentary to the natural area of Tsawwassen, and to demonstrate indigenous species and drought tolerant planting that will survive and thrive here. The Guidelines state that hardy, drought resistant native plants should be used to reduce maintenance, and use of chemicals. Landscaping should be appropriate to the given site based on constraints such as shading/hours of direct sunlight, soil quality/type, water availability and drainage, wildlife species present, climate etc. The following is a list of suitable plant and tree materials to be used in the landscaping of the commercial and industrial developments on the Tsawwassen First Nation.



BOULEVARD TREES

Boulevard trees or street trees in an industrial area primarily provide screening, as well as softening the significant hard surface environment. While it is important to have a variety of species that provide changing seasonal colours, it is preferred that the boulevard or street trees in the industrial and commercial areas include coniferous species to provide year round screening. These can be interspersed with deciduous varieties and lower bush/shrub plantings.

The following is a preliminary list of recommended trees for the use in boulevard, street and screening trees subject to change. Refer to Section 12.3 Trees, Shrubs and Ground Covers of the **TFN Supplementary Design Guidelines and Construction Specifications** for the most updated list.

- | | |
|---|------------------------------|
| • <i>Acer rubrum fastigate varieties</i> | Columnar Red Maple varieties |
| • <i>Acer rubrum "Red Sunset"</i> | Red Sunset Maple |
| • <i>Cornus "Eddies White Wonder"</i> | Eddie's White Wonder Dogwood |
| • <i>Abies grandis</i> | Grand Fir |
| • <i>Alnus rubra</i> | Red Alder |
| • <i>Amelanchier alnifolia</i> | Saskatoon |
| • <i>Chanaecyparis nootkatensis</i> | Nootka Cypress |
| • <i>Cornus nuttallii</i> | Pacific Dogwood |
| • <i>Crataegus douglasii</i> | Black Hawthorne |
| • <i>Fraxinus americana</i> | White Ash |
| • <i>Gleditsia triacanthos varieties</i> | Honeylocust varieties |
| • <i>Liquidambar styraciflua 'Worplesdon'</i> | Worplesdon Sweet Gum |
| • <i>Malus fusca</i> | Pacific Crabapple |
| • <i>Populus balsamifera</i> | Balsam Poplar |
| • <i>Populus tremuloides</i> | Trembling Aspen |
| • <i>Picea sitchensis</i> | Sitka Spruce |
| • <i>Pinus contorta ass. contorta</i> | Shore Pine |
| • <i>Pseudotsuga menziesii</i> | Douglas Fir |
| • <i>Quercus garryana</i> | Garry Oak |
| • <i>Thuja plicata</i> | Western Red Cedar |
| • <i>Tsuga herophylla</i> | Western Hemlock |



Nootka Cypress



Pacific Dogwood



Western Red Cedar



Pacific Crabapple

SHRUBS

The purpose of Shrubs is to provide screening, improve drainage (absorb surface runoff and standing water), provide pedestrian scale greenery (without screening public areas from view), and incorporate variety and colour.

The following are the preliminarily recommended shrub species to be used in the commercial and industrial areas subject to change. Refer to Section 12.3 Trees, Shrubs and Ground Covers of the **TFN Supplementary Design Guidelines and Construction Specifications** for the most updated list.

- | | |
|--|-------------------------------|
| • <i>Amelanchier anlifolia</i> | Saskatoon |
| • <i>Arctostaphylos uva-ursi</i> | Kinnicknnick |
| • <i>Cornus sericea</i> | Red Osier Dogwood |
| • <i>Coylus cornuta</i> | Beaked Hazel |
| • <i>Gaultheria shallon</i> | Salal |
| • <i>Holodiscus discolor</i> | Ocean Spray |
| • <i>Juniperus communis</i> | Common Juniper |
| • <i>Kalmia microphylla ssp. occidentals</i> | Western bog laurel |
| • <i>Ledum groenlandicum</i> | Labrador Tea |
| • <i>Lonicera involuncrata</i> | Black Twinberry |
| • <i>Mahonia aquifolium</i> | Oregon Grape |
| • <i>Mahonia nervosa</i> | Low Oregon Grape |
| • <i>Menziesia ferruginea</i> | False Azalea |
| • <i>Pachystima myrsinites</i> | Oregon Box |
| • <i>Paxistima myrsinites</i> | Oregon Boxleaf |
| • <i>Physocarpus capitatus</i> | Pacific Ninebark |
| • <i>Potentilla fruticosa varieties</i> | Cinquefoil varieties |
| • <i>Rhododendron macrophyllum</i> | Pacific Rhododendrum |
| • <i>Ribes sanguineum</i> | Flowering Current |
| • <i>Rose nutkana</i> | Nootka Rose |
| • <i>Rubus parviflorous</i> | Thimbleberry |
| • <i>Rubus spectabilis</i> | Salmonberry |
| • <i>Salix species</i> | Willow shrub species |
| • <i>Sambucus racemosa</i> | Red Elderberry |
| • <i>Sorbus sitchensis</i> | Sitka Mountain Ash |
| • <i>Spiraea desiflora</i> | Mountain Spiraea |
| • <i>Spiraea douglasii</i> | Hardtack |
| • <i>Symphoricarpus alba</i> | Snowberry |
| • <i>Vaccinium species</i> | Huckleberry/Blueberry Species |
| • <i>Viburnum edule</i> | Squashberry |



Kinnicknnick



Ocean Spray



Red Elderberry

GROUNDCOVERS, GRASSES, FERNS AND PERENNIALS

Ground covers, grasses and ferns provide low level variety, habitat and screening. These varieties can be used against a building, interspersed with taller varieties to break up long blank walls, as well as to enhance seating areas. Shrubs can also be planted within corner cut areas to provide vegetation that will grow to a maximum height of 1.5 metres to ensure driver visibility.

The following is a preliminary list of recommended species to be used in the commercial and industrial areas subject to change. Refer to Section 12.3 Trees, Shrubs and Ground Covers of the **TFN Supplementary Design Guidelines and Construction Specifications** for the most updated list.

- | | |
|--|--------------------------|
| • <i>Blechnum spicant</i> | Deer fern |
| • <i>Calamagrostis canadensis</i> | Bluejoint |
| • <i>Carex obnupta</i> | Sough Sedge |
| • <i>Carex sitchensis</i> | Sitka sedge |
| • <i>Cornus canadensis</i> | Bunchberry |
| • <i>Deschampsia caespitosa</i> | Tufted Hair Grass |
| • <i>Dicentra formosa</i> | Pacific Bleeding Heart |
| • <i>Elymus glaucus</i> | Blue Wildrye |
| • <i>Epilobium angustifolium</i> | Fireweed |
| • <i>Festuca idahoensis</i> | Idaho Fescue |
| • <i>Festuca rubra</i> | Red Fescue |
| • <i>Fragaria chiloensis</i> | Beach Strawberry |
| • <i>Glyceria grandis</i> | American Mannagrass |
| • <i>Juncus effusus</i> | Soft Rush |
| • <i>Juncus ensifolius</i> | Swordleaf Rush |
| • <i>Malanthemum dilatatum</i> | False Lily-of-the-Valley |
| • <i>Oenanthe sarmentosa</i> | Water Parsely |
| • <i>Pennisetum alopecuroides</i> 'Little Bunny' | Dward Fountain Grass |
| • <i>Polystichum munitum</i> | Sword Fern |
| • <i>Rudbeckia fulgida</i> 'Goldsturm' | Goldsturm Coneflower |
| • <i>Scirpus microcarpus</i> | Panicled Bulrush |
| • <i>Scirpus validus</i> | Soft stemmed Bulrush |
| • <i>Spiraea Douglasii</i> | Hardhack |
| • <i>Typhja latifolia</i> | Common Cat Tail |



Bluejoint



Fireweed



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