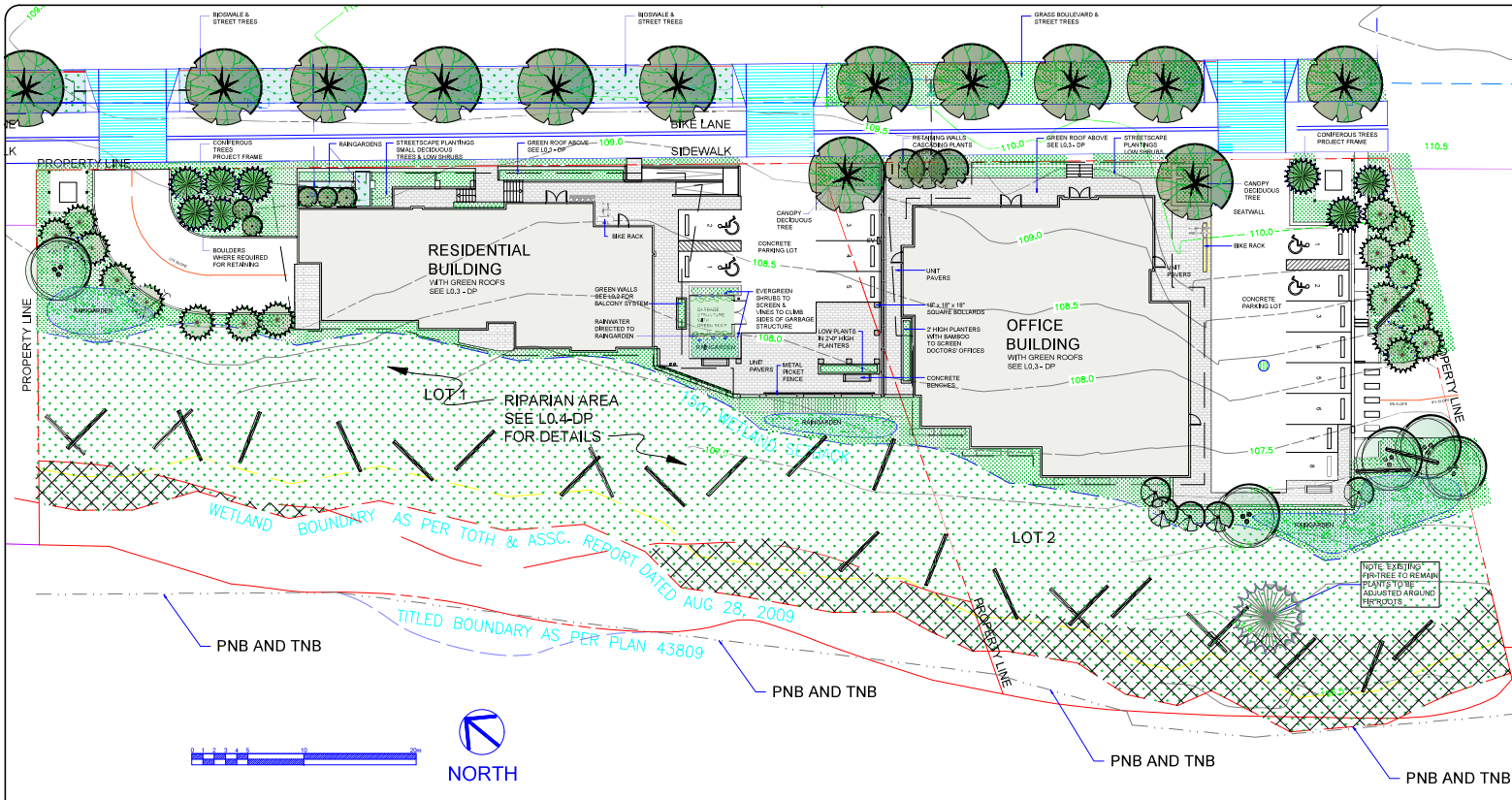


ATTACHMENT G LANDSCAPE PLAN AND DETAILS



LEGEND

- SERBIAN SPRUCE
- DOUGLAS FIR
- BIG LEAF MAPLE
- CANOPY DECIDUOUS
- BITTER CHERRY
- SMALL DECIDUOUS TREES
- RAINGARDENS
- SHRUBS & GROUNDCOVERS NORTH OF 15m SETBACK LINE
- SHRUBS & GROUNDCOVERS IN RIPARIAN AREA
- PLANTED PARTS OF COVENANT AREA R46394
- WOODY DEBRIS LOGS 5m X .45 RADIUS

NOTES

For grading information, see Civil & Architectural drawings.
ALL PLANTED AREAS TO BE IRRIGATED.

REVISIONS:

- Submitted to City for Review - 2019Sep12
- Issued for DP - 2019Sep18
- Rev #1 - C.O.N. Comments - 2020Jan23
- DP Rev for Coordination - 2020Nov23
- Reissued for DP - 2020Nov26
- Rev #2 - C.O.N. Staff Comments - 2020Dec15
- Reissued for DP - 2021Nov18
- Revised for DP - 2021Dec01

CONSULTANT:



PROJECT:

3789-3801
SHENTON ROAD,
NANAIMO, BC

SITE LEGAL DESCRIPTION:

Lot 1, Section 4, Wellington District, Plan EPP 69298

SHEET TITLE:

CONCEPTUAL
LANDSCAPE
PLAN

SCALE: 1:200 DATE: SEP 11, 2019

DRAWN: DR CHECKED: VJD

PROJECT NUMBER: SHENTON ROAD 2019
DRAWING NUMBER: L0.1 - DP

PLANT PALETTE

NOTE: The plants for this scheme will be chosen from the following list as appropriate. Not all plants will necessarily be used and others may be substituted depending on availability and suitability.

Key	Botanical Name	Common Name	Pot Size	Spacing	Remarks	Season
Coniferous Trees						
Pob	Picea omorika bruns	Serbian Spruce	2m ht	see plan	winter deciduous	all
Pmen	Pseudotsuga menziesii	Douglas Fir	2m ht	see plan		
Deciduous Trees						
Agr	Amelanchier grandiflora	Serviceberry	10 gall	see plan	uniform deciduous	all
Ce	Cornus nuttallii eddies white wonder	Eddies White Wonder Dogwood	6 cm cal	see plan	branching ht 1.5m	sp white flowers
Sij	Syrax japonica	Snowbell Tree	6 cm cal	see plan	branching ht 1.5m	sp white flowers
Evergreen Shrubs						
Dc	Daphne genkwa	Rose Daphne	1 gall	6 o.c.	ht: 2	winter
Gs	Gaultheria shallon	Salal	1 gall	6m o.c.	ht: 6m	winter
Esc	Escallonia newport oavt	Escalonia	1 gall	0 o.c.	ht: 1m	winter
Lp	Lonicera pileata	Privet Honeysuckle	1 gall	1m o.c.	ht: 6	winter
Ma	Martonia henocaa	Dull Oregon Grape	1 gall	6 o.c.	ht: 6	winter
La	Lavandula angustifolia Hidote	English lavender	1 gall	6 o.c.	ht: 6	winter
LaM	Lavandula ang. Munstead	Munstead Lavender	1 gall	6 o.c.	ht: 6	winter
LSAs	Lavandula stoechas Silver Anouk	Spanish Lavender	1 gall	1'x1'	evergreen, fragrant	bees
LSAr	Lavandula stoechas Anouk	Spanish Lavender	1 gall	1'x2'	evergreen, fragrant	bees
Ndm	Nandina domestica Moon Bay	Heavenly Bamboo	1 gall	2'x2'	flowers, fall color	winter fall
RpP	Rosmarinus officinalis Prostratus	Creeping Rosemary	1 gall	6 o.c.	ht: 15	winter
Sh	Sarcococca humilis	Sweetbox	1 gall	2'x2'	Evergreen, white flowers	winter
Vd	Viburnum davidii	David's viburnum	1 gall	2'x2'	evergreen	winter

Rm	Deciduous Shrubs	Rosa meilandan white	white groundcover rose	1 gall	1m o.c.	12.1m	summer white flowers	
Grasses								
Hs	Helictotrichon sempervirens	Blue Oat Grass	1 gall	6 o.c.	ht: 4	winter blue		
Pa	Pennisetum alopecuroides	Fountain Grass	1 gall	6 o.c.	ht: 4			
Msm	Miscanthus 'Little Miss'	Little Miss Red Maiden Grass	1 gall	2'x2'		red usage		
Rain Gardens								
Cetol	Cornus stolonifera	Red twigged dogwood	1 gall			red legs	winter	
Gs	Gaultheria shallon	Salal	1 gall			evergreen	all	
Li	Lonicera involucrata	Twined Honeysuckle	1 gall			sun/moist	soiled	leaves
Mg	Myrica gale	Myrtle	1 gall			moist		
Rpa	Rubus parviflorus	Thimbleberry	1 gall			moist		
Rsp	Rubus spectabilis	Salmonberry	1 gall			moist	hummers	
Pm	Polystichum marinum	Sword fern	1 gall			moist/dry		
Co	Carex obovata	Slough sedge	10 cm			moist/dry		
Jb	Juncea effusa	Common Rush	10 cm			moist		
Lya	Lysichiton americanus	Skunk Cabbage	1 gall			moist		
Sm	Scirpus microcarpus	Small flowered bulrush	10 cm			moist		
Vines for green walls								
Cr	Clematis radicans	Trumpet Vine	1 gall			orange/red	summer	
Oi	Oriental Clematis	Oriental Clematis	1 gall			yellow ball	summer	
Cl	Clematis montana	Mountain Clematis	1 gall			white	spring	
Ca	Clematis armandi	Evergreen Clematis	1 gall			white	early spring	
Jo	Jasminum officinale	Common Jasmine	1 gall			white	spring	
Lpe	Lonicera periclymenum	Honeysuckle	1 gall			white	summer	
Tj	Trachelospermum jasminoides	Star Jasmine	1 gall			white	summer	

GREEN WALL BALCONY SYSTEM



RECEIVED
DP 1165
2021-DEC-02

SIDE ELEVATION FRONT ELEVATION

DESIGN RATIONALE

The site is located between Shenton Road and Divers Lake on a disturbed site, with expansive views south over the Lake and to Mount Benson.

The landscape component of the property is limited to the streetscape, buffers and riparian areas.



Concrete Planters



Lighting/Bench



Green Roofs



Raingardens



Tall Oregon Grape



Evergreen Huckleberry

Streetscape

The Streetscape consists of a structured landscape of plazas and planters which have been designed to reflect the geometry of the architecture. Within this formal structure the planting by contrast is informal, soft in form and full in growth habit.

A series of planter walls allow enough soil depth on top of the parkade to support small trees which soften and frame the buildings. Lighting will be an integral part of the walls to light the walkways.

Green Roofs form a part of the stormwater management plan, as well as providing habitat for birds and insects, ameliorating the urban heat island and insulating the building from heat and noise. The water from the canopies will run down rain chains into a series of raingardens.

Buffers

The plantings to the South, East and West of the buildings, will be planted with native plants and will tie in seamlessly with the riparian restoration plants in the 15m setback to the south. Raingardens are incorporated into this landscape scheme.



Mixed Planting



Snowbell Tree



Rain Chains



Indian Plum



Saskatoonberry

Riparian Restoration

See plan L0.5

NOTES:

For grading information, see Civil & Architectural drawings.

ALL PLANTED AREAS TO BE IRRIGATED.

REVISIONS:

Submitted to City for Review - 2019Sep12

Issued for DP - 2019Sep18

Rev #1 - C.O.N. Comments - 2020Jan23

DP Rev for Coordination - 2020Nov23

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Rev #2 - C.O.N. Staff Comments - 2020Dec15

Reissued for DP - 2021Nov18

Revised for DP - 2021Dec01

CONSULTANT:



PROJECT:

3789-3801
SHENTON ROAD,
NANAIMO, BC

SITE LEGAL DESCRIPTION:

Lot 1, Section 4, Wellington District,
Plan EPP 69258

SHEET TITLE:

LANDSCAPE
DESIGN
ELEMENTS

SCALE: DATE:

AS NOTED SEP. 11, 2019

DRAWN: CHECKED:

DR VJD

PROJECT NUMBER:

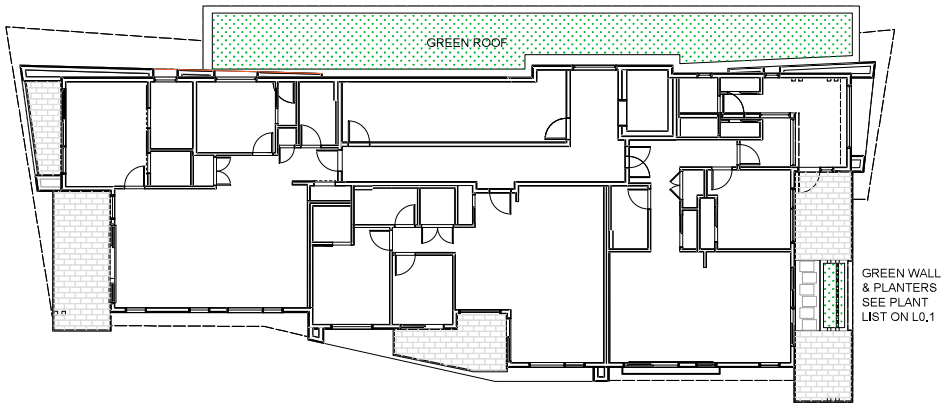
SHENTON ROAD 2019

DRAWING NUMBER:

L0.2 - DP

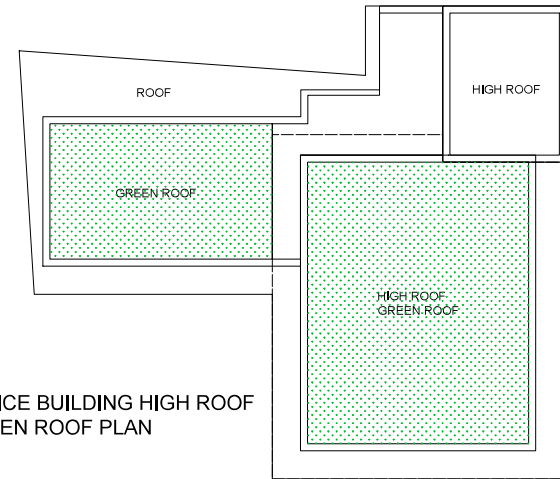


SHENTON ROAD STREETScape . NTS

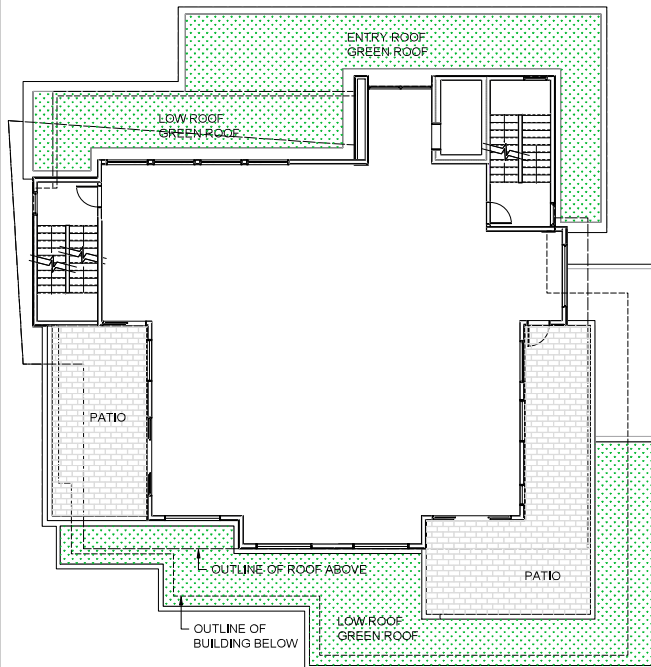


RESIDENTIAL BUILDING GREEN ROOF PLAN

GREEN WALL & PLANTERS
SEE PLANT LIST ON L0.1



OFFICE BUILDING HIGH ROOF GREEN ROOF PLAN



OFFICE BUILDING LEVEL 2 GREEN ROOF PLAN

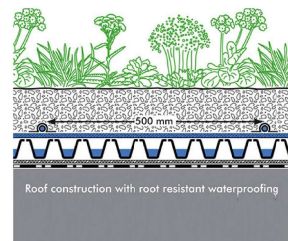
PLANT PALETTE

The plants will be selected from this plant palette. Not all plants will necessarily be used, others may be substituted depending on availability and suitability in the final design.

Key	Botanical Name	Common Name	Pot Size
Ac	Allium cernuum	Nodding onion	plugs
As	Allium schoenoprasum	Chives	plugs
Am	Armeria maritima	Sea Pink	plugs
Sam	Sedum album 'Murzie'	White Stonecrop	plugs
S	Sedum kamtschaticum	Kamtschaticum Stonecrop	plugs
So	Sedum oregonum	Oregon Stonecrop	plugs
Sd	Sedum divergens	Spreading Stonecrop	plugs
Sa	Sedum spathulifolium	Broad Leaved Stonecrop	plugs
Sd	bisyrinchium douglasii	Douglas's Blue-eyed Grass	plugs

NOTES:

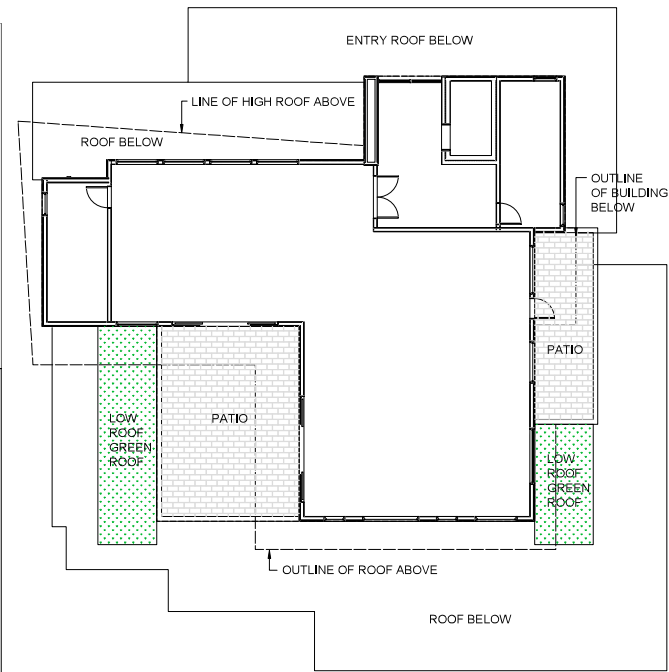
- Green Roof system to be Zinco Urban Climate Roof or equivalent. <https://zinco-greenroof.com/systems/urban-climate-roof>
- Minimum soil depth to be 150mm (6")
- All planted areas to be irrigated.



Plant Community
"Urban Climate Roof"
System Substrate "Reclary Type Plants"
Drainpipe: 500-L2
Aquaflo® AF 300
Florodrain® FD 40-E*
Protection Mat SSM 45
Root Barrier WSF 40,
if waterproofing is not root-resistant

* The Build-up height can be reduced or increased as required using a different drainage element.

- All plants and planting to be to BCSLABCNTA Landscape Standards, latest edition.
- Any plant substitutions must be shade tolerant species for the North Roof and sun loving species for the South Roof.
- Plant in groups of 5, or multiples of 5 in staggered rows.



OFFICE BUILDING LEVEL 3 GREEN ROOF PLAN

NOTES:
For grading information, see Civil & Architectural drawings.
ALL PLANTED AREAS TO BE IRRIGATED.

REVISIONS:

Submitted to City for Review - 2019Sep12
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DP Rev for Coordination - 2020Nov23
Reissued for DP - 2020Nov26
Rev #2 - C.O.N. Staff Comments - 2020Dec15
Revised for DP - 2021Dec01

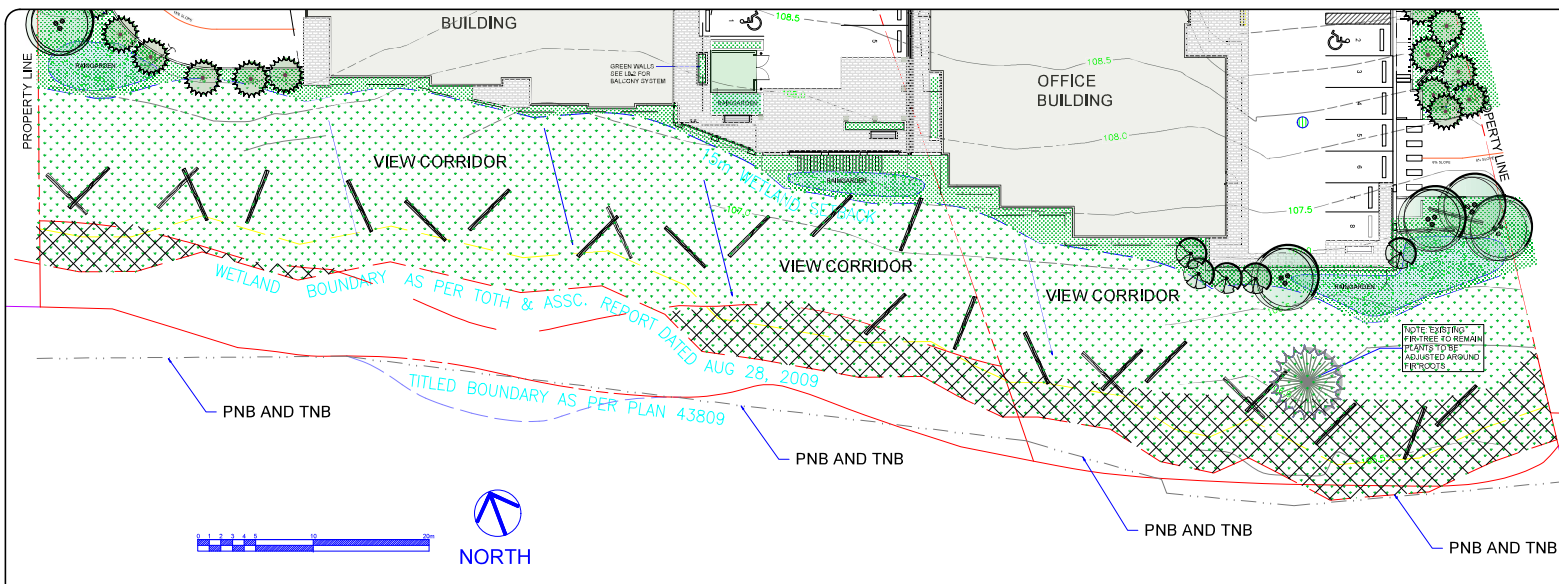


PROJECT:
3789-3801
SHENTON ROAD,
NANAIMO, BC

SITE LEGAL DESCRIPTION:
Lot 1, Section 4, Wellington District,
Plan EPP 69258

SHEET TITLE:
GREEN ROOF PLANS

SCALE: 1:100
DATE: SEP 11, 2019
DRAWN: DR
CHECKED: VJD
PROJECT NUMBER: SHENTON ROAD 2019
DRAWING NUMBER: L0.3 - DP



LEGEND

- WOODY DEBRIS LOGS 5m X .45 RADIUS
- 15m WETLAND SETBACK
- 7.5m COVENANT AREA R46394

NOTES

- Planting spacing:
Trees 3m o.c.
Shrubs and groundcovers .5m o.c.
- Place plants in groups of the same species of 7, 9, 12 or 15.
- Place the Douglas Fir and Big Leaf Maples to preserve view corridors from the buildings to Divers Lake.

NOTES:
For grading information, see Civil & Architectural drawings.
ALL PLANTED AREAS TO BE IRRIGATED.

REVISIONS:
Submitted to City for Review - 2019Sep12
Issued for DP - 2019Sep18
Rev #1 - C.O.N. Comments - 2020Jan23
DP Rev for Coordination - 2020Nov23
Reissued for DP - 2020Nov26
Rev #2 - C.O.N. Staff Comments - 2020Dec15
Reissued for DP - 2021Nov18
Revised for DP - 2021Dec01

CONSULTANT:
LANDSCAPE ARCHITECT
Landscape Architecture
2021

PROJECT:
3789-3801
SHENTON ROAD,
NANAIMO, BC

SITE LEGAL DESCRIPTION:
Lot 1, Section 4, Wellington District, Plan EPP 69258

SHEET TITLE:
RIPARIAN REVEGETATION PLAN

SCALE: 1:200 DATE: SEP 11, 2019
DRAWN: DR CHECKED: VJD
PROJECT NUMBER: SHENTON ROAD 2019
DRAWING NUMBER: **L0.4 - DP**

RIPARIAN PLANT LISTS

15m Wetland setback parts only
WITHIN 7.5m Riparian Covenant Area R46394

Key	Total	Botanical Name	Common Name	Pot Size	growing conditions
DECIDUOUS TREES					
Acq	6	Acer glabrum	Douglas Maple	2 gal	moist/sun
Ar	6	Alnus rubra	Red Alder	1 gal	water/sun/shade
Cd	6	Crataegus douglasii	Black Hawthorn	1 gal	moist/sun/shade
Mf	6	Malus fusca	Crabapple	2 gal	moist/sun/shade
Pe	6	Prunus emarginata	Bitter Cherry	2 gal	dry/moist/sun/shade
Sl	6	Salix lucida	Pacific Willow	cuttings	moist/sun/shade
Sc	6	Salix scouleriana	Scoulers Willow	cuttings	moist/sun/shade
Sh	6	Salix hookeriana	Hookers Willow	cuttings	moist/sun/shade
SHRUBS					
Aa	128	Amelanchier alnifolia	Saskatoonberry	1 gal	dry/sun
Catol	128	Cornus stolonifera	Red twigged dogwood	1 gal	moist/sun/shade
Gs	128	Gaultheria shallon	Santal	1 gal	shade/dry
Li	128	Lonicera involucrata	Twined Honeysuckle	1 gal	sun/moist
Mj	128	Myrica gale	Myrtle	1 gal	shade/dry
PC	128	Physocarpus capillatus	Ninebark	1 gal	moist/sun/shade
Rb	128	Ribes bracteatum	Slink Currant	1 gal	shade/moist
Ri	128	Ribes lacustre	Black Swamp Gooseberry	1 gal	shade/moist to dry
Rp	128	Rubus parviflorus	Thimbleberry	1 gal	moist/dry/sun/shade
Rsp	128	Rubus spectabilis	Salmoberry	1 gal	moist/sun/shade
Sr	128	Sambucus racemosa	Red Elderberry	1 gal	moist/sun/shade
Sd	128	Spiraea douglasii	Hardback	1 gal	sun/shade/moist
FERNS					
Pmun	128	Polystichum munitum	Sword fern	1 gal	

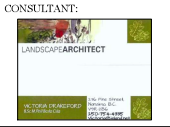
15m Wetland setback EXCLUDING those parts within
7.5m Riparian Covenant Area R46394

Key	Total	Botanical Name	Common Name	Pot Size	growing conditions
CONIFEROUS TREES					
Pmun	25	Pseudotsuga mertensiana	Douglas Fir	2 gal	dry sun/shade
DECIDUOUS TREES					
Am	25	Acer macrophyllum	Big Leaf Maple	2 gal	moist/sun
Aq	25	Acer glabrum	Douglas Maple	2 gal	moist/sun
Ar	25	Alnus rubra	Red Alder	1 gal	water/sun/shade
Cd	25	Crataegus douglasii	Black Hawthorn	1 gal	moist/sun/shade
Mf	25	Malus fusca	Crabapple	2 gal	moist/sun/shade
Pe	25	Prunus emarginata	Bitter Cherry	2 gal	dry/moist/sun/shade
SHRUBS					
Aa	251	Amelanchier alnifolia	Saskatoonberry	1 gal	dry/sun
Catol	251	Cornus stolonifera	Red twigged dogwood	1 gal	moist/sun/shade
Gs	251	Gaultheria shallon	Santal	1 gal	shade/dry
Hd	251	Hoodia discolor	Ocean Spray	1 gal	moist/dry/sun/shade
Li	251	Lonicera involucrata	Twined Honeysuckle	1 gal	sun/moist
Ma	251	Mahonia aquifolium	Tall Oregon Grape	1 gal	sun/dry
Mj	251	Myrica gale	Myrtle	1 gal	shade/dry
OC	251	Oemleria cerasiflora	Osberry	1 gal	moist/dry/sun/shade
PR	251	Prinosiphus lewisii	Coastal Mock Orange	1 gal	dry/sun
PC	251	Physocarpus capillatus	Ninebark	1 gal	moist/sun/shade
Rb	251	Ribes bracteatum	Slink Currant	1 gal	shade/moist
Ri	251	Ribes lacustre	Black Swamp Gooseberry	1 gal	shade/moist to dry
Rs	251	Ribes sanguineum	Red Flowering Currant	1 gal	dry/sun
Rh	251	Rosa rubiana	Noodin Rose	1 gal	sun/dry
Rp	251	Rubus parviflorus	Thimbleberry	1 gal	moist/sun/shade
Rsp	251	Rubus spectabilis	Salmoberry	1 gal	moist/sun/shade
Sr	251	Sambucus racemosa	Red Elderberry	1 gal	moist/sun/shade
Sd	251	Spiraea douglasii	Hardback	1 gal	sun/shade/moist
Sa	251	Symphoricarpos alba	Snowberry	1 gal	moist/dry/sun/shade
Vp	251	Vaccinium parvifolium	Red Huckleberry	1 gal	moist/dry/sun/shade
Vo	251	Vaccinium ovatum	Evergreen Huckleberry	1 gal	moist/dry/sun/shade
FERNS					
Pmun	251	Polystichum munitum	Sword fern	1 gal	moist/dry/sun/shade

<p>1.0. GENERAL</p> <p>1.0.1 REFERENCES for all Landscape work: BCSLA/BCNTA Landscape Standard, Latest Edition, City of Nanaimo <i>Manual of Engineering Standards and Specifications</i>, latest edition. The Landscape Contractor shall make him/herself aware of all prevailing standards Referenced therein and ensure work accordingly as it will govern all landscape preparations, execution and deficiencies.</p> <p>1.0.2 SITE CONDITIONS Location of all existing utilities are to be verified prior to installation of Landscape. Refer to Civil Engineering drawings (by others) and 'Call First' Lines at 1 800-474 6886.</p> <p>1.0.3 SITE REVIEW MEETING Landscape Contractor to provide seven days' notice to Landscape Architect prior to commencement of landscape site work to allow for site meeting/drawing review, especially regarding possible building architect change orders and non-conforming site conditions.</p> <p>2.0. NOT APPLICABLE</p> <p>3.0. GRADING</p> <p>3.0.1 It shall be the responsibility of the General Contractor to establish all sub grades to allow for the levels, profiles and contours required on the landscape drawings.</p> <p>3.0.2 Remove and dispose to approved off-site disposal area all debris, building material, contaminated topsoil, viable invasive plants and anything else that may interfere with proper growth and development of planned finished landscape.</p> <p>3.0.3 The sub-grade shall be scarified to a minimum depth of 150mm/immediately before placing growing medium or drainage material.</p> <p>3.0.4 Grads transitions of sub-grade shall be smooth and even, such that ponding cannot occur on sub-grade surface.</p> <p>3.0.5 Grade the sub-grade elevations to within the tolerances given below: Rough grades to follow the depths below finished grades.</p> <p>4.0. GROWING MEDIUM</p> <p>4.0.1 All topsoil, imported or on-site soil, shall be tested and modifiers required. When bidding a contractor must test the proposed soil and include the required modifications in the price for the work. Current soil analysis reports must be done and signed by a pre-approved analytical laboratory. A copy of the soil analysis must be sent to the Landscape Architect's office.</p> <p>4.0.2 Growing medium shall be placed at the depth of 450 mm [18"]</p> <p>4.0.3 Where native soil remains in good condition no additional topsoil needs to be added but it may be amended according to the recommendations on the soil test.</p> <p>4.0.4 Topsoil shall not be worked to wet or frozen conditions or in any manner in which the soil structure is adversely affected.</p> <p>4.0.5 The intention of the plan is that where the native soil remains in good condition it is to be protected from construction equipment and activity. The riparian plan then occur in these native undisturbed soils. This soil is to be tested (4.0.3) and amended as needed.</p>	<p>5.0 PLANTING - GENERAL</p> <p>5.0.1 All plants and planting to be to BCSLA/BCNTA Standards, latest edition.</p> <p>5.0.2 Plants shall be characteristic of the genus, species and cultivars indicated on the construction drawings and specified herein.</p> <p>5.0.3 All plants shall be nursery grown under similar climatic conditions to the project site. Plants shall not be planted prior to delivery, unless approved by the Landscape Architect. Container stock shall have been established in the size of container specified for at least six (6) months prior to delivery. The roots shall not have grown beyond the limits of the container.</p> <p>5.0.4 It is the Contractor's responsibility to verify and comply with all regulations regarding the inter-provincial movement of plant materials, including nursery stock, within the Province of British Columbia. Imported plant materials must be accompanied by copies of the necessary permits and import licenses required by Federal and Provincial regulators.</p> <p>5.0.5 Plants shall be properly proportioned, not weak, thin or elongated.</p> <p>5.0.6 Plants shall have normal, well-developed branches and vigorous, fibrous root systems. They shall be healthy and free from defects, decay, girdling roots, root collar injuries, abrasions of the bark, and pest diseases, insect pests, eggs, borers and all forms of infestation.</p> <p>5.0.7 Trees shall have straight stems unless uncharacteristic for the species/cultivar. Pruning wounds shall show healthy callous growth at the branch collar without bark tearing or fungal growth. Cambium tissue shall be moist and exhibit the correct colouration for the species. Plants exhibiting fungal staining shall be rejected.</p> <p>5.0.8 All plant materials shall conform to the measurements specified in the drawings except that plants larger than specified may be used if approved by the Landscape Architect. The use of such plants shall not increase the contract price. If larger plants are used, the ball of earth shall be increased in proportion to the size of the plant. All plants shall be measured when the branches are in their normal position. Height and spread dimensions specified refer to the main body of the plant and not from branch tip to root base or from branch tip to branch tip. Where trees are measured by caliper (c.d.), reference is made to the diameter of the trunk measured 300 mm above ground as the tree stands in the nursery.</p> <p>5.0.9 Native plants shall be propagated in nurseries and not harvested from wild sites, except where salvaged from an area where the native vegetation will be destroyed and authorization for harvest has been obtained. All collected native plants shall be field and maintained in a nursery until new roots have formed through the burlap or other suitable packing material or, in the case of containerized plants, until such time that the roots grow to fill and hold the soil within the container.</p> <p>5.0.10 Collected plants shall not be used without prior approval in writing by the Landscape Architect.</p> <p>5.0.11 Balled and burlapped conifers and trees in excess of 3 metres height must have been dug with a sufficient firm root ball to sustain 70% of the fibrous and feeder root system. Rootballs shall be free of invasive weeds.</p> <p>5.0.12 Keep plants in a moist condition at all times. Protect all plants against damage and/or drying out until they are planted on the site.</p> <p>5.0.13 During loading, transportation, off-loading, and planting, protect all trees against damage to stems and branches. Protect bark against chafing from chains, shovels, equipment, or other trees by a wrapping of cardboard or burlap. Separate entangle tree branches without damage to branches.</p>	<p>5.0.14 Plants with broken or abraded trunks or major branches will not be accepted. Prune damaged limbs to ISA pruning guidelines using secateurs.</p> <p>5.0.15 Immediately cover and protect bare root stock from damage to roots by frost, sun, and wind.</p> <p>5.0.16 Handle material supplied in pots and containers by the container only to reduce breakage of branches and leaves.</p> <p>5.0.17 Use only balled and burlapped plant materials with caution to maintain the firmness of the balls. No plants shall be used when the ball of earth surrounding the roots has been cracked or broken, presumably by or during the process of planting, or when the burlap, shaves, and ropes required in connection with their transporting, have been damaged.</p> <p>5.0.18 Do not lift trees supplied in wire baskets by the trunk.</p> <p>5.0.19 During the growing season, store all plants in containers, balled & burlapped or wire basket in an upright position if not planted immediately and take care to provide enough space between plants such that light reaches all portions of the plant in order to avoid burning when planted out.</p> <p>5.0.20 Protect rootballs of balled and burlapped material by heating in a material suitable to protect them from drying out (i.e., sawdust, peat moss, topsoil). Do not store containerized or balled & burlapped plants intended to be planted in the open in a building or in an area of low light intensity for a period exceeding 7 days. Keep all plants well-watered and protected from heat and frost.</p> <p>5.0.21 Plants shall be acclimatized or "hardened off" against the environmental conditions of their final planting location and shall not be taken directly from shade houses or greenhouses and planted in drastically different environments. Preparation for the new environment should include an appropriate period of storage in an intermediate environment, managing fertilizer applications to avoid excessively lush growth and provision of acclimated watering regime.</p> <p>5.0.22 The Landscape Contractor shall leave the work areas clean, tidy and safe on a daily basis.</p> <p>5.0.23 All plant materials shall be guaranteed in writing to the owner for one year against death due to unhealthy supply and/or improper installation conditions and/or wrong selection of species or variety of plants. One year period begins at date of landscape Contractor's final invoice.</p> <p>6.0. TREE PLANTING</p> <p>6.0.1 Tree planting pits shall be excavated to the dimensions indicated in the drawings. Pit sides wherever possible shall be dug with sloping sides at a preference angle of 45°, scarified to remove glazing and providing a roughened soil interface. A minimum 300mm depth scarified layer of native soil shall be created in the bottom of the tree pit. Remove all stones larger than 75mm.</p> <p>6.0.2 Roughen bottom and sloping side surfaces of tree pit by digging and provide a roughened soil interface for placement of tree and substrate. Minimum elevation under where tree is to be placed so that the nursery soil line on the tree trunk will be 50mm above fresh grade soil to allow for settlement.</p> <p>6.0.3 Remove wire basket prior to placement in planting pit. With the tree in the planting pit, untie and remove burlap and cord from top 1/3 portion of a balled & burlapped rootball. Completely remove, with care, impermeable containers from container-grown or bag-grown plants.</p> <p>6.0.4 Trees with the following defects shall be replaced at the Contractor's expense: (a) Lack of root ball integrity. (b) Broken or abraded structural or main roots.</p>
<p>(c) Presence of fungal mass or fruiting bodies and root discoloration, (d) Poor root development with few fibrous roots, or (e) Any other evidence of pathogenic or accidental injury.</p> <p>6.0.5 Unwrap and spread out encircling roots and tease out roots growing at the outside of the rootball.</p> <p>6.0.6 The tree shall be installed plumb and faced to provide the best appearance toward the primary viewing direction, as determined by the Landscape Architect.</p> <p>6.0.7 Place 2/3 depth of the topsoil and water to remove air voids.</p> <p>6.0.8 If indicated in the construction drawings, and prior to completion of backfilling, place tree stakes, avoiding penetration of the root system. Stakes shall be driven plumb and to a sufficient depth in the substrate that the portion exposed above fresh grade equals 1 metre height.</p> <p>6.0.9 Place remaining 1/3 of topsoil lightly foot tamping to remove air voids. Ensure soil level does not exceed original nursery soil line. Form earth saucer to retain water over rootball and water in the tree.</p> <p>6.0.10 Secure tree to stakes with counter-tensioned, non-twisted loops of 19mm polypropylene webbing, applied to the stakes.</p> <p>6.0.11 Place 75mm bark mulch over soil surface.</p> <p>7.0. SHRUB AND GROUND COVER PLANTING</p> <p>7.0.1 Shrub beds shall be a total of a 450 mm layer of amended topsoil and a 50mm layer of bark mulch.</p> <p>7.0.2 Areas of ground covers shall be a total of a 300mm layer of amended topsoil and a 50mm layer of bark mulch.</p> <p>7.0.3 Excavate individual pits in the placed topsoil mix for shrubs, to the same depth as the container holding the shrub, and 1 to 1.5 times the width of the container. Place shrubs to show the best side towards the primary viewpoint. Water shrubs in the pits prior to backfilling with the planting medium.</p> <p>7.0.4 Rake shrub and ground cover beds to a smooth surface prior to placement of 50mm depth bark mulch layer.</p> <p>7.0.5 Plant ground covers through bark mulch layer into the 'A' horizon layer below. The Contractor shall not plant ground covers into the mulch layer without root burial in the soil.</p> <p>7.0.6 Rake mulch layer to a smooth finish grade and water bed.</p> <p>8.0. PRUNING</p> <p>8.0.1 Trees which, at the time of planting, require the removal of damaged or diseased branches larger than 12mm diameter, that have broken leaders, or that have a damaged trunk, will be rejected by the Landscape Architect.</p> <p>8.0.2 Pruning shall be limited to the minimum necessary to remove dead or damaged secondary branches or twigs, or to provide safe headroom adjacent to streets and sidewalks. Pruning shall be done in such a manner as to preserve the natural character of the plant.</p>	<p>8.0.3 For pruning cuts 12mm diameter and smaller use clean sharp secateurs. The cut shall be perpendicular to the branch angle and located to the outside edge of the branch collar only, leaving no stub or bark tears.</p> <p>8.0.4 Pruning cuts larger than 12mm shall be undertaken according to the current ISA Pruning Guidelines by a qualified person. The 3-cut method shall be employed using a clean sharp pruning saw.</p> <p>8.1. MULCH</p> <p>9.0.1 Mulch shall be 50mm deep.</p> <p>9.0.2 If available mulch with salvaged leaf litter to introduce mycorrhizal fungi into new soil ecosystems.</p> <p>9.0.3 Mulch shall be 100% organic mulch and shall be virtually free of invasive and noxious seeds and reproductive parts, soil, stones, salts or other harmful chemicals, or other extraneous matter that would prohibit seed germination or the healthy development of plant material.</p> <p>9.0.4 Supply sample of mulch to Landscape Architect prior to installation.</p> <p>10.0. NOT APPLICABLE</p> <p>11.0. IRRIGATION - AQUATIC SETBACK AREA</p> <p>11.0.1 Irrigation system is to be designed and installed by irrigation Contractor.</p> <p>11.0.2 Irrigation contractor to provide irrigation shop drawings per to installation. Location, type and size of all pipes, valves, head, controllers and splices to be recorded on drawings.</p> <p>11.0.3 Prior to installation check grades and locations of all components including sewer, drain lines, water and gas mains.</p> <p>11.0.4 Landscape Architect to approve system layout.</p> <p>11.0.5 All work to conform to the B.C. Plumbing Code as amended to installation date. All workmanship is to be to Irrigation Industry Association of BC (IRIBO) Standards, latest edition.</p> <p>11.0.6 The system shall be installed in accordance with applicable electrical, plumbing and health codes.</p> <p>11.0.7 All points of connection to domestic water supply to be protected by a backflow prevention device that complies with the Plumbing Code.</p> <p>11.0.8 Ensure installation of sleeves and services from mains prior to any site paving works, to be coordinated with the Site Contractor. Sleeves are to be 500 mm pipe kept clear of soil and stones and buried with a visible surface marker by Site Contractor.</p> <p>11.0.9 Select and size all irrigation equipment such that flow velocities do not exceed 5 fps (1.5 m/sec).</p> <p>11.0.10 Pipe of 1" to be Schedule 40. Smaller sizes to be Class 200 P.V.C. All fittings to the Schedule 40 P.V.C. all CSA approved.</p>	<p>11.0.11 Bury mains min. 450 mm (18"). Bed pipe with min. 100mm (4") sand under, to sides and above. Dip system to be 4" below surface of bed (including mulch layer).</p> <p>11.0.12 Balance branched circuits to minimize circuit circuit lengths and ensure even sprinkler performance.</p> <p>11.0.13 Supply/install commercial grade valves in lockable boxes. Do not install boxes within areas of high aesthetic attention such as feature planting beds, feature paving, etc. Ensure all boxes are finished with exterior-grade paint.</p> <p>11.0.14 All valves to be electric solenoid complete with automatic timer.</p> <p>11.0.15 All sprinklers within a circuit to have matched precipitation rates and have integral check valves to prevent low-head drainage.</p> <p>11.0.16 Contractor to provide one complete "flow-out" (winterization) and one spring start-up as part of bid price. Winterization is to take three days of October and start up April/May depending on weather.</p> <p>11.0.17 Final inspection shall require system pressure testing with Landscape Architect present.</p> <p>11.0.18 Provide as-built drawings and operations manual to Owner and review system with Owner.</p> <p>12.0. IRRIGATION / WATERING - PRIVATE PROPERTY</p> <p>12.0.1 Install one Triegerator Original Slow Release watering bag per tree according to manufacturer's instructions.</p> <p>12.0.2 Ensure watering bags are installed and filled at the time of planting. Keep bags filled at least once a week. Monitor bags to ensure bags are functioning. Filling times will vary according to weather.</p> <p>13.0. MISCELLANEOUS</p> <p>13.0.1. TREE PROTECTION Install 2" x 4" galvanized mesh fence around trees to protect from beavers and deer browse. The fence height should be a minimum of 6' ft, with a gap of 12 between the mesh panels and the tree trunk. Fasten the sides of the fence with wire prong.</p> <p>14.0. MAINTENANCE See VEGETATION MANAGEMENT PLAN (SEPARATE DOCUMENT)</p>

NOTES:
For grading information, see Civil & Architectural drawings.
ALL PLANTED AREAS TO BE IRRIGATED.

REVISIONS:
Submitted to City for Review - 2019Sep12
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Rev #1 - C.O.N. Comments - 2020Jan23
DP Rev for Coordination - 2020Nov23
Reissued for DP - 2020Nov26
Rev #2 - C.O.N. Staff Comments - 2020Dec15
Reissued for DP - 2021Nov18
Revised for DP - 2021Dec01



PROJECT:
3789-3801 SHENTON ROAD, NANAIMO, BC

SITE LEGAL DESCRIPTION:
Lot 1, Section 4, Wellington District, Plan EPP 69298

SHEET TITLE:
LANDSCAPE SPECIFICATIONS FOR RIPARIAN AREA

SCALE: AS NOTED DATE: SEP 11, 2019
DRAWN: DR CHECKED: VJD
PROJECT NUMBER: SHENTON ROAD 2019
DRAWING NUMBER: **L0.5- DP**