

July 22/19.

475 Stewart Ave

Design Rationale

1. Project:

- New multifamily wood-framed 6 townhouse development with private and shared exterior landscaped amenity space and parking under building.

2. Location and Zoning Context:

- Site located on Stewart Ave, between Townsite Rd and Rosehill St within Newcastle/Brechin Hill.
- Zoning is R8, with context mainly composed of aging single family homes and multiple family buildings, with multi-family and mixed used zoning in a redeveloping sector that promotes contemporary urban living.

3. Background:

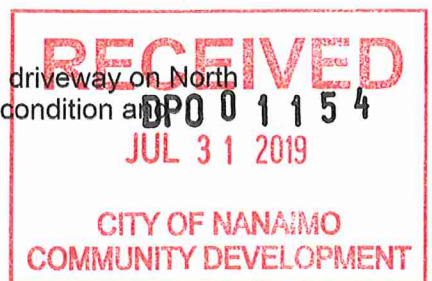
- Replace existing single-family house with a 6 unit multi-family residential townhouse development that will cater to down-sizers, young professionals and commuters from Greater Vancouver. Specific emphasis is placed in the age-in-place demographic, as units incorporate space for future private residential elevators in each unit.
- The location and nature of the development will promote urban living that may limit the use of automobiles and promotes a lifestyle connected to the waterfront and downtown core and its many amenities and walkability.

4. Site Layout:

- Dictated by the standard 66' by 132' lot located on Stewart Ave, between Townsite Rd and Rosehill St, and the ascending slope from front to rear of site (approximately 4m elevation differential).
- Sloped vehicular access driveway (5.25% ascending slope) and stepped shared pedestrian walkway to service access to each unit, culminating in retaining wall at rear (4.21m setback from rear property line).
- Units are placed on ascending platforms, each 1' above the previous unit. This way, they adapt to site conditions and mimic the site's natural topography. In addition, all units are able to have views of the surroundings (Stewart Ave, the waterfront, Newcastle Island and Departure Bay).
- Inhabitable living space is located on level 1 to 3, directing views towards the street and, in upper levels, partial views of Departure Bay to the North and the waterfront to the East and North.
- North setback is greater than the mandated by zoning bylaw, while West setback is encroached in order to allow enough liveable space and dimensions for the units. (further discussed on Variance Rationale)
- Natural slope is a buffer towards the West, as units will be separated by a rear garden are placed lower than natural grade. Thus, only 3 storeys will be viewable from the West. This elevation change allows discretion towards the neighbouring properties.
- South setback is only encroached on access level in order to allow tandem parking garages. Every level above is 10' from the South property line. The existing vegetation buffer and fence line will create separation and privacy (further discussed on Variance Rationale).

5. Form:

- Building mass is a consequence of the vehicular circulation (ascending driveway on North side of site), ascending slope of the site and the units' siting within this condition and



maximum heights as generators of building footprint and mass, leading to the repetition of the 6 housing units, 4 storeys in total each. Bottom level is a parking and access block, with 3 storey living mass above, cantilevered over the driveway.

- The decision to have the driveway on the Northern side and the units towards the South is a direct consequence of the effect on the neighbouring properties, as doing this allows a separation towards the Northern neighbours, thus protecting their access to Southern sunlight (something that the building mass will have no effect on regarding the Southern neighbour). This also creates a buffer space between the building and the Northern neighbours, allowing enough separation to permit views towards the North, over the neighbouring properties.
- Building form is a clean rendition of the contemporary townhouse typology that mimics the natural terrain in its echeloned placement, projecting the similar "hill" image of its location in a built form.
- Building mass is reduced at top level on the North side by recessing exterior mass. This gesture is emphasized on this elevation as it is where the greatest impact towards the neighbouring properties can be felt given the effect on daylighting. The front of the building (West, towards Stewart Ave) imitates this gesture. While not to the same extent, it reduces visual impact by incorporating vegetation in its buffer and articulating the finish materials and building elements to allow the perception of a smaller building mass from the street. The South elevation, having a great buffer of natural vegetation, especially in the form of large trees, and having no effect on the neighbouring property's daylight, does not follow this gesture as it is not needed and doing so would greatly limit the buildable area and thus the feasibility of the project.
- Articulation of units on all elevations that relate to the context. Units face North elevation and express this in their formal direction towards the North and in their sequential stepping through the site's slope. The East elevation (street) incorporates projecting bay windows and a gestural winding of the top floor's building elements to acknowledge the street and create street presence. Landscaping on the front opens towards the street and creates street presence.
- Landscaping element in building's front includes public art that is visually enticing and enriching for the streetscape.

6. Material and Colour:

- Contemporary, clean two-tone scheme.
- Exterior mass is clad in white fibre cement panels with a clean modern aesthetic.
- Recessions in the exterior envelope are clad in wood toned fibre cement lap siding that resembles traditional building techniques. This allows a reading of the building as a combination of clean modernity and heritage, as the modern envelope contains a more traditional materiality within.
- Ground level parking block is clad in dark, rustic fibre cement panels, discretely separating it from the main building mass, and conceding prominence to the main building mass, allowing the building to be perceived as 3 storeys.
- Fibre cement is chosen for its practicality, fire-resistance and cost efficiency.
- Complementing these two main materials, clear glass allows openness towards the exterior and well-lit interiors, black aluminum reinforces the purity of the aesthetic and exposed concrete in the retaining walls for the driveway give a clean, modern look.
- In addition to the chosen materials, the building's formal articulation will produce a changing play of light and shadow that further enriches the building's materials, colours and aesthetic.

7. Pedestrian Circulation

- Separate pedestrian circulation to each unit's private foyer through a private, secured shared walkway adjacent to the Southern neighbour and its tree buffer.
- Secondary pedestrian access adjacent to driveway with direct access to each unit's private elevator (future).

8. Vehicular Circulation

- Shared driveway access from Stewart Ave (North property line). North setback is greater than required as a consequence.
- Privacy gate for security and concealing cars from view. Gate will incorporate a more transparent look from the rest of the fencing, while retaining basic impression of shielding interior from views.

9. Parking

- Private, tandem garages accessed through driveway at the North side of site.
- 12 total parking stalls exceeds bylaw requirement.
- Gate access to driveway lowers visual impact.
- Secure storage for bicycles within parking garages.

10. Exterior Lighting

- Unit fronts and pedestrian access (shared walkway) lighting.
- Lighting on landscaped element at front of site and paths to accesses.
- Driveway lighting on concrete walls.
- Landscaped area lighting with low voltage lighting for plant areas and bench areas.

11. Utilities/Garbage/Recycling

- Shared utility room at end of driveway, underneath landscaped area.
- Garbage and recycling within units' garages. Flat area on front of site for placing of bins on collection days.

12. Key Features

- Formal imitation of hillside topography creates the aesthetic of regional architecture tied to its site's conditions.
- Strong, clean formal language that embodies contemporary aesthetics and site specific design.
- Shared exterior amenity space in rear landscaped area, plus ample private exterior amenity space on every level of all units.
- Public art and landscaping element towards street on the front.

13. CPTED (Crime Prevention Through Environmental Design)

- Generous exterior lighting.
- "Eyes on the street" through large windows, window walls and balconies towards the street.
- Landscaped areas Stewart Ave, promoting presence of residents.
- Bicycle storage within secure, interior areas (in units' parking garages).

July 22/19.

Variance Rationale

1. Setbacks:

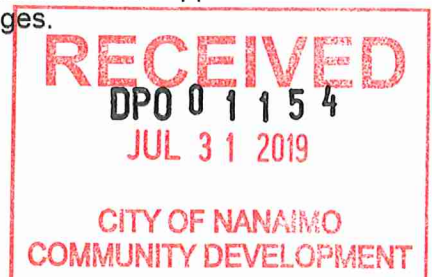
- Rear (West) - The current bylaw dictates a 10.5m rear setback. However, this setback limits the potential of every site for redevelopment and, thus, future housing affordability. The goal of redeveloping the city's central locations and creating density may be sufficient reason to permit a different view on the use of this type of site. The site conditions and its efficient use point to a 6 unit project. By creating slender units, the project can extend towards the rear, encroaching into the rear setback, but doing so within the tolerable 50% criteria (5.35m setback). The ascending topography allows the reduction of the visual impact of the building mass that encroaches into the setback as the building sits well below the natural grade, having only 3 storeys viewable from the neighbouring properties to the West. The landscaped area at the rear creates a greater buffer and further reduces visual impact. A shared utility room is built underneath the landscaped area, becoming completely hidden from view.
- Side (South) - The project encroaches into the side setback only on grade level, as units' garages require enough length to accommodate 2 tandem parking stalls, plus a 6m driveway on the northern side of the lot (plus fence and small retaining walls). This encroachment is minimized by the nature of the adjacent walkway, which is shielded from view by the fencing and existing large trees while being partially sunken below the neighbouring property's grade elevation, creating a discrete, shaded walkway that softly escalates the site. The standard setback (3m) is complied with in the storeys above, as the main building mass is 10' (3.05m) from the South property line.

2. Site Coverage:

- The total sum of the building's access level at grade (which encroaches into the South setback) and the living space above (which cantilevers over the driveway), exceeds the required 40% site coverage by 8%. However, the actual building footprint on grade complies with the 40% coverage, and it is only when considering the cantilevered portion above that site coverage is exceeded.
- This situation is a result of the following
 - o The driveway width (which leads to far exceeding the required 3m North setback and protecting the North neighbours' access to sunlight).
 - o The garages' depths (to allow tandem parking - 2 stalls).
 - o Maintaining the South setback on storeys above the access level (where the impact would be greater if not respected). These storeys contain the living space, which requires enough space to accommodate the spatial program that the users will require.
- Permeable surfaces on walkway will alleviate this variance. In addition, the fact that the cantilevered building above leads to the excess in the technical calculation of site coverage, the reality is that it will allow rainfall to reach the ground and permeate.

3. Parking:

- 2 stalls per unit exceeds the bylaw requirement.
- Compact site leaves no extra space for visitor parking (this would require more area dedicated to parking, causing visual impact to neighbouring properties).
- The amount and size of private parking stalls within the units follow the logic of these being fully accessible (with direct access to private future elevators in each unit). Understanding that they will be private garages, this means that both handicapped and visitor parking can be accommodated within the units' garages.





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- The project's central location permits the use of alternative means of transportation that reduce the impact of combustible engine vehicles, thus leading to the belief that visitor parking may be seen as not a necessity, especially when taking into account the amount of parking within the units.

4. Retaining Walls:

- Retaining walls are necessary in order to achieve the sloped driveway and parking. These retaining walls will be 8' high, having their top of concrete at natural grade, abutting the rear landscaped area.

5. Accessory Utility Room Setback:

- The building's accessory utility room is placed outside of the main building's footprint in order to provide ample and identical space to each unit's garage. This room sits at the end of the driveway, inserted beneath the shared landscaped area at the rear. It will be hidden from view, as the rear yard will sit on top of it, and will only be accessed from the front (towards the driveway).

LOCATION PLAN



DEVELOPMENT PERMIT NO. DP001154

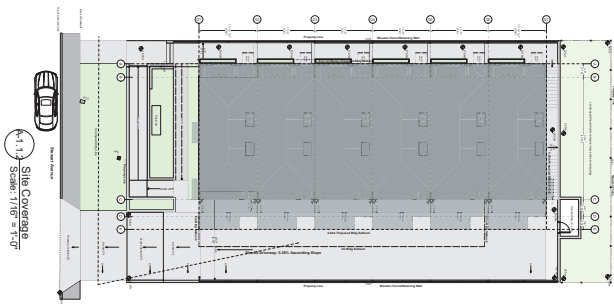
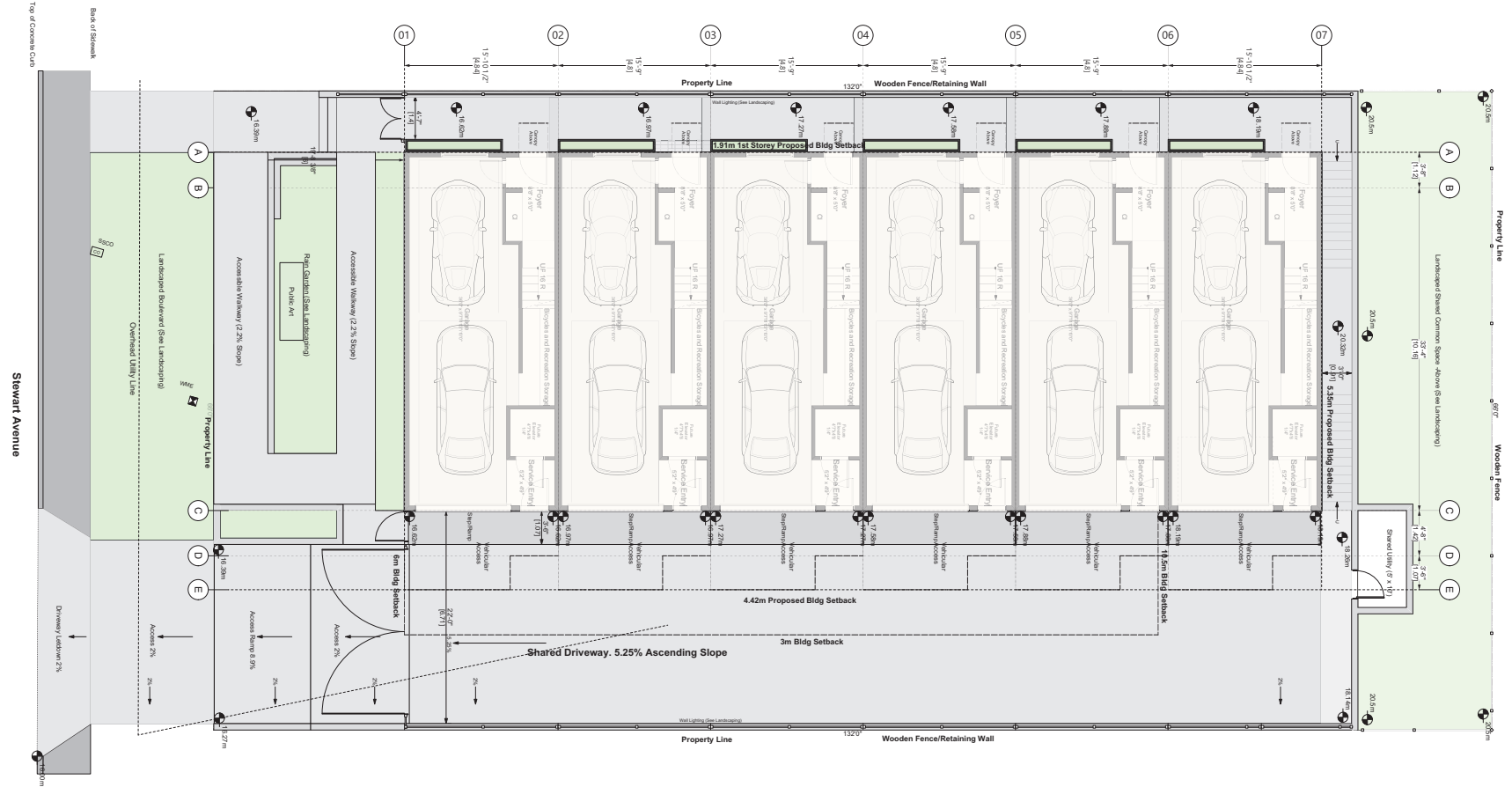
LOCATION PLAN

Civic: 475 STEWART AVENUE

Legal: LOT 3, BLOCK 1, SECTION 1, NANAIMO DISTRICT
NEWCASTLE TOWNSITE, PLAN 584



A-1.1 Site Plan
 Scale: 3/16" = 1'-0"



Project Data

Location: Brechin Hill/Newcastle
 Address: 475 Stewart Ave
 Site Area: 20.1m x 40.2m (66'x132')= 809.66m² (8,712 sq ft)
 Zoning: R8
 Permitted Use: Medium Density Multi-Family Residential
 Proposed: 6 unit Townhouse Development
 Units: 1,601 sq ft, Garage & Access + 3 Storeys = 4 storeys

| | Required | Proposed |
|------------------|---|---|
| Floor Area Ratio | Max 1.25 10,890 sq ft (1,012 m ²) | 1.13 9,856 sq ft (916 m ²) |
| Setbacks | | |
| Front (E) | 6.0m | 6.0m |
| Side (S) | 3.0m | 1.91m 1st Storey- Typical 3.05m |
| Side (N) | 3.0m | 4.42m |
| Rear (W) | 10.5m | 5.35m |
| Site Coverage | 40% | 48% (4,209 sq ft) On grade = 40% (3,505 sq ft) |
| Building Height | 14m (45'-11.181") | 12.35m (40'6") from grade (Maximum Height 13.72m from lowest to highest point) |
| Parking Stalls | 10.92=11 | 12 (6 private tandem garages) |
| Large Car Stalls | 11x0.6= 6.6 | 6 |
| Small Car Stalls | 11x0.4= 4.4 | 6 |
| Visitor | 1/22 | 0 |
| H.C. | 1/11-20 | 0 |
| Electric Vehicle | | 6 |
| Bicycles | | 1 |
| 0.1/unit | 0.6 | 6 |
| 0.5/unit | 3.0 | |

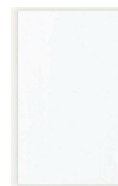
Red=Variance



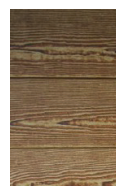
North Elevation
Scale: 1/4" = 1'-0"

Finishes Legend

- AI1 Aluminium Glass Guard (Black Frame)
- C1 Exposed Boardface Formwork Concrete Retaining Wall
- G1 Clear Glass
- L1 Wall Lighting (see Landscaping)
- M1 Metal Flashing (colour White)
- M2 Metal Flashing (colour Black)
- P1 Paving (see Landscaping)
- PD1 Painted Fiberglass Door (colour Dark Gray -Cracked Pepper-)
- PD2 Painted Fiberglass Door with Clear Glass Insert (colour Dark Gray -Cracked Pepper-)
- R1 Torch-on Roofing
- S1 HardieSoffit Panel Smooth (colour "Arctic White") w/ white reveal
- S2 HardieSoffit Cedar Mill Fisher True Grain (colour "Chris Craft")
- VW1 Vinyl Windows (colour Black)
- W1 HardiePanel Smooth with hidden reveal (colour "Arctic White")
- W2 HardiePlank Cedar Mill Fisher True Grain lap-siding (colour "Chris Craft")
- W3 HardieShingle Siding Straight Edge Panel (colour "Iron Gray")
- WF1 Wood Fence (see Landscaping)
- WL1 Wood Lattice Privacy Screen



S1 W1 M1 VW1



W2 W3



W3



C1



S2 W2



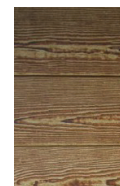
AE-001
 South Elevation
 Scale: 1/4" = 1'-0"

Finishes Legend

| | |
|-----|---|
| AI1 | Aluminium Glass Guard (Black Frame) |
| C1 | Exposed Boardface Formwork Concrete Retaining Wal |
| G1 | Clear Glass |
| L1 | Wall Lighting (see Landscaping) |
| M1 | Metal Flashing (colour White) |
| M2 | Metal Flashing (colour Black) |
| P1 | Paving (see Landscaping) |
| PD1 | Painted Fiberglass Door (colour Dark Gray -Cracked Pepper-) |
| PD2 | Painted Fiberglass Door with Clear Glass Insert (colour Dark Gray -Cracked Pepper-) |
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| S2 | HardieSoffit Cedar Mill Fisher True Grain (colour "Chris Craft") |
| VW1 | Vinyl Windows (colour Black) |
| W1 | HardiePanel Smooth with hidden reveal (colour "Arctic White") |
| W2 | HardiePlank Cedar Mill Fisher True Grain lap-siding (colour "Chris Craft") |
| W3 | HardieShingle Siding Straight Edge Panel (colour "Iron Gray") |
| WF1 | Wood Fence (see Landscaping) |
| WL1 | Wood Lattice Privacy Screen |



AI1



C1



G1



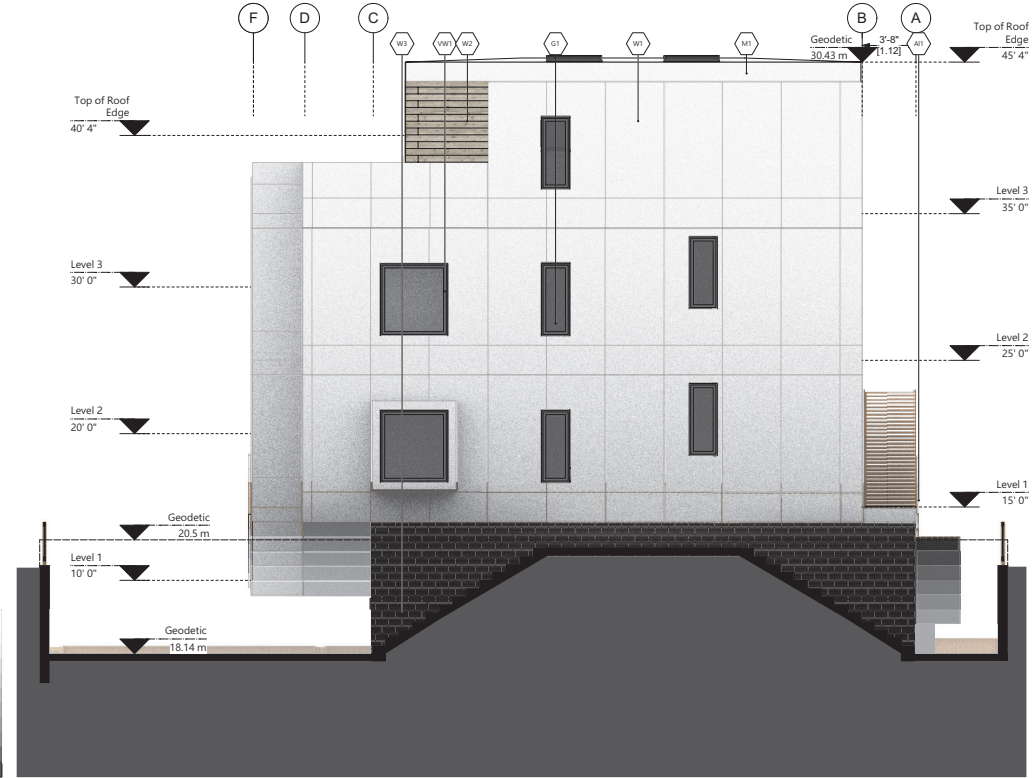
L1



M1



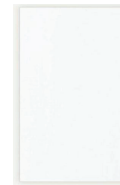
East Elevation
Scale: 1/4" = 1'-0"



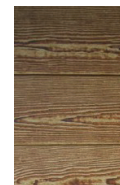
West Elevation
Scale: 1/4" = 1'-0"

Finishes Legend

| | |
|-----|---|
| AI1 | Aluminium Glass Guard (Black Frame) |
| C1 | Exposed Boardface Formwork Concrete Retaining Wal |
| G1 | Clear Glass |
| L1 | Wall Lighting (see Landscaping) |
| M1 | Metal Flashing (colour White) |
| M2 | Metal Flashing (colour Black) |
| P1 | Paving (see Landscaping) |
| PD1 | Painted Fiberglass Door (colour Dark Gray -Cracked Pepper-) |
| PD2 | Painted Fiberglass Door with Clear Glass Insert (colour Dark Gray -Cracked Pepper-) |
| R1 | Torch-on Roofing |
| S1 | HardieSoffit Panel Smooth (colour "Arctic White") w/ white reveal |
| S2 | HardieSoffit Cedar Mill Fisher True Grain (colour "Chris Craft") |
| VW1 | Vinyl Windows (colour Black) |
| W1 | HardiePanel Smooth with hidden reveal (colour "Arctic White") |
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| W3 | HardieShingle Siding Straight Edge Panel (colour "Iron Gray") |
| WF1 | Wood Fence (see Landscaping) |
| WL1 | Wood Lattice Privacy Screen |



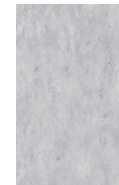
AI1



C1



G1



L1



M1

M2



Birds' Eye View from Stewart Ave and Townsite Rd looking South-West



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Stewart Townhouses

475 Stewart Ave, Nanaimo, BC

Renderings

July 22, 2019
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2019-AUG-06
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A0.3



Perspective from Stewart Ave towards vehicular entry, looking South-West



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Stewart Townhouses

475 Stewart Ave, Nanaimo, BC

Renderings

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A0.4



Perspective from Stewart Ave towards pedestrian entry, looking North-West



RAYMOND
de BEELD
ARCHITECT Inc.

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Stewart Townhouses

475 Stewart Ave, Nanaimo, BC

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Perspective from corner of Stewart Ave and Townsite Rd looking South-West



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Stewart Townhouses

475 Stewart Ave, Nanaimo, BC

Renderings

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Perspective from North-West corner of site, looking South-East.



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Stewart Townhouses

475 Stewart Ave, Nanaimo, BC

Renderings

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Perspective from South-West corner of site, looking at shared back yard landscaped area.



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Stewart Townhouses

475 Stewart Ave, Nanaimo, BC

Renderings

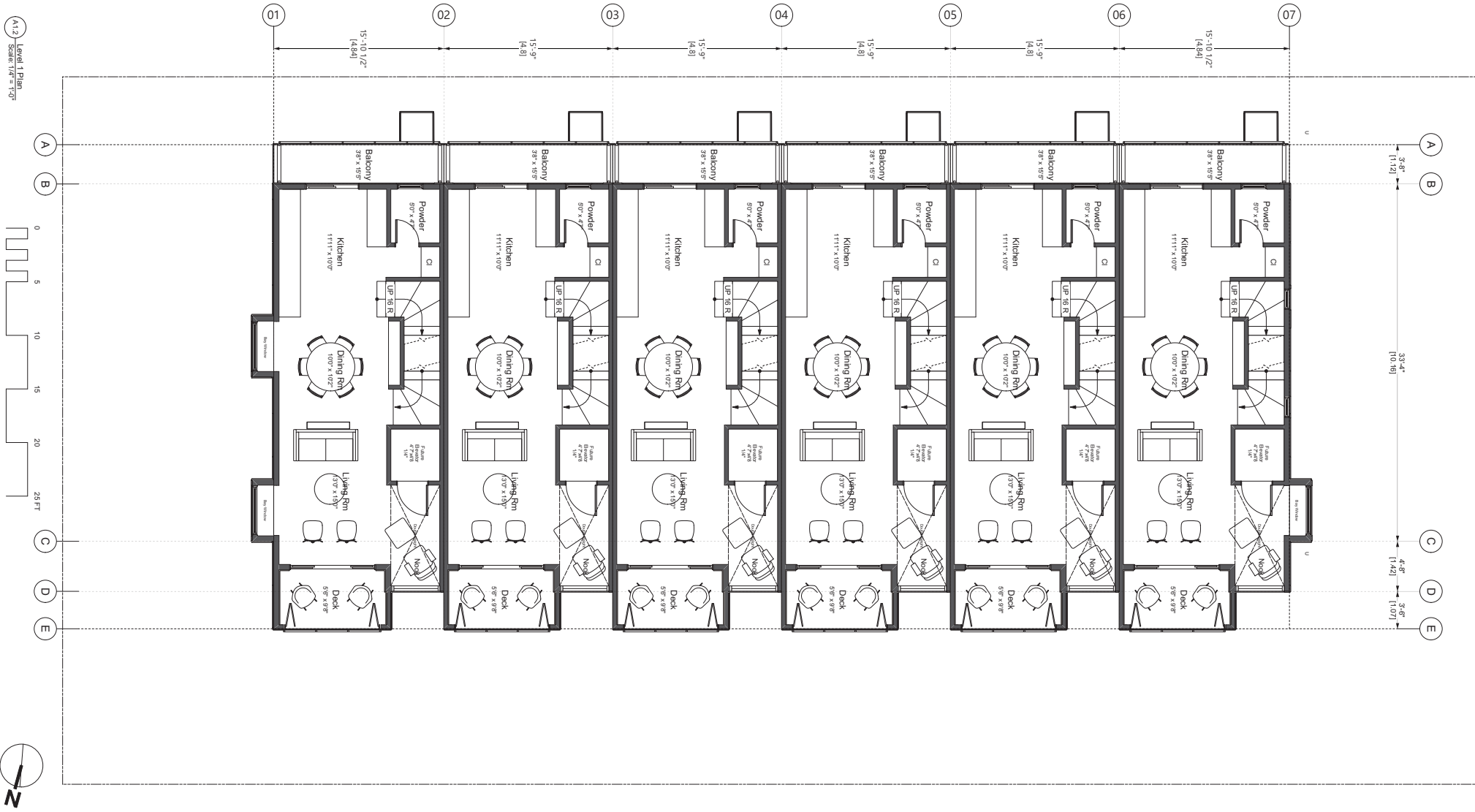
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 Current Planning



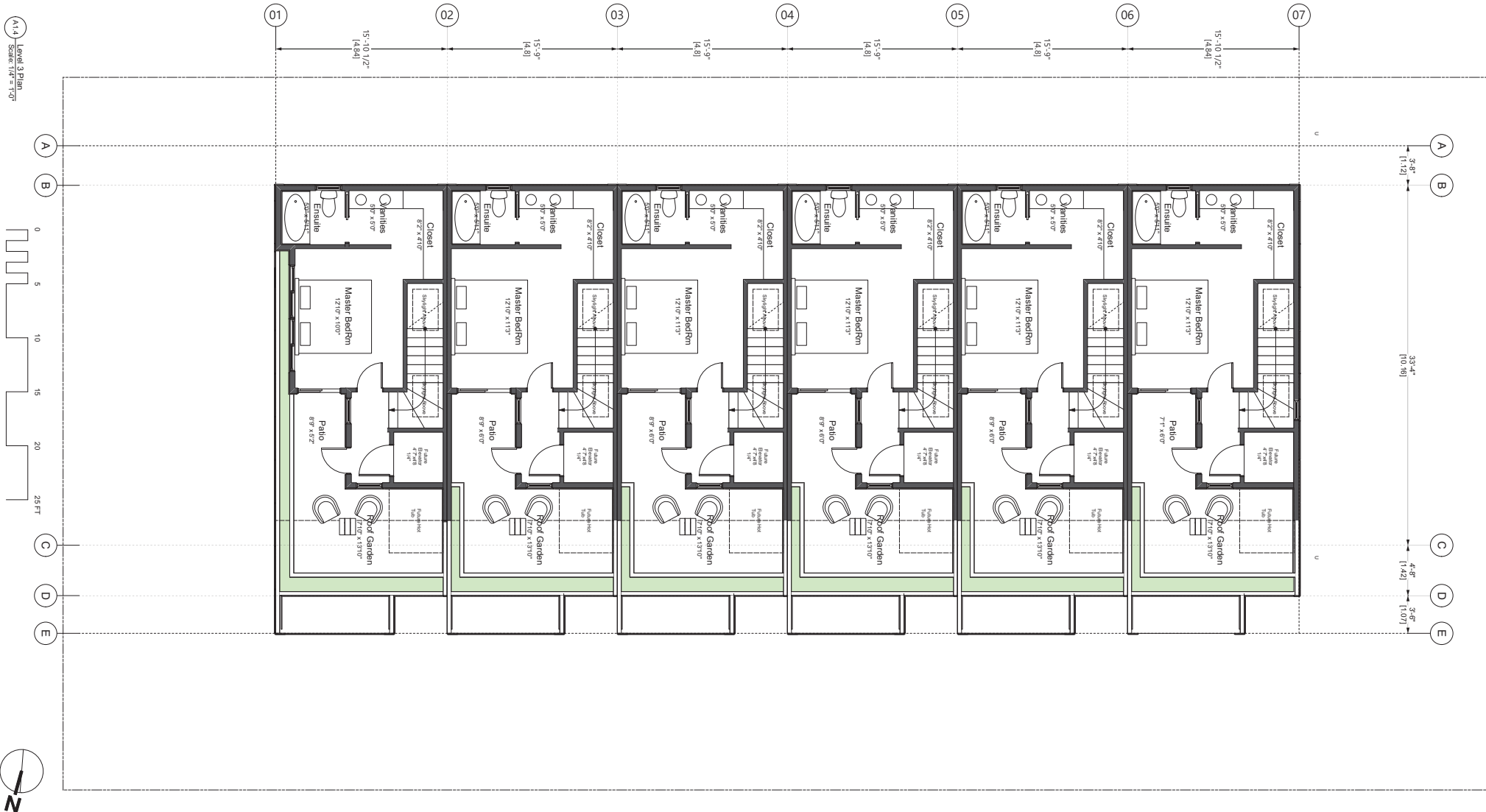
Perspective of landscaped area on front of site and the effect on Streetscape; looking South-East.

Perspective of landscaped area on front of site and the effect on Streetscape; looking North-East.

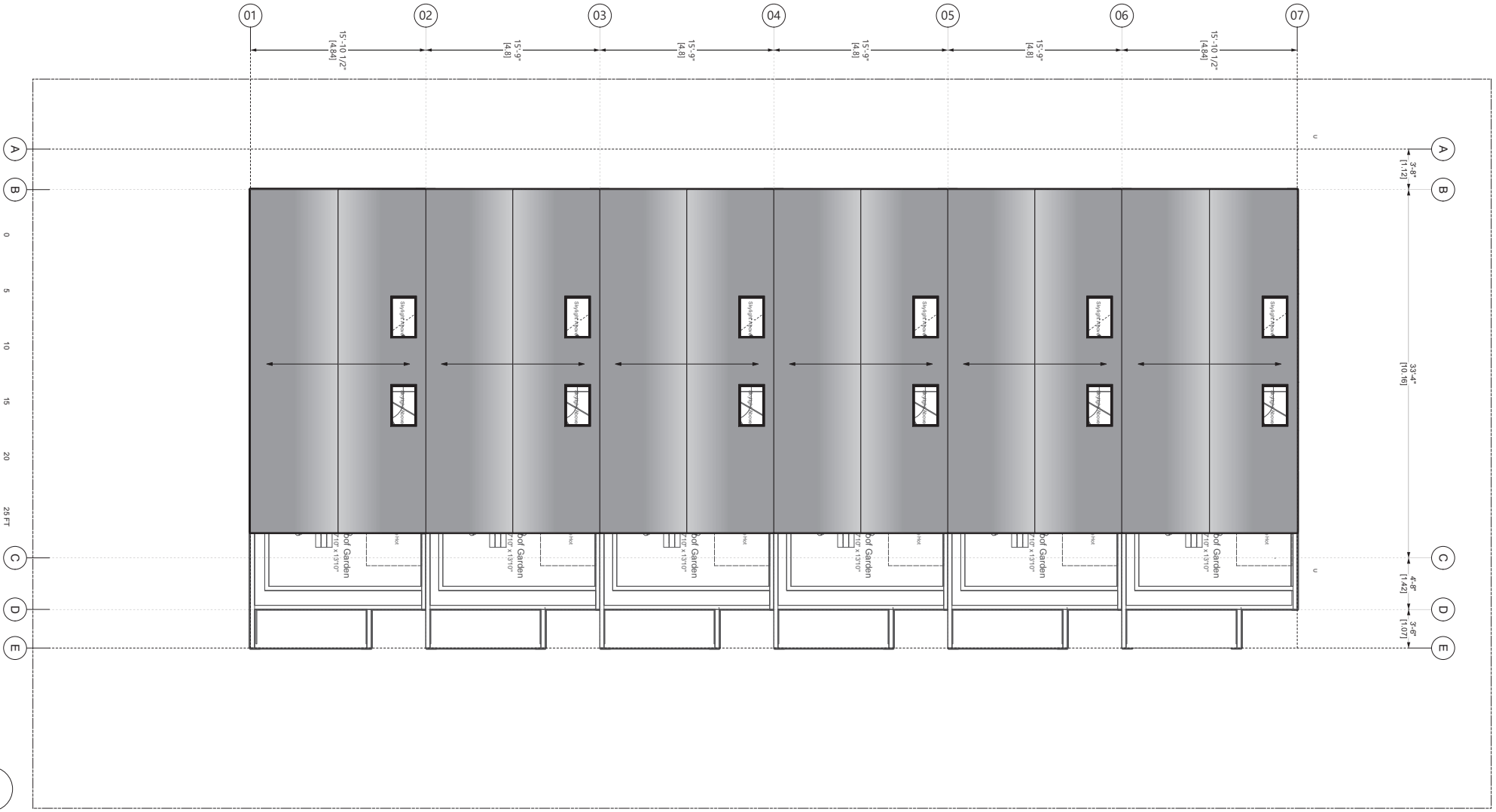




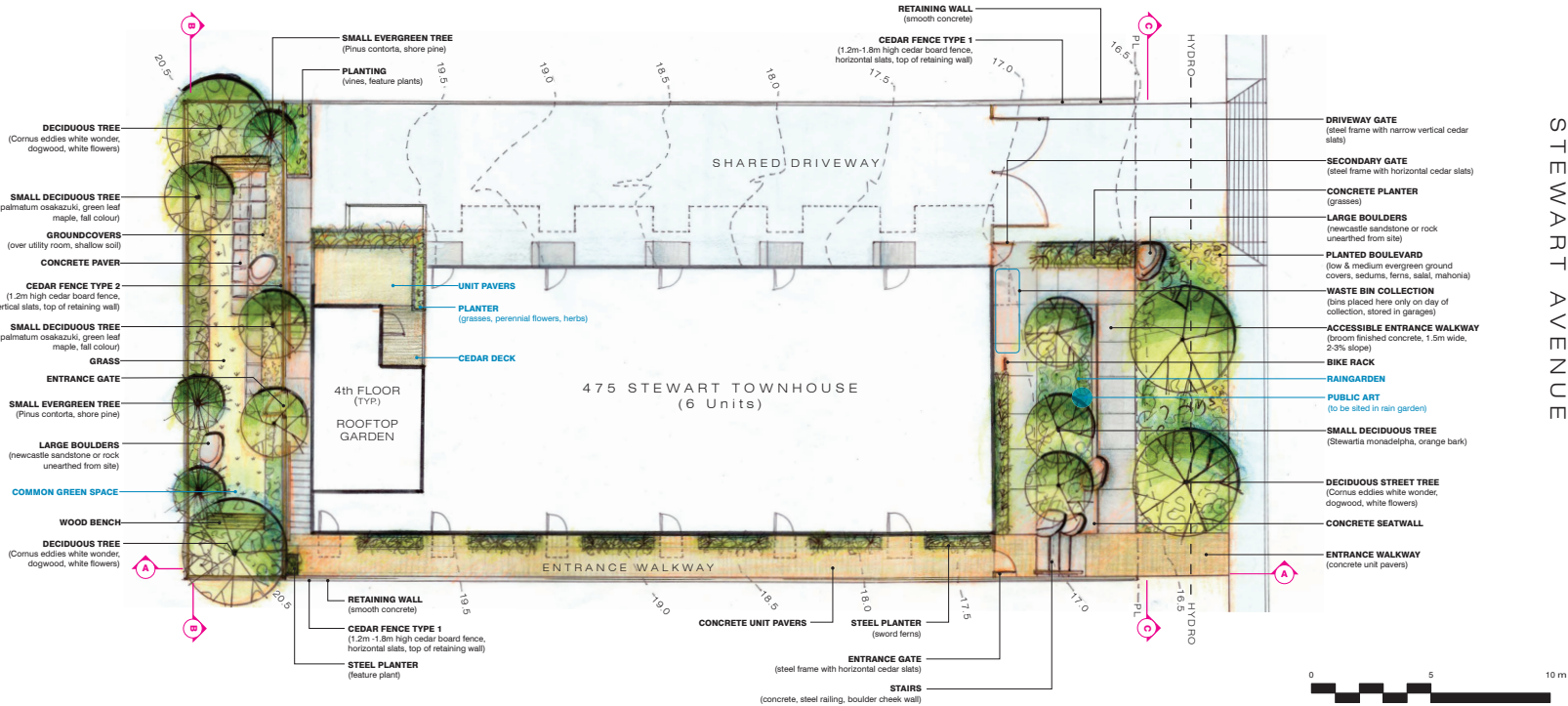




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Scale 1/8" = 1'-0"



STEWART AVENUE



DESIGN RATIONALE

CONTEXT

The landscape at 475 Stewart Avenue serves two primary functions. It establishes the streetscape for a 6-dwelling multi-family development along the western side of Stewart Avenue - a busy, four-lane road that acts as a gateway into the city of Nanaimo; and it provides the private outdoor space for residents living in a contemporary high-density residential development.

DESIGN CONCEPT

The landscape design concept responds directly to the Newcastle and Brechin Neighbourhood Plan by advancing the evolution of Stewart Avenue from a wide vehicular thoroughfare into a true gateway street for Nanaimo.

- The planting plan offers a lush, green neighborhood edge, relying on native, drought tolerant and evergreen species inspired by the local ecology.
- The public realm and pedestrian experience is enhanced with generous planting and natural features integrated into the sidewalk boulevard, providing visual interest at the human scale to complement a striking new building.

- The landscape design anchors a contemporary feature building within the local context with a strong indigenous planting palette, accentuating a unique sense of place for the project.

Key components of the landscape design include:

- A diverse, multi-layered planting scheme that relies on drought tolerant native species and natural elements, as well as public art to enhance the streetscape along Stewart Avenue.
- Rainwater garden to manage runoff naturally on site and to reflect and celebrate our Vancouver Island climate.
- A private, common green space to create a tranquil, natural setting for residents of the development.

DESIGN PRECEDENTS



01 Shore Pine



02 Evergreen Ground Covers



03 Japanese Forest Grass



04 Orangebark Stewartia



05 Flowering Dogwood



06 Steel Planters



07 Entrance Walkway



08 Entrance Walkway Lighting



09 Boulder Cheek Wall



10 Wood Bench

PLANT PALETTE

| Key | Botanical Name | Common Name |
|-------------------------|----------------------------------|-----------------------------|
| Deciduous Trees | | |
| Ap | Acer palmatum Osakazuki | Japanese Maple |
| Ce | Cornus edulis white wonder | Eddies White Wonder Dogwood |
| Sm | Stewartia monadelpha | Orangebark Stewartia |
| Evergreen Trees | | |
| Phc | Pinus contorta | Shore Pine |
| Evergreen Shrubs | | |
| Au | Arctostaphylos uva-ursi | Kinnikinnick |
| Ga | Gaultheria shallon | Strawberry Bush |
| Mi | Morella californica | Sweet Woodruff |
| Ma | Malva nelsonia | Pacific Wax Myrtle |
| Vo | Vaccinium ovatum | Chill Oregon Grape |
| Deciduous Shrubs | | |
| Cs | Cornus sericea | Red Osier Dogwood |
| Ri | Ribes sanguineum | Red Flowering Currant |
| V | Vaccinium (various) | Blueberry |
| Ground Cover | | |
| Au | Arctostaphylos uva-ursi | Kinnikinnick |
| Ep | Epimedium hiphorum | Epimedium |
| Fc | Fragaria chionensis | Coastal Strawberry |
| Go | Galium odorata | Sweet Woodruff |
| Sr | Sedum rupestre 'Angelina' | Angelina Stonecrop |
| Sa | Sedum spathulifolium | Broad-leaved Stonecrop |
| Ss | Sedum spurnum 'Schorbuser Bluff' | Dragon's Blood Sedum |
| Ferns | | |
| Bs | Blechnum spicant | Deer Fern |
| De | Dryopteris erythrosora | Autumn Fern |
| Pm | Polystichum munifolium | Sword Fern |
| Grasses | | |
| Hk | Hakonechloa macra | Japanese Forest Grass |
| Mi | Miscanthus yaku ilima | Dwarf Maiden Grass |
| Sc | Sceleria cerulea | Blue Moor Grass |

PROJECT

STEWART TOWNHOUSE

475 Stewart Avenue
Nanaimo, BC

LANDSCAPE PLAN

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PROJECT 19003

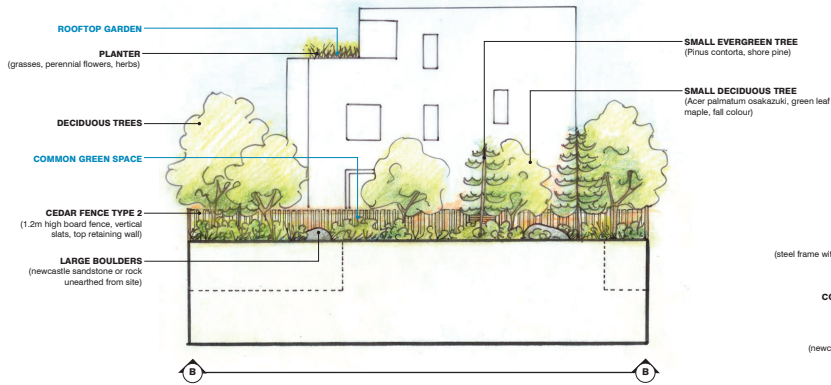
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DATE JULY 5, 2019

L1.01



Elevation A
South Elevation - Entrance Walkway
Scale 1:100

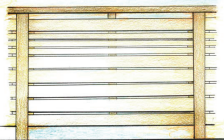


Elevation B
West Elevation - Common Green Space
Scale 1:100



Elevation C
East Elevation - Stewart Avenue Frontage
Scale 1:100

DESIGN FENCE DETAILS



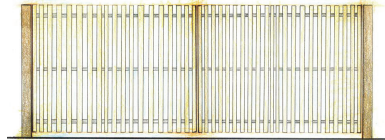
Cedar Fence Type 1
Horizontal Cedar Boards
Height: 1.2m - 1.8m
Colour: Natural Stain



Cedar Fence Type 2
Vertical Cedar Boards
Height: 1.2m
Colour: Natural Stain



Entrance Gate
Horizontal Cedar Boards, Steel Frame
Height: 1.8m
Colour: Natural Stain



Driveway Gate
Vertical Cedar Boards, Steel Frame
Height: 1.8m
Colour: Natural Stain



11 Driveway Gate

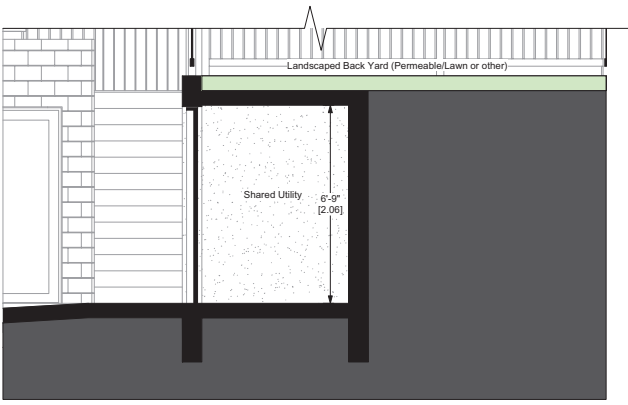


12 Entrance Gate



13 Entrance Gate

AS-002 Section 2
Scale: 1/4" = 1'-0"



AS-001 Partial Section Utility
Scale: 1/2" = 1'-0"



AS-003 Section 1-1
Scale: 1/4" = 1'-0"



Stewart Townhouses

475 Stewart Ave, Nanaimo, BC

Sections

A2.4

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AERIAL PHOTO



DEVELOPMENT PERMIT NO. DP001154

Legend

 Subject Property