

4800 Uplands Drive & 6035 Linley Valley Drive

Development Permit Application:
Form & Character / Steep Slope



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Current Planning

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1.0 INTRODUCTION

NPR GP INC. (Northview REIT) of Calgary, Alberta is proposing a development on two large medium density residential parcels at 4800 Uplands Drive and 6035 Linley Valley Drive.

The property owner is making this Development Permit (DP) application to the City of Nanaimo (City) for the purpose of authorizing the general form and character of the building exterior design and proposed landscape design concepts per the guidelines of DP Area 9 – General.

DP Area 5 – Steep Slope is applicable to the 4800 Uplands Drive property, which is primarily focused on a steep embankment running along Uplands Drive.

Future Building Permit (BP) applications will address the specifics of proposed building construction, landscaping and prescriptive technical engineering methods.

It is understood that consolidation of the (2) lots will be required as a term of the Permit.

This report and application has been prepared based on a comprehensive review of the DP guidelines currently in place for the project site.



Figure 1 – City of Nanaimo Map Excerpt (Properties Outlined in Red)

2.0 EXISTING USE

The lands fall within the City of Nanaimo (City) Municipal boundary and Urban Containment Boundary, as well as the Regional District of Nanaimo (RDN) Growth Containment Boundary. The current land use framework is described in the following sections.

2.1 CITY OF NANAIMO ZONING BYLAW NO. 4500

The Zoning District is:

(R8) Medium Density Residential

"This zone provides for medium-density, multiple family developments on specific lots that are compatible with other residential and neighboring commercial land uses."

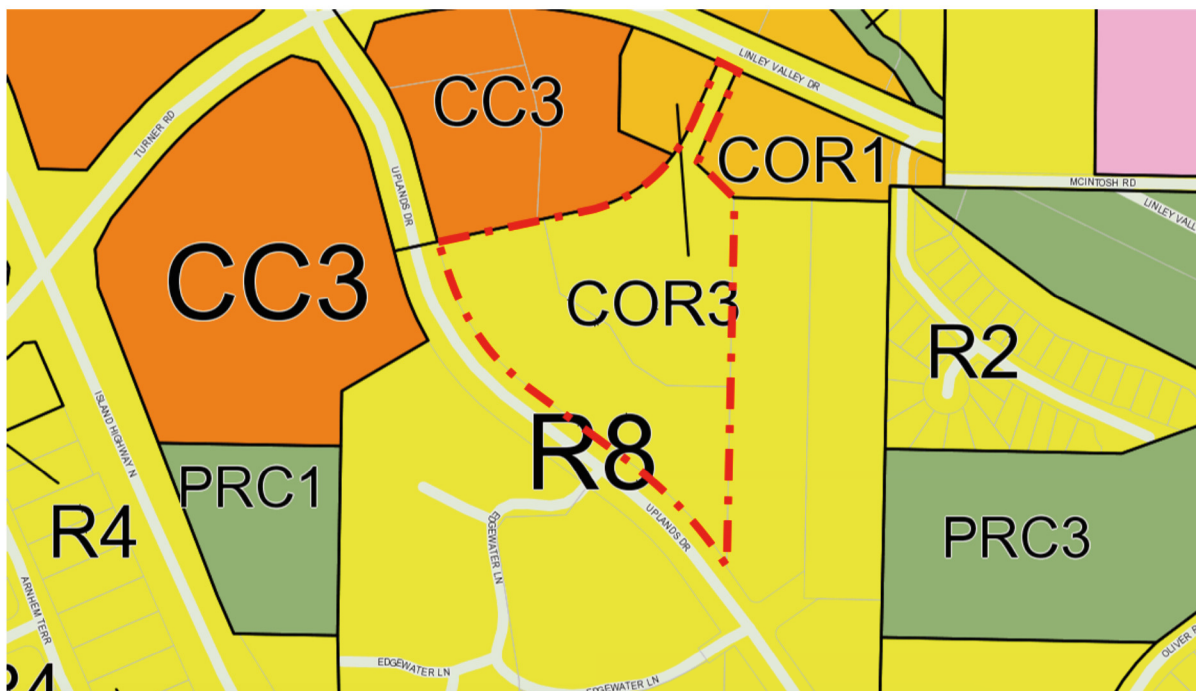


Figure 2 – City of Nanaimo Zoning Map Excerpt (Properties Outlined in Red)

3.0 DEVELOPMENT PERMIT AREAS (DPA)

The following City of Nanaimo Development Permit Areas (DPA) are applicable to the subject property:

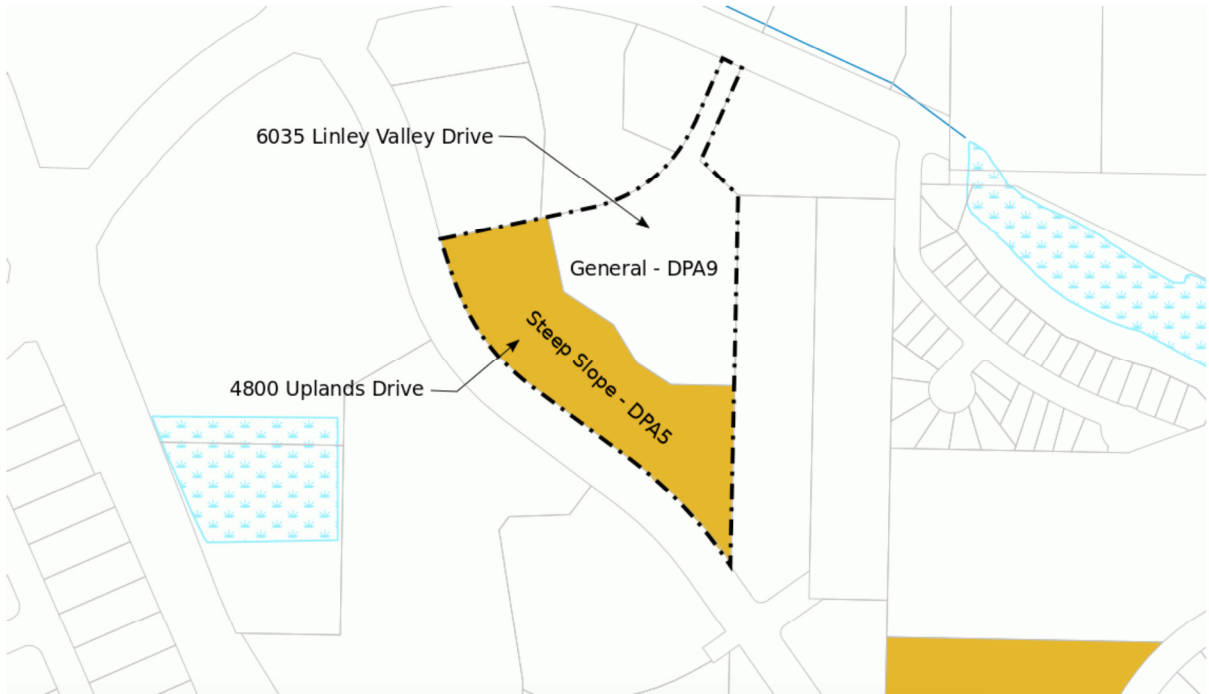


Figure 3 – City of Nanaimo DPA Map Excerpts (Property Outlined in Black)

3.1 DPA5 – STEEP SLOPE

This DPA is applicable to areas as identified on Map 3: Development Permit Areas Map & Heritage Conservation Areas of the Official Community Plan (OCP) and as identified on Attachment 'a'- Steep Slopes in Nanaimo, of the Steep Slope Development Guidelines. DPA5 is only applicable to the 4800 Uplands Drive property.

DP guidelines have been considered in detail in the proposed development. An itemized Guideline Compliance Report is provided below. The report only includes guidelines that are applicable to the proposed use.

The compliance report represents the opinions of our competent and informed team of registered professionals on how the guidelines have been satisfied. Should there be a difference between the guideline compliance interpretations of our professional consultants and City Staff, then we would recommend an in-person meeting to determine a consensus.

3.1.1 GUIDELINE COMPLIANCE SUMMARY

Part 3 – Guidelines – 3.1 Site and Subdivision Design:

The guidelines indicate how the site must be planned to respect slope and special features. Sites identified as DPA 5 must provide information in accordance with section 1.6 (unreferenced in Bylaw – may intend to reference section 1.5) and include the following:

- a review that includes a topographic survey (Section 3.5.1) to assess and plan the site in a manner that respects the slope and special features.

A topographic survey has been completed and submitted with this application.

- a geotechnical assessment (Section 3.5.2) to identify and avoid hazardous areas, to make the site safe for human use and to maintain environmental quality.

A geotechnical assessment has been completed and submitted with this application.

- an environmental assessment (Section 3.5.3) to identify existing ecosystems and special natural and cultural features of a site. Using what nature has provided is both environmentally and economically wise. Emphasizing the existing characteristics of the site can help retain natural resources, allow for efficient construction and maintenance, and can reduce permitting and site development costs.

An environmental assessment has been completed and submitted with this application.

- adherence to the guidelines associated with any Development Permit Areas affecting a site as designated in the Official Community Plan for other purposes is required. A Steep Slope Development Permit applicant may not be required to obtain separate approvals or duplicate assessments provided the intent of all permits are met.

A compliance review for DPA9 – General can be found below.

Part 3 – Guidelines – 3.1.3 – Earthworks and Grading:

1. Grading

The preparation of a grading plan (Section 3.5.5) that indicates clear feasibility for roads and building envelope without massive manipulation of the site, the following must be considered:

- Avoid grading or alteration of key topographic features (eg, knolls, ridgelines, bedrock outcrops, cliffs, ravines, etc).

The site topography post development will be similar to what currently exists, except that the steep slope along the Uplands Drive frontage will be replaced with landscaped terraces. There are no knolls, ridgelines, bedrock outcrops, cliffs or ravines on the subject properties.

- Avoid a manufactured appearance for graded slopes. Avoid sharp cuts and long or wide slopes with a uniform grade.

The appearance of the proposed Allen Block retaining wall along the Uplands Drive frontage of the site will be softened using terraces and landscaping.

- Establish contours and gradients that resemble the naturally occurring terrain. Round out slope transitions and blend transitions between lots or adjacent to undisturbed areas.

The finished surface of the site will be similar to what currently exists, a significant grade transition along the Uplands Drive frontage, and a relatively flat plateau above. Two bio-swales are proposed along the westerly and northerly boundaries of the development, which will be landscaped.

- Refrain from grading large flat terraces on hillside sites in order to expand developable area or to develop housing or other uses characteristic of flat or gently- sloped sites. Developing smaller terraces (eg, for building pads, lawn areas, patios, stepped retaining walls, etc) is acceptable.

This site is not situated on a hillside.

2. Cut and Fill

In designing and developing the site, minimize the total amount of cut and/or fill and its environmental and visual impact by:

- Where the volume of cut exceeds the volume of fill material for a proposed development, do not dispose of it on site in the form of unnecessary filling, berming or side-casting. Where necessary, dispose of excess material at appropriate off-site locations.

There will be a substantial amount of excavation required to accommodate the underground parking structure. The material excavated cannot be used on site and will be removed from site to a suitable disposal location. All off-site disposal of excess excavated material will be completed in accordance with the requirements of the City of Nanaimo Soil Removal and Depositing Bylaw.

- Revegetate exposed slopes as quickly as possible to prevent erosion and slope stability problems.

An Erosion and Sediment Control Plan will be in place during construction and permanent landscaping will be constructed on site as soon as practical after completion of building construction.

3. Earthworks

In preparing an erosion plan (Section 3.5.7), the following must be considered:

A Sediment and Erosion Control plan will be provided at Building Permit / Design Stage.

- Avoid potentially hazardous or unstable areas of the site.

The only potentially hazardous area of the site is the steep slope along the Uplands Drive frontage. This slope will be replaced with a terraced retaining wall, equipped with safety railings as required by the B.C. Building Code.

- Do not clear more trees and vegetation than is needed to install services for any given phase of the development.

There is a protected landscape buffer along the easterly boundary of the subject properties. No disruption will take place within this buffer area. Due to the requirement to construct underground parking the remainder of the site will require disruption, but those areas not covered by buildings, parking areas, patios, or walkways will be completely revegetated in accordance with the approved landscape design.

- Do not create deep scars or expose large areas of highly visible sub-soil and parent material on the site.

There will be no areas of the site outside of building, parking, patio, and walkways devoid of landscaping once construction has been completed.

- Avoid side-casting of material along undeveloped road frontages.

There are no undeveloped road frontages adjacent to the subject properties, and as stated above, any excess excavated material will be disposed of off-site. Material being re-used on site as trench backfill will be replaced into the utility trenches the same day it is excavated.

- Avoid the excavations and the placement of fill that result in terrain forms that are not characteristic of the natural topography.

There are no fill areas on site. The excavation required to construct the underground parkade will not be visible once the project is complete.

4. Retaining Walls

- Use retaining walls where they can reduce disturbing the slope to provide useable construction sites.

Multi-tiered retaining walls will allow for the safe egress from the buildings with the least disruption to the steep cut along Uplands Drive.

- Retaining walls should respect the natural character of the site and not be dominating or fortress-like.

The proposed retaining walls will allow for substantial plantings for a green appearance.

- Retaining wall height should generally be limited to 3.0 metres for roads and site works, 1.2 metres for front yards, and 2.4 metres for rear and side yards. Higher walls may be appropriate where they are articulated, have a surface texture/pattern, or where sufficient landscaping is provided at its base.

The terraced wall tiers along Uplands Drive will be 1.2m high with benches from 0.8m to 1.2m wide for plantings.

- Employ a system of smaller stepped retaining walls over the use of a large uniform wall. The height and depth of the wall steps should be consistent with the natural terrain or with the slope above and below the walls. For stepped retaining wall systems, landscape the intermediate terraces.

The proposed wall incorporates 4 to 5 landscaped terraces as the slope and building allows. The landscape architect has provided information for the proposed plantings.

- If the retaining wall is related to the structural integrity of the building, it will be necessary to address the retaining wall through the building permit process.

Retaining walls as illustrated are not required to support the building, therefore they are landscape structures only.

Part 3 – Guidelines – 3.1.3 – Visual Quality

There are no scenic features of the site that are visually unique. View potential from the site will be limited to the upper stories of Building 1 and Building 2 to the west.

Part 3 – Guidelines – 3.2.1 – Environmental Protection

Refer to the attached Baseline Bio-inventory and Environmental Assessment of 4800 Uplands Drive, Nanaimo, B.C., dated September 3, 2018, as prepared by Toth and Associates Environmental Services.

A Sediment and Erosion Control plan will be provided at Building Permit / Design Stage.

Part 3 – Guidelines – 3.2.2 – Vegetation in the Landscape

1. Strategies for Retaining Natural Vegetation

- When preparing a land clearing and tree retention/removal plan (Section 3.5.4), apply the following criteria in determining existing vegetation to be retained:

Refer to the attached Application for Tree Removal Permit 4800 Uplands Drive, Nanaimo, B.C., as prepared by Toth and Associates Environmental Services.

- Use open space development, and varied lot size and configuration, to retain tree stands and other vegetation communities to preserve environmental value (e.g., habitat, biodiversity, heritage trees, etc), maintain soil stability, provide a buffer between development cells, and define neighbourhood character.

The existing requirement for a 70 – 100' landscape buffer along the eastern property line has resulted in a more compact building campus arrangement. Significant vegetation retention and revegetation is proposed in this area.

- Make strategic use of existing vegetation to retain the site's natural character and to break up views of building facades, roadways (eg, cut and fill slopes), and other site works.

Refer to notes above.

- The alignments and profiles of roadways and utilities should avoid disruption of significant and unique stands of vegetation and critical environmentally sensitive areas. Provide sufficient clearance between roads, services and vegetation root zones to ensure viability of the vegetation.

There will be no disruption of the vegetation in the buffer area along the easterly boundary of the subject properties. There are no environmentally sensitive areas or unique stands of vegetation on the subject properties.

- On forested slopes, retain trees and tree stands that represent a range of ages, to provide for natural succession and the long-term sustainability of the forest ecosystem.

Refer to notes above.

Part 3 – Guidelines – 3.2.3 – Revegetation & Landscaping

1. Site Restoration

- Restore disturbed areas of the site that are not part of a roadway or formal yard landscaping, to a natural condition as soon as possible after disturbance.

All disturbed areas will be revegetated per the attached landscape architecture plans. Native and non-native climbing species re-vegetation planting mixes are proposed on retaining wall.

- Employ restoration practices (see sidebar) specifically tailored to address the type and degree of disturbance and the specific conditions of the site.

All disturbed areas will be revegetated per the attached landscape architecture plans. Native and non-native climbing species re-vegetation planting mixes are proposed on retaining wall.

2. Tree and Plant Replacement

- Replace trees in a manner that helps to restore the natural character of the hillside site. Specifically, plant trees to screen undesirable views and buffer incompatible uses. Arrange trees in natural groupings or clusters rather than in lines or formal arrangements.

Native coniferous and non-native drought tolerant trees have been specified where feasible to enhance the site. The 70'-100' buffer area along the south-eastern portion of the property will be re-vegetated to mimic a natural forested condition.

- Utilize plant material for site restoration and residential landscaping that is native to the region as much as possible. Where the use of native plant material is not desirable given site or view constraints, select plant material that is similar in appearance, growth habit, colour and texture to native plants, and that will not act as a "weed" in the natural environment (ie, it will not out-compete native plants, provide habitat for undesirable wildlife, or act as a host for insect pests).

The plant material selected is primarily native to the site based on the project Biologists site inventory (used in revegetation and bio-swale areas). Where non-native species are used, they were selected for their drought tolerance and 'native appearance'.

- Plant shrubs and trees in masses and patterns characteristic of a natural setting and with the intent of encouraging biodiversity.

Refer to planting plan for species and locations.

- Do not encroach on views of others. Take into account the location, height and "bushy-ness" of tree species planted.

There are no notable views to or through the site.

3. Irrigation

- Employ water-conserving principles and practices in the choice of plant material ("xeriscaping"), and in the irrigation design and watering of residential and public landscapes on hillside sites.

Refer to responses related to planting in the notes above, and the Irrigation Notes on the landscape architecture plans

- Limit over-spray and run-off due to watering.

Refer to the Irrigation Notes on the landscape architecture plans

- Provide automatic shut-off valves for irrigation systems to reduce the risk of accidental erosion in the event that a head or pipe breaks.

Automatic shut-off (flow sensors) will be installed with the irrigation systems.

Part 3 – Guidelines – 3.3.1– Stormwater Management

1. Drainage Planning

- Plans for all development on steep slopes must indicate how storm water runoff will be impacted by the development and how those impacts will be mitigated.

The drainage design mimics the pre-development split of flows. The post development flow to the south matches pre-development, and the runoff will be clean as it will consist only of roof and foundation drainage. The post development runoff to the south will be filtered by way of sand layers and vegetation within the proposed bio-swales and each bio-swale includes sufficient sub-surface storage volume to allow the post development flows to mimic pre-development flows ignoring any allowance for infiltration.

- Depending on the size of the development and complexity of the site conditions, a Drainage Management Plan may be required for the entire site and downstream drainage areas. (See Section 3.5.6 for the basic requirements of a Drainage Management Plan.) For steep slopes, special attention must be paid to:
 - Hydrological conditions prior to and after development;
 - Protection of natural flow paths, volumes and storage resources;
 - Impacts on trees, vegetation and other environmental features due to changes in drainage patterns;
 - Water quality prior to, during and after development;
 - Sediment and erosion control; and
 - On and off-site drainage impacts (eg, drainage from an upper lot to a lower lot).

Drainage Management Plans have been prepared for this development and included with the Development Permit Application package. These plans include

calculations indicated pre and post development flows at both discharge points. The Erosion and Sediment Control Plan will be included with the Design Stage Acceptance/Building Permit Application submission and will detailed measures required to maintain runoff quality during construction. The Tree Management Plan details proposed impacts upon existing vegetation on site.

Part 3 – Guidelines – 3.3.3 – Property Access

1. Individual Driveways

- In general, driveways should have a grade no greater than 20%.

The maximum gradient in the preliminary grading plan (entrance ramp to underground parkade structure) is 12%.

- Consider the needs of access by emergency vehicles in locating and designing driveways.

City of Nanaimo and B.C. Building Code requirements with respect to emergency vehicle access will be accommodated in the design.

2. Common Driveways

- Common driveways are encouraged when significant site grading can be reduced.

There are no common driveways proposed in conjunction with the proposed development.

- The grade of a common driveway should not exceed 14%.

See comment above.

Part 3 – Guidelines – 3.3.4 – Municipal Services and Utilities

1. Municipal Services

- All services and utilities will be installed underground.

The design will not include any overhead B.C. Hydro, Telus, or Shaw Communications servicing except perhaps temporary services required during construction.

- Where practical, install more than one service in a common trench to reduce the number of trench excavations and therefore the impacts on the terrain. Where the design profile permits, increase the pipe separation to obtain more than one service in a trench. The works must be constructed in accordance with City and Provincial standards regarding separation of water and sewer lines.

Where possible sanitary and storm sewer mains will be installed in common trenches. It is not permitted to install watermains within 3m of other utilities. B.C. Hydro and FortisBC Gas all have required clearances from other utilities, which will be respected in each of their designs.

- Design water service valve and meter boxes with flexible offsets to property lines to maintain ease of access and maintenance. Locate boxes where future grading or landscaping of boulevards will not make access difficult.

Water service connections to the subject properties exist, and will not be relocated. The water meter chamber will be installed at a location approved by the City of Nanaimo.

- Design water system pressure zone boundaries with sufficient range to ensure firefighting pressures in the highest side of parcels.

Not applicable due to existing services.

2. Utilities

- Locate access to utility boxes, fire hydrants and other services that require periodic inspection in areas where slopes do not exceed 15% and where they are clearly visible from the road.

All infrastructure will be installed at locations approved by the City of Nanaimo.

- Consider providing hydrants and access behind lots that back onto forested areas where vegetation can be a potential hazard.

Fire hydrant locations will be approved by the City of Nanaimo in advance of any utility construction on site.

Part 3 – Guidelines – 3.4.2 – Building Height and Mass

2. Building Mass

- Respond to the natural slope of the hillside by using a stepped foundation and setting the building into the hillside to help integrate it with the natural landform.

Technically this is not a hillside. Buildings 1 and 2, which are closer to the road, will be set lower than Building 3 which is set deeper into the lot.

- On downhill elevations, avoid the use of single plane walls that exceed one storey. Rather, step upper storeys back from the level below.

The buildings will be sited on flatter land and there will be landscaped slope between the road and the buildings. The buildings will not be sited on the actual slope.

- Avoid large, unbroken expanses of wall and long building masses. Rather, design buildings with smaller or less massive building components, which reflect the sloped character of the site.

The walls of the buildings will be articulated and will be broken up by using different materials and colours.

3.2 DPA9 - GENERAL

This DPA is applicable to areas as identified on Map 3: Development Permit Areas Map & Heritage Conservation Areas of the Official Community Plan (OCP).

DP guidelines have been considered in detail in the proposed development. An itemized Guideline Compliance Report is provided below. The report only includes guidelines that are applicable to the proposed use.

The compliance report represents the opinions of our competent and informed team of registered professionals on how the guidelines have been satisfied. Should there be a difference between the guideline compliance interpretations of our professional consultants and City Staff, then we would recommend an in-person meeting to determine a consensus.

3.2.1 GUIDELINE COMPLIANCE SUMMARY

Part III – Design Guidelines – Site Design:

4. Parking, Loading and Vehicle Circulation

General

- Off street parking should be provided in a number of small parking areas separated by areas of landscaping.

Most parking spaces for this project are located underground and out of public view. The remaining surface off street parking is conveniently located around the central outdoor amenity space and close to marked pedestrian paths to main building entries.

No more than 10 stalls occur in a row without a parallel landscape separation.

- Visual screening of parking from the street and adjacent non-commercial and non-industrial uses should be provided.

The surface parking is arranged between the buildings so that it is not visible from Uplands Drive. Landscaping and distance will screen the parking from neighboring properties.

Surface parking will not be visible from outside of the site.

- Where possible, the site should be graded to lessen the visual impact of parking.

Surface parking will not be visible from outside of the site. This is a result of the building configuration and existing topography.

- The use of ground cover in parking space overhangs is encouraged to minimize the extent of hard surfacing.

Surface parking stalls are limited in number with the main bulk of parking provided underground, which significantly reduces impervious surfaces on site.

Surface stalls, where provided are located perpendicular to a safe pedestrian sidewalk leading to each building entry. This is the preferred configuration for public safety.

- Curb stops or wider sidewalks are required to protect pedestrian paths and sidewalks.

Curb stops and a 1.8m standard width for pedestrian walkways are provided consistently throughout the site.

- Underground parking is encouraged.

The majority of parking is provided underground as required under a Section 219 Covenant registered on the property Titles.

- Parking garage entrances and interiors should be well lit and signed for security purposes.

The entrance to the underground parking will be along a well-lit ramp. The inside of the parking garage will be painted white and well lit. Way-finding signs will lead people to exits and elevator access to the buildings.

Multiple Family

- Slopes in parking areas should generally be less than eight percent.

In the underground parking slopes will be generally kept well below 8% with the steepest sections limited to connections between the parking under the buildings and the central parkade. Above ground parking will be kept below 8%.

- Slopes for internal roads and other vehicle circulation areas should generally be less than fifteen percent.

The design does not include any road or driveway gradients in excess of 15%.

- On-site parking should be provided in the rear and/or side yard areas of the lot and should not be isolated by distance, landscaping or lighting.

Surface stalls, where provided are located perpendicular to a safe pedestrian sidewalk leading to each building entry. This is the preferred configuration for public safety. CPTED principles have been incorporated into the landscape and lighting design.

5. Pedestrian Circulation

General

- Paths should be provided around parking areas to separate pedestrian and traffic circulation on a site.

Surface stalls, where provided are located perpendicular to a safe pedestrian sidewalk leading to each building entry.

- Pedestrian access to the site and to buildings on site should be inviting and well marked.

See note above.

- Pedestrian paths should be located in consideration of pedestrian connections to adjacent sites.

A City standard multi-modal trail connection is provided through the site along the north boundary providing access from Longwood Station - Uplands Drive to Linley Valley Drive as required under a Section 219 Covenant registered on the property Titles.

Semi-private hard surface trail connections are provided throughout the site including a connection down the bank along Uplands Drive where an existing footpath connection exists to the bus stop just east of the site and the North Nanaimo Mall.

- Site design should minimize vehicle and pedestrian conflicts.

Off driveway hard surfaced pedestrian paths are provided throughout the site with complete curb barriers where there is the potential for vehicular conflict (with the exception of accessible let-downs at crossing locations).

- The use of small seating areas, entry areas, plazas and other meeting places in conjunction with pedestrian areas is encouraged.

A number of small seating areas for picnic tables and benches are located strategically throughout the site and are directly accessible to adjacent hard surface pathways.

The central amenity space serves as a link-motion connecting all areas of the site via hard surfaced pathways.

- Pedestrian access to main and secondary entrances should be well marked, free of vehicles, and emphasized by building and site design.

The central amenity space serves as a link-motion connecting all areas of the site via hard surfaced pathways. Direct pedestrian access is provided to all ground level units, which connects to the overall pathway network.

Multiple Residential

- Development of a walkway network is encouraged that provides access to important onset and off-site destinations.

All on-site amenity spaces, parking areas and ground level residences are all accessible via the proposed walkway network.

A City standard multi-modal trail connection is provided through the site along the north boundary providing access from Longwood Station - Uplands Drive to Linley Valley Drive.

Semi-private hard surface trail connections are provided throughout the site including a connection down the bank along Uplands Drive where an existing footpath connection exists to the bus stop just east of the site and the North Nanaimo Mall

6. Bicycle Facilities

General

- Site vehicle circulation should provide for safe bicycle routes across the site to building entrances.

As noted in the pedestrian circulation section above, all hard surface pathways have a minimum width of 1.2 - 1.8m and are available for use by bicycle, scooters, skateboard and other non-vehicular modes of transportation.

- Bicycle parking should be provided in a sheltered location convenient to building entrances.

Bicycle parking is provided at each building entry and within the underground parking lot.

- Bicycle parking should afford an opportunity to secure bicycles against theft.

Secure bicycle storage is provided in the underground parking level. Secure bicycle racks are provided at building entries.

7. Open Space and Site Design

General

- Site design must promote the "presence" of development on major roads and public streets; i.e., Site design should not turn its back on public streets.

The layout of the two buildings adjacent to uplands drive is intended to align with the street. The same articulation of the façade and colours and materials found on the entrance side of the buildings will also be found on the street facing facades.

Multiple Family

- The layout and design of buildings on site should contribute to a sense of "neighbourhood identity" and security without creating barriers to adjacent streets.

All the entrances to the buildings will face a common amenity area. This space will also have pedestrian access to the adjacent roads. The ground level units will also have direct access to the pedestrian paths throughout the site.

- Site design should create large blocks or areas of useable open space.

The existing requirement for a 70 – 100' landscape buffer along the eastern property line has resulted in a more compact building campus arrangement. Ample amenity space is provided including but not limited to:

- (3) Single picnic table nodes adjacent to the revegetated landscape buffer area and natural play area;*

- ii. *A (2) table accessible picnic area large enough for small groups close to Building 2 surface parking (convenience unloading, accessibility, passive observation);*
 - iii. *Natural play area for children including swing sets, rolling berms, a tunnel and parents pavilion;*
 - iv. *Free program open space (large enough for a small soccer field, grass volleyball, badminton, bocce, etc.);*
 - v. *Sheltered plaza space between Building 1 and Building 2 overlooking Uplands Drive;*
 - vi. *The central outdoor amenity space provides an adaptive range of spatial scales for either group or individual uses such as BBQs, table games, and passive recreation.*
- Open space areas should be naturally supervised by overlooking residential units.

All programmed open space areas can be monitored from overlooking on-site residential units

- Open space design should serve as a meeting area and as an area for recreation.

Refer to amenity space descriptions above. A variety of meeting spaces and areas for both passive and active recreation are provided.

- Open space areas should contain uses that encourage activity, e.g., playing fields, play areas for small children, garden plots, horseshoe pits, etc.

Refer to amenity space descriptions above. A variety of programmed and unprogrammed open spaces are provided.

- To facilitate supervision, open space play areas for small children should not be secluded from view of adjacent residential uses.

All programmed open space areas can be monitored from overlooking on-site residential units. The natural play area is ideally located for both passive viewing and with enough separation from ground floor units to avoid noise and privacy issues.

8. Landscaping

General

- Landscaping and building construction should retain and integrate existing vegetation where appropriate.

Native trees and understory vegetation in the 70'-100' buffer setback area shall be retained.

- Landscaping that permits view penetration into the site from adjacent streets is encouraged.

There is currently no view penetration into the site due to the steep slope condition along Uplands Drive.

- Landscape materials should be appropriate to the task; i.e., suitable for screening, visual interest, soil stabilization, etc.

Plant and site materials were selected to provide screening and visual and seasonal interest, texture and colour.

- Plant materials should generally be hardy and easily maintained plant species.

The plant material has been chosen for their suitability for the area and ease of maintenance.

- Where appropriate, landscaping should use plant materials that have low watering and maintenance requirements.

Native and non-native drought tolerant, deer resistant and low maintenance plant species have been selected.

- Hard landscaping features should be durable, decorative and complement building finishes.

Durable and low maintenance broom finished concrete paving will be provided on all high-traffic pedestrian surfaces. Raised planters, retaining and pergola walls will be a smooth sack finish concrete. Decorative concrete unit paving is proposed in the central plaza and covered amenity space between Building 1 & 2. Colour selection will compliment the building finishes.

- The use of irrigation systems should be used for all new planting areas.

Irrigation systems are proposed for each building, refer to the Irrigation Legend and Notes on sheet L1.

- Slopes should be suitably graded and landscaped to ensure slope stability and to facilitate use.

There is a single slope condition of note along Uplands Drive. The proposed retaining wall solution has been designed by the project Geotechnical Engineer to ensure slope stability.

- Steep slopes are discouraged.

Refer to note above.

- Retaining walls should receive high quality finishing and/or be largely concealed by vegetation.

Refer to note above. The retaining wall along Uplands Drive will be largely concealed by vegetation. Refer to the Uplands Drive Wall plant list on sheet L5 and sections B-B and C-C on sheet L7.

Multiple Family

- Landscape design should provide for useable, attractive and secure private and common outdoor space.

Refer to notes provided under Section 4 - Open Space and Site Design above.

9. Setbacks and Buffers

General

- Setbacks and buffers should provide adequate separation from conflicting adjacent uses.

The existing requirement for a 70 – 100' landscape buffer along the eastern property line has resulted in a more compact building campus arrangement. The separation between this site and the Uplands Estates residential use is more than sufficient. Additional re-vegetation planting of the buffer area is proposed to offset tree removal and enhance the screening effect.

The required multi-modal trail and storm water conveyance (bio-swale) along the northern property line allows for appropriate distance between uses and a separate on site pathway connection to ground floor unit entries increases screening, security and privacy for future residents.

Building setbacks, particularly front yard setbacks, should be sympathetic to adjacent properties.

The buildings will not infringe on the setbacks, and will remain in context to adjacent properties.

- Sound attenuation measures should employ planting, grade changes and greater separation of uses in preference to fences.

For windows and exterior doors on the southwest facades of Buildings 1 and 2 (ie. those facing Uplands Drive), fixtures which have an improved Sound Transmission Coefficient (STC) of at least 34 will be specified. The recommended STC will ensure that noise attenuation through windows and doors will be approximately equal to that for standard wood-frame constructed exterior walls. Refer to the attached Acoustical Study, dated September 18, 2018, as prepared by Lewkowich Engineering Associates Ltd..

- Buffers and setbacks should not sever or block the “presence” of building on the street.

The Uplands Drive Street presence will take the form a stepped retaining wall in keeping with the current site topography. Ground level access from individual units directly to the street is not possible due to the topography.

Ground level patios and yard space is provided along the entire length of the Building 1 frontage adjacent to the roadway. The elevation change will be beneficial for both noise attenuation and the privacy of residents while allowing passive observation of the street from flanking pathways.

Multiple Family

- Front and yard fences should be limited in height to less than one metre.

Front yard fences are not proposed.

The fencing proposed around the play area, bio-swale/raingarden and between Building 2 and the east property line is 0.9m in height (less than 3' in height) as required under a Section 219 Covenant registered on the property Titles.

- Fences and buffers should permit view penetration onto the site from adjacent sidewalks.

With the exception of the Uplands Drive frontage and the requirement for a 70 – 100' landscape buffer along the eastern property line, view penetration into the site is possible from the common access driveway and multi-modal trail connection.

10. Safety and Security

General

- Lighting should permit identification of a face at 25 yards.

The final lighting design will consist primarily of pole mounted LED lighting to achieve an illumination level and uniformity ratio comparable to many similar developments in this area to promote safety and comfort. Site lighting has been designed in collaboration with and reviewed by the project electrical engineer.

The general concept of the lighting design has been provided during the development permit sufficient for a form and character review.

The detailed design may yield an adjustment to the lighting approach, specific product information will be provided at building permit.

- Adequate lighting should be provided for pedestrians and bicycle routes.

Site lighting has been designed in collaboration with and reviewed by the project electrical engineer.

- Fences and landscaping should not limit visibility or offer opportunities for concealment next to pedestrian thoroughfares.

With the exception of the Uplands Drive frontage and the requirement for a 70 – 100' landscape buffer along the eastern property line, view penetration into the site is possible from the common access driveway and multi-modal trail connection.

- “Leftover” spaces that could provide environmental opportunities for crime should not be created by site and building design.

With the exception of the requirement for a 70 – 100' landscape buffer along the eastern property line environmental opportunities for crime prevention have been mitigated through the site design.

- Entrances and exits should be well marked and lit to indicate their location.

The main Entrances and the exits at the stair towers will be marked by an architectural feature consisting of a gable roof with wood elements and columns clad in cultured stone.

- Parking should be integrated with other site uses.

Off street parking is conveniently located around the central outdoor amenity space and close to marked pedestrian paths to main building entries.

- Ramp and elevator entrances for persons with disabilities should also be well lit, secure and not located in isolated areas.

The main entrances to the buildings are positioned close to ground level to avoid the need for ramps. Handicap accessible spaces will be located close to the elevators and power operators will be provided at doors to assist persons with disabilities.

- Loading entrances and parking garages should be secure.

Entrances and exits to the parking garage will have access via a FOB system, and security cameras will be provided in strategic locations. There is no need for a truck loading entrance.

- All parking garages should include safe lighting and signage to indicate exit location and routes (with two or more possible escape routes).

The parking garages will be painted white with ample lighting to increase the visibility and sense of security within the space. Every space within the parkade will have multiple escape routes.

- Walls, fences, shrubs, changes in grade or other site features should not obscure vehicle driver vision of pedestrian or bicycle routes.

Site triangles for on-site vehicular movement as related to grades and landscaping has been fully considered in the design.

Part III – Design Guidelines – Building Design:

1. Form

General

- Buildings should relate to major roads and public streets.

Buildings 1 and 2 are positioned to follow the alignment of Uplands Drive.

- Buildings should be integrated into the context of the streetscape.

The streetscape along Uplands Drive is highly variable although all existing building are set back or turned sideways from the street edge. This is likely due to traffic noise along Uplands Drive.

Similar to the Longwood Development located directly across Uplands Drive, we are approaching the site layout as a 'campus design' which is oriented toward the internal roadway and amenity spaces.

- Repetitive and monotonous building designs are discouraged.

The façade is broken up by use of different materials including cultured stone on lower levels and Hardie siding of differing colours. The balconies will have wing walls to help offer privacy and wind screening. The roof will have differing extensions to cover the balconies.

Multiple Residential

- Greater building setbacks should be used in preference to fences, berms, dense landscaping and other barriers that sever the relationship of residential buildings with the street.

The building will respect the setback requirements, and the space between the building and the property line will be landscaped. There will be additional distance between the buildings and the adjacent property to the East.

- Building mass should be compatible with adjacent buildings and the streetscape.

There are similar buildings of this scale in the neighborhood, and the mass will be in keeping with zoning requirements. The size and form and character of proposed building is notably similar to a recent development on the neighbouring property at 6025 Linley Valley Drive and other rental apartment projects in the neighbourhood.

- Large, bulky buildings out of scale with adjacent developments are discouraged.

See note above.

- The incorporation of building outdoor use areas such as roof decks and interior courtyards is encouraged.

The buildings are arranged to allow amenity space between and adjacent to these buildings. In addition ground floor units will also have additional amenity space.

- Entrances should front on main streets and be emphasized by building design.

The entrances front onto the new road that will be constructed between the buildings. The entrances will be obvious by their design.

2. Height

General

- The height of buildings should respect adjacent building heights and employ techniques such as building stepping to integrate built form.

The building is limited to four stories which is in keeping with neighboring developments.

Multiple Residential

- Building heights should be designed in consideration of views from overlooking properties, access to sunlight of adjacent properties, and provide for privacy from overlooking adjacent uses.

The site is distant enough from neighboring properties that shadows cast will not adversely affect those properties. Also distance and vegetation will ensure adequate privacy.

3. Facades

General

- Building materials should be durable, high in quality and complement the surrounding streetscape.

The building materials proposed such as Hardie board and cultured stone are very durable materials will age well with a minimum of maintenance.

- Buildings should be well detailed to maintain appearance and to contribute to longevity.

See note above.

- Use of building projections and areas of recess should be encouraged to create building interest.

The buildings are articulated. See earlier comments

- Window fenestration should complement building design and proportion.

The windows are properly proportioned and suitable for the rooms that they serve.

- Building entrances should be emphasized by facade design.

The building entrances will be properly marked out by an easily recognizable entrance structure.

- Building entrances should be located on major roads in prominent locations and away from areas of potential vehicle conflict.

The building entrances are located facing the new road encompassing the amenity space and will have proper pedestrian pathways to avoid vehicle conflicts.

- Building facades should employ a degree of ornamentation and building articulation to create interest and reduce apparent mass.

The buildings will be articulated with different shapes, materials and colours.

4. Building Siting

General

- Buildings should be located to preserve the privacy of adjacent residential land uses.

The buildings will be sited with proper setbacks and vegetation to ensure privacy from neighboring properties.

- Building siting should preserve site amenities and emphasize positive site characteristics.

The arrangement of the buildings allows for amenity space as well as pedestrian pathways throughout the site that link to the street.

Multiple Residential

- Building siting should consider view and sunlight access of adjacent land uses.

The building height and setbacks will ensure that adjacent properties receive adequate sunlight.

Building siting should result in significant areas of useable open space.

The building arrangement allows for large areas of amenity space.

5. Signage

Commercial and Mixed Commercial and Residential

It is unclear whether these guidelines are applicable to a standalone multi-unit residential development.

- All buildings should incorporate a comprehensive signage design program that integrates building signage with the building facade.

Signage will be installed under a separate Sign Permit Application at the time of Building Permit.

- The sign program should specify the location, appearance, type, number and design of signs and describe how signs will be illuminated.

Signage will be installed under a separate Sign Permit Application at the time of Building Permit.

- Excessive signage and free-standing signage are discouraged.

Signage will be installed under a separate Sign Permit Application at the time of Building Permit.

4.0 CONCLUSIONS

The detailed guideline compliance report is provided here to ensure City Staff and Council that the project consulting team has in their professional opinion, addressed all of the relevant guidelines contained within the respective DP Areas in an appropriate manner for the proposed project.

As discussed in the report, a number of restrictions have been placed on the properties through prior application processes, which are registered on title. The requirement for a 70 – 100' buffer condition along the eastern property line adjacent to Uplands Estates and the required multi-modal trail connection along the western property line are limiting factors to the site and building layout.

This DP application submission package is representative of the general character of the proposed multi-unit residential development and describes measures intended to address the steep slope condition present along Uplands Drive. Future Building Permit (BP) applications will address the specifics of proposed building construction, landscaping and prescriptive technical engineering methods.

5.0 APPENDIX – DESIGN REVISIONS DECEMBER 2018

The following summary is intended to identify design revisions undertaken to respond to the Design Advisory Panel discussions and recommendations as well as items noted at a meeting with City of Nanaimo Staff on November 21, 2018.

1. Review the potential for exposing a portion of the parkade wall on the Uplands facing elevation in order to reduce the total height and steepness of the retaining wall. Review associated finishes and presentation of the exposed parkade wall.
 - a. A portion of the parkade wall has been exposed along Building 2 in order to allow the proposed landscape terraces to better match the existing slope condition;
 - b. The exposed portion of the parkade wall is finished with cultured stone to match the building façade and includes vented louvres aligned with window locations above.
2. A stepped vegetated (low maintenance) retaining wall is preferred over a near vertical wall face.
 - a. The proposed retaining walls will allow for substantial plantings for a green appearance.
 - b. The terraced wall tiers along Uplands Drive will be 1.2m high with benches from 0.8m to 1.2m wide for plantings.
 - c. The proposed wall incorporates 4 to 5 landscaped terraces as the slope and building allows. The landscape architect has provided information for the proposed plantings.
 - d. Retaining walls as illustrated are not required to support the building, therefore they are landscape structures only.
3. Demonstrate the relationship between the balconies and yard areas in front of Building 1.
 - a. Upper balconies over look yard areas, but not the ground level patio spaces;
 - b. The yard areas are intended for the use of ground level rental units.
 - c. Vertical screens are provided between yard areas to foster a sense of ownership while remaining barrier free for maintenance operations.
4. Review incorporation of accessible or adaptable tenant units into the suite mix.
 - a. Although this is outside of the scope of a Development Permit, the owners will consider this comment as the development proceeds .

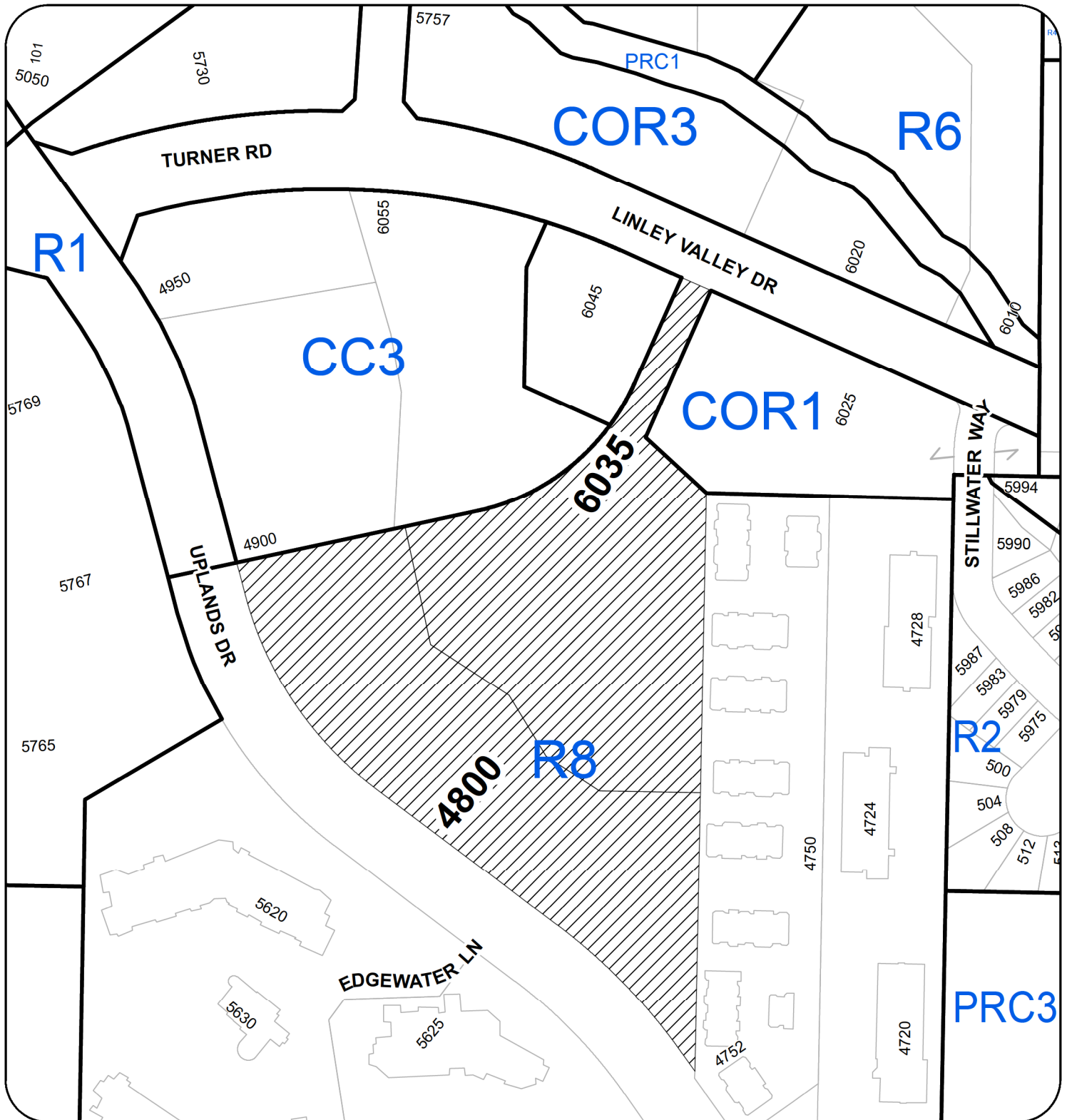
5. Review the building main entrances with respect to accentuating these features somewhat.
 - a. Building Entrances and associated facades have been improved to include:
 - i. A more prominent gabled roof form which is reflected upward along the building face;
 - ii. Second and third floor balconies above the entrances have a more robust cultured stone wall to help anchor the building and create a more dominant visual threshold;
 - iii. A higher gable is provided within the roof form to accentuate the entrance and centre the building mass.
6. Review the design of the connection and covering of the area between building 1 and building 2 in order to allow the design to flow and blend into this area.
 - a. The connection has been redesigned to carry the shed roof form from the adjacent buildings across the covered outdoor amenity space.
7. Review what may be possible to provide some distinction, in elevation, of the main floor versus the upper floors.
 - a. The main floor elevation has been revisited to include the following design approaches:
 - i. Cultured stone veneer is proposed to break the building mass and anchor the ground floor;
 - ii. A second application of low stone veneer with a Hardie board background and overhead pergola is proposed to break the horizontal plane.
8. Review what may be possible to introduce greater distinction between each of the three buildings.
 - a. All buildings will receive different colour applications for exterior siding materials. The final colour selections will be decided during the construction tendering process;
 - b. Building 3 is sufficiently different in overall form to be individually distinguished on the site;
 - c. Building addresses and numbering will be added during the building permit stage to further improve onsite wayfinding.
9. Demonstrate that wayfinding has been considered and will be applied.
 - a. Per the note above, directional signage, building addresses, and numbering will be added during the building permit stage to further improve onsite wayfinding.

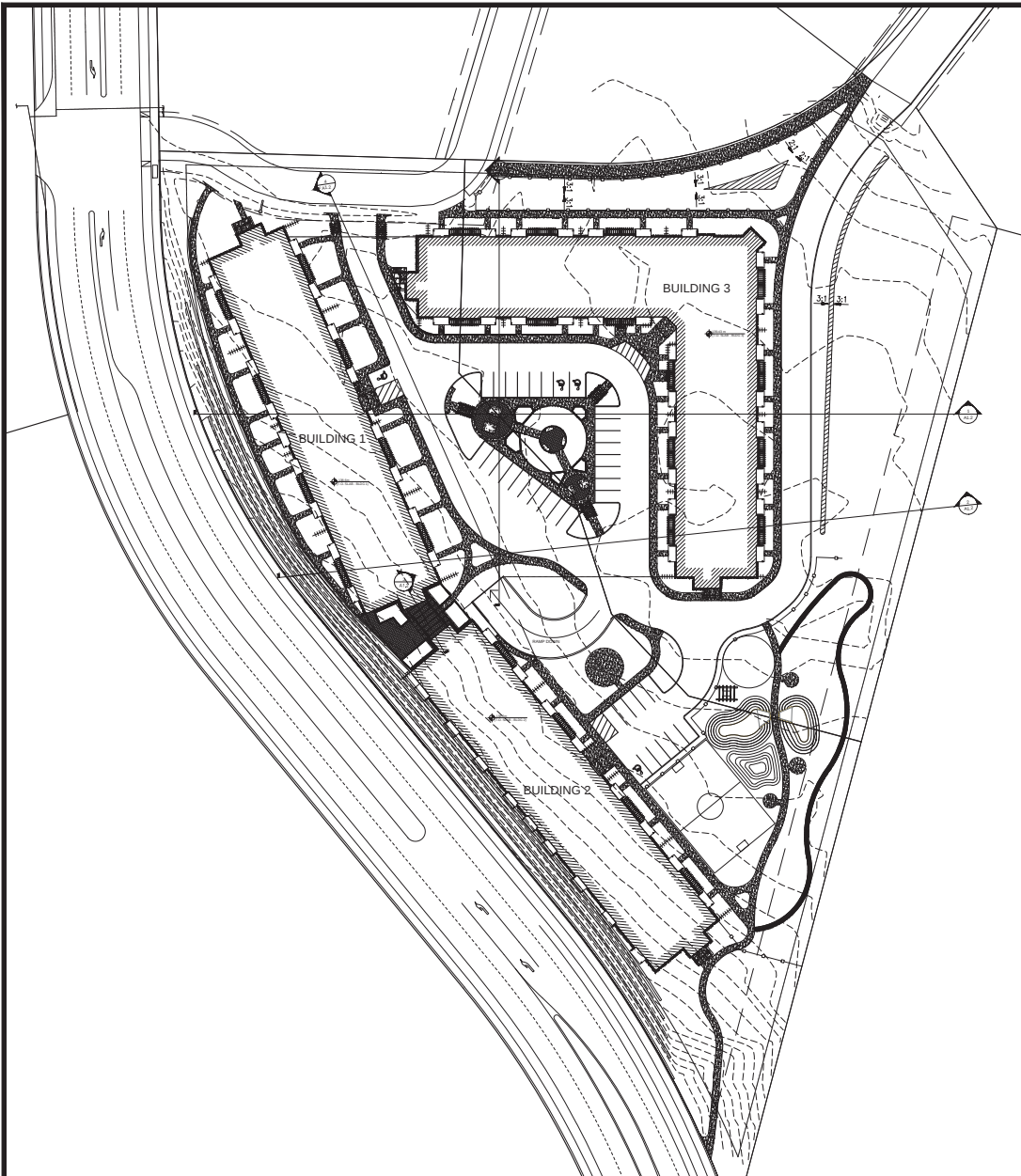
10. Review the building and landscape area on the North (north of the “Arrow Tip” of building 3) to ensure that it does not produce a “back of the building” feeling.
 - a. The building footprint (stairwell) has been altered to eliminate the sharp edge condition at the back of the building;
 - b. Cultured stone veneer has been extended up the first two stories where it meets 'shingle look' hardie board to enhance this feature;
 - c. Significant foundation landscaping is proposed at this location to anchor the building and a shade tree has been added to the pathway intersection to further soften the corner condition.
11. Review the possibility of introducing vertical delineations (maybe at patio areas) to break up the mass.
 - a. Vertical screens are provided for ground level units as well as the addition of an overhead pergola feature between individual patios which significantly improves the human scale and ground orientation of the buildings.
12. Present with quality renderings that clearly demonstrate the presentation to Uplands as well as clarifies other aspects of the development. Renderings are a critical part of the presentation. Please ensure that multiple internal views from the site as well as views from the street to show how the retaining wall and buildings relate to the surrounding neighbourhood are shown.
 - a. 3D renderings will be prepared for and presented at the next Design Advisory Panel meeting based on this revised design submission.
13. The use of colors, finishes and architectural features to further articulate the elevations (as noted in Covenant EK052366, Schedule A 3) Building Form).
 - a. Per the notes above, significant design changes have been undertaken to the building facades to break up the building mass and provide a better sense of articulation;
 - b. Stepping the foundation in would have a drastic impact on the efficiency of the underground parkade. This a major site constraint as 90% of the parking must be provided underground;
 - c. A broader material palette and colour changes, along with more prominent balcony supports have been added to the facades.
14. The use of vertical and horizontal architectural elements to articulate the elevations.
 - a. Per the notes above, significant design changes have been undertaken to the building facades to break up the building mass and provide a better sense of articulation;

- b. Covered balconies have also been fully integrated rooflines of the buildings;
 - c. We are requesting a height variance in response to the DAP comment that the roof was too flat and that they would like to see some variation. The variance is only requested for aesthetic reasons as it is not a functional requirement for the building, as follows:
 - i. In building 1, 2 and 3 we peak the roof over the entrance by 8'-10" (2.43m);
 - ii. Also in Building 1 and 2 by Gridline B, D, G, and J there are smaller peaks that rise 3' (1.0m) above the limit;
 - iii. same condition for Building 3 at gridline 2, 4, 6, J, L, N;
 - iv. It's a fairly small percentage of the roof that rises above the limit.
15. Our current site layout and our current building footprints were discussed.
- a. Some minor modifications to the building footprints have been undertaken as noted above. However, due to the following site constraints further modifications are not viable:
 - i. 38% of the 2.8 hectare is unbuildable because of setbacks, easements, panhandle section, and buffers in the covenants, leaving very few options in terms of building placement to achieve economically viable densities;
 - ii. The site is basically a flat site with the exception of a steep slope created when Uplands Drive was cut through the neighbourhood preventing any direct access along the road, further limiting building placement;
 - iii. Buildings cannot be located along the east property line.
 - iv. The site is triangular therefore limits building placement along two property lines.
 - v. 90% of parking must be underground, with no surface parking directed towards the east property line.
16. Landscape Plan – ensure that the labeling is more clear in terms of which existing trees will be retained on the site.
- a. Labeling has been transferred from the Layout Plan Sheets to the Planting Plans for the purposes of the DAP presentation
17. Landscape Plan – ensure the raingarden / bioswale area/s are clearly illustrated and labeled.
- a. Per the note above, labeling has been transferred from the Layout Plan Sheets to the Planting Plans for the purposes of the DAP presentation;

- b. Further refinement to these engineered landscape items has been incorporated into the general form and character drawings for clarity.
- 18. Submit a rationale as to how the project addresses the Steep Slope Design Guidelines along Uplands Drive.
 - a. Please refer to Section 3.1.1 - DPA5 – Steep Slope Guideline Compliance Summary above, which has been updated to reflect the current submission.

LOCATION PLAN





LEGAL / MUNICIPAL ADDRESS
LOTS 4&5, UPLANDS DRIVE - NANAIMO

ZONING DISTRICT R8
MAX BUILDING HEIGHT 14m (FLAT ROOF OR VARIANCE FOR PODIUM)
BUILDING SETBACK FRONT YARD 6m
SIDE YARD 3m
REAR YARD 10.5m

SITE COVERAGE 40% (21% PROPOSED)
SITE AREA = 27,940m²
FLOOR AREA = 5955m² (1686x2 + 2583)

FLOOR AREA RATIO MAX 1.25:1 (0.85% PROPOSED)

DENSITY 251 UNITS PROPOSED
DENSITY 90 UpHa / 36 UpA

OFF STREET PARKING 1.07 STALLS PER ONE BEDROOM UNIT &
1.44 PER 2 BEDROOM = 337 REQUIRED
(MIN 90% U.G. = 303)
TOTAL STALLS PROVIDED = 355
INCL 317 U.G. (INCL 87 COMPACT STALLS)
INCL 38 SURFACE (INCL 1/22 VISITOR = 17)

PARKING REQUIREMENTS ARE BASED ON
PARKING BYLAW No. 7266

DEVELOPMENT SUMMARY

BUILDINGS 1 & 2: (EACH BUILDING)
51 - 2 BED 2 BATH UNITS
(70 UNITS+GYM) 3 - 2 BED 1 BATH UNITS
16 - 1 BED 1 BATH UNITS

BUILDING 3:
75 - 2 BED 2 BATH UNITS
(111 UNITS+GYM) 4 - 2 BED 1 BATH UNITS
32 - 1 BED 1 BATH UNITS

251 UNITS TOTAL: 177 - 2 BED 2 BATH UNITS
10 - 2 BED 1 BATH UNITS
64 - 1 BED 1 BATH UNITS

BUILDING 1: 1699 m² FOOTPRINT
6753 m² GROSS FLOOR AREA

BUILDING 2: 1699 m² FOOTPRINT
6753 m² GROSS FLOOR AREA

BUILDING 3: 2610 m² FOOTPRINT
10403 m² GROSS FLOOR AREA
23,909 m² TOTAL GROSS FLOOR AREA



1 (403) 433-3772
F: (403) 433-0727
E: info@northviewreit.com
1310, 8125 8 STREET CALGARY,
ALBERTA
T2N 1J3

ISSUE

NO.	PURPOSE	DATE
1.	CONSULTANT COORDINATION	2018 09 13
2.	C.D.P. APPLICATION	2018 09 13
3.	CONSULTANT COORDINATION	2018 10 18
4.	RENDER	2018 11 30
5.	CONSULTANT COORDINATION	2018 12 06
6.	-	-
7.	-	-
8.	-	-
9.	-	-
10.	-	-
11.	-	-
12.	-	-

NOT TO BE USED FOR
CONSTRUCTION
IF PROPOSAL IS
REJECTED BY THE ARCHITECT.
CONTRACTORS SHALL
CHECK AND VERIFY ALL
DIMENSIONS TO THE
ARCHITECT BEFORE
PROCEEDING WITH THE
WORK.

DO NOT SCALE THE
DIMENSIONS.

DESIGN

SA TH

DRAWN

DATE



WINSTON VILLA RE-BUILD
1310 23 AVE N, LETHBRIDGE, ALBERTA

LEGAL ADDRESS: LOT 57, BLOCK 8, PLAN 8759811

ISSUED: 2018

SITE PLAN
RESIDENTIAL OPTION

SCALE 1:500	PROJECT NO. 1854
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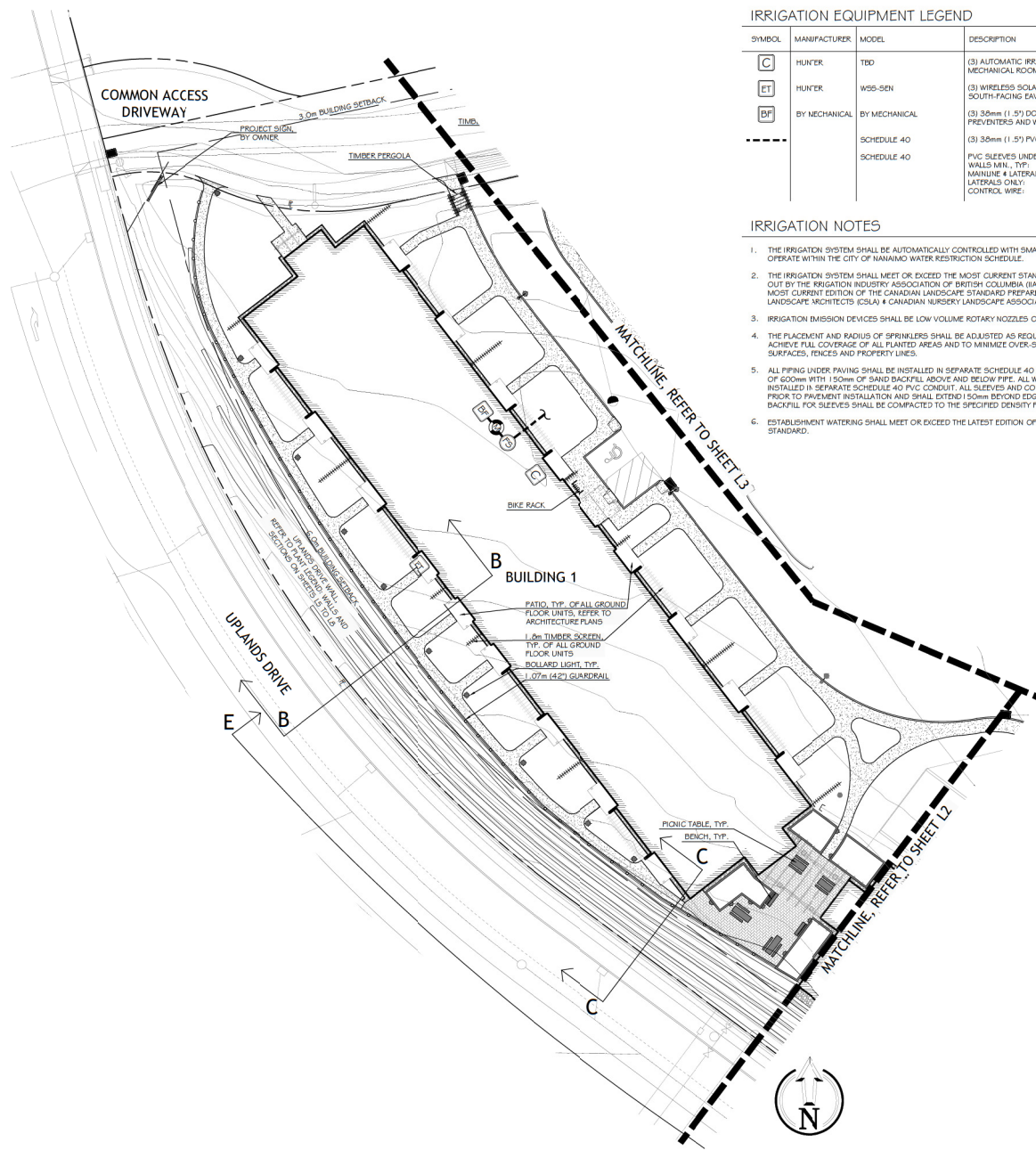
A1.1

ARCHITECTURAL

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2018-DEC-20

SITE PLAN

Scale: 1:500



IRRIGATION EQUIPMENT LEGEND			
SYMBOL	MANUFACTURER	MODEL	DESCRIPTION
[C]	HUNTER	TBD	(3) AUTOMATIC IRRIGATION CONTROLLERS IN MECHANICAL ROOMS OF BUILDINGS
[ET]	HUNTER	W55-SEN	(3) WIRELESS SOLAR-SYNC SENSORS ON SOUTH-FACING EAVES
[BF]	BY MECHANICAL	BY MECHANICAL	(3) 38mm (1.5") DOUBLE CHECK BACKFLOW PREVENTERS AND WATER SUPPLY
		SCHEDULE 40	(3) 38mm (1.5") PVC MAINLINES
		SCHEDULE 40	PVC SLEEVES UNDER ALL PAVING AND THROUGH WALLS MIN., TYP. MAINLINE & LATERALS: 100mm (4") LATERALS ONLY: 75mm (3") CONTROL WIRE: 50mm (2")

- IRRIGATION NOTES**
- THE IRRIGATION SYSTEM SHALL BE AUTOMATICALLY CONTROLLED WITH SMART 'ET' EQUIPMENT AND SHALL OPERATE WITHIN THE CITY OF NANAIMO WATER RESTRICTION SCHEDULE.
 - THE IRRIGATION SYSTEM SHALL MEET OR EXCEED THE MOST CURRENT STANDARDS AND SPECIFICATIONS SET OUT BY THE IRRIGATION INDUSTRY ASSOCIATION OF BRITISH COLUMBIA (IRIAS) AS REFERENCED IN THE MOST CURRENT EDITION OF THE CANADIAN LANDSCAPE STANDARD PREPARED BY THE CANADIAN SOCIETY OF LANDSCAPE ARCHITECTS (CSLA) & CANADIAN NURSERY LANDSCAPE ASSOCIATION (CNLA).
 - IRRIGATION EMISSION DEVICES SHALL BE LOW VOLUME ROTARY NOZZLES OR MICRO DRIP EQUIPMENT.
 - THE PLACEMENT AND RADIUS OF SPRINKLERS SHALL BE ADJUSTED AS REQUIRED BY FIELD CONDITIONS TO ACHIEVE FULL COVERAGE OF ALL PLANTED AREAS AND TO MINIMIZE OVER-SPRAY ONTO ADJACENT HARD SURFACES, FENCES AND PROPERTY LINES.
 - ALL PIPING UNDER PAVING SHALL BE INSTALLED IN SEPARATE SCHEDULE 40 SLEEVES AT A MINIMUM DEPTH OF 600mm WITH 150mm OF SAND BACKFILL ABOVE AND BELOW PIPE. ALL WIRING UNDER PAVING SHALL BE INSTALLED IN SEPARATE SCHEDULE 40 PVC CONDUIT. ALL SLEEVES AND CONDUIT SHALL BE INSTALLED PRIOR TO PAVEMENT INSTALLATION AND SHALL EXTEND 150mm BEYOND EDGE OF PAVEMENT OR CURB. BACKFILL FOR SLEEVES SHALL BE COMPACTED TO THE SPECIFIED DENSITY FOR THE SUBGRADE.
 - ESTABLISHMENT WATERING SHALL MEET OR EXCEED THE LATEST EDITION OF THE CANADIAN LANDSCAPE STANDARD.

- LANDSCAPE ARCHITECTURE SITE PLAN NOTES**
- THE LANDSCAPING CHARACTER AREA FOR THE SITE IS: NORTH NANAIMO
 - REFER TO SITE PLAN PREPARED BY HARPER ARCHITECTURE & DESIGN INC. FOR SITE PLAN LAYOUT, PROPOSED FINISHED FLOOR AND PARKING SLAB ELEVATIONS, BUILDINGS AND OTHER ARCHITECTURAL INFORMATION.
 - REFER TO CIVIL PLANS AND REPORT PREPARED BY NEWCASTLE ENGINEERING LTD. FOR ALL SITE SERVICING, GRADING AND STORM WATER MANAGEMENT INFORMATION.
 - REFER TO TYPICAL SECTIONS ALLAN BLOCK WALL PLAN PREPARED BY LEWKOWICH ENGINEERING ASSOCIATES LTD. FOR UPLANDS DRIVE WALL DESIGN. FINAL WALL DESIGN SHALL BE DESIGNED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
 - REFER TO APPLICATION FOR TREE REMOVAL PERMIT PREPARED BY TOTH AND ASSOCIATES FOR ALL TREE REMOVAL, RETENTION, REPLACEMENT AND PROTECTION REQUIREMENTS.

ABBREVIATIONS		DESCRIPTION
[E]	EXISTING	
[P]	PROPERTY LINE	
[FOW]	RIGHT-OF-WAY	
[TYP.]	TYPICAL	

SYMBOL	DESCRIPTION
[---]	PROPERTY LINE
[---]	EXISTING TIMBER FENCING TO REMAIN
[---]	(2) RAIL CONCRETE FENCE
[---]	1.0m TIMBER SCREEN
[---]	1.07m (42") GUARDRAIL TO MATCH ARCHITECTURAL RAILINGS
[---]	600mm RAISED PLANTER WALL, CONCRETE WITH SACK FINISH
[---]	BROOM FINISH CONCRETE PAVING
[---]	PEDESTRIAN CIRCULATION 1.2m - 1.5m WIDTH
[---]	LEAVE STRIP WITH TIMBER EDGE, 0.45m MIN. WIDTH OF 50mm (2") MINUS, WASHED RIVER ROCK OVER LANDSCAPE FABRIC
[---]	0.5m CHIP TRAIL
[---]	DECORATIVE CONCRETE UNIT PAVING
[---]	TIMBER PERGOLA: WALL MOUNTED AND LIT
[---]	1.0m BENCH, SURFACE MOUNTED ON BROOM FINISH CONCRETE PAD: QTY: 7
[---]	PICNIC TABLE, SURFACE MOUNTED ON BROOM FINISH CONCRETE PAD: QTY: 6
[---]	QTY: 5 ACCESSIBLE ONE SIDE
[---]	GAMES TABLE, SURFACE MOUNTED ON BROOM FINISH CONCRETE PAD: QTY: 2
[---]	6 TO 8 STALL BIKE RACK: QTY: 4
[---]	LOW-LEVEL LED PATHWAY BOLLARD LIGHTING:
[---]	PARKING LOT (FULL CUT OFF, LED FLAT LENS) LIGHTING
[---]	WALL LIGHT
[---]	FINAL PARKING LOT LIGHTING, BOLLARD LIGHTING AND WALL LIGHTS MAKES, MODELS, LOCATIONS, QUANTITIES AND PHOTOMETRIC ANALYSIS SHALL BE BY PROJECT ELECTRICAL ENGINEER.
[---]	EXISTING TREE TO REMAIN PER TREE MANAGEMENT PLAN



THIS DRAWING IS NOT FINAL AND SHALL NOT BE USED FOR CONSTRUCTION WORK UNTIL IT HAS BEEN STAMPED AND SIGNED BY THE LANDSCAPE ARCHITECT. THE COPYRIGHT TO ALL DESIGN AND DRAWINGS ARE THE PROPERTY OF MACDONALD GRAY LANDSCAPE ARCHITECTURE. NO PART MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT PERMISSION.

4800 Uplands Drive & 6035 Linley Valley Drive
Northview Apartments REIT
Nanaimo, BC

LANDSCAPE ARCHITECTURE SITE PLAN	
Date:	December 17, 2018
Drawn:	CM
Checked:	ING
Scale:	1:250 metric
Project Number:	18-0212
DRAWING NUMBER:	L1 of 8

REVISION SCHEDULE	
#	Date
0	14SEP2018
1	21SEP2018
2	17OCT2018

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2018-DEC-20



CURRENT PLANNING



REVISION SCHEDULE		
#	Date	NOTES
0	14SEP2018	Coordination Review
1	21SEP2018	Issued for DP
2	17DEC2018	DAP Revisions



SYMBOL	BOTANICAL / COMMON NAME	SIZE	SPACING	QUANTITY	NOTES
TREES					
		1.5m BUFFER			
	CERCIS CANADENSIS 'FOREST PANSY' FOREST PANSY REDBUD	5cm CAL.	SEE PLAN	4	NATIVE CANADIAN CULTIVAR
	CHAMAECYPARIS NOOTKATENSIS 'PEDULA' WEeping ALASKA CEDAR	2.0m	SEE PLAN	20	NATIVE CANADIAN CULTIVAR, CONIFEROUS
	CORNUS 'EDDIES WHITE WONDER' EDDIES WHITE WONDER DOGWOOD	4cm CAL.	SEE PLAN	25	NATIVE CANADIAN CULTIVAR
	GLEDITSIA TRIANCANTHOS VAR. INERMIS SUNBURST HONEY LOCUST	5cm CAL.	SEE PLAN	4	DROUGHT TOLERANT
	PICEA ABIES 'CUPRESSINA' COLUMNAR NORWAY SPRUCE	2.0m	SEE PLAN	4	DROUGHT TOLERANT, CONIFEROUS
	PINUS CONTORTA VAR. CONTORTA SHORE PINE	2.0m	SEE PLAN	3	NATIVE SPECIES
	PRUNUS 'PISSAROI NIGRA' BLACK CHERRY PLUM	5cm CAL.	SEE PLAN	33	DROUGHT TOLERANT
	PSUEDOTSUGA MENZIESII DOUGLAS F.R.	2.0m	SEE PLAN	6	NATIVE SPECIES
	PIRUS CALLERYANA 'REDSPIRE' REDSPIRE FLOWERING PEAR	5cm CAL.	SEE PLAN	7	DROUGHT TOLERANT
	QUERCUS COCCINEA SCARLET OAK	5cm CAL.	SEE PLAN	4	DROUGHT TOLERANT
	STRAX JAPONICA JAPANESE SNOWBELL	4cm CAL.	SEE PLAN	5	
	TILIA CORDATA LITTLE-LEAF LINDEN	5cm CAL.	SEE PLAN	9	DROUGHT TOLERANT
SHRUBS					
	ACER CIRCINATUM VINE MAPLE	#5 POT	SEE PLAN 2.0m O.C.	28	NATIVE SPECIES
	CEANOTHUS THYRSIFLORUS 'VICTORIA' VICTORIA CALIFORNIA ULAC	#3 POT	1.5m O.C.	74	DROUGHT TOLERANT
	CHOISYA TERNATA MEXICAN ORANGE	#2 POT	1.2m O.C.	45	DROUGHT TOLERANT
	COTINUS COGGYGRIA 'ANCOT' GOLDEN SPRIT SMOKE BUSH	#5 POT	2.0m O.C. SEE PLAN	27	DROUGHT TOLERANT
	ILEX CRENATA 'CONEXIA' JAPANESE HOLLY	#2 POT	1.0m O.C.	44	DROUGHT TOLERANT
	LONICERA NITIDA 'LEMON BEAUTY' LEMON BEAUTY BOX HONEYSUCKLE	#2 POT	1.5m O.C.	21	DROUGHT TOLERANT
	NANDINA DOMESTICA 'MOON BAY' COMPACT HEAVENLY BAMBOO	#2 POT	SEE PLAN	83	DROUGHT TOLERANT, BERRYLESS
	PINUS MUGO VAR. PUMILIO DWARF MUGO PINE	#5 POT	1.2m O.C.	48	DROUGHT TOLERANT, CONIFEROUS
	POLYSTICHUM MINUTUM SWORD FERN	#1 POT	1.0m O.C.	115	NATIVE SPECIES
	RHOODENDRON SSP. 33/3/33 MIX COLOUR & BLOOM TIME	#5 POT	1.5m O.C.	51	DROUGHT TOLERANT
	ROSA MIDLAND ICE WHITE SHRUB ROSE	#1 POT	0.9m O.C.	104	DROUGHT TOLERANT
	SPRAEA JAPONICA 'GOLDMOUND' GOLDMOUND SPIREA	#2 POT	1.2m O.C.	133	DROUGHT TOLERANT
	VIBURNUM DAVIDI DAVID'S VIBURNUM	#2 POT	1.2m O.C.	125	DROUGHT TOLERANT
PERENNIALS, VINES & GROUNDCOVERS					
	ASTILBE 'YOUNIQUE WHITE' & 'BURGUNDY RED' 50/50 MIX RED & WHITE ASTILBE	#1 POT	0.6m O.C.	135	SHADE TOLERANT
	CALLUNA VULGARIS 'SPRING TORCH' LAVENDER SCOTCH HEATHER	#1 POT	0.6m O.C.	63	DROUGHT TOLERANT
	ERICA CARNEA 'SPRINGWOOD WHITE' WHITE HEATHER			63	
	HELIOTRITROCHOS SEMPERVIRENS BLUE OAT GRASS	#1 POT	0.75m O.C.	59	DROUGHT TOLERANT
	MAHONIA NERVOZA DULL OREGON GRAPE		10cm POT	25	NATIVE SPECIES
	PENNETUM ALPEUCROIDES 'HAMELY' DWARF FOUNTAIN GRASS	#1 POT	0.6m O.C.	60	DROUGHT TOLERANT
	LAWN	SOD		3,140 sq.m.	



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Nanaimo, BC

DRAWING NUMBER: 14-0

REVISION SCHEDULE		
#	Date	NOTES
0	14SEP2018	Coordination Review
1	21SEP2018	Issued for DP
2	17DEC2018	DAP Revisions



PLANT LEGEND: RE-VEGETATION AREAS, RAINGARDENS & WALLS

SYMBOL	BOTANICAL / COMMON NAME	SIZE	SPACING	QUANTITY	NOTES
+	EXISTING TREE TO REMAIN PER TREE MANAGEMENT PLAN				
RE-VEGETATION AREA					
TREES:					
	ACER MACROPHYLLA	1.5m	SEE PLAN	11	NATIVE SPECIES
	PINUS CONTORTA VAR. CONTORTA SHORE PINE	1.5m	4.5m	24	NATIVE SPECIES, CONIFEROUS
	PSEUDOTSUGA MENZIESII DOUGLAS FIR	1.5m	4.5m	26	NATIVE SPECIES, CONIFEROUS
	THUJA PLICATA WESTERN RED CEDAR	1.5m	6.0m	8	NATIVE SPECIES, CONIFEROUS
SHRUBS, GROUNDCOVER, PERENNIALS:					
	AMELANCHIER ALTIPOUA SASKATOON	#1 POT	1.0m O.C.	90	NATIVE SPECIES; PLANT IN GROUPS OF 3, 5, 7 OR 9
	ARCTOSTAPHYLOS UVA-URSI KINKIKINICK	#1 POT		90	
	CORNUS NUTTALLII PACIFIC DOGWOOD	#2 POT		90	
	ERIOPHYLLUM LANTANUM WOOLLY SUNFLOWER	30m POT		90	
	HOLODISCUS DISCOLOR OCEANSPRAY	#1 POT		90	
	MAHONIA AQUIFOLIUM TALL OREGON GRAPE	#1 POT		90	
	OEMLERIA CERASIFORMIS INDIAN PLUM	#1 POT		90	
	RIBES SANGUINUM RED FLOWERING CURRANT	#1 POT		90	
	ROSA GYMNOCARPA BALDWIN ROSE	#1 POT		90	
	SALIX SCOUERIANA SCOUER'S WILLOW	#1 POT		90	
	SOLIDAGO CANADENSIS GOLDENROD	#1 POT		90	
	TERRASEED (SEED, SOIL & COMPOST): 26% PERENNIAL RYEGRASS 24% CREEPING RED FESCUE 14% ALSIKE CLOVER 13% HARD FESCUE 9% WHITE CLOVER 6% TIMOTHY 4% CANADIAN BLUEGRASS 2% RED TOP	75Kg/ha		1260sq.m.	
RAINGARDENS					
	SHRUBS, PERENNIALS:	#1 POT	1.0m O.C.	355	BOTTOM, NATIVE SPECIES
	CAREX OBNUPTA/STIPITA SLOUGH SAWBEAK SEDGE	#1 POT	1.0m O.C.	330	TOP, NATIVE SPECIES
	CORNUS SERICEA RED OSIER DOGWOOD	#1 POT	1.0m O.C.	416	LOWER SIDE SLOPES, NATIVE SPECIES
	JUNCUS EFFLUSUS COMMON RUSH	#1 POT	1.0m O.C.	330	LOWER SIDE SLOPES OF POND AREA, NATIVE SPECIES
	SPirea DOUGLASSII HARDHACK	#1 POT	1.0m O.C.		
UPPLANDS DRIVE WALL (ESTIMATE, FINAL PLANT LIST AND QUANTITIES TO BE CONFIRMED FOR BUILDING PERMIT)					
	SHRUBS, GROUNDCOVER & VINES:	#1 POT	1.0m O.C.	215	NATIVE SPECIES
	AMELANCHIER ALTIPOUA SASKATOON	#1 POT	1.0m O.C.	475	NATIVE SPECIES, CASCADING
	ARCTOSTAPHYLOS UVA-URSI KINKIKINICK	#1 POT	1.0m O.C.	215	NATIVE SPECIES
	HOLODISCUS DISCOLOR OCEANSPRAY	#1 POT	1.0m O.C.	215	NATIVE SPECIES
	MAHONIA AQUIFOLIUM TALL OREGON GRAPE	#1 POT	1.0m O.C.	475	CLIMBING VINE
	PARTHENOCISSUS TRICUSPIDATA BOSTON IVY	#1 POT	1.0m O.C.	245	HEDGE TO MATCH UPPLANDS DR. BOULEVARD
	PRUNUS LAUROCESTRAS 'OTTO LUYKEN DWARF CHERRY LAUREL	#1 POT	1.0m O.C.	215	NATIVE SPECIES
	RIBES SANGUINUM RED FLOWERING CURRANT	#1 POT	1.0m O.C.	215	NATIVE SPECIES
	ROSA NOOTKATENSIS NOOTKA ROSE	#1 POT	1.0m O.C.	215	NATIVE SPECIES



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PLANTING PLAN

Date: December 15, 2018

Drawn: CM

Checked: NG

Scale: 1:250 metric

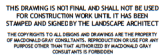
Project Number: 18-0212

DRAWING NUMBER: L5 of 8

#	REVISION	SCHEDULE	NOTES
0	14SEP2018	Coordination Review	Issued for DP
1	21SEP2018	21SEP2018	DP Revisions
2	15OCT2018	15OCT2018	DP Revisions

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2018-DEC-20
CITY OF NANAIMO

1. ALL LANDSCAPE INSTALLATION AND MAINTENANCE SHALL MEET OR EXCEED THE MOST RECENT STANDARDS SET OUT BY THE CANADIAN LANDSCAPE INDUSTRY ASSOCIATION (CLIA) / CANADIAN SOCIETY OF LANDSCAPE ARCHITECTS (CSLA) (CANADIAN LANDSCAPE STANDARD).
2. ALL TREES SHALL BE PLANTED WITH 300mm OF TOPSOIL OR AMENDED ORGANIC SOILS AROUND AND BELOW ROOTBALL.
3. SOIL DEPTHS: SHRUBS - 450mm
 LAWN - 100mm
 TREES - 300mm AROUND AND BELOW ROOTBALL
4. MULCH SHALL BE COMPOST PER SECTION 10 MULCHING OF THE CANADIAN LANDSCAPE STANDARD. MULCH DEPTH SHALL BE 75mm MINIMUM OVER ALL TREE AND SHRUB PLANTING AREAS.
5. PLANT MATERIAL QUALITY, TRANSPORT AND HANDLING SHALL COMPLY WITH CLIA STANDARDS FOR IRRIGATION STOCK.
6. ALL PLANTING AREAS SHALL BE WATERED VIA AN UNDERGROUND AUTOMATIC IRRIGATION SYSTEM. IRRIGATION DIVISION DEVICES SHALL BE LOW VOLUME ROTARY NOZZLES OR MICRO-PIF EQUIPMENT.
7. PLANT QUANTITIES ARE FOR INFORMATION ONLY. IN CASE OF ANY DISCREPANCY THE PLANT SHALL GOVERN.
8. PLANT MATERIAL SHALL MATCH SPECIES AS INDICATED ON THE PLANTING LEGEND.
9. CONTACT THE LANDSCAPE ARCHITECT FOR APPROVAL OF ANY SUBSTITUTIONS, NO SUBSTITUTIONS WILL BE ACCEPTED WITHOUT PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
10. CHECK FOR LOCATIONS OF WATER LINES AND UNDERGROUND SERVICES PRIOR TO DIGGING TREE PITS. EXCAVATED PLANT PITS SHALL BE PROPERLY DRAINAGE. PLANT PITS WHEN FULL OR FLOODED WITH WATER SHALL DRAIN WITHIN ONE HOUR AFTER FILLING.
11. NO PLANTS REQUIRING PRUNING OF MAJOR BRANCHES DUE TO DISEASE, DAMAGE OR POOR FORM WILL BE ACCEPTED.
12. ALL CAULP-STOP TREES SHALL BE 6 Ø IN WIRE SASKETS.



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Date: December 17, 2018

Drawn:	CM
Checked:	HG
Scale:	1:250 metric
Project Number:	18-0212

DRAWING NUMBER: L6 of 8

REVISION SCHEDULE		
#	Date	NOTES
0	14SEP2018	Coordination Review
1	21SEP2018	Issued for DP
2	17DEC2018	DAP Revisions



Section



Section



Section



Section



4800 Uplands Drive & 6035 Linley Valley Drive
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SECTIONS

Date: December 17 2018

Date: December 17, 2018

Drawn: CM

Checked:	11G
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Scale:	AS NOTED
Product Name:	48-0042

PROJECT NUMBER:	18-0212
DRAWING NUMBER:	17-0

#	Date	NOTES
0	14SEP2018	Coordination Review
1	21SEP2018	Issued for DP
2	17DEC2018	DAP Revisions

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Current Planning



Elevation



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ELEVATION

Date: _____ December 17, 2018

Drawn: _____ CM

Checked: _____ HC

Scale: _____ AS NOTED

Project Number: _____ 18-0212

DRAWING NUMBER: 18 of 88

REVISION SCHEDULE		
#	Date	NOTES
0	14SEP2018	Coordination Review
1	21SEP2018	Issued for DP
2	17DEC2018	DAP Revisions

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Current Planning

RENDERINGS







- LEGEND:**
- WOOD SHIPIT STAINED AND SEALED WITH SKRIBING
 - JAMES HARDIE - HARDIEPLANK LAP SIDING (1" x 7" 1/2 SHIPIT)
 - JAMES HARDIE - HARDIEPLANK LAP SIDING (1" x 7" 1/2 SHIPIT) DEEP OCEAN
 - JAMES HARDIE - HARDIEPLANK LAP SIDING (1" x 7" 1/2 SHIPIT) BATTERS
 - JAMES HARDIE - HARDIEPLANK LAP SIDING (1" x 7" 1/2 SHIPIT) ARCTIC WHITE
 - JAMES HARDIE - HARDIEPLANK LAP SIDING (1" x 7" 1/2 SHIPIT) BOUTIQUE BLUE
 - JAMES HARDIE - HARDIEPLANK LAP SIDING (1" x 7" 1/2 SHIPIT) RICH GRAY
 - JAMES HARDIE - HARDIEPLANK LAP SIDING (1" x 7" 1/2 SHIPIT) RICH ESPRESSO
 - COUNTRY LEGGESTONE
 - UNIVERSITY CREEK

ISSUE

NO.	PURPOSE	DATE
1.	CONSULTANT COORDINATION	2018-09-13
2.	D.P. APPLICATION	2018-09-28
3.	CONSULTANT COORDINATION	2018-10-10
4.	REVISION	2018-11-29
5.	CONSULTANT COORDINATION	2018-12-06
6.	CONSULTANT COORDINATION	2018-12-13
7.	D.P. APPLICATION	2018-12-18
8.		
9.		
10.		
11.		
12.		



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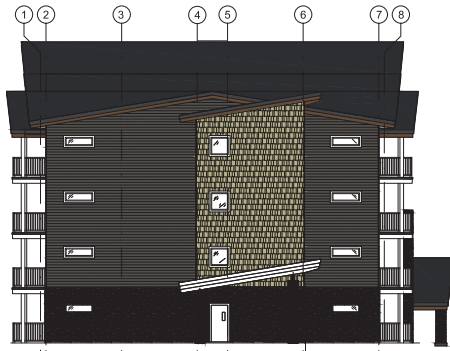
FRONT ELEVATION
Scale: 3/32" = 1'-0"



REAR ELEVATION
Scale: 3/32" = 1'-0"



SIDE ELEVATION
Scale: 3/32" = 1'-0"



SIDE ELEVATION
Scale: 3/32" = 1'-0"



CENTRAL ELEVATION
Scale: 1/8" = 1'-0"

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LOTS 4 & 5 UPLANDS DRIVE
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ELEVATION BUILDING 1

AS NOTED

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2018-DEC-20
CUTTING PLANNING

LEGEND:

	WOOD SOFFIT		JAMES HARDIE - HARDIEPLANK LAP SIDING [7", 10 3/4"]
	STAINED AND SEALED WITH SIROKENS		DEEP OCEAN
	JAMES HARDIE - HARDIEPLANK BATTENS		JAMES HARDIE - HARDIEPLANK LAP SIDING
	ARCTIC WHITE		SMOOTH BAY BLUE
	JAMES HARDIE - HARDIEPLANK SHINGLE PROFILE		JAMES HARDIE - HARDIEPLANK LAP SIDING [7", 7", 10 3/4"]
	SANDSTONE BEIGE		IRON GRAY
	CULTURED STONE		JAMES HARDIE - HARDIEPLANK LAP SIDING
	COUNTRY LESTONE		LAP SIDING 5/8" x 12"
	UMBER CREEK		

ISSUE		
NO.	PURPOSE	DATE
1.	CONSULTANT COORDINATION	2018 09 13
2.	D. P. APPLICATION	2018 09 29
3.	CONSULTANT COORDINATION	2018 10 19
4.	RENDER	2018 11 30
5.	CONSULTANT COORDINATION	2018 12 06
6.	CONSULTANT COORDINATION	2018 12 13
7.	D. P. APPLICATION	2018 12 18
8.	-	-
9.	-	-
10.	-	-
11.	-	-
12.	-	-



1
A3.2

FRONT ELEVATION

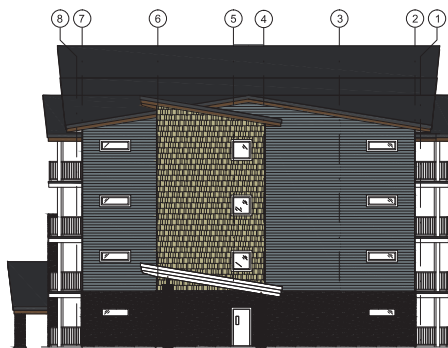
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2
A3.2 REAR ELEVATION Scale: 3/32" = 1'-0"



 SIDE ELEVATION
Scale: 3/32" = 1'-0"



SIDE ELEVATION

Scale: $3/32" = 1'-0"$



 CENTRAL ELEVATION
Scale: 1/8" = 1'-0"

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LOTS 4 & 5 UPLANDS DRIVE
NANAIMO, BRITISH COLUMBIA

1000

ELEVATION
BUILDING 3

AS NOTED

1757	
ARCHITECTURAL	

ISSUE

NO.	PURPOSE	DATE
1.	CONSULTANT COORDINATION	2018 09 13
2.	D.P. APPLICATION	2018 09 13
3.	CONSULTANT COORDINATION	2018 10 26
4.	RENDER	2018 11 20
5.	CONSULTANT COORDINATION	2018 12 06
6.	CONSULTANT COORDINATION	2018 12 13
7.	D.P. APPLICATION	2018 12 18
8.		
9.		
10.		
11.		
12.		

LEGEND:

- MADE SKYLINE STAINED AND SEALED WITH VENEERS
- JAMES HARRIS - HARDWARE PLANK
- ARTIC WHITE
- JAMES HARRIS - HARDWARE PLANK
- PAVING & PROFILE
- ARTIC WHITE
- CULTURED STONE
- COUNTRY LOGGERS
- UNIVERSITY
- JAMES HARRIS - HARDWARE PLANK
- LAP SIDING (PT. 7, 10, 11)
- ROOF CLASH
- JAMES HARRIS - HARDWARE PLANK
- LAP SIDING
- ROOF CLASH
- JAMES HARRIS - HARDWARE PLANK
- LAP SIDING
- ROOF CLASH

FRONT ELEVATION 1

Scale: 3/32" = 1'-0"

FRONT ELEVATION 2

Scale: 3/32" = 1'-0"

REAR ELEVATION 1

Scale: 3/32" = 1'-0"

REAR ELEVATION 2

Scale: 3/32" = 1'-0"

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DATE PRINTED

DATE

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LOTS 4 & 5 UPLANDS DRIVE
VANANCO, BRITISH COLUMBIA

**ELEVATIONS
BUILDING 3**

Scale:

3/32" = 1'-0"

PROJECT NO.

1757

A3.3

ARCHITECTURAL



ENTRY
Scale: 1/8" = 1'-0"



REAR ELEVATION
Scale: 1/8" = 1'-0"

ISSUE

NO.	PURPOSE	DATE
1.	CONSULTANT COORDINATION	2018 09 12
2.	D.P. APPLICATION	2018 10 10
3.	CONSULTANT COORDINATION	2018 10 10
4.	RENDER	2018 11 30
5.	CONSULTANT COORDINATION	2018 12 06
6.	CONSULTANT COORDINATION	2018 12 13
7.	D.P. APPLICATION	2018 12 18
8.	-	-
9.	-	-
10.	-	-
11.	-	-
12.	-	-

LEGEND:

- MADE SKIRT STAINED AND SEALED WITH VENEER
- JAMES HARGRE - HANDEPLANK ARCTIC WHITE
- JAMES HARGRE - HANDEPLANK ARCTIC WHITE
- JAMES HARGRE - HANDEPLANK ARCTIC WHITE
- JAMES HARGRE - HANDEPLANK ARCTIC WHITE
- CULTURED STONE COUNTRY Limestone VENEER CRACK
- JAMES HARGRE - HANDEPLANK LAP SENG (P.T. 10-30)
- JAMES HARGRE - HANDEPLANK LAP SENG
- JAMES HARGRE - HANDEPLANK LAP SENG
- JAMES HARGRE - HANDEPLANK LAP SENG
- JAMES HARGRE - HANDEPLANK LAP SENG
- JAMES HARGRE - HANDEPLANK LAP SENG
- JAMES HARGRE - HANDEPLANK LAP SENG
- JAMES HARGRE - HANDEPLANK LAP SENG
- JAMES HARGRE - HANDEPLANK LAP SENG

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LOTS 4 & 5 UPLANDS DRIVE
VANANCO, BRITISH COLUMBIA

ELEVATIONS
BUILDING 3

Scale: 1/8" = 1'-0"

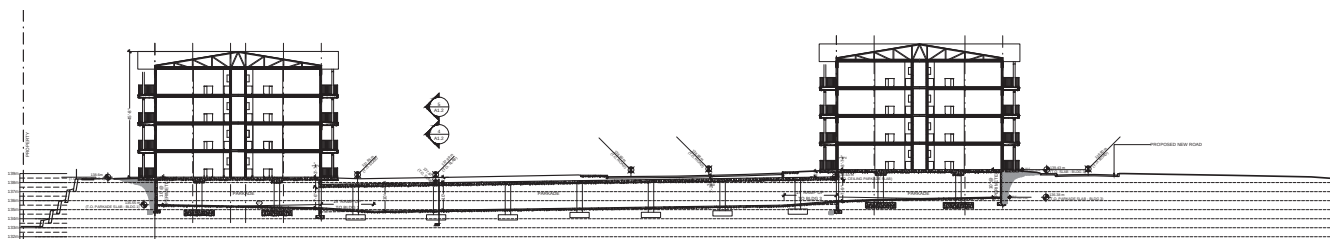
PROJECT NO: 1757

A3.4

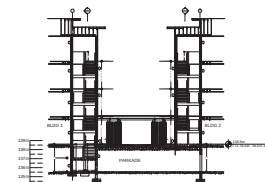
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1 SITE SECTION 1
Scale: 3/64" = 1'-0"



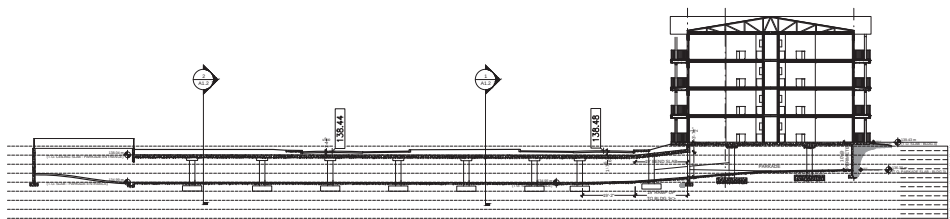
2 SITE SECTION 2
Scale: 3/64" = 1'-0"



3 SITE SECTION 3
Scale: 3/64" = 1'-0"



4 SITE SECTION 4
Scale: 3/64" = 1'-0"



5 SITE SECTION 5
Scale: 3/64" = 1'-0"



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T2M 3L3

ISSUE		
NO.	PURPOSE	DATE
1.	CONSULTANT COORDINATION	2018 09 13
2.	D.P. APPLICATION	2018 09 13
3.	CONSULTANT COORDINATION	2018 10 26
4.	RENDER	2018 11 30
5.	CONSULTANT COORDINATION	2018 12 06
6.	CONSULTANT COORDINATION	2018 12 13
7.	D.P. APPLICATION	2018 12 18
8.	-	-
9.	-	-
10.	-	-
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DATE:
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LOTS 4 & 5 UPLANDS DRIVE
NANAIMO, BRITISH COLUMBIA

DRAWING TITLE:
SITE SECTIONS

SCALE:
3/64" = 1'-0"

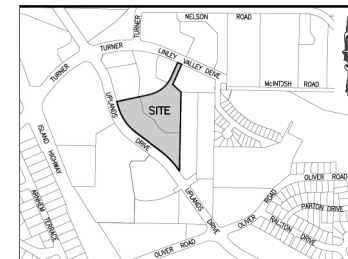
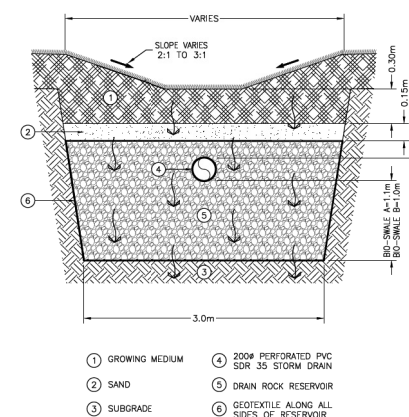
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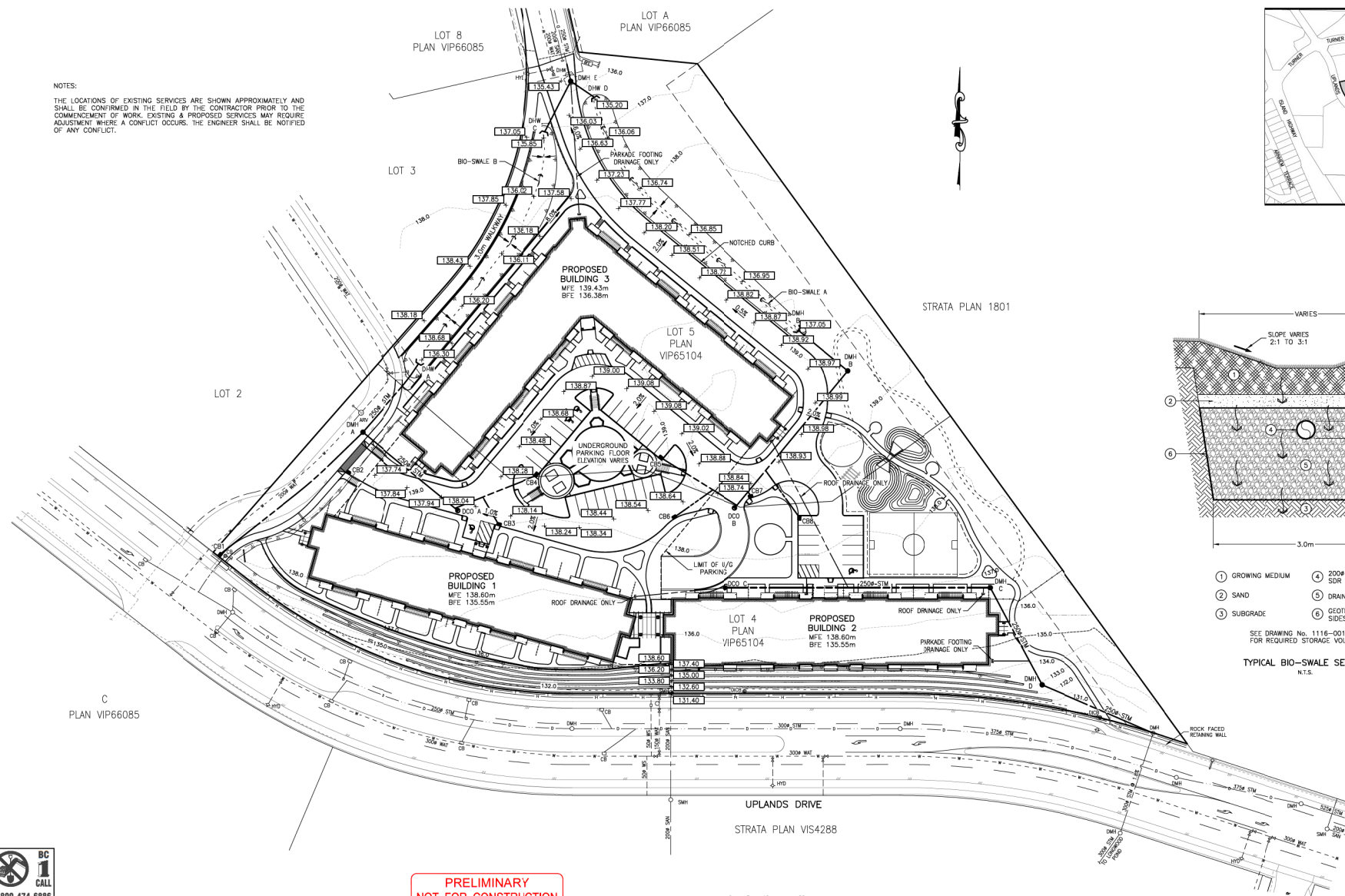
NOTES:

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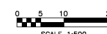
LOCATION PLAN
NTS

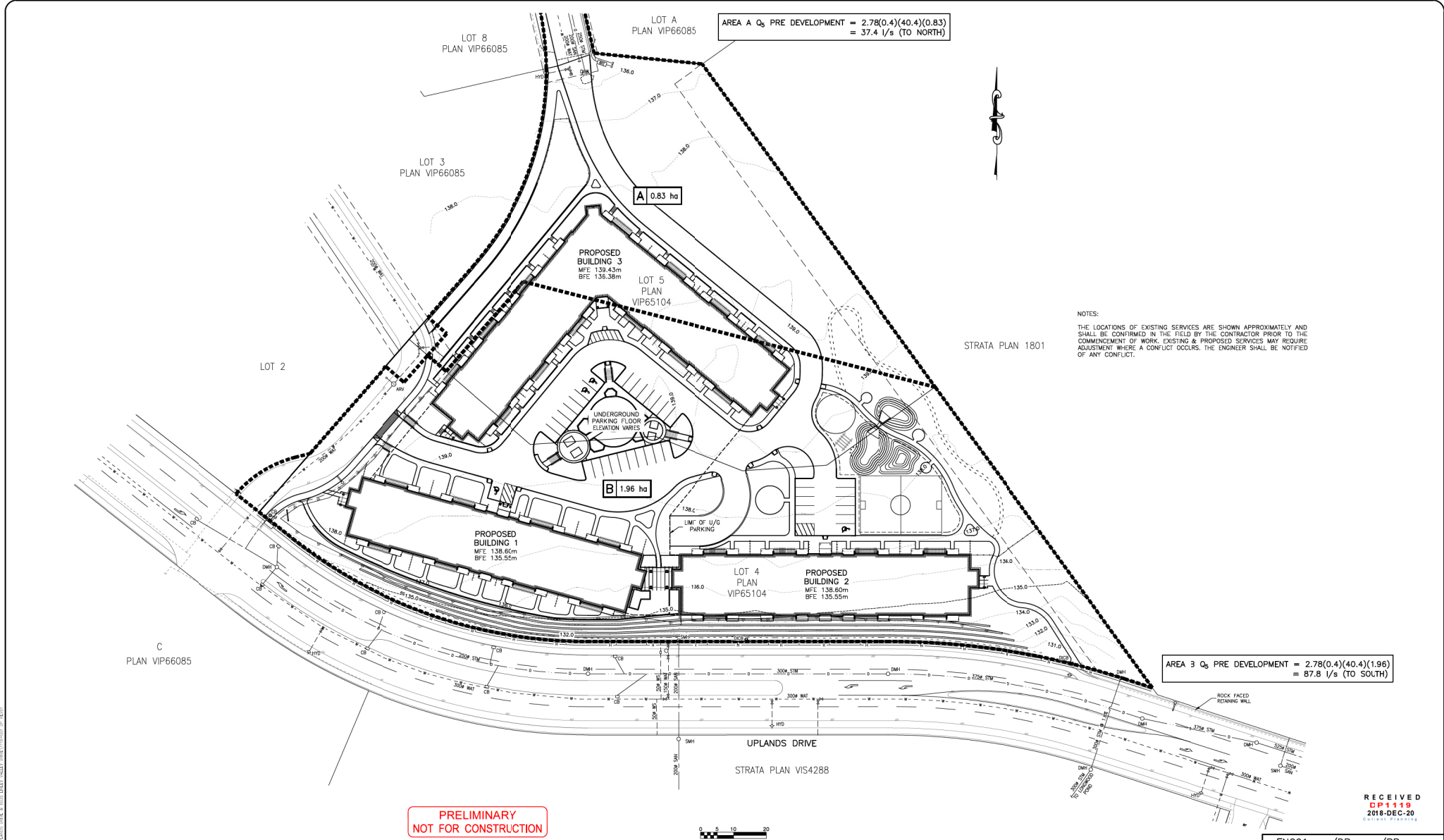
SEE DRAWING No. 1116-001-202
FOR REQUIRED STORAGE VOLUMES

TYPICAL BIO-SWALE SECTION
N.T.S.



PRELIMINARY
NOT FOR CONSTRUCTION

[illegible]



Rev. No.	DATE	BY	REVISION DESCRIPTION	ENG.
30	09/18/18	60	SUBMITTED TO CITY OF NANAIMO FOR REVIEW - NOT FOR CONSTRUCTION	MIW
31	12/12/18	60	CITY OF NANAIMO REVIEW COMMENTS ADDRESSED - NOT FOR CONSTRUCTION	MIW

LEGEND	
PROPOSED	EXISTING
WATERMAIN	HYDRANT
STORM SEWER	ABOVE GROUND
SANITARY SEWER	FLUSHOUT
GAS MAIN	BELOW GROUND
ELECTRICAL DUCT	FLUSHOUT
INLET/OUTLET HEADWALL	CATCH-BASIN
DITCH INLET/OUTLET	DITCH INLET CB
SMILE	MANHOLE
EDGE OF PAVEMENT	CLEANOUT
WALK BOX	HYDRO POLE
LIMIT OF CONSTRUCTION	STREETLIGHT
	FENCE

SITE LEGAL DESCRIPTION	
LOT 4 & 5, DISTRICT LOT 30, WELLINGTON DISTRICT, PLAN VIP65104	
BENCHMARK DESCRIPTION	
ELEVATION ARE GEODETIC AND ARE REFERRED TO MONUMENT 98SG037 LOCATED AT THE INTERSECTION OF UPLANDS DRIVE AND TURNER ROAD. ELEVATION 135.927m	

ENGINEER'S SEAL	DESIGN	CLIENT NAME	DRAWING TITLE
	MIW	NORTHMEV APARTMENTS REIT	PRE DEVELOPMENT STORM SEWER TRIBUTARY AREA PLAN
	CHECKED		
	PLOT DATE	PROJECT NAME	
	12-19-18	PROPOSED DEVELOPMENT	
	PRINT DATE	4800 UPLANDS DRIVE AND	
		6035 LINLEY VALLEY DRIVE	

HORIZONTAL SCALE	VERTICAL SCALE
1:500	

PROJECT No.	DRAWING No.	REVISION No.	CITY PLAN FILE No.
1116-001	201	01	

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CITY OF NANAIMO

ENGINEERING LTD.
4-3179 BARONS ROAD
NANAIMO, B.C. V9T 5K5
PHONE (250) 756-8553

WEIGHTED AVERAGE RUNOFF COEFFICIENT CALCULATIONS:

AREA A (ACCESS ROAD) C = 0.90

AREA B $C = \frac{(0.1703+0.3566)(0.4)-(0.0249+0.0722)(0.9)}{0.624}$
C = 0.478

AREA C $C = \frac{(0.3337+0.3339)(0.4)+1.1395(0.9)}{0.5071}$
C = 0.538

AREA D $C = \frac{(0.0369+0.0753)(0.4)+0.1697(0.9)}{0.2819}$
C = 0.70

AREA E $C = \frac{(0.0559+0.0335)(0.4)+0.1392(0.9)}{0.2286}$
C = 0.70

AREA F (BUILDING ROOF AREAS) C = 0.95

AREA G (LANDSCAPED AREAS) C = 0.4

D 0.28 ha	→	TRIBUTARY AREA
I = 0.17 ha	→	IMPERVIOUS AREA
P = 0.11 ha	→	PERMEABLE AREA
C = 0.70	→	WEIGHTED AVERAGE RUNOFF COEFFICIENT

AT DISCHARGE POINT
PRE DEVELOPMENT $Q_p = 37.4$ l/s
POST DEVELOPMENT $Q_p = 118.4$ l/s *

* ASSUMING ZERO INFILTRATION OR STORAGE

CALCULATED REQUIRED STORAGE VOLUME = 154.5m³
REQUIRED DRAIN ROCK VOLUME (30% VOID RATIO) = 515m³

PROPOSED STORAGE VOLUMES:

BIO-SWALE A: 293m³ DRAIN ROCK - STORAGE VOLUME = 87.9m³ **
BIO-SWALE B: 222m³ DRAIN ROCK - STORAGE VOLUME = 66.6m³ **
TOTAL STORAGE VOLUME = 154.5m³

** PROPORTIONED BY TRIBUTARY AREA TO BIO-SWALE

ABSORBENT LANDSCAPE CALCULATIONS

PROJECT: 4800 Uplands Drive/6035 Linley DATE: 9/14/2018
FILE: 1116-001 ENGINEER: Mark Warbrick

1.) I/P Ratio: I/P Ratio = ImperVIOUS Tributary Area / Absorbent Landscape Area

IFA = 13200.0 ImperVIOUS Tributary Area (m²)
ALA = 14811.0 Absorbent Landscape Area (m²)
I/P = 0.89 I/P Ratio
Min. ALA = 6600 Minimum Absorbent Landscape Area for 2:1 I/P Ratio (m²)

2.) Depth of soil: $D_s = R \times (I/P + 1) - K_s \times 24$
0.2

D_s = 185.1 Depth of soil (mm)
R = 31 Rainfall capture (mm)
K_s = 0.9 Saturated hydraulic conductivity (mm/hr)
I/P = 0.89 I/P Ratio

AREA SUMMARY:

TOTAL SITE AREA: 2.80 ha
TOTAL IMPERVIOUS AREA: 1.32 ha
TOTAL PERVIOUS AREA: 1.48 ha

POST DEVELOPMENT FLOW NORTH:

Q_p AREA A = 2.78(0.9)(40.4)(0.14) = 14.15 l/s
AREA B = 2.78(0.478)(40.4)(0.624) = 33.50 l/s
AREA C = 2.78(0.538)(40.4)(0.507) = 30.64 l/s
AREA D = 2.78(0.7)(40.4)(0.2819) = 22.16 l/s
AREA E = 2.78(0.7)(40.4)(0.2286) = 17.97 l/s
TOTAL = 118.4 l/s

POST DEVELOPMENT FLOW SOUTH EAST:

Q_p AREA F = 2.78(0.95)(40.4)(0.63) = 67.2 l/s
AREA G = 2.78(0.4)(40.4)(0.38) = 17.1 l/s
TOTAL = 84.3 l/s

PRE DEVELOPMENT $Q_p = 87.8$ l/s
POST DEVELOPMENT $Q_p = 84.3$ l/s
CAPACITY OF 300# @ 1.8% = 129.7 l/s

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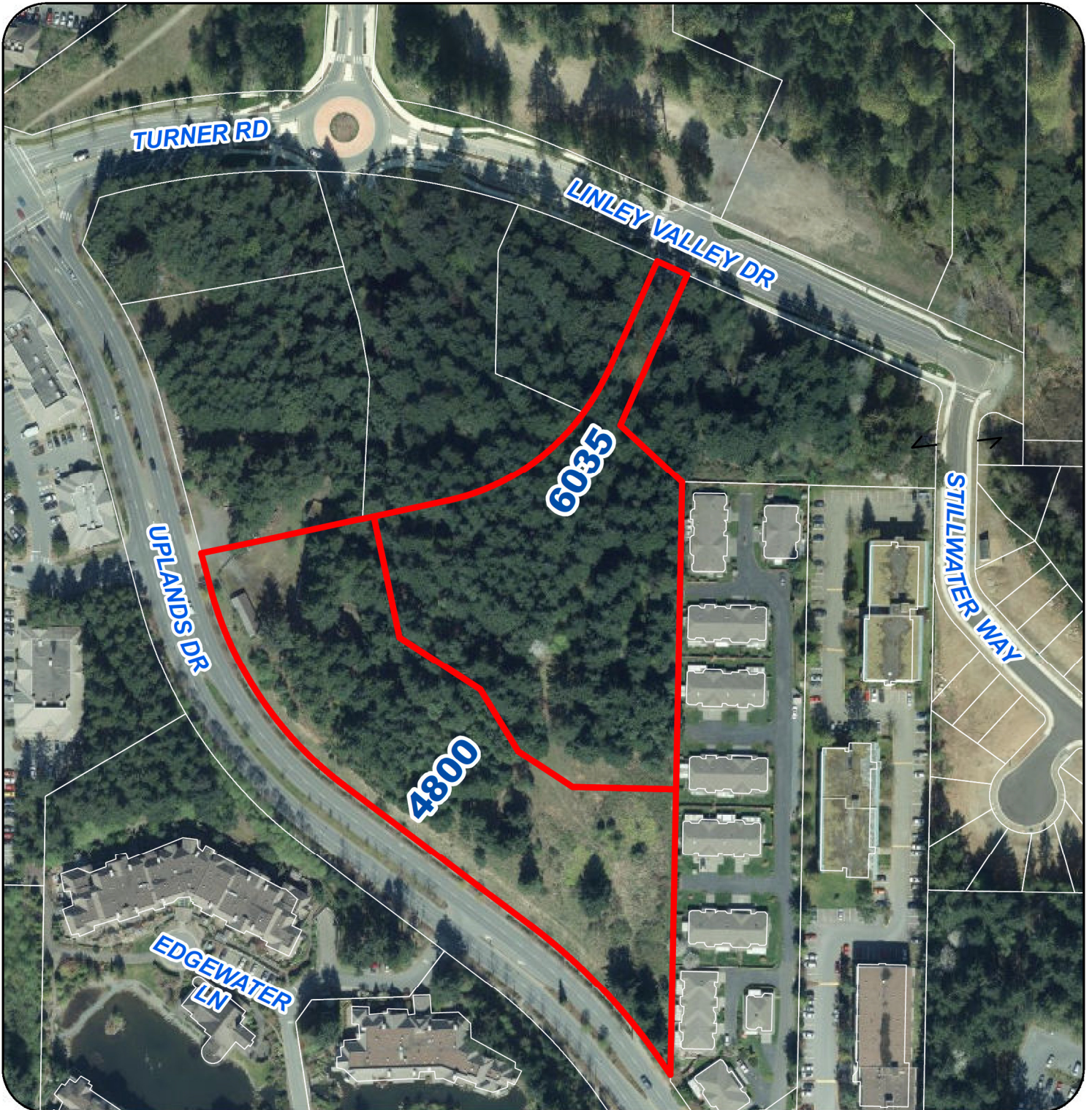
PRELIMINARY
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Rev. No.	DATE	BY	REVISION DESCRIPTION	CWG	LEGEND	SITE LEGAL DESCRIPTION	ENGINEER'S SEAL	DESIGN	CLIENT NAME	DRAWING TITLE
30	09/18/18	dp	SUBMITTED TO CITY OF NANAIMO FOR REVIEW - NOT FOR CONSTRUCTION	MIW	PROPOSED	LOT 4 & 5, DISTRICT LOT 30, WELLINGTON DISTRICT, PLAN VIP65104		MIW	NORTHVIEW APARTMENTS REIT	POST DEVELOPMENT STORM SEWER TRIBUTARY AREA PLAN
31	12/12/18	dp	CITY OF NANAIMO REVIEW COMMENTS ADDRESSED - NOT FOR CONSTRUCTION	MIW	EXISTING	BENCHMARK DESCRIPTION ELEVATION ARE GEODETIC AND ARE REFERRED TO MONUMENT 98SG037 LOCATED AT THE INTERSECTION OF UPLANDS DRIVE AND TURNER ROAD. ELEVATION 135.927m		CHECKED		
								PLOT DATE 12-19-18	PROJECT NAME PROPOSED DEVELOPMENT 4800 UPLANDS DRIVE AND 6035 LINLEY VALLEY DRIVE	PROJECT No. 1116-001
								PRINT DATE		DRAWING No. 202
								HORIZONTAL SCALE 1:500		REVISION No. 01
								VERTICAL SCALE		CITY PLAN FILE No.

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ENGINEERING LTD.
4-1179 BARONS ROAD
NANAIMO, B.C. V9T 8K5
PHONE (250) 756-8553

AERIAL PHOTO



DEVELOPMENT PERMIT NO. DP001119