



To: Planning Committee
From: Wayne Craig
Director of Development

Date: May 28, 2014
File: RZ 13-649999

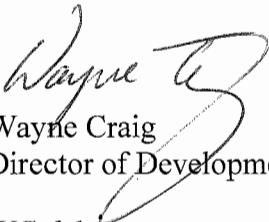
Re: **Application by Am-Pri Developments (2012) Ltd. for Rezoning at 9580, 9600, 9620, 9626, 9660 and 9680 Alexandra Road from “Single Detached (RS1/F)” and “Two-Unit Dwellings (RD1)” to “Town Housing (ZT67) - Alexandra Neighbourhood (West Cambie)”**

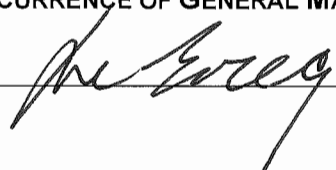
Staff Recommendation

That Richmond Zoning 8500 Amendment Bylaw No. 9136,

- a) To Amend “Town Housing (ZT67) - Alexandra Neighbourhood (West Cambie)” Zone to reduce the minimum front yard setback for 9580, 9600, 9620, 9626, 9660 and 9680 Alexandra Road to 4.5 m; and
- b) To rezone 9580, 9600, 9620, 9626, 9660 and 9680 Alexandra Road from “Single Detached (RS1/F)” and “Two-Unit Dwellings (RD1)” to “Town Housing (ZT67) - Alexandra Neighbourhood (West Cambie)” as amended;

be introduced and given first reading.


Wayne Craig
Director of Development
WC:dcb

| REPORT CONCURRENCE | | |
|---|--|--|
| ROUTED TO: | CONCURRENCE | CONCURRENCE OF GENERAL MANAGER |
| Affordable Housing Parks Planning and Design | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> |  |

Staff Report

Origin

Am-Pri Developments (2012) Ltd. has applied to rezone 9580, 9600, 9620, 9626, 9660 and 9680 Alexandra Road from “Single Detached (RS1/F)” and “Two-Unit Dwellings (RD1)” to “Town Housing (ZT67) – Alexandra Neighbourhood (West Cambie)” in order to develop approximately 96 three storey townhomes on the assembled site. A minor amendment to the ZT67 Zone is also proposed to reduce the front yard setback (north) from 5 m to 4.5 m in order to facilitate a wider vegetated buffer strip on the southern property line of the site.

A location map is provided in Attachment 1.

Project Overview

The purpose of the rezoning application is to allow a townhouse development with approximately 96 townhouses in a total of 21 buildings plus a centrally located 100 m² amenity building on the site and an adjacent 618 m² open space amenity area. An additional 20 m wide, 1,068 m² greenway is proposed across the north-western portion of the property that will become part of the future public pedestrian link between Alderbridge Way and the interior of the Alexandra Neighbourhood. This greenway link is a key component previously identified in the Alexandra Neighbourhood Land Use Plan (Attachment 2).

Frontage improvements are proposed along Alexandra Road including raising the Alexandra road surface, the installation of concrete sidewalks, parking along the south side of Alexandra Road and new light standards. In addition, upgrading and/or replacement of existing sanitary lines, storm lines, water main lines, additional fire hydrants and the undergrounding of hydro lines, will be required as part of development’s off-site works.

Land dedication will be required to accommodate the installation of a new public sidewalk and a treed boulevard that will ultimately run between Garden City Road and No. 4 Road along Alderbridge Way.

Contributions to the affordable housing reserve fund, public art, the child care reserve fund and the Alexandra Community Planning costs, in accordance with the “West Cambie-Alexandra Interim Amenity Guidelines Policy 5044”, are included in the Rezoning Considerations for this project. These elements are detailed later in this report.

An emergency vehicle access to Alderbridge Way is incorporated in the site plan.

Conceptual development plans provided by the applicant are shown in Attachment 3. Staff will work with the developer to refine these plans during the Development Permit review.

Findings of Fact

The proposed development site is approximately 1.62 ha (4.00 acres before dedications) in size and is located in the Alexandra neighbourhood of the West Cambie Planning Area. All of the lots are currently vacant of structures except for a number of small sheds. Most of the lots have some degree of tree and understorey vegetation coverage.

A Development Application Data Sheet providing details about the development proposal is provided in Attachment 4.

Surrounding Development

- To the North: An existing 26 building three storey townhouse development (known as Wishing Tree) containing 141 units [zoned “Town Housing (ZT67) – Alexandra Neighbourhood (West Cambie)”], a City owned park/greenway at 9611 Alexandra Road and a single, large lot currently zoned “Single Detached (RS1/F)”.
- To the East: Two large lots (9700/9740 Alexandra Road) zoned “Two-Unit Dwellings (RD1)” and “Single Detached (RS1/F)”. Both lots are under an application for Rezoning by Polygon Development 296 Ltd. (RZ13-649641) to allow development of approximately 64 three storey townhouse dwellings.
- To the South: Alderbridge Way and the Garden City lands to the south of that. The 55 hectare (136.5 acres) Garden City lands are zoned “Agriculture (AG1)”.
- To the West: A number of large lots currently zoned “Single Detached (RS1/F)”. Of these, 9040 – 9500 Alexandra Road are currently under a pending Rezoning application by First Richmond North Shopping Centres Ltd. for a proposed shopping centre (RZ 10-528877). 9540 Alexandra Road is currently designated as Park under the Alexandra Neighbourhood Land Use Plan but the lot remains under private ownership at this time. 9500 Alexandra Road is designated for residential, 2 and 3 storey townhouses in the Land Use Plan.

Related Policies & Studies

Official Community Plan- West Cambie Area Plan

On October 15, 2012, Council adopted an Official Community Plan (OCP) amendment to re-designate 9540 – 9820 Alexandra Road and 4711– 4771 No. 4 Road from “Public and Open Space Use” and “Park” to “Neighbourhood Residential” with the exception of a greenway strip over 9540 Alexandra Road and portions of 9560 – 9600 Alexandra Road (see Attachment 2). An amendment to the West Cambie Area Plan was also adopted to re-designate the same properties from “Park” to “Townhouses”. Although the “Park” designations were removed from the West Cambie Area Plan, the ESA designations within the former park were retained with the intent that these areas would be reassessed for possible retention on a case-by-case basis as a requirement of any redevelopment proposals involving these properties.

Current Use and Density

The Alexandra Neighbourhood Land Use Map (Attachment 2) within the West Cambie Area Plan identifies the subject properties as being within “Residential Area 2” which supports a base Floor Area Ratio (FAR) of 0.65 with density bonusing to 0.75 FAR with affordable housing built on site. Two and three storey townhouses are permitted. No new single family development is permitted in the Alexandra neighbourhood due to the OCP Aircraft Noise Sensitive Development Policy. The proposed development conforms to these requirements. The applicant will not

utilized the available density bonus provisions and is proposing a project density of 0.65 FAR with a monetary contribution to the Affordable Housing Reserve in accordance with the contribution rates established by Council Policy 5044.

Environmentally Sensitive Area Designations

Environmentally Sensitive Areas (ESA) were first established and incorporated into Richmond's OCP in 1991 pursuant to Section 919.1 of the BC *Local Government Act* which allows local government to designate development permit areas (DPA) for the protection of the natural environment, its ecosystems and biological diversity. Richmond's ESA designations were most recently updated as part of the 2041 OCP (Bylaw 9000) review using 2012 aerial photogrammetry, GIS mapping and limited ground truthing.

Depending upon the type of development or activity proposed and the degree of anticipated impact upon the designated ESA, environmental assessment requirements vary from "no review" being required to a "detailed inventory and assessment" being required by qualified environmental professionals (QEPs). The intent of an environmental assessment is to verify the nature, extent and quality of any valued environmental features present and to provide recommendations for their preservation where possible, impact mitigation and/or compensation measures where impacts are determined to be unavoidable.

The designated ESAs in the Alexandra Neighbourhood are classified in the City's ESA inventory as "Upland Forest" areas. Upland Forests are typically treed areas (woody vegetation > 5m (16.4 ft) tall not including forested wetlands (swamps and bog forests) or forested riparian zones, adjacent to streams, rivers, and other watercourses.

A detailed analysis of the ESA is provided in the analysis section of this report.

Flood Construction Elevation and Road Elevation Requirements

The West Cambie Area Plan establishes a minimum Flood Construction Level within the Alexandra Neighbourhood of 2.6 m GSC and a minimum elevation of 2.0 m GSC for all new roads within the neighbourhood. The development proposes to meet these requirements by raising the grade across most of the lot. Through the associated Servicing Agreement, the development will contribute to the raising of Alexandra Road by approximately 0.6 m to bring it up to the required 2.0 m elevation. Registration of a Flood Covenant with a minimum Flood Construction Level of 2.6 m GSC is included in the Rezoning considerations.

West Cambie – Alexandra Amenity Contributions

The site is subject to the "West Cambie-Alexandra Interim Amenity Guidelines Policy 5044". This Policy establishes guidelines for voluntary developer contributions toward affordable housing, community and engineering planning costs, child care and City beautification for new developments in the Alexandra area. The proponent has opted to build to a maximum density of 0.65 FAR and provide a cash-in-lieu contribution to the City's Affordable Housing Reserve Fund. The estimated Affordable Housing contribution for this project is approximately \$574,736.85 based on the plan submission dated March 24, 2014.

The contributions for community and engineering planning costs (estimated at \$7,888.55), child care (estimated at \$67,616.10) and City beautification (estimated at \$67,616.10) will be finalized

and collected at the prior to final adoption of the Rezoning. The City beautification contribution may be reduced from the rate established by Policy 5044 as a result of frontage improvements identified and bonded for through the Servicing Agreement that extend beyond the site's immediate frontage. The offsite works which may qualify for this reduction include works along the north side of Alexandra Road (i.e. conversion of the existing ditch to a swale, sidewalk installation, resetting of existing pedestrian bridges to address grade changes).

Aircraft Noise Policy

The subject property is located within Area 2 of the Aircraft Noise Sensitive Development (ANSD) Policy Areas. All aircraft noise sensitive land uses except new single family may be considered within Area 2. The proposed townhouse development conforms to this policy. The Rezoning considerations include registration of a restrictive covenant related to aircraft noise, submission of an acoustic report, incorporation of noise mitigation measures such as mechanical ventilation and central air conditioning. These requirements will be secured through the forthcoming Development Permit.

District Energy Utility

The development site is not within the area where connection to the West Cambie District Energy Utility (DEU) is required. The developer will incorporate a number of sustainability initiatives into the development that they indicate will result in overall reductions in energy use by the future owners.

The Rezoning considerations include requirements for this project to achieve an Ener-Guide rating of 82 or better and to pre-duct for solar hot water heating.

Public Art

The applicant has submitted a Public Art Plan checklist and is working with the Public Art Planner to address the City's Public Art Program Policy 8703. A voluntary contribution of \$86,774.00 to the City's public art fund is included in the rezoning considerations.

Public Input

Development information signage has been installed on the subject site. Staff responded to 4 telephone enquiries of a general nature from residents in the area on the status of both the subject application and the application for the adjacent lots (9700 and 9740 Alexandra Road).

Staff Comments

Environmentally Sensitive Area and Tree Assessments

Approximately 55% of the subject development site is designated in the Official Community Plan as an Environmentally Sensitive Area (ESA). Detailed site assessments of the on-site environmental features and the condition of the trees were undertaken by Stantec Consulting Ltd. (Biologist report dated August 23, 2013, see Attachment 5) and Abortech Consulting (Arborist report dated April 29, 2013, see Attachment 6).

Arborist Review

The Arborist’s report (Arbortech report) inventoried 424 trees on the subject properties of which 96 are Bylaw-sized (i.e. over 200 mm diameter). A tree summary is provided in the table below. Ninety seven percent (410) of these trees were classified as unsuitable for retention due to advanced health decline or the presence of significant structural defects. Eleven trees were classified as marginal “but may be considered for retention conditional to special measures...”. Only three trees were considered suitable for retention although the report recommends consideration for retaining an additional thirteen “unsuitable” trees within the 20 m wide greenway. The Arborist's assessment also notes the difficulty of retaining trees on the site due to grade changes required to achieve the minimum flood construction elevations. The developer has estimated that approximately one metre of fill is expected to be required on the site to meet flood construction requirements.

Tree Summary Table

| | | |
|---|------------|-------------|
| Trees in suitable condition (over 8" (200mm) in diameter) | 3 | 0.7% |
| Trees in marginal condition (over 8" (200mm) in diameter) | 11 | 2.6% |
| Trees in unsuitable condition (over 8" (200mm) in diameter) | 10 | 2.35% |
| Trees in poor condition over 4" (100mm) diameter - Stand 3 | 60 | 14% |
| Trees noted as dying over 4" (100mm) diameter - Stand 2 | 165 | 38.9% |
| Trees noted as dying over 4" (100mm) diameter - Stand 1 | 175 | 41.2% |
| Total | 424 | 100% |
| Trees to be removed over 4" (100mm) diameter Only 96 of these trees are by-law size (over 8" (200mm) diameter) | 405 | 96% |
| Trees to be replaced | 195 | |

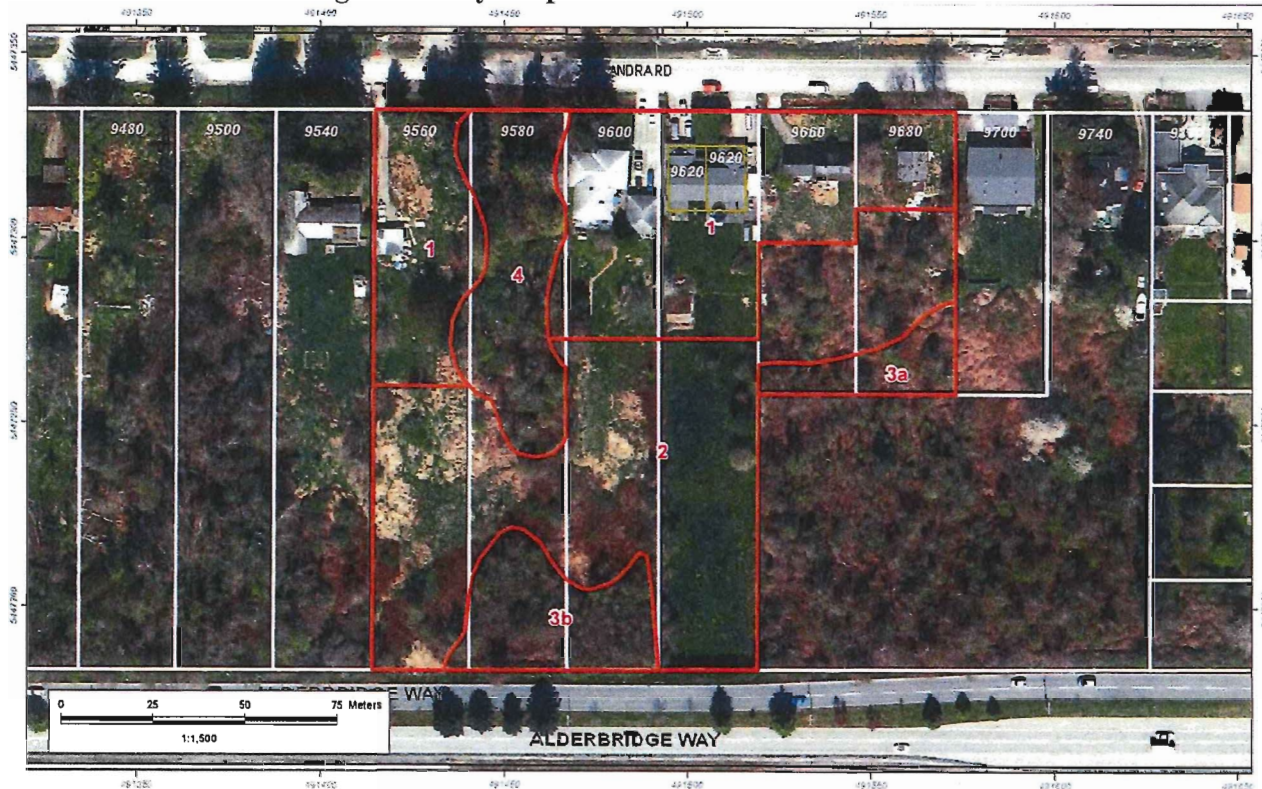
More than 80% of the trees on the lot have been assessed as dying while the majority of the remainder have been assessed as in poor condition.

Biologist Review

The Biologist’s assessment (Stantec report – see Attachment 5) includes the same properties as assessed by the Arborist as well as 9560 Alexandra Road, the single lot immediately to the west of the subject site. This extra lot is the remnant property that the Developer has made several unsuccessful attempts to acquire.

Stantec’s environmental assessment divides the subject properties into four environmental "community type" polygons and ranks each of these in terms of four key characteristics which contribute to the overall value for habitat.

Environmental Ranking Summary Map and Table



| Polygon Number | Community Type | Fish and Fish Habitat | Vegetation Diversity and Health | Wildlife Habitat Connectivity | Invasive Species Presence | Overall Rank |
|----------------|------------------------------------|-----------------------|---------------------------------|-------------------------------|---------------------------|--------------|
| Polygon 1 | Anthropogenic (human) Disturbance | N/A | Low | Low | High | Low |
| Polygon 2 | Graminoid (grasses) and Shrub land | N/A | Low | Low | High | Low |
| Polygon 3a | Birch Forest | N/A | Moderate | Moderate | High | Moderate |
| Polygon 3b | Birch Forest | N/A | Moderate | Low | High | Low |
| Polygon 4 | Mixed wood Forest | N/A | Moderate | Low | High | Moderate |

From: Stantec Consulting Ltd. Environmental Sensitive Area Assessment at 9560, 9580, 9600, 9620/9626, 9660 and 9680 Alexandra Road.

As indicated by the above table two areas were given even a moderate overall ranking however, the Biologist’s report qualifies this ranking noting that the extensive presence of invasive species. Across all of the identified environmental community types the percentage of invasive species coverage ranged from 25% to 30% of the vegetation present. Himalayan blackberry, evergreen blackberry and Japanese knotweed are among the most prominent invasive species

present. The Biologist's report also confirms the Arborist's findings regarding the overall poor condition of the existing trees on the subject properties.

Based on the detailed site level assessments, the Stantec environmental assessment indicates that the actual area of habitat on the subject site totals approximately 2,700 m² (about 16.8% of the net site) and not the 8,871.05 m² (55% of the net site) indicated in the City's current broad level ESA mapping.

The greenway area across the north-western edge of the site would be secured via a Statutory Right of Way (SROW) registered on title of the site and will also form part of the compensation package for the development impacts on a portion of the site which is designated as "Environmentally Sensitive Areas" (ESA). In addition to the proposed greenway, the balance of the ESA compensation and enhancement package includes a densely vegetated strip along the southern property boundary on Alderbridge Way, a vegetated strip along the western property line and a third vegetated strip along the eastern property boundary that will be combined with a similar vegetation strip to be provided by the developers of an adjacent property.

Site Plan Layout

The overall development density proposed for this site is 0.65 FAR with site coverage of approximately 40%. The site is laid out with a single vehicle access off Alexandra Road that leads into a loop through the main part of the site. Access to the adjacent site to the west (9560 Alexandra Road) would also come through the subject site via a Statutory Right of Way to be secured via a legal agreement as a Rezoning considerations.

The 96 townhouse units are proposed to be arranged in clusters of varying size from 3 units to a maximum of 6 units per building. A total of 21 separate residential buildings, a 100 m² amenity building and a garbage/recycling building are proposed for the site. A 617.8 m² landscaped outdoor amenity space will be located in the centre of the site that also contains the resident's amenity building. The size of these buildings and the outdoor amenity area will meet the OCP guidelines.

Vehicle and bicycle parking is proposed to meet Zoning Bylaw 8500 requirements. Preliminary development statistics indicate the provision of 192 residential vehicle stalls and 20 visitor parking stalls. Forty seven of the dwellings will contain 97 tandem stalls with the remaining 49 dwellings containing side by side parking stalls. The tandem parking arrangement will be consistent with the Zoning Bylaw 8500 requirements. The plans also include 147 Class 1 (indoor) and 20 Class 2 (outdoor) bicycle stalls fully complying with Zoning Bylaw 8500 requirements.

Building Appearance

The townhouse units will be three stories in height with different exterior finishes between the at-grade levels and the upper levels.

Dwellings fronting Alexandra Road will have individual entrances and sidewalks fronting to and connecting with the street. All the dwellings will have balconies off their second floor levels. As proposed, bedrooms will typically be located on the upper level, the kitchen, dining area and

living area will be located on the second level and parking, bicycle storage and utility equipment will be located on the ground level.

Material finishes and colors will be refined as part of the Development Permit review.

Sustainability Initiatives

The Developer has committed to achieving an Ener-Guide rating of 82 or better and to pre-duct for solar hot water heating for this townhouse project. They have also advised that they are exploring other technologies and innovations that will improve the projects sustainability and reduce the overall environmental impact of this development. These initiatives will be reviewed through the Development Permit application.

The Rezoning considerations include a requirement for the dwellings in this project to achieve an Ener-Guide rating of 82 or better and to pre-duct for solar hot water heating.

Analysis

Land Use and Zoning

The proposed development complies with both the Official Community Plan “Neighbourhood Residential” land use designation and the West Cambie Alexandra Neighbourhood “Townhouses” land use designation.

Zoning Amendment Bylaw 9136 includes an amendment to “Town Housing (ZT67) – Alexandra Neighbourhood (West Cambie)” in Zoning Bylaw 8500 to reduce the front yard setback for the subject properties from 5 m to 4.5 m. No other changes are proposed to the existing “Town Housing (ZT67) – Alexandra Neighbourhood (West Cambie)” zone.

If the proposed Zoning text amendment is approved, it will apply to only the eastern half of the subject site’s frontage along Alexandra Road since the balance of the frontage is taken up by the proposed 20 m wide greenway. Staff support the proposed front yard setback/ Zoning text amendment since this will assist in creating widened functional vegetation corridors between this site and the neighbouring development to the east and along Alderbridge Way.

ESA Response – Preliminary Overview

The detailed environmental and arborist assessments undertaken for the subject site indicate that the value of the habitat provided by at these locations is quite low. These on-site assessments indicate that the vegetation is, and has been, under stress for some time with significant presence of structural faults and insect infestations evident in the majority of the existing trees. The assessments also note a significant presence of invasive vegetation species such as Himalayan Blackberry, Japanese knot weed in the undergrowth.

The assessments of the subject site were reviewed by City's retained biologist (Raincoast Applied Ecology). While acknowledging the report findings the City’s biologist identified opportunities to retain or enhance habitat corridors through the site and, where possible, target higher valued portions of the lots.

One of the habitat corridors identified runs along the proposed greenway identified in the Alexandra Neighbourhood Land Use Plan (over portions of 9540, 9560 and 9680 Alexandra Road). Working in concert with the development to the east a second 6 m wide habitat corridor is being proposed along the property boundary between the subject property and the lot to the east, supplemented by functional vegetation strips along the other property boundaries.

The proponent’s concept is to create smaller, but higher quality habitat areas along the southern and eastern property boundaries plus enhancement of the proposed greenway at the northwest corner of the site. The focus of these enhancements will be to create high quality songbird habitat and movement corridors for small birds and animals using native trees and shrubs.

Proposed Vegetation Strips

| | |
|---|--|
| <p>East property boundary</p> | <p>6 m wide when combined with buffer strip on the adjacent development property (Polygon Development 9700/9740 Alexandra Road) (i.e. 3 m per site) native trees and shrubs.</p> |
| <p>South property boundary</p> | <p>4 m wide strip of native trees and shrubs - species selections to minimize agricultural issues for the Garden City Lands to the south.</p> |
| <p>West property boundary</p> | <p>3 m wide strip of native trees and shrubs</p> |
| <p>Greenway at the northwest corner adjacent to Alexandra Road</p> | <p>20 m wide corridor running east-west across 9580 and 9600 Alexandra Road. This area will contain native trees and shrubs and likely a pedestrian greenway trail leading from Alderbridge Way to Alexandra Road. The applicant will work with Parks staff on the greenway plan, vegetation selections, drainage and pedestrian linkages.</p> |

The proposed on-site habitat compensation area will total approximately 2,130m². Based on the biologist’s assessment, the combined enhancement/replacement plantings will result in a net habitat loss of 37m² on the subject site, however, the quality of the replacement habitat will be significantly improved.

The vegetation strip along the southern property boundary adjacent to Alderbridge Way will be selected to minimize impacts to the agricultural lands south of Alderbridge Way.

Trees and Landscaping

The Developer has committed to replacing the bylaw sized trees proposed for removal from the site at a two for one ratio consistent with the OCP policies. A detailed habitat compensation balance sheet will be requested as part of the Development Permit review. The proponent has submitted a preliminary balance sheet proposing 195 replacement trees will be provided for the 96 bylaw sized trees proposed to be removed. Sizing and species types for replacement trees will be resolved through the Development Permit.

Vegetation clearing of the site will not be permitted until the Development Permit has been issued unless specific safety issues are evident and the Rezoning Considerations include a requirement for submission of a pre-clearing bird nest survey summary of findings and recommendations prior to site clearing activities.

Per recommendations from the Tree Preservation Coordinator permission to remove two trees located on the shared North East property line will be required through the Development Permit. Three trees located on City property will need to be assessed by Parks Arboriculture staff for either retention or removal and replacement.

Alderbridge Way Median Enhancement

Additional infill tree planting will be sought along the centre median along a portion of Alderbridge Way with the intent of providing a year round visual screen to the subject site when viewed from the south. The applicant will work with Parks staff on an appropriate planting plan for the median through the Servicing Agreement.

Existing Covenant to be Discharged

A legal covenant (BG013764) is currently registered on title over 9620 and 9626 Alexandra Road restricting use of the property to that of a two-family dwelling. The removal of this covenant is necessary in order to permit townhouses on the lot and is included in the Rezoning considerations. These dwellings are part of a strata-titled duplex which will also need to be cancelled as part of the Rezoning considerations.

Orphaned Lot 9560 Alexandra Road

The applicant has attempted to acquire 9560 Alexandra Road for consolidation into their project but they have not been successful despite several attempts. The applicant's development submission includes an access via a proposed Statutory Right of Way through the subject development site in order to avoid having the site's access cut through the proposed greenway. A conceptual development plan has been submitted showing the potential redevelopment of 9560 Alexandra Road in accordance with the West Cambie Planning Area land use map subject to rezoning approval.

Engineering and Transportation Requirements

No significant concerns have been identified through the technical review related to the subject development proposal. As there are several developments occurring or proposed to occur within the vicinity of Alexandra Road (DP 12-613923 at 9251 and 9291 Alexandra Road, DP 13-650988 at 4660-4740 Garden City Road and 9040-9550 Alexandra Road, RZ 13-649641 at 9700-9740 Alexandra Road and RZ12-598506 at 9491 – 9591 Alexandra Road) some of the off-site works may be advanced by others. Engineering staff will determine how the frontage works along Alexandra Road will occur based on the sequence of Servicing Agreement submissions received and discussions with the individual developers.

Highlights of the off-site engineering requirements include:

- The following modifications to the north side of Alexandra Road are required to accommodate the proposed raising of Alexandra Road frontage:
 - Remove existing extruded curb.
 - Provide barrier curb and gutter and sidewalk on the north side of the raised Alexandra Road.
 - Modify the existing bridge access to 9566 Tomicki Road to match the raised sidewalk/road on the north side of the raised Alexandra Road. The maximum bridge slope shall be 5%.
- If adequate flow is not available on Alexandra Road, the developer shall be required to construct a 200mm diameter watermain along the future May Drive from Alexandra Rd to Tomicki Avenue or from Alexandra Road to Alderbridge Way;
- Replacement of existing watermain is required along the development site frontage;
- Installation of additional fire hydrants to achieve minimum spacing requirements;
- Construction of a 200 mm diameter gravity sanitary sewer along Alexandra Rd from the east property line of the site to the future May Drive;
- Construction of a 375 mm diameter sanitary sewer along the future May Drive from Alexandra Road to Tomicki Avenue;
- Upgrade the existing storm sewer line from the west property line of 9580 Alexandra Road to the existing box culvert in No 4 Road as per storm capacity analysis dated April 23, 2014 (complete with tie-in the box culvert); and
- Undergrounding of existing private utility lines along Alexandra Road frontage to accommodate the proposed raising of Alexandra Road.

Key elements of the transportation related off-site requirements include:

- Design and construction of the Alexandra Road from the western property line of 9600 Alexandra Road to the eastern limit of the development including curbing, an 8.5 m wide travel road surface, treed boulevards and sidewalks, and transition to the ditch on the north side of Alexandra Road;
- Design and construction of the Alexandra Road from the western property line of 9600 Alexandra Road to May Drive including a sidewalk, treed boulevard, curbing, a minimum 6.2 m wide travel road surface and a 1m wide shoulder.
- Design and construction of the Alderbridge Way frontage including a treed boulevard and a shared cyclist/pedestrian path.
- Land dedication along Alderbridge Way to accommodate the above sidewalk and a treed boulevard.

Rezoning Considerations

Detailed Rezoning considerations are provided in Attachment 7.

Development Permit Issues

Some of the elements that staff will be following through the forthcoming Development Permit include:

- Confirmation of the site plan in relation to the Zoning Schedule “Town Housing (ZT67) – Alexandra Neighbourhood (West Cambie)”, detailing building massing and design, provision of parking, loading, pedestrian access, amenity areas, surface permeability, incorporation of play areas;
- Details on the existing vegetation, ESA mitigation, compensation and long term maintenance plan preparation and protection;
- Follow up on tree assessments on City lands and trees on shared property boundaries;
- Registration of legal agreements for the protection and maintenance of the ESA vegetation areas;
- Confirmation of the Public Art response;
- Resolving on-site garbage collection and appropriate vehicle movement allowances;
- Provision of an emergency vehicle access between the subject site and Alderbridge Way;
- Incorporation of appropriate Aircraft Noise Mitigation measures in the building plans;
- Addressing accessibility features within the units;
- Addressing drainage concerns adjacent to the Alexandra Road greenway and in the corridor between this site and the Polygon site to the east. Design of the greenway with parks and engineering; and
- Confirmation of the sustainability measures that will be built into the units.

Financial Impact or Economic Impact

None.

Conclusion

The proposed development provides for ground oriented town housing in keeping with the West Cambie Area Plan and the Alexandra Neighbourhood Land Use map. Biologist and Arborist assessments of the vegetation within the designated Environmentally Sensitive Area on the subject properties have provided a better picture of the habitat limitations on the site and have been used to prepare appropriate vegetation enhancement corridor plans along Alderbridge Way and along both the eastern and western property boundaries as well as the proposed park trail greenway adjacent to Alexandra Road.

Based upon the submitted information, staff recommend that Bylaw 9136 to reduce the minimum front yard setback along Alexandra Road from 5.0 m to 4.5 m and to rezone the subject properties to “Town Housing (ZT67) - Alexandra Neighbourhood (West Cambie)”, be introduced and given first reading.



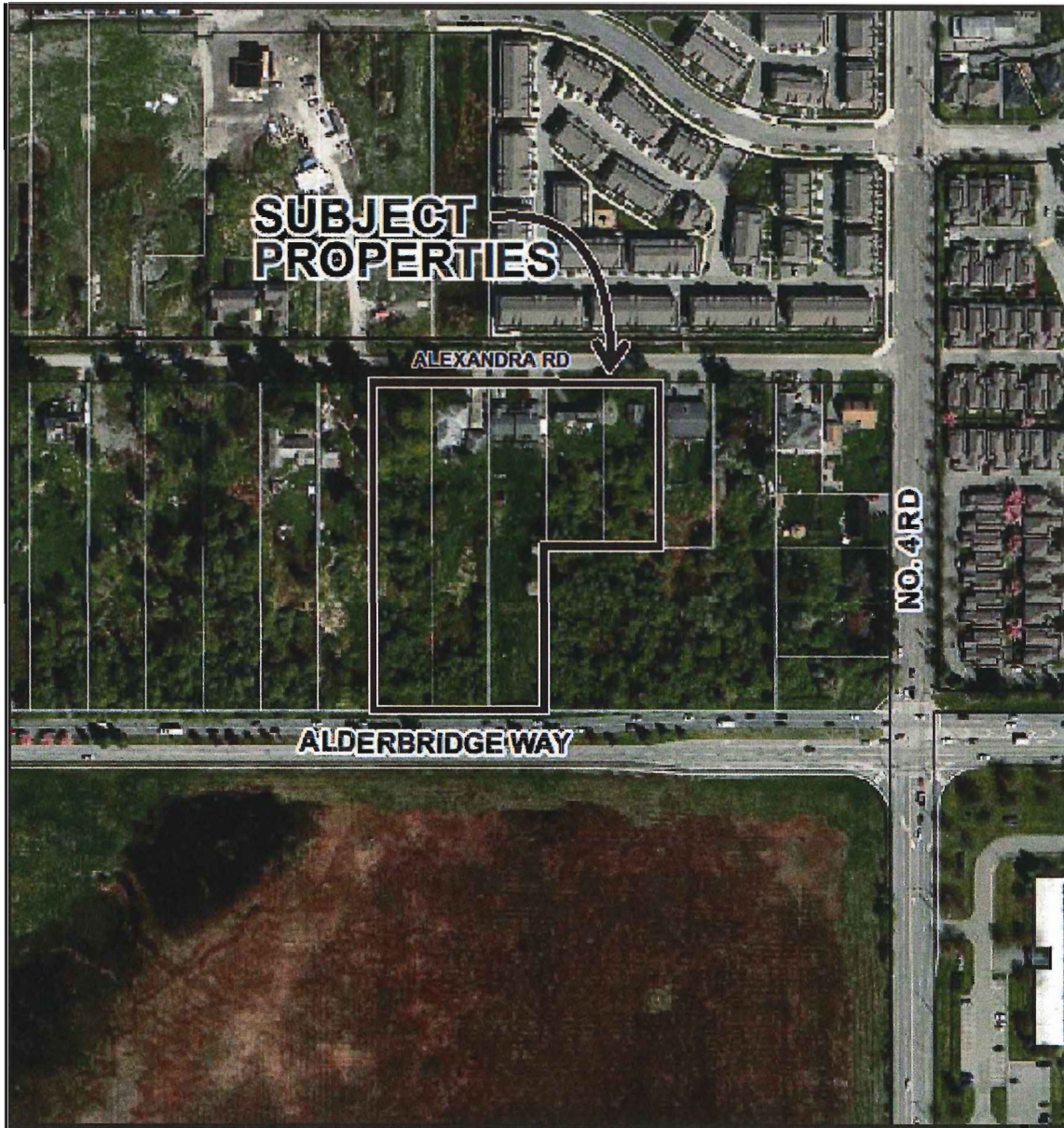
David Brownlee
Planner 2

DCB:cas

- Attachment 1: Location Map
- Attachment 1a: Location Map with ESA Overlay
- Attachment 2: Alexandra Neighbourhood Land Use Map
- Attachment 3: Conceptual Development Plans
- Attachment 4: Development Application Data Sheet
- Attachment 5: Biologist's Report dated August 23, 2013
- Attachment 6: Arborists Report dated November 6, 2013
- Attachment 7: Rezoning Considerations Concurrence



City of
Richmond



RZ 13-649999

Original Date: 11/15/13

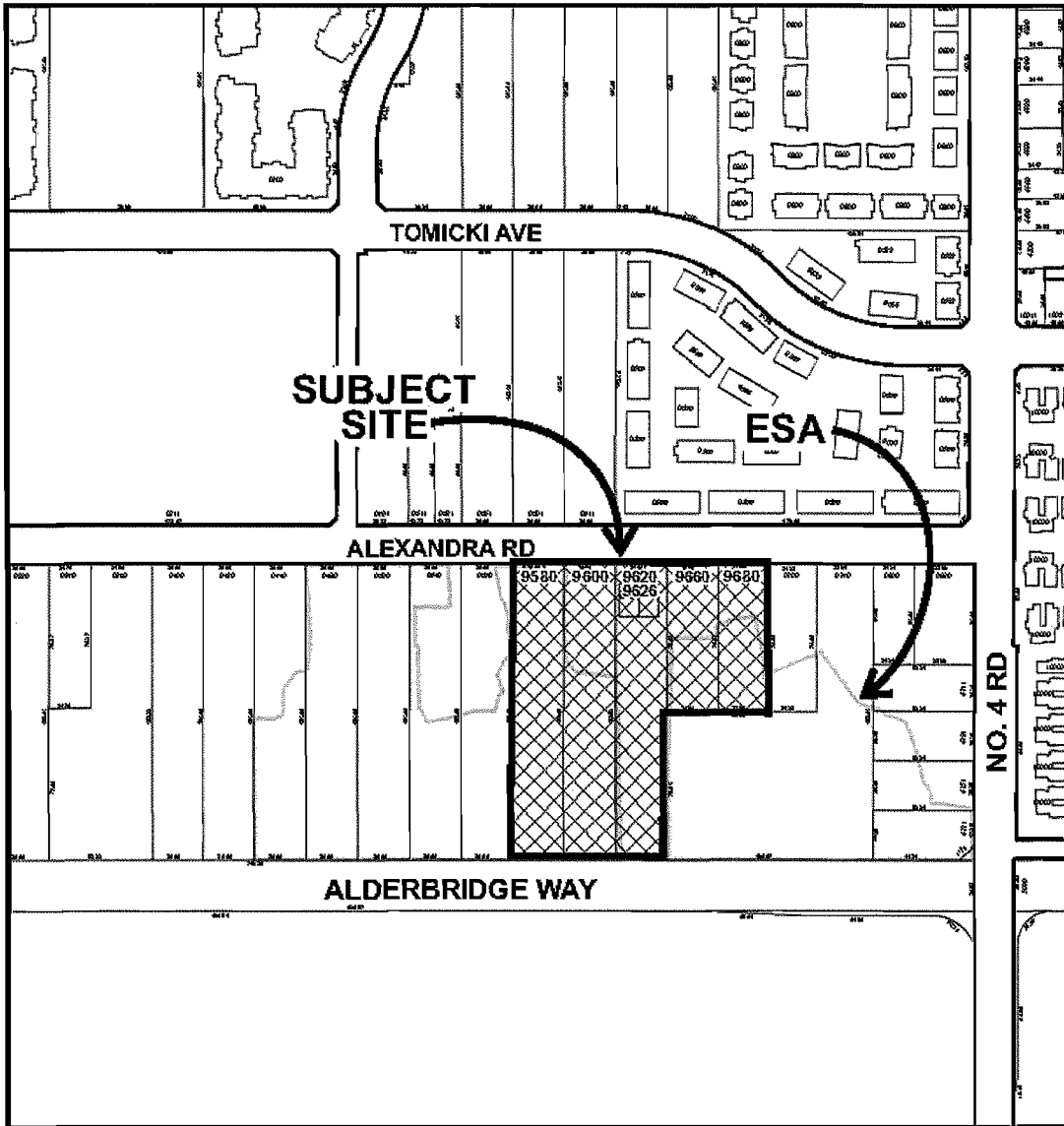
Revision Date: 11/26/13

Note: Dimensions are in METRES

ATTACHMENT 1a
Location Map with Environmentally Sensitive Area Overlay

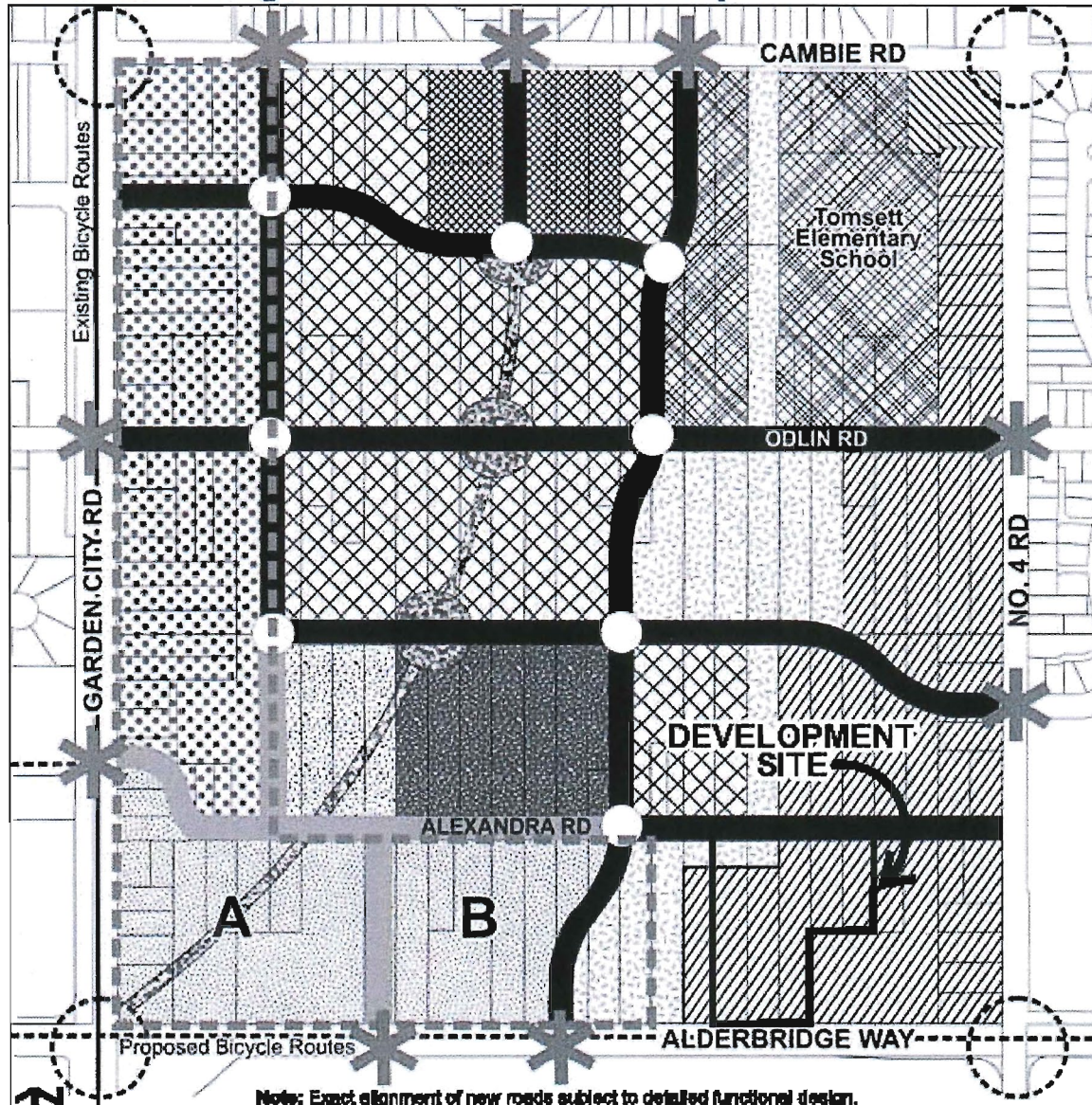


City of
Richmond



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| | <p>Environmentally Sensitive Areas</p> | <p>Original Date: 05/26/14 Revision Date: Note: Dimensions are in METRES</p> |
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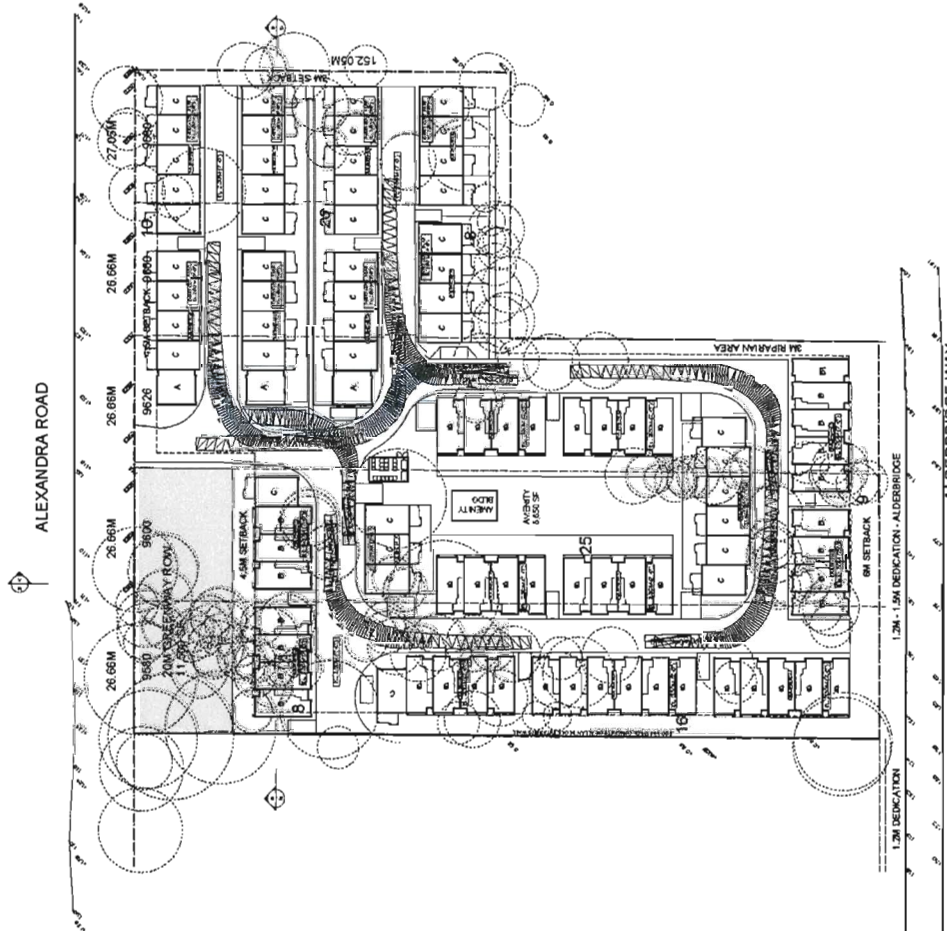
Alexandra Neighbourhood Land Use Map



| | | |
|--|--|---|
| Area of No Housing Affected by Aircraft Noise | Residential Area 2 0.55 base FAR (Max. 0.75 FAR with density bonusing for affordable housing). 2 & 3-storey Townhouses. | Park: North Park Way, Central Park, South Park Way |
| Business/Office - office over retail FAR up 1.25 | Mixed Use: Hotel, office and streetfront retail commercial Area A: Min. 1.25 FAR up to 2.0 Area B: Large and small floor plate up to 1.0 FAR | Alexandra Way (Public Rights of Passage Right-of-way) |
| Convenience Commercial | Mixed Use: • abutting the High Street, medium density residential over retail; • not abutting the High Street, medium density residential. 1.25 base FAR. Building heights low to mid-rise. (Max. 1.50 FAR with density bonusing for affordable housing). | Proposed Roadways |
| Residential Area 1 1.50 base FAR (Max. 1.70 FAR with density bonusing for affordable housing). Townhouse, low-rise Apts. (4-storey typical) | Community Institutional | High Street |
| Residential Area 1A 1.50 base FAR (Max. 1.75 FAR with density bonusing for affordable housing). Townhouse, low-rise Apts. (6-storey maximum) | | New Traffic Signals |
| Residential Area 1B 1.68 base FAR (Max. 1.88 FAR with density bonusing for affordable housing) (6-storey maximum) | | Feature Intersections - details to be developed |
| | | Feature Landmarks in Combination with Traffic Calmng Measures |



CONTEXT PLAN
SCALE: N.T.S.



STATISTICS:

OWNER: 4850, 4852, 4854, 4856, 4858 ALEXANDRIA RD.
ROXBORO, N.C.

LEGAL DESCRIPTION:
ZONING: RZ10

GROSS SITE AREA: 174,550 SQ.FT. (4,013 SQ.M.)
NET SITE AREA: 175,395 SQ.FT. (8,107 SQ.M.)

PROPOSED SITE COVERAGE:
TOTAL: 60.7% (40%)

F.A.R.:

174,550 SQ.FT. @ 0.25 = 43,638 SQ.FT. (4,013 SQ.M.)
MAX. ALLOWED GROUND AREA: 503,840 SQ.FT. (46,540 SQ.M.)
MAX. ALLOWED PORCH AREA: 503,840 SQ.FT. (46,540 SQ.M.)

PROPOSED FLOOR AREA:

NET: 180,000 SQ.FT. x 5 UNITS = 900,000 SQ.FT.
180,000 SQ.FT. x 4 UNITS = 720,000 SQ.FT.
180,000 SQ.FT. x 4 UNITS = 720,000 SQ.FT.
180,000 SQ.FT. x 4 UNITS = 720,000 SQ.FT.
ELEC. ROOMS: 596 SQ.FT. x 3 ROOMS = 1,788 SQ.FT.
96 UNITS = 118,800 SQ.FT.

OUTDOOR AMENITY AREA:

PROVIDED: 819 SQ.M. (8,500 SF)
(96 UNITS)
49 2-CAR (913)
47 TANDEM (492)

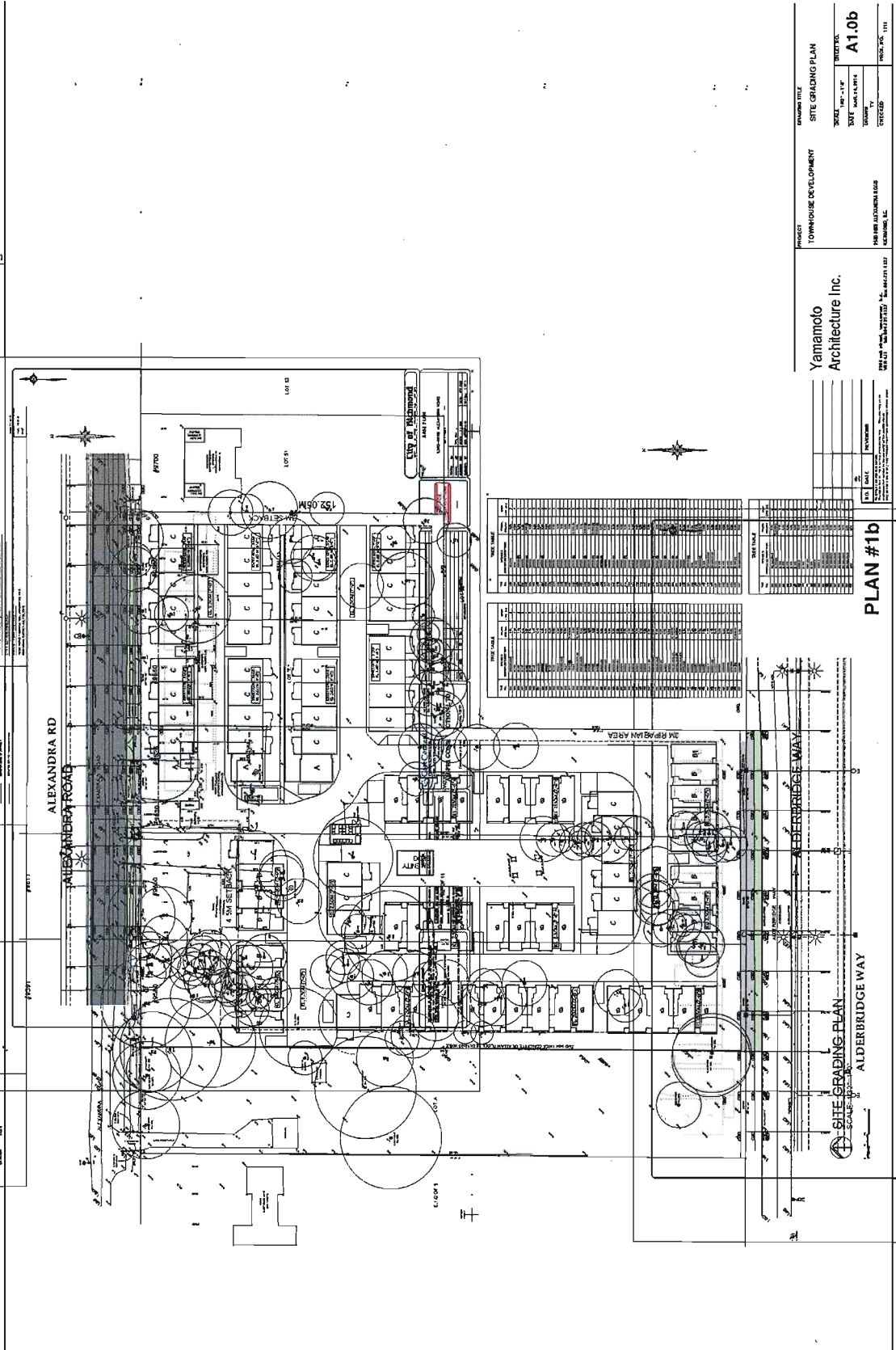


| | | | |
|---|--|----------------------------|------------------|
| PROJECT: TOWNHOUSE DEVELOPMENT | | DATE: 11/11/2011 | SCALE: A1.0 |
| DRAWN BY: JAMIE ALVARADO | | CHECKED BY: JAMIE ALVARADO | PROJECT NO.: 131 |
| DESIGNED BY: YAMAMOTO ARCHITECTURE INC. | | DATE: 11/11/2011 | |
| PROJECT TITLE: SITE PLAN | | TITLE: SITE PLAN | |
| SITE PLAN | | DATE: 11/11/2011 | SCALE: A1.0 |
| DRAWN BY: JAMIE ALVARADO | | CHECKED BY: JAMIE ALVARADO | PROJECT NO.: 131 |

Yamamoto
Architecture Inc.

PLAN #1

SITE PLAN
SCALE: 1/8"=1'-0"



PROJECT: TOWNHOUSE DEVELOPMENT
 SHEET TITLE: SITE GRADING PLAN
 SHEET NO.: 110
 DATE: 11/11/11
 DRAWN BY: ALB
 CHECKED BY: [blank]
 PROJECT NO.: 1111

Yamamoto
 Architecture Inc.

1000 W. 10th Street, Suite 100
 Vancouver, BC V6H 2Y6
 TEL: 604.271.1111
 FAX: 604.271.1111

PLAN #1B

SITE GRADING PLAN
 SCALE: 1"=10'-0"



| | | |
|------|--------------|----------------------|
| DATE | NOV 14, 2017 | FIELD REPRESENTATIVE |
| BY | DAVE | PROJECT |
| FOR | CONTRACTOR | |

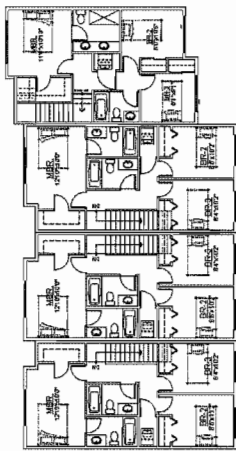
PROJECT: 16 UNIT TOWNHOUSE DEVELOPMENT
 16 UNIT TOWNHOUSE DEVELOPMENT

ARCHITECT: YAMAMOTO ARCHITECTS
 YAMAMOTO ARCHITECTS
 YAMAMOTO ARCHITECTS

DATE: 11/14/17
 DRAWING NO: 16 UNIT TOWNHOUSE DEVELOPMENT
 ELEVATIONS

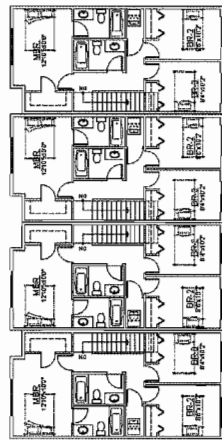
| | |
|-------|--------------|
| SCALE | AS SHOWN |
| DATE | NOV 14, 2017 |
| BY | DAVE |
| FOR | CONTRACTOR |

PLAN #4



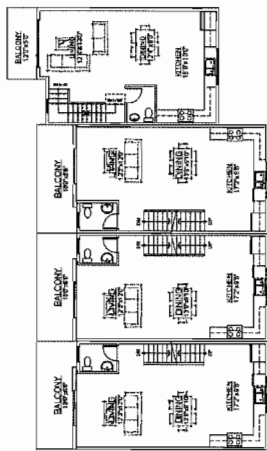
THIRD FLOOR PLAN
SCALE 1/8" = 1'-0"

UNIT 301 UNIT 302 UNIT 303 UNIT 304



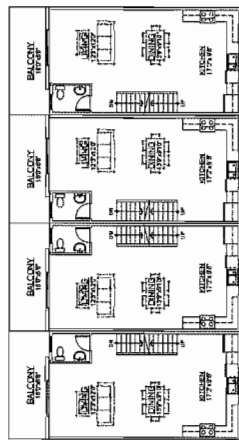
THIRD FLOOR PLAN
SCALE 1/8" = 1'-0"

UNIT 301 UNIT 302 UNIT 303 UNIT 304



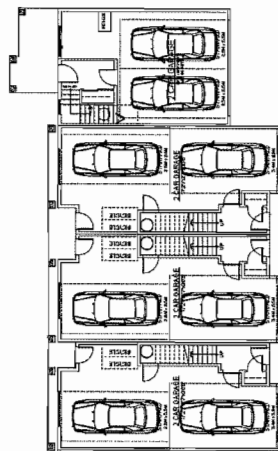
SECOND FLOOR PLAN
SCALE 1/8" = 1'-0"

UNIT 201 UNIT 202 UNIT 203 UNIT 204



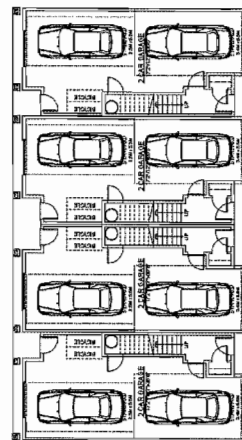
SECOND FLOOR PLAN
SCALE 1/8" = 1'-0"

UNIT 201 UNIT 202 UNIT 203 UNIT 204



GROUND FLOOR PLAN
SCALE 1/8" = 1'-0"

UNIT 101 UNIT 102 UNIT 103 UNIT 104



GROUND FLOOR PLAN
SCALE 1/8" = 1'-0"

UNIT 101 UNIT 102 UNIT 103 UNIT 104

| | |
|-----------------------|--|
| DATE: 11/15/2011 | PROJECT: 14 UNIT TOWNHOUSE DEVELOPMENT |
| DRAWN BY: J. YAMAMOTO | CHECKED BY: J. YAMAMOTO |
| SCALE: AS SHOWN | PROJECT NO: 1111111111 |

14 UNIT TOWNHOUSE DEVELOPMENT
 14 UNIT TOWNHOUSE DEVELOPMENT
 14 UNIT TOWNHOUSE DEVELOPMENT

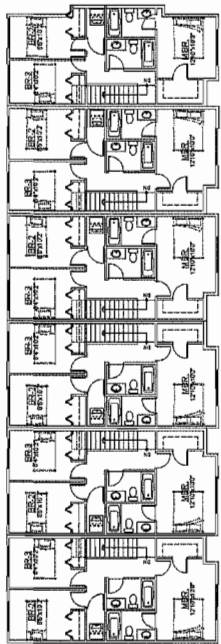
14 UNIT TOWNHOUSE DEVELOPMENT

Yamamoto
 Architecture Inc.

FLOOR PLANS

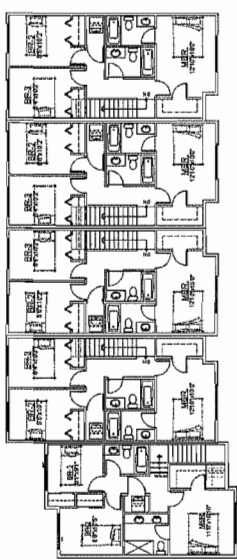
| | |
|-----------------------|--|
| DATE: 11/15/2011 | PROJECT: 14 UNIT TOWNHOUSE DEVELOPMENT |
| DRAWN BY: J. YAMAMOTO | CHECKED BY: J. YAMAMOTO |
| SCALE: AS SHOWN | PROJECT NO: 1111111111 |

PLAN #6



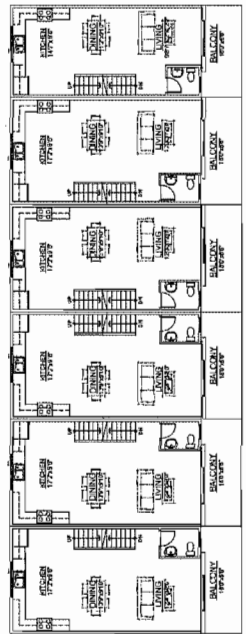
UNIT 301 UNIT 302 UNIT 303 UNIT 304 UNIT 305 UNIT 306

THIRD FLOOR PLAN
SCALE 1/8" = 1'-0"



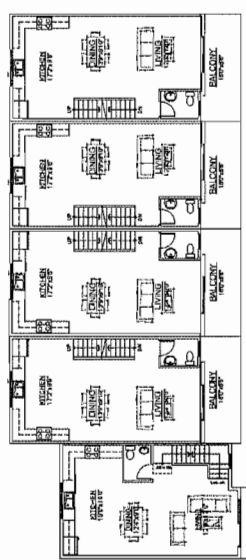
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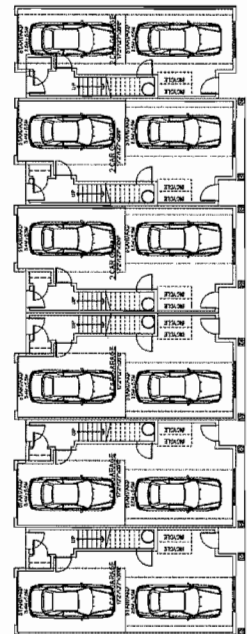
UNIT 201 UNIT 202 UNIT 203 UNIT 204 UNIT 205 UNIT 206

SECOND FLOOR PLAN
SCALE 1/8" = 1'-0"



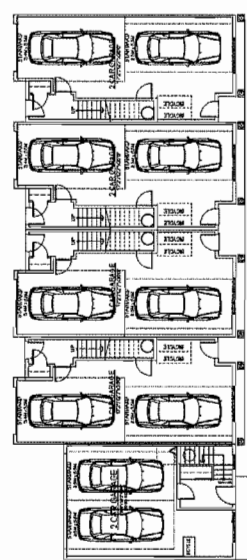
UNIT 207 UNIT 208 UNIT 209 UNIT 210 UNIT 211 UNIT 212

SECOND FLOOR PLAN
SCALE 1/8" = 1'-0"



UNIT 101 UNIT 102 UNIT 103 UNIT 104 UNIT 105 UNIT 106

GROUND FLOOR PLAN
SCALE 1/8" = 1'-0"



UNIT 107 UNIT 108 UNIT 109 UNIT 110 UNIT 111 UNIT 112

GROUND FLOOR PLAN
SCALE 1/8" = 1'-0"

| | | | | | | |
|-------|----------|----------|----------|----------|----------|----------|
| NO. 1 | UNIT 101 | UNIT 102 | UNIT 103 | UNIT 104 | UNIT 105 | UNIT 106 |
| NO. 2 | UNIT 201 | UNIT 202 | UNIT 203 | UNIT 204 | UNIT 205 | UNIT 206 |
| NO. 3 | UNIT 301 | UNIT 302 | UNIT 303 | UNIT 304 | UNIT 305 | UNIT 306 |
| NO. 4 | UNIT 307 | UNIT 308 | UNIT 309 | UNIT 310 | UNIT 311 | UNIT 312 |

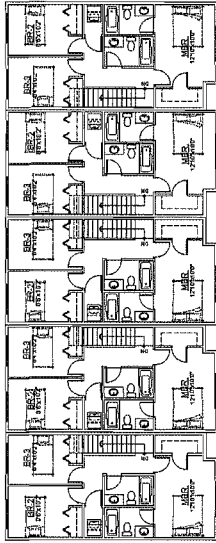
YAMAMOTO ARCHITECTURE INC.
1000 W. 10TH AVENUE, SUITE 100
DENVER, CO 80202
TEL: 303.733.1111
WWW.YAMAMOTOARCHITECTURE.COM

1000 W. 10TH AVENUE, SUITE 100
DENVER, CO 80202
TEL: 303.733.1111
WWW.YAMAMOTOARCHITECTURE.COM

| | | | | | | |
|-------|----------|----------|----------|----------|----------|----------|
| NO. 1 | UNIT 101 | UNIT 102 | UNIT 103 | UNIT 104 | UNIT 105 | UNIT 106 |
| NO. 2 | UNIT 201 | UNIT 202 | UNIT 203 | UNIT 204 | UNIT 205 | UNIT 206 |
| NO. 3 | UNIT 301 | UNIT 302 | UNIT 303 | UNIT 304 | UNIT 305 | UNIT 306 |
| NO. 4 | UNIT 307 | UNIT 308 | UNIT 309 | UNIT 310 | UNIT 311 | UNIT 312 |

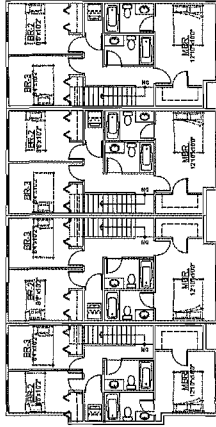


PLAN #7



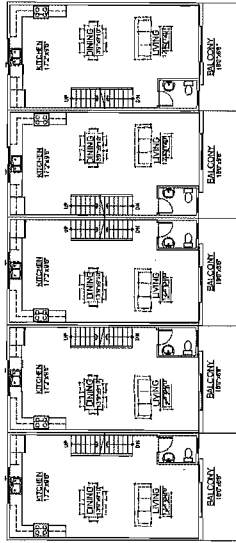
THIRD FLOOR PLAN
SCALE: 1/8" = 1'-0"

UNIT 8 UNIT 8 UNIT 8 UNIT 8 UNIT 8



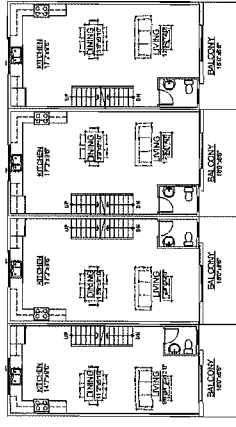
THIRD FLOOR PLAN
SCALE: 1/8" = 1'-0"

UNIT 8 UNIT 8 UNIT 8 UNIT 8 UNIT 8



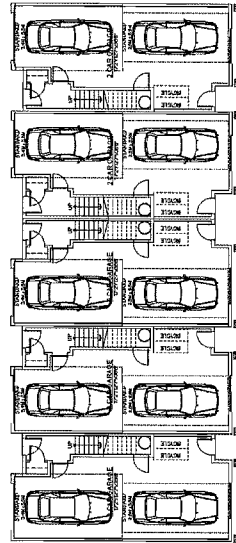
SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

UNIT 8 UNIT 8 UNIT 8 UNIT 8 UNIT 8



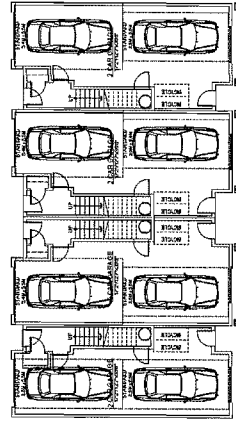
SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

UNIT 8 UNIT 8 UNIT 8 UNIT 8 UNIT 8



GROUND FLOOR PLAN
SCALE: 1/8" = 1'-0"

UNIT 8 UNIT 8 UNIT 8 UNIT 8 UNIT 8



GROUND FLOOR PLAN
SCALE: 1/8" = 1'-0"

UNIT 8 UNIT 8 UNIT 8 UNIT 8 UNIT 8

| NO. | DATE | REVISIONS |
|-----|----------|----------------------|
| 1 | 10/15/10 | ISSUED FOR PERMITS |
| 2 | 11/15/10 | REVISED PER COMMENTS |
| 3 | 12/15/10 | REVISED PER COMMENTS |

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FOR MORE INFORMATION CONTACT:
YAMAMOTO ARCHITECTURE INC.
Yamamoto
Architecture Inc.
ONE SIX SEVENTH AVENUE, SUITE 1000
DENVER, CO 80202
FLOOR PLANS

| NO. | DATE | REVISIONS |
|-----|----------|----------------------|
| 1 | 10/15/10 | ISSUED FOR PERMITS |
| 2 | 11/15/10 | REVISED PER COMMENTS |
| 3 | 12/15/10 | REVISED PER COMMENTS |

PLAN #8



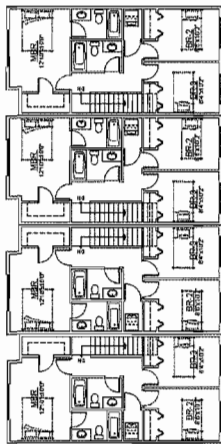
BUILDING SET 8

BUILDING SET 8

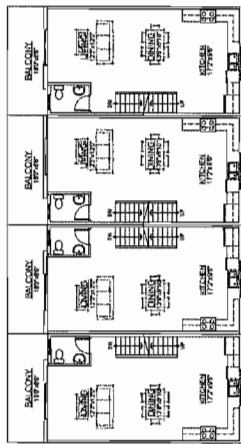


BUILDING SET 8

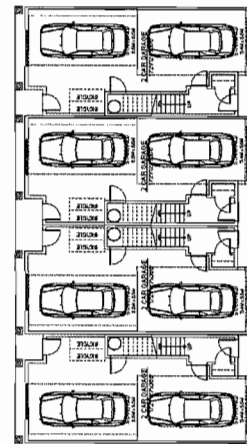
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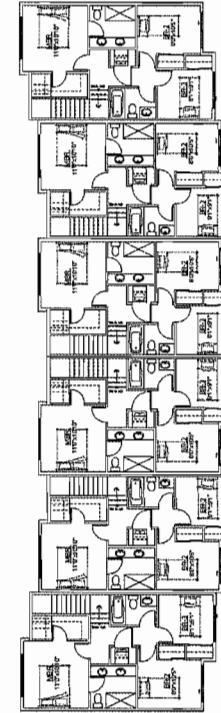
THIRD FLOOR PLAN
SCALE: 1/8" = 1'-0"



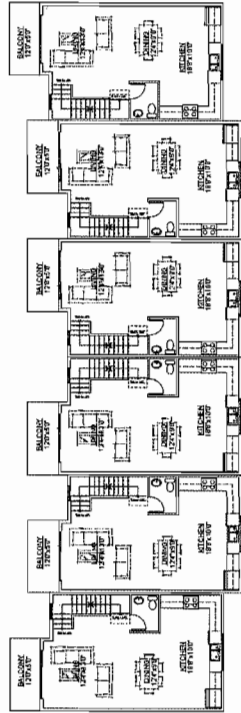
SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"



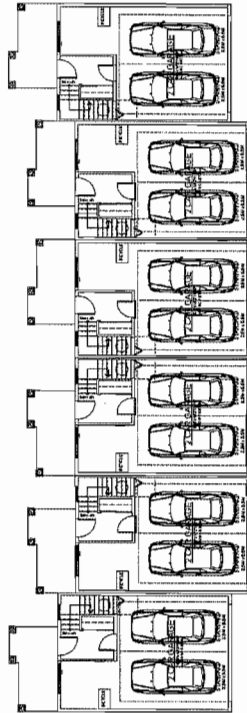
GROUND FLOOR PLAN
SCALE: 1/8" = 1'-0"



THIRD FLOOR PLAN
SCALE: 1/8" = 1'-0"



SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"



GROUND FLOOR PLAN
SCALE: 1/8" = 1'-0"

| | |
|-----------------------|--|
| SCALE: 1/8" = 1'-0" | DATE: 05/20/2010 |
| BY: J. W. WILSON | PROJECT: 48 UNIT TOWNHOUSE DEVELOPMENT |
| CHECKED: J. W. WILSON | |

PROJECT: 48 UNIT TOWNHOUSE DEVELOPMENT
 1000 W. 10TH AVENUE, SUITE 100
 DENVER, CO 80202
 YAMAMOTO ARCHITECTURE INC.
 1000 W. 10TH AVENUE, SUITE 100
 DENVER, CO 80202

1000 W. 10TH AVENUE, SUITE 100
 DENVER, CO 80202
 YAMAMOTO ARCHITECTURE INC.
 1000 W. 10TH AVENUE, SUITE 100
 DENVER, CO 80202
 FLOOR PLANS

| | |
|------------------|--|
| TOTAL SHEETS: 10 | SHEET NO.: 10 |
| DATE: 05/20/2010 | PROJECT: 48 UNIT TOWNHOUSE DEVELOPMENT |
| BY: J. W. WILSON | SCALE: 1/8" = 1'-0" |



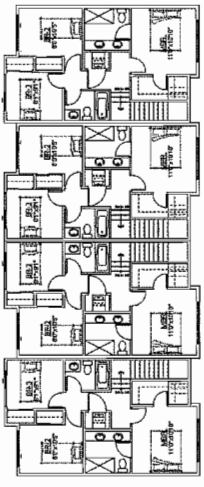
PLAN #10



BUILDING NO. 1

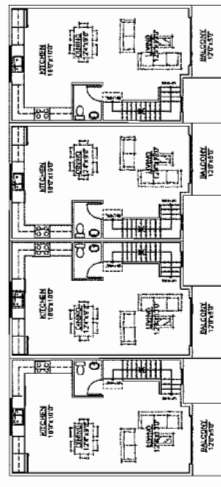


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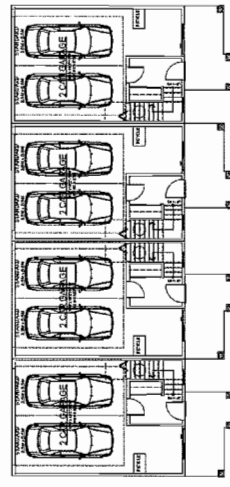
UNIT C UNIT C UNIT C UNIT C

THIRD FLOOR PLAN
SCALE: 1/8" = 1'-0"



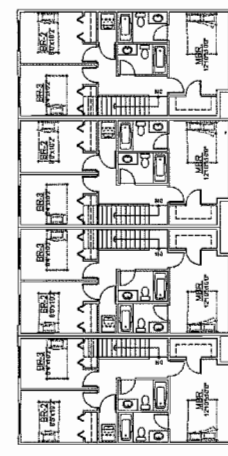
UNIT C UNIT C UNIT C UNIT C

SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"



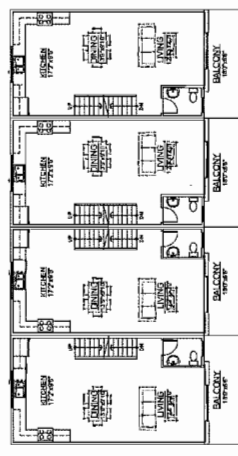
UNIT C UNIT C UNIT C UNIT C

GROUND FLOOR PLAN
SCALE: 1/8" = 1'-0"



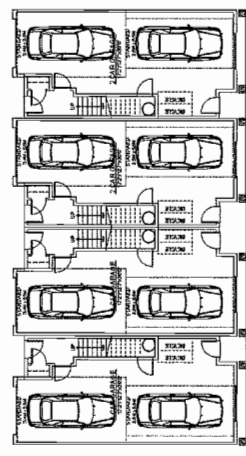
UNIT B UNIT B UNIT B UNIT B

THIRD FLOOR PLAN
SCALE: 1/8" = 1'-0"



UNIT B UNIT B UNIT B UNIT B

SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"



UNIT B UNIT B UNIT B UNIT B

GROUND FLOOR PLAN
SCALE: 1/8" = 1'-0"

| | |
|-----------------------|--|
| DATE: 11/14/11 | PROJECT: 11 UNIT TOWNHOUSE DEVELOPMENT |
| DRAWN BY: J. YAMAMOTO | SCALE: AS SHOWN |

11 UNIT TOWNHOUSE DEVELOPMENT
PROJECT: 11 UNIT TOWNHOUSE DEVELOPMENT
SCALE: AS SHOWN

11 UNIT TOWNHOUSE DEVELOPMENT
PROJECT: 11 UNIT TOWNHOUSE DEVELOPMENT
SCALE: AS SHOWN

| | |
|-----------------------|--|
| DATE: 11/14/11 | PROJECT: 11 UNIT TOWNHOUSE DEVELOPMENT |
| DRAWN BY: J. YAMAMOTO | SCALE: AS SHOWN |

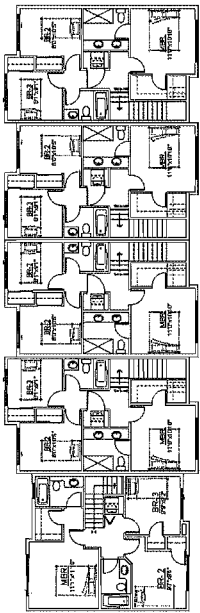
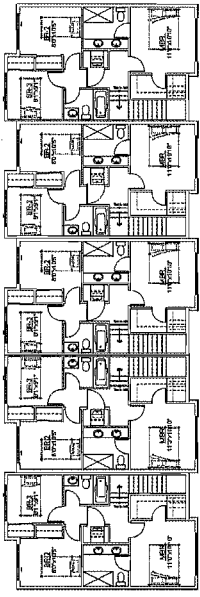
PLAN #11



BUILDING NUMBER



BUILDING NUMBER



UNIT-C

UNIT-C

UNIT-C

UNIT-C

UNIT-C

UNIT-C

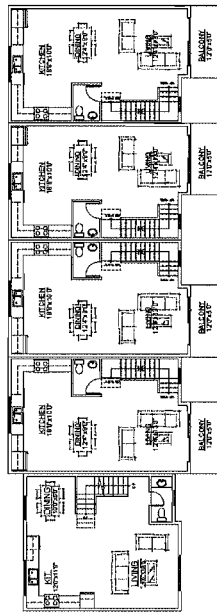
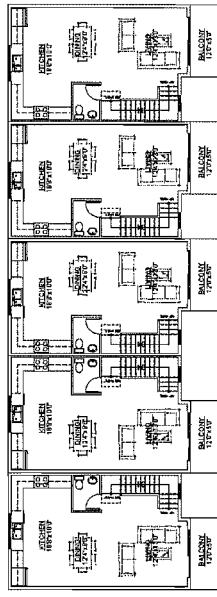
UNIT-C

UNIT-C

UNIT-C

UNIT-A

THIRD FLOOR PLAN
SCALE 1/8" = 1'-0"



UNIT-C

UNIT-C

UNIT-C

UNIT-C

UNIT-C

UNIT-C

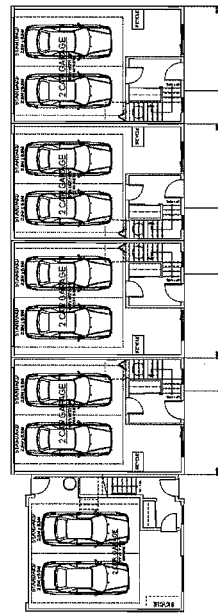
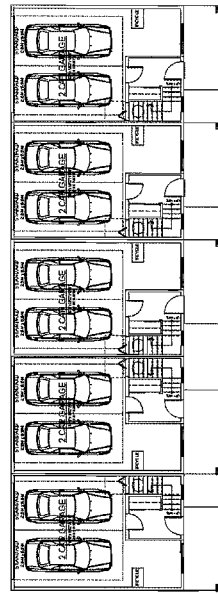
UNIT-C

UNIT-C

UNIT-C

UNIT-A

SECOND FLOOR PLAN
SCALE 1/8" = 1'-0"



UNIT-C

UNIT-C

UNIT-C

UNIT-C

UNIT-C

UNIT-C

UNIT-C

UNIT-C

UNIT-C

UNIT-A

GROUND FLOOR PLAN
SCALE 1/8" = 1'-0"



PLAN #13

| | |
|---------------------|--|
| DATE: 10/15/13 | PROJECT: 94 UNIT TOWNHOUSE DEVELOPMENT |
| SCALE: 1/8" = 1'-0" | CONTRACTOR: [REDACTED] |

94 UNIT TOWNHOUSE DEVELOPMENT
PROJECT: [REDACTED]
CONTRACTOR: [REDACTED]

11400 ALEXANDRIA ROAD
BETHESDA, MD
Yamamoto
Architecture Inc.
1000 W. WASHINGTON BLVD. SUITE 100
WASHINGTON, D.C. 20004
TEL: 301.271.1111
WWW.YAMAMOTOARCH.COM

| | |
|------------------------|--|
| SCALE: 1/8" = 1'-0" | UNIT: 13A |
| DATE: 10/15/13 | PROJECT: 94 UNIT TOWNHOUSE DEVELOPMENT |
| CONTRACTOR: [REDACTED] | PROJECT NO: 011 |



RZ 13-649999

Attachment 4

Address: 9580, 9600, 9620, 9626, 9660, 9680 Alexandra Road

Applicant: Am-Pri Developments (2012) Ltd.

Planning Area(s): West Cambie Area Plan (2.11A)

| | Existing | Proposed |
|-----------------------------------|---|---|
| Owner: | Am-Pri Developments (2012) Ltd., Inc No. BC0934463 | Same |
| Site Size (m²): | 16,215 m ² | 16,107 m ² net of dedications |
| Land Uses: | Single Family Residential, Two-Family Residential, Vacant | Multiple Family Residential |
| OCP Designation: | Neighbourhood Residential, Park | Same |
| Area Plan Designation: | Residential Area 2 | Same |
| Zoning: | 9580, 9600, 9660, 9680 Alexandra Road: Single Detached (RS1/F) 9620 and 9626 Alexandra: Two-Unit Dwellings (RD1) | Town Housing (ZT67) |
| Number of Units: | 5 dwellings were in place prior to demolition. Currently none on site. | 96 approx. |
| Other Designations: | Environmentally Sensitive Area (ESA) | Portions to be retained. Compensation / replacement required for impacts. |

| On Future Subdivided Lots | Bylaw Requirement | Proposed | Variance |
|---|--|------------------------------|-------------------------------------|
| <i>Floor Area Ratio:</i> | Max. 0.65 or 0.75 with affordable housing contribution per West Cambie Area Plan | 0.65 | None permitted |
| <i>Lot Coverage – Building:</i> | Max. 40% | 40% | None |
| <i>Lot Size (min. area):</i> | 10,000 m ² | 16,107 m ² | None |
| <i>Setback – Front Yard (m):</i> | Min. 5.0 m | Min. 4.5 m | Addressed via Zoning Text Amendment |
| <i>Setback – Side Yards (m):</i> | Min. 3.0 m | Min. 3.0 m | None |
| <i>Setback – Rear Yard (m):</i> | Min. 6.0 m | Min. 6.0 m | None |
| <i>Height (m):</i> | 12.0 m | 10.7 m | None |
| <i>Off-street Parking Spaces – Regular (R) / Visitor (V):</i> | 1.5 (R) and 0.2 (V) per unit | 1.5 (R) and 0.2 (V) per unit | None |

| <i>On Future Subdivided Lots</i> | Bylaw Requirement | Proposed | Variance |
|---|---|--------------------------------|-----------------|
| <i>Off-street Parking Spaces – Total:</i> | 144 (R) and 20 (V) | 192 (R) and 20 (V) | None |
| <i>Tandem Parking Spaces:</i> | Permitted | 94 spaces in 47 units (49%) | none |
| <i>Bicycle Stalls</i> | Class 1: 1.25/unit (120 stalls) Class 2: 0.20/unit (20 stalls) | Class 1: 147 Class 2: 20 | none |
| <i>Amenity Space – Indoor:</i> | 100 m ² | 100.0 m ² | None |
| <i>Amenity Space – Outdoor:</i> | 576 m ² | 618 m ² | none |

Other: Tree replacement compensation required for loss of significant trees.

**Stantec**

Stantec Consulting Ltd.
4370 Dominion Street, 5th Floor
Burnaby, BC V5G 4L7
Tel: (604) 436-3014
Fax: (604) 436-3752

VIA EMAIL

August 23, 2013

Project No: 1231-10626

Am-Pri Developments Ltd.
9751 No.6 Road
Richmond, BC
V6W 1E5

Attention: Amit Sandhu

Dear Amit:

**Reference: Environmental Sensitive Area Assessment at
9560, 9580, 9600, 9620/9626, 9660 and 9680 Alexandra Road, Richmond, BC**

1 INTRODUCTION

Am-Pri Developments Ltd. is submitting a rezoning application for a townhouse development on approximately 2 hectares on the quarter section 34-5-6 adjacent to Alderbridge Way and No. 4 Road in Richmond, British Columbia. The application includes lots 9560, 9580, 9600, 9620/9626, 9660, and 9680 (Subject Property, Figure 1, Appendix A). A portion of this site is designated as an Environmentally Sensitive Area (ESA) by the City of Richmond.

Stantec Consulting Ltd. conducted a habitat assessment of the entire site on July 25, 2013. Two Stantec biologists assessed the existing vegetation and wildlife habitat value within the site. Environmentally valuable resources assessed within the property included, but weren't limited to, any potential sensitive ecosystems, wildlife, plants and plant communities, wildlife habitat and corridors, riparian areas, and aquatic species. The scope of the assessment was derived through the 2012 Environmental Sensitive Area Management Strategy (City of Richmond 2012) and with personal communication from Wayne Craig with the City of Richmond's Planning and Development Office (Pers. Comm, 2013).

This report provides a detailed summary of the vegetation types and wildlife habitat values on the Subject Property and makes recommendations for areas that should be included in the ESA.

Reference: Environmental Sensitive Area Assessment at
9560, 9580, 9600, 9620/9626, 9660 and 9680 Alexandra Road, Richmond, BC

2 METHODS

Preliminary vegetation Polygons were created from orthophoto interpretation and were then ground truthed during the site visit. The property was surveyed by two Stantec biologists to determine what vegetation communities were present on the site, to identify any habitat values by identifying connectivity and recording wildlife species present, and to document any other environmentally valuable resources. Dominant understory species within each polygon, including invasive species, were recorded and photographs were taken at various locations on the site. Total cover was estimated for the dominant species observed. Tree species were recorded during a tree assessment (Arbortech Consulting 2013). Online database searches were undertaken to determine if any species at risk were identified within 500 meters of the site (BC CDC, 2013).

Environmental value included estimating species diversity, presence absence of invasive species, connectivity to surrounding natural features, wildlife presence, and health and potential sustainability of vegetation on site. These findings were summarized utilizing a ranking system of low, medium and high.

3 RESULTS

There were four different plant communities identified on the site (Figure 1, Appendix A); descriptions of these are provided below.

3.1 Conservation Data Center (CDC) Database Inquiry

A search of the BC CDC online database was performed on July 24th, 2013. No known rare or sensitive vegetation or wildlife species were identified in the project area. The field survey conducted on July 25th also did not identify any known listed species.

3.2 Fish and Aquatic Habitat

No watercourses, fish habitat, or aquatic species were observed during the field survey. A small man-made pond, approximately 1 m by 1 m, was found during the survey in the backyard of one of the residences (Lot 9626 Alexandra Road). At the time of the site visit the pond contained no water and had Himalayan blackberry growing in from all sides.

3.3 Polygons 1—Anthropogenic Disturbance

Of the total area of the Subject Property, 0.69 hectares (~35% of total Subject Property) was disturbed by the current and previous residential developments that occurred on site (Figure 1, Appendix A). Vegetation in the polygon was composed of cultivated lawn and invasive species with few mature trees interspersed throughout (Photos 1 – 2, Appendix B). There was also the presence of Japanese knotweed. Japanese knotweed is a perennial shrub from Asia that is highly invasive because of its rapid growth and reproductive capabilities (Photo 3, Appendix B). Once established it displaces nearly all other vegetation (BC Ministry of Agriculture 2011).

Reference: Environmental Sensitive Area Assessment at
 9560, 9580, 9600, 9620/9626, 9660 and 9680 Alexandra Road, Richmond, BC

Structures throughout the polygons included occupied and unoccupied homes, dilapidated structures, and residential loose garbage. Table 1 below lists the dominant species in this polygon. There were some trace ornamental trees in the residential yards; however, only two excelsea cedar (*Thuja plicata*) trees were of suitable condition (sustainable) according to the Arbortech report (2013).

Table 1: Dominant Species within Polygon 1

| Common Name | Scientific Name | % Cover** |
|-----------------------|-----------------------------|-----------|
| Himalayan blackberry* | <i>Rubus armeniacus</i> | 15 |
| creeping buttercup | <i>Ranunculus repens</i> | 15 |
| evergreen blackberry* | <i>Rubus laciniatus</i> | 5 |
| hardhack | <i>Spiraea douglasii</i> | 5 |
| reed canarygrass | <i>Phalaris arundinacea</i> | 5 |
| Japanese knotweed* | <i>Polygonum cuspidatum</i> | 5 |
| Kentucky bluegrass | <i>Poa pratensis</i> | 5 |

NOTE:

* Invasive species

**percent cover only includes dominant species

3.3.1 Wildlife and Habitat Value

Wildlife use is limited in polygon 1. Birds may nest in some of the trees, or among the Himalayan blackberry, but the likelihood of a sustainable consistent population is quite low. There was a man-made pond at 9626 Alexandra Road that, although dry during the time of the site visit, may provide breeding habitat for amphibians in the spring, when water might be found in the pond. Habitat value is low, due to the highly disturbed nature of the polygon.

3.4 Polygon 2—Graminoid and Shrub land

Polygon 2 is approximately 0.86 hectares (~43% of total Subject Property) and is located in the central to southern portion of the Subject Property (Figure 1, Appendix A) (Photos 4-6, Appendix B). The area was predominantly composed of a mixture of hardhack, Himalayan blackberry, and reed canary grass (See Table 2). The Himalayan blackberry was spreading from the east to the west as its density was concentrated on the eastern side of polygon 2. The western side of polygon 2 was predominantly composed of reed canary grass; which is known for its ability to create sod monocultures as it is used frequently as a pasture and ornamental grass.

Reference: Environmental Sensitive Area Assessment at
 9560, 9580, 9600, 9620/9626, 9660 and 9680 Alexandra Road, Richmond, BC

Table 2: Dominant Species within Polygon 2

| Common Name | Scientific Name | % Cover** |
|-----------------------|-----------------------------|-----------|
| hardhack | <i>Spiraea douglasii</i> | 30 |
| Himalayan blackberry* | <i>Rubus armeniacus</i> | 30 |
| reed canary grass | <i>Phalaris arundinacea</i> | 25 |
| bentgrass | <i>Agrostis sp.</i> | 5 |
| creeping buttercup | <i>Ranunculus repens</i> | 5 |
| common dandelion | <i>Taraxacum officinale</i> | 3 |
| common horsetail | <i>Equisetum arvense</i> | 3 |

NOTE:

- * Invasive species
- **percent cover only includes dominant species

3.4.1 Wildlife and Habitat Value

Wildlife use in the polygon was limited to bird nesting and foraging and some small mammal use as observed with the presence of coyote scat. Habitat value provided by polygon 2 is relatively low as a result of surrounding disturbances (roads and existing development) and limited connectivity to additional habitat.

3.5 Polygons 3a and 3b—Birch Forest

Two polygons within the Subject Property consisted of approximately 0.22 hectares (polygon 3a 0.06 and Polygon 3b 0.16) (~11% of total Subject Property) of upland forest dominated by paper birch (*Betula papyrifera*) with a closed understory of predominately Himalayan blackberry and grasses (Photos 7-8, Appendix B). The Arbortech report lists these trees to be in poor condition with die back occurring (Arbortech Consulting 2013). Table 3 below provides a list of the dominant species within these polygons.

Table 3: Dominant Species within Polygon 3

| Common Name | Scientific Name | % Cover** |
|-----------------------|--------------------------------|-----------|
| paper birch | <i>Betula papyrifera</i> | 30 |
| Himalayan blackberry* | <i>Rubus armeniacus</i> | 30 |
| hardhack | <i>Spiraea douglasii</i> | 10 |
| fireweed | <i>Epilobium angustifolium</i> | 5 |
| bentgrass | <i>Agrostis sp.</i> | 5 |
| bracken fern | <i>Pteridium aquilinum</i> | 5 |

NOTE:

- * Invasive species
- **percent cover only includes dominant species

Reference: Environmental Sensitive Area Assessment at
 9560, 9580, 9600, 9620/9626, 9660 and 9680 Alexandra Road, Richmond, BC

3.5.1 Wildlife and Habitat Value

Polygon 3a has suitable habitat for nesting and foraging birds and small mammals and is connected to a large undisturbed area off property to the south and east. The habitat value provided by polygon 3a was considered moderate due to the connectivity to this large upland area to the southeast outside of the Subject Property.

Polygon 3b had limited connectivity due to anthropogenic disturbances and invasive weed encroachment. Trees had appeared to have been cleared to the east. Invasive weed species had heavily encroached to the north and west of Polygon 3b and Alderbridge way borders the Polygon to the south.

3.6 Polygon 4—Mixed Wood Forest

Polygon 4 is approximately 0.22 hectares (~11% of total Subject Property) and is located on the northwestern portion of the subject property (Appendix 1, Figure 1) (Photos 9 – 11, Appendix B). Polygon 4 is between two residential homes, with the understory consisting of hardhack, Himalayan blackberry, and grasses (See Table 4). The over story canopy is closed; however, according to the Arbortech report, the majority of the trees are in poor condition, with only two trees being of marginal condition. There was also road fill, scrap asphalt, cut trails and residential garbage (Appendix B, Photo 11) observed within polygon 4. The road fill and asphalt piles located in polygon 4 stood to an approximate height of 1 m and had the area of 10 m by 10 m.

Table 4: Dominant Understory Species within Polygon 4

| Common Name | Scientific Name | % Cover** |
|-----------------------|--------------------------------|-----------|
| Himalayan blackberry* | <i>Rubus armeniacus</i> | 30 |
| hardhack | <i>Spiraea douglasii</i> | 10 |
| paper birch | <i>Betula papyrifera</i> | 10 |
| Douglas fir | <i>Pseudotsuga menziesii</i> | 5 |
| European birch | <i>Betula pendula</i> | 5 |
| fireweed | <i>Epilobium angustifolium</i> | 5 |
| bentgrass | <i>Agrostis sp.</i> | 5 |
| fowl bluegrass | <i>Poa palustris</i> | 5 |

NOTE:

- * Invasive species
- **percent cover only includes dominant species

Reference: Environmental Sensitive Area Assessment at
 9560, 9580, 9600, 9620/9626, 9660 and 9680 Alexandra Road, Richmond, BC

3.6.1 Wildlife and Habitat Value

Polygon 4 has suitable habitat for both nesting and foraging birds, as well as for small mammals. A stand of dead birch trees at the eastern edge of this polygon showed evidence of use by northern flicker, as two northern flickers were observed perched on one of the trees. American robin and spotted towhee were also observed in this polygon. Habitat value provided by polygon 4 is moderate, although there is limited connectivity to additional habitat.

4 DISCUSSION

It is Stantec's recommendation that only polygons 3a and 4 be considered for ESA designation on the Subject Property (See Table 5). Although the actual ecological value provided by polygons 3a and 4 is relatively low, as a result of surrounding disturbances (roads and existing development), limited connectivity to additional habitat, small polygon patch size, and presence of invasive weeds in the understory, these polygons contains the least amount of disturbance within the proposed development area. If left unchecked, the highly invasive Himalayan blackberry and Japanese knotweed will continue to spread through the subject property and may eventually become dominant within the ESA, pushing out native species.

Table 5: Environmental Ranking Summary Table

| Polygon Number | Community Type | Fish and Fish Habitat | Vegetation Diversity and Health | Wildlife Habitat Connectivity | Invasive Species Presence | Overall Rank |
|----------------|---------------------------|-----------------------|---------------------------------|-------------------------------|---------------------------|--------------|
| Polygon 1 | Anthropogenic Disturbance | N/A | Low | Low | High | Low |
| Polygon 2 | Graminoid and Shrub land | N/A | Low | Low | High | Low |
| Polygon 3a | Birch Forest | N/A | Moderate | Moderate | High | Moderate |
| Polygon 3b | Birch Forest | N/A | Moderate | Low | High | Low |
| Polygon 4 | Mixed wood Forest | N/A | Moderate | Low | High | Moderate |

5 DEVELOPMENT RECOMMENDATIONS

For future developments within the subject property, the development guidelines set forth by the City of Richmond's 2012 Environmental Sensitive Area Management Strategy (Appendix C and Part 4) should be followed during the construction phase of the project. Where possible, and applicable, the development should be designed around the existing environmental resource values to maintain as much of the current ecological services found on site as possible. Where clearing or development is to occur, amenity areas should be designed to mimic areas that would be native to the area and work to maintain pre-development connectivity.

**Reference: Environmental Sensitive Area Assessment at
9560, 9580, 9600, 9620/9626, 9660 and 9680 Alexandra Road, Richmond, BC**

There is a potential opportunity for enhancement of the area with development. Due to the poor condition of the vegetation stands, the abundance of invasive species, and the low connectivity of the area to natural native vegetation, any potential development could include an amenity area that would enhance the property. Enhancement could include the preservation of the most ideal native vegetation combined with additional planting and landscaping that would improve the habitat on site. Enhancement of the area would also include weed management, multi-tiered vertical structured species selection, and buffer zones around natural areas.

The following are general best practices identified for future development within the property:

- All construction works should be designed to prevent erosion and sedimentation. An erosion and sediment control plan and mitigation measures should be implemented prior to work and maintained throughout the course of construction.
- Appropriate precautions should be taken to ensure that deleterious substances do not enter drainage courses or seasonal and permanent water bodies.
- Minimize mowing around conserved and constructed natural features to promote available habitat for small and medium-sized wildlife. Reduced maintenance costs are also a benefit of this strategy. If mowing is required to meet aesthetic goals, consider limiting mowing to one mower width.
- Incorporate enhancement plantings within buffer areas to provide additional wildlife habitat and structural diversity adjacent to the important ecological features.
- Clearing of tall trees along the road should be minimized to accommodate passage of birds up and over the road.
- Site specific environmental monitoring should be used to provide direction for site sustainability both during and post construction.
- To the extent possible, a buffer zone should be incorporated around retained environmentally valued resources. The purpose of establishing a buffer zone will be to provide a physical barrier from urban disturbances, reduce detrimental edge effects, improve surface water quality, enhance stand quality, increase the extent of the existing natural habitat, mitigate habitat fragmentation, and conserve biodiversity (Fischer and Fischenich 2000).
- If development does occur, a detailed landscape plan should be developed to identify any existing vegetation and areas that require replanting. The plan should also identify those features on site that were present on site prior to development and should include microtopography such as logs and rocks which provide habitat for a diversity of wildlife.
- Develop a post development monitoring plan in order to adaptively manage any natural features that may require maintenance and upkeep until it is successfully established within the developed property.
- The establishment of a buffer zone that captures the drip line of perimeter trees should sufficiently allow for a sustainable natural area within development.

Stantec

Am-Pri Developments Ltd.
Attention: Amit Sandhu
Project No: 1231-10626

August 23, 2013
Page 8 of 9

Reference: Environmental Sensitive Area Assessment at
9560, 9580, 9600, 9620/9626, 9660 and 9680 Alexandra Road, Richmond, BC

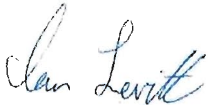
6 CLOSURE

This ESA has been prepared for the sole benefit of Am-Pri Developments Ltd. and is not to be relied upon for anything other than its intended purpose.

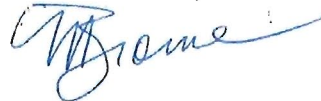
We trust that this report has met your present requirements. If you have any questions or would like clarification of the results, please do not hesitate to contact the undersigned at (604) 235-1896.

Respectfully submitted,
Stantec Consulting Ltd.

Reviewed by:



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Reference: **Environmental Sensitive Area Assessment at
9560, 9580, 9600, 9620/9626, 9660 and 9680 Alexandra Road, Richmond, BC**

7 REFERENCES


- Arbortech Consulting. 2013. Tree Inventory and Assessment List. ACL File #13124 April 29, 2013.
- BC Ministry of Agriculture. 2011. Field Guide to Noxious and Other Selected Weeds of British Columbia. Accessed (February 2013): <http://www.agf.gov.bc.ca/cropprot/jknotweed.htm>
- B.C. Conservation Data Centre: Conservation Data Centre Mapping Service [web application]. 2008. Victoria, British Columbia, Canada. Available:
http://webmaps.gov.bc.ca/imfx/imf.jsp?site=imapbc&savessn=Ministry%20of%20Environment/Conservation_Data_Centre.ssn (July 24, 2013).
- City of Richmond. 2012. 2012 Environmentally Sensitive Area Management Strategy (Background technical report for the 2041 OCP).
- Craig, Wayne. July 8, 2013. Personal Communication. City of Richmond Planning and Development Department.
- Fischer, R.A. and J.C. Fischenich. 2000. Design Recommendations for Riparian Corridors and Vegetated Buffer Strips. Ecosystem Management and Restoration Research Program Technical Notes Collection, ERDC TN-EMRRP-SR-24. Vicksburg: U.S. Army Engineer Research and Development Center.



APPENDIX A

Figures



PREPARED BY:
 **Stantec**

PREPARED FOR:
AM-FRI DEVELOPMENTS LTD.

FIGURE NO:
1

Environmental Sensitive Area Assessment

Site Plan

Sources:
 Although there is no reason to believe that there are any errors associated with the data used to generate this product or in the product itself, users of these data are advised that errors in the data may be present.

DATE: 14-AUG-13
 FIGURE ID: 123110626

PROJECTION: UTM - ZONE 10
 DATUM: NAD 83

DRAWN BY: N. PURENVAL
 CHECKED BY: I. LEVITT

Legend

DRAFT
CONFIDENTIAL
Not for Distribution



APPENDIX B

Photographs





Photo 1: Looking north into Polygon 1 – Lot 9620/9626.



Photo 2: Looking west into Polygon 1 – Lot 9660.

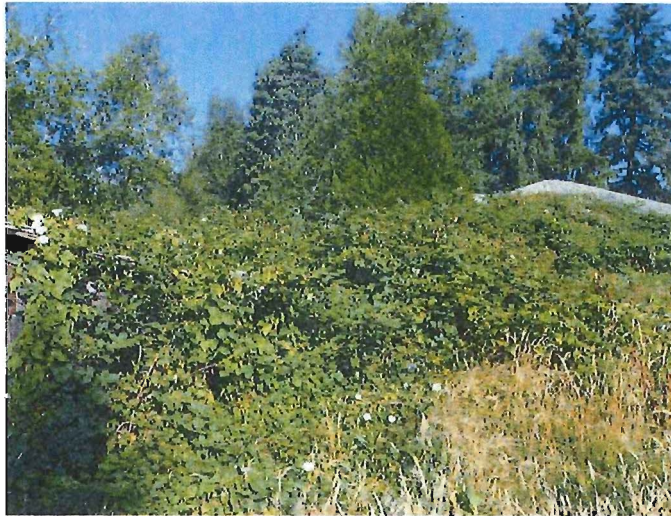


Photo 3 **Looking west into Polygon 1 – Japanese Knotweed Lot 9600.**



Photo 4: **Looking south into Polygon 2 – Graminoid Shrub land Lot 9600.**



Photo 5: Looking south into Polygon 2 – Graminoid Shrub land - Lot 9560.



Photo 6: Looking south into Polygon 2 – Graminoid Shrub land – Lot 9620/9626.



Photo 7: Looking south into Polygon 3a – Birch Forest – Lot 9660.



Photo 8: Looking south into Polygon 3b – Birch Forest - Lot 9660.



Photo 9: Looking east into Polygon 4 – Mixed Wood Forest – Lot 9580.



Photo 10: Looking west into Polygon 4 – Mixed Wood Forest - Lot 9580.

Am-Pri Developments Ltd.
Attention: Amit Sandhu

Appendix B: Photographs



Photo 11: Looking south into Polygon 4 – Mixed Wood Forest – Lot 9580.

ARBORTECH CONSULTING



a division of:

TREE RETENTION ASSESSMENT REPORT

LAND DEVELOPMENT APPLICATION PURPOSES

Report Date: November 6, 2013 Rev #: 1
 ACL File: 13124
 Project Details: Am Pri Development (2013) Ltd.
 Proposed Townhouse Development
 9600 Block Alexandra Rd., Richmond
 Prepared For: Attn.: Amit Sandhu
 Am Pri Development (2013) Ltd.
 9751 No. 6 Road
 Richmond BC, V6W 1E5

BACKGROUND

Arbortech Consulting has been retained to undertake a detailed study of the existing trees located on and within close proximity to the above noted site to determine their current condition, and to make preservation and protection recommendations in context to the proposed development. Staff from this office visited the site on XXX to inspect the trees and site conditions. The topographic survey plan, and the proposed architectural layout plan for this development project have been provided for our use in completing this report. The purpose of this study is to;

- Determine the present (pre-development) condition of the existing tree resource and compile an inventory that meets the municipal requirements for reporting,
- Determine which trees are viable for retention consideration,
- Determine if any off-site trees are expected to be impacted from construction,
- Guide the approval and design revision process to the extent possible so that tree retention and tree replacement objectives are achieved, and
- Specify tree protection and impact mitigation recommendations for implementation in the construction phase.

The tree condition data and tree retention recommendations are compiled herein and on the enclosures. This report should be read in conjunction with the attached reference documents.

METHODOLOGY

Our standardized inventory and analysis procedure was used to assess the existing trees on the site using Visual Tree Assessment (VTA) procedures. In the VTA we observe the tree for presence of signs or symptoms of defect or health issues, and/or growing site constraints that can affect its viability for retention. At the owner's discretion, certain trees may benefit from additional detailed examination and testing before decisions are finalized.

Trees have been marked with a serial numbered tag as referenced in this report, and for future reference within the approval and construction phases of the project. Photos were taken and are used herein and/or kept on file.

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 Suite 109 - 1528 McCallum Rd
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PAGE 1 OF 6



This study is not a tree risk assessment, however we have considered the structural and health condition of the subject trees to determine their suitability for retention in context to the proposed land use.

The proposed construction works are expected to cause site changes that either directly conflict with existing trees, or will significantly alter the growing environment of other trees. This tree retention study considers our arboricultural assessment of the expected tree survivorship based on the anticipated impacts from construction. With an objective to maximize tree preservation, we have considered the feasibility of implementing design changes, and the possible use of innovative construction materials and methods for the protection of suitable and valuable trees.

In our study, we have used our experience and reviewed the design drawings to anticipate all tree related impacts from;

- *geo-technical* needs (i.e. soil and site preparation works required),
- *civil engineering* needs (i.e. re-grading, underground servicing, road construction),
- *architectural* design elements (i.e. foundations, buildings, driveways, and amenities), and
- *landscape* design elements (i.e. hard surfaces, retaining walls, re-grading, soil placement, planting holes for new plants and trees, etc.).

It is the responsibility of each design consultant to consider the tree protection restrictions and special measures that may be recommended herein and on the attachments, in relation to their field of expertise, and to confirm that the protection zones and restrictions can reasonably be achieved.

PROPOSED LAND USE

On this site, the proposed development consists of a townhouse development. The associated re-grading of the lands, the construction of new roads and underground services/utilities, and the construction of the buildings/driveways and related amenities will result in comprehensive disturbance across most of the site.

TREE RETENTION ASSESSMENT FINDINGS

ON-SITE TREES:

Tagged Trees: The size, type and condition of the subject trees are detailed in the attached Tree Inventory and Assessment List. The locations and the designated treatment of the subject trees are detailed on the attached Tree Management Drawing.

Tree Stand Counts: Native stands of trees were assessed based using stand delineation and stand condition indicators. A physical tree count was undertaken for these stands and the quantities are reported on the Tree Management Drawing.

The total quantity of On-Site trees considered on this project is:

| | | |
|--------------|------------|--|
| | 24 | Tagged Trees (on-site and road frontage trees) |
| plus | 400 | Untagged Stand Tree Count (ESA bylaw trees are 10cm and greater) |
| Total | 424 | Bylaw Trees within Development Site |



Table 1. Tree Retention and Removal Quantities by Condition
(Includes trees in Road boulevards fronting the site)

| CONDITION | RETAIN | | REMOVE | | TOTAL |
|--|--------|----------------|--------|--------|-------|
| | TAGGED | STANDS | TAGGED | STANDS | |
| UNSUITABLE A tree that is unsuitable for retention in the proposed land use due to advanced health decline or presence of significant structural defects. | 0 | 13 * (est.) | 10 | 387 | 410 |
| MARGINAL A tree that has a moderate defect that makes it unlikely to survive anticipated site changes if retained singly, but may be considered for retention conditional to special measures and/or in conjunction with other adjacent trees. | 6 | 0 | 5 | 0 | 11 |
| SUITABLE A tree in fair, good or excellent condition with no overt or identifiable significant defects based on VTA, and well suited for consideration of retention. | 0 | 0 | 3 | 0 | 3 |
| SUBTOTALS | 6 | 13 | 18 | 387 | |
| | 19 | | 405 | | 424 |

Note. The unsuitable rating is based on individual single retention of stand trees. In this case, a section of the stand is being retained with a provision for treatments that may include pruning and selective removal of high risk trees based on CTRA assessment at the time of land clearing. Any removals from this area will be confirmed and authorized with the City of Richmond in advance.

PROPOSED TREE RETENTION AND REMOVAL:

- Removal of 10 bylaw trees as described in the tree list and shown on the tree management drawing due to their pre-existing condition being unsuitable for retention consideration.
- Removal of 8 bylaw trees due to unresolvable impacts from construction. Note that two shared trees (#'s 457 and 458) will require approval from the neighbour before city approvals can be obtained.
- Retention of 6 bylaw trees as well as a section of Stand 1 within the open space proposed for the northwest corner of the project. Related protection guidelines are summarized on the Tree Management Drawing.

TREATMENT OF CITY FRONTAGE TREES:

- Three City owned trees (#'s 448, 449 and 450) that are located in the road boulevard fronting the site are recommended to be removed due to the presence of structural defects and due to the road construction and site servicing conflicts. Parks Department approvals are required.



TREATMENT OF OFF-SITE TREES:

- During our review we have noted 4 off-site trees that will require protection within the site, and/or approval from the neighbour for removal. Two trees near the northwest corner Open Space will inherently be protected. Coordination with the neighbours for two trees located on the east adjacent site will be undertaken as the project advances through detailed design, and the determination of whether they require removal made once the scope of construction is finalized and potential impacts and mitigation can be confirmed.

TREE REPLACEMENT

Tree replacement requirements will be determined by the city in relation to their policies. The tree replacement design will be specified by the project landscape architect.

SUMMARY RECOMMENDATIONS

Tree retention will only be successful if the trees can be protected to meet and respect the alignments and restrictions within the Tree Protection Zones (TPZ) as detailed on the Tree Management Drawing attached. Since our plan is based on designs that were available at the time of writing, and those designs may be subject to revision, the advancement of those designs to "Issued for Construction" status will require coordination with our findings.

Considering the findings herein, the management of existing trees within the proposed development project is summarized as follows:

1. All applicable design drawings for this project must be coordinated to fully comply with the tree protection specifications as shown on the Tree Management Drawing (attached). Inclusion of this drawing and report in the project specifications is strongly recommended.
2. All contractors, subcontractors and trades undertaking any scope of construction on the project that could impact the trees should be made aware of the restrictions and responsibilities for tree retention and any special measures required, and coordinate their work activities accordingly.
3. Retain and Protect 6 tagged trees and approximately 13 stand trees within the development.
4. Seek approval to remove 3 trees from the City road frontages.
5. Seek a tree cutting permit from the municipality to allow the removal of 18 tagged bylaw trees and 387 stand trees(405 total) trees as per the details in the report sections above.
6. Make provision for replacement trees to suit city requirements, and/or to meet the compensation requirements for any required replacement trees that may not be able to be accommodated within the development site.



7. The demolition of any existing structures and hard-surfacing within the TPZs should to be carried out with low impact methodologies and under the supervision of the project arborist. Restoration to soft landscape conditions may be specified.
8. Implement tree protection measures and/or other treatments specified during each phase of site preparation and construction in compliance with the Tree Management Drawing and pursuant to municipal regulations or requirements.
9. Coordinate with neighbouring owners to gain authorizations or obtain signed tree cutting permit applications for off-site trees that require removal, and/or implement tree protection measures within the site as specified for the protection of off-site trees.
10. Coordinate with this office and the municipality during the land clearing phase to ensure proper identification of the retained trees and that protection measures are compliant.
11. Coordinate with this office and municipality during land clearing phase to make final assessment for the treatment of trees within ESA and Parks lands dedicated to the city as part of the project or bordering the project.

ASSUMPTIONS AND LIMITING CONDITIONS

- This report was prepared for and on the behalf of the client as addressed herein, and it is intended solely for their use in its entirety. Arbortech Consulting shall not accept any liability derived from the partial, unintended, unauthorized or improper use of this report.
- Upon receipt of payment on account in full, this report is the property of the client.
- This report is restricted only to the subject trees as detailed in this report. Except as stated herein, no other trees were inspected or assessed as part of the work related to the preparation of this report.
- The inner tissue of the trunk, limbs and roots, as well as the majority of the root systems of trees are hidden within the tree and the ground. Also, trees have adaptive growth strategies that can effectively mask defects. Tree assessment is limited to relying on the outward signs of defect and health issues that are indicators of the presence of defects. We use our training, experience and judgement, however it is possible that certain defects are not able to be identified. Arbortech Consulting cannot guarantee that a tree is free of defect.
- The accuracy of the locations of trees, property lines and other site features were not verified by Arbortech Consulting. We do not warrant that third party information as correct. Third party information provided to the consultant may have been relied upon in the formation of the opinion of the consultant in the preparation of this report, and that information is assumed to be true and correct.
- The use of maps, sketches, photographs and diagrams are intended only as a reference for the readers' use in understanding the contents and findings of this report, and are not intended as a representation of fact.
- Approvals from a municipality and/or senior government agencies may be required in relation to certain recommendations and/or treatments provided in this report. The owner is responsible to make application for, pay related fees and costs for, and meet all requirements and conditions for the issuance of such permits, approvals or authorizations.

PAGE 5 OF 6



CERTIFICATION

I certify to the best of my knowledge or belief, that:

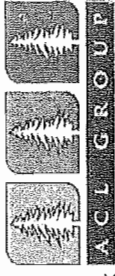
- Staff from this firm has performed site inspection(s) on the date(s) as stated herein.
- The observations are based on information known to the consultant at that time.
- The statements of fact determined by the consultant are true and correct.
- Certain unverified information supplied by the client may have been relied upon in determining the findings.
- The findings herein are based upon the professional analysis of the consultant.

Thank you for choosing Arbortech Consulting for your project needs. If there are any questions regarding this report, please contact the undersigned.

Norman Hol, Consulting Arborist
Direct: 604 813 9194
Email: norm@aclgroup.ca

Qualifications:
ISA Certified Arborist #PN-0730
Certified Tree Risk Assessor #0076
Certified Wildlife and Danger Tree Assessor
Land Survey Technologist

Enclosures; *Tree Inventory List, Tree Management Drawing*



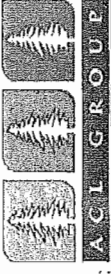
a division of:

TREE INVENTORY AND ASSESSMENT LIST

Notes to Reader:

Tag # denotes the tag affixed to the tree for reference in report and on drawing. See drawing or figure for locations.
Loc denotes the ownership of a tree, if applicable (i.e. **City, Off-Site, Shared, ESA**), based on the survey provided. See report for details.
Ht and **Spr** denote the height and spread (radius of crown) of the tree in metres as measured or estimated by the assessor if applicable
Site denotes the Growing Site (**Open, Row, Grove, Stand**), see report for details. Height and Spread are not applicable for Grove or Forest Stand trees.
Dbh denotes the diameter of the trunk measured at 1.4 m above grade or as per arboricultural standards (i.e. for multi stem trees)
Cond denotes health and structural rating using Visual Tree Assessment (VTA) procedures. **U** denotes **unsuitable**, **M** denotes **marginal**, **S** denotes **suitable**. See report for details.
Action denotes the proposed treatment of the tree within the current development design. See report and drawing for details

| Tag # | Loc | Ht | Spr | Site | Dbh (cm) | Tree Type (Common name) | Cond | Observations (based on VTA only) | Action |
|-------|--------|----|-----|-------|----------|-------------------------|------|---|--------|
| 324 | | 17 | 9 | Grove | 75 | Norway maple | M | Weak base union of twin leaders, embedded and girdled limb | RETAIN |
| 327 | | 29 | 6 | Grove | 85 | Douglas-fir | M | Sparse foliage, twiggy dieback, declining health | RETAIN |
| 329 | | 19 | 4 | Grove | 40 | Douglas-fir | M | 40% LCR | RETAIN |
| 330 | | 20 | 3 | Grove | 47 | Douglas-fir | M | 25% LCR | RETAIN |
| 331 | | 18 | 5 | Grove | 45 | European birch | U | BBB - Top dieback | Remove |
| 332 | | 22 | 5 | Grove | 34 | European birch | U | Spindly + BBB dieback | Remove |
| 333 | | 23 | 8 | Grove | 62 | European birch | M | BBB - Top dieback | Remove |
| 334 | | 26 | 6 | Grove | 54 | Douglas-fir | M | Adjacent failure of fir tree reveals presence of root rot disease and strong likelihood for infection in trees 334 and 335 | RETAIN |
| 335 | | 24 | 6 | Grove | 97 | Douglas-fir | M | See tree 334 and also note that this tree is growing at ditch top of bank and has a severely asymmetric root mat as a result. | RETAIN |
| 349 | | 8 | 5 | Open | Multi | Cherry | S | | Remove |
| 350 | | 8 | 5 | Open | 45 | Cherry | M | Previously topped | Remove |
| 442 | | 8 | 4 | Open | 38,35,30 | Holly | M | Weak unions, embedded wire observed in one of the twin stems | Remove |
| 444 | | 14 | 7 | Open | 52,35,32 | Cherry | U | Root rot, weak union at base, moderate bacterial blight | Remove |
| 448 | City | 13 | 5 | Open | Multi | European birch | U | Growing along the top of bank of the ditch with severe sweep in the lower trunks and multiple leaders that have severely asymmetric root mats. | Remove |
| 449 | City | | | | 50 | European birch | U | Dead Snag. Growing along the top of bank of the ditch with severe sweep in the lower trunks and multiple leaders that have severely asymmetric root mats. | Remove |
| 450 | City | 20 | 6 | Open | 58 | European birch | U | Growing along the top of bank of the ditch with severe sweep in the lower trunks and multiple leaders that have severely asymmetric root mats. | Remove |
| 457 | Shared | 10 | 5 | Grove | Multi | Sycamore maple | M | Weakly formed stem union | Remove |
| 458 | Shared | 10 | 5 | Grove | Multi | Sycamore maple | M | Weakly formed stem union | Remove |
| 482 | | 12 | 4 | Grove | 28 | Excelsa cedar | S | Merged crowns | Remove |



a division of:

| Tag # | Loc | Ht | Spr | Site | Dbh (cm) | Tree Type (Common name) | Cond | Observations (based on VTA only) | Action |
|-------|-----|----|-----|-------|----------|-------------------------|------|--|--------|
| 483 | | 12 | 4 | Grove | 31 | Excelsa cedar | S | Merged crowns | Remove |
| 485 | | 14 | 5 | Open | 30 | Cherry | U | Partially failed, limbs >25 degrees NE | Remove |
| 486 | | 14 | 7 | Open | 34,49 | English oak | U | Twin main leaders joined with a weak union at the base, with included bark present, and east stem is fully dead. | Remove |
| 492 | | 20 | 9 | Open | 46,57 | English oak | U | Twin main leaders joined with a weak union at the base, with included bark present. | Remove |
| 597 | | 18 | 6 | Grove | 44,36 | Norway maple | U | Twin main leaders joined with a weak union at the base, with included bark present. | Remove |



City of
Richmond

Rezoning Considerations

Development Applications Division
6911 No. 3 Road, Richmond, BC V6Y 2C1

Address: 9580, 9600, 9620, 9626, 9660, 9680 Alexandra Road **File No.:** RZ 13-649999

Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9137, the developer is required to complete the following:

1. Dedicate a strip of land approximately 1.5m wide at the eastern limit of the site and such width reduces to approximately 1.2m wide at the western limit as a road dedication along the entire Alderbridge Way frontage in order to accommodate 3.3m wide shared cyclist/pedestrian path and a 1.5m wide treed boulevard. Final dedication requirement to be determined by a functional road design approved by the Director of Transportation.
2. Consolidation of all the lots into one development parcel (which will require the demolition of the existing dwellings).
3. Installation of appropriate tree protection fencing around all trees to be retained including the 20 m wide greenway as part of the development prior to any construction activities, including building demolition, occurring on-site. Submission of a \$5,000 security deposit is required to ensure the fencing requirements.
4. The granting of a 20 wide statutory right-of-way along the northern property line of 9580 and 9600 Alexandra Road for public right of passage – maintenance and liability to be the responsibility of the City.
5. Registration of an aircraft noise sensitive use covenant on title.
6. Registration of a legal agreement on title identifying that the proposed development must be designed and constructed to meet or exceed Ener-guide 82 criteria for energy efficiency and that the dwellings are pre-ducted for solar hot water heating. A report by a qualified professional prepared to the satisfaction of the Director of Development is to be submitted certifying that the units meet the Ener-guide 82 criteria and that the solar heating pre-ducting has been installed.
7. Registration of a flood plain covenant on title identifying a minimum habitable elevation of 2.6 m GSC.
8. Registration of a legal agreement on title ensuring that, with the exception of emergency vehicles, there will be no vehicle access to Alderbridge Way.
9. With the exception of specific hazard trees, on-site trees within the designated ESA shall not be removed until a Development Permit has been issued.
10. Registration of a statutory right-of-way to the satisfaction of the Director of Development, over the internal drive-aisle in favour of 9560 Alexandra Road.
11. City acceptance of the developer's offer to voluntarily contribute \$0.77 per buildable square foot (e.g. \$86,774.00) to the City's public art fund.
12. City acceptance of the developer's offer to voluntarily contribute \$5.10 per buildable square foot (e.g. \$574,736.85 based on 112,694 sf) to the City's affordable housing fund.
13. City acceptance of the developer's offer to voluntarily contribute the following amounts per Policy 5044 West Cambie – Alexandra Interim Amenity Guidelines:

Initial: _____

- a) Community and Engineering Planning Costs of \$0.07 per buildable square foot (e.g. \$7,888.55);
- b) Child Care Contribution of \$0.60 per buildable square foot (e.g. \$67,616.10);
- c) City Beautification contribution of \$0.60 per buildable square foot (e.g. \$67,616.10).

Note that the amount of the City Beautification contribution may be reduced once the value of the frontage improvements have been determined through the Servicing Agreement. The offsite works which may qualify include works along the north side of Alexandra Road (i.e. conversion of the existing ditch to a swale, sidewalk installation, resetting of existing pedestrian bridges to address grade changes).

14. Registration of a legal agreement on title prohibiting the conversion of tandem parking areas into habitable space.
15. Discharge of the Two Family Dwelling Covenant BG013764 from 9620 and 9626 Alexandra Road and cancellation of Strata Plan NW 2397.
16. The submission and processing of a Development Permit* completed to a level deemed acceptable by the Director of Development.
17. Enter into a Servicing Agreement* for the design and construction of frontage improvements. Works include, but may not be limited to;

Water

1. Replacement of existing AC watermain is required along the development site frontage; the replacement will need to extend beyond the development site frontage due to the required offsite improvements. If adequate flow is not available, then upgrades beyond the development site frontage will be required, which may include constructing a 200mm diameter watermain along the future May Drive from Alexandra Rd to Tomicki Avenue or from Alexandra Road to Alderbridge Way.
2. Additional fire hydrants are required to achieve spacing requirements for the multi-family areas.

Sanitary

1. Construct a 200 mm diameter gravity sanitary sewer at 0.40%(min) along Alexandra Rd from the east property line of the development site to future May Drive.
2. Construct a 375 mm diameter sanitary sewer along May Drive from Alexandra Road to Tomicki Avenue and connect to existing system on Tomicki Avenue.
 - a) Existing manhole SMH52070 will need to be shifted approximately 4m to the south to accommodate the ultimate alignment of system on Tomicki Avenue.

Storm

Upgrade the existing storm sewer line from the west property line of 9580 Alexandra Road to the existing box culvert in No 4 Road (complete with tie-in to the box culvert). Alignment of the required storm sewer shall be near the center line of the road dedication.

Private utilities:

1. The developer is responsible for the under-grounding of the existing private utility pole line along the proposed site's Alexandra Road frontage to accommodate the proposed raising of Alexandra Road.
2. The developer is to provide Private utility company rights-of-ways to accommodate their above ground equipment (i.e., above ground private utility transformers, kiosks, etc.). It is recommended that the developer contact the private utility companies to learn of their requirements.

Vegetation Screening Enhancement within the Alderbridge Way Median:

Enhancement of existing medians within Alderbridge Way for the full extent of the frontage with the subject properties to the satisfaction of the Director of Development, the Director of Transportation and the Director of Engineering.

Alexandra Road Improvements:

1. The development will contribute to the raising of Alexandra Road by approximately 0.6 m to bring it up to the required 2.0 m elevation.
2. The following modifications to the north side of Alexandra Road are required to accommodate the proposed raising of Alexandra Road frontage:
 - o Remove existing extruded curb and asphalt sidewalk.
 - o Provide barrier curb and gutter and concrete sidewalk on the north side of the raised Alexandra Road.
 - o Modify the existing bridge access to 9566 Tomicki Road to match the raised sidewalk/road on the north side of the raised Alexandra Road. The maximum bridge slope shall be 5%.
3. Alexandra Road, from the western property line of 9600 Alexandra Road to the eastern limit of the development frontage (from south to north):
 - a) Provide a 2.0m wide sidewalk
 - b) Provide a minimum 1.5m wide treed boulevard
 - c) Construct a new 0.15m wide curb/gutter
 - d) Widen travel portion of the road to 8.5m wide
 - e) Construct a new 0.15m wide curb/gutter
 - f) Provide a 1.5m wide sidewalk
 - g) Transition to ditch- (need to get input from engineering)
4. Alexandra Road, from western property line of 9600 Alexandra Road to May Drive (from south to north):
 - a) Provide a 2.0m wide sidewalk
 - b) Provide a minimum 1.5m wide treed boulevard (exact width to be confirmed as part of the Servicing Agreement process)
 - c) Construct a new 0.15m wide curb/gutter
 - d) Provide a minimum 6.2m wide asphalt driving surface
 - e) Provide a minimum 1.0m wide shoulder
5. Alderbridge Way frontage (from existing curb to north):
 - f) Maintain the existing curb/gutter
 - g) Provide a 1.5m wide treed boulevard
 - h) Provide a 3.3m wide shared cyclist/pedestrian path
 - i) Outside the development frontage to May Drive, the same treed boulevard and shared cyclist/pedestrian path should be provided within existing road right-of-way where space permits.

Prior to a Development Permit* being forwarded to the Development Permit Panel for consideration, the developer is required to:

1. Complete an acoustical and thermal report and recommendations prepared by an appropriate registered professional, which demonstrates that the interior noise levels and noise mitigation standards comply with the City's Official Community Plan and Noise Bylaw requirements. The

standard required for air conditioning systems and their alternatives (e.g. ground source heat pumps, heat exchangers and acoustic ducting) is the ASHRAE 55-2004 “Thermal Environmental Conditions for Human Occupancy” standard and subsequent updates as they may occur. Maximum interior noise levels (decibels) within the dwelling units must achieve CMHC standards follows:

| Portions of Dwelling Units | Noise Levels (decibels) |
|---|-------------------------|
| Bedrooms | 35 decibels |
| Living, dining, recreation rooms | 40 decibels |
| Kitchen, bathrooms, hallways, and utility rooms | 45 decibels |

2. Submission of a report by a Qualified Environmental Professional regarding a pre-clearing bird nest survey with a summary of the findings and recommendations to the City prior to site clearing activities.
3. Submit studies and recommendations, to the satisfaction of the Director of Development, on grading, drainage and tree retention within the 20 m wide greenway SROW.

Prior to Building Permit Issuance, the developer must complete the following requirements:

1. Submission of a Construction Parking and Traffic Management Plan to the Transportation Division. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
2. Incorporation of accessibility measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
3. Payment of the Supplementary Local Area DCC for the Alexandra Neighbourhood.
4. Payment of the sanitary pump station latecomer fees. plus applicable interest, in accordance with the Alexandra Neighbourhood Development Agreement (multi-family rate \$3,307.47 per unit plus interest).
5. If applicable, payment of latecomer agreement charges associated with eligible latecomer works.
6. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Division at 604-276-4285.

Note:

- * This requires a separate application.
- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be

required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.

- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contain prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

Signed

Date



**Richmond Zoning Bylaw 8500,
Amendment Bylaw 9136 (RZ 13-649999)
9580, 9600, 9620, 9626, 9660, 9680 Alexandra Road**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. Richmond Zoning Bylaw 8500 is amended by replacing Section 17.67.6.1 with the following:

“1. The minimum **front yard** is 5.0 m, except for **lots** that front onto Alexandra Road where the minimum **front yard** is 4.5 m:

2. Richmond Zoning Bylaw 8500 is amended by repealing the existing zoning designation of the following area and by designating it “**TOWN HOUSING (ZT67) – ALEXANDRA NEIGHBOURHOOD (WEST CAMBIE)**”;

P.I.D. 013-044-079

Lot B Section 34 Block 5 North Range 6 West New Westminster District Plan 80461

P.I.D. 004-031-903

The West Half of Lot 11 Block “C” Section 34 Block 5 North Range 6 West New Westminster District Plan 1224

P.I.D. 004-042-824

Strata Lot 1 of Section 34 Block 5 North Range 6 West New Westminster District Strata Plan NW2397 Together With An Interest In The Common Property In Proportion To The Unit Entitlement Of The Strata Lot As Shown On Form 1

P.I.D. 004-044-550

Strata Lot 2 of Section 34 Block 5 North Range 6 West New Westminster District Strata Plan NW2397 Together With An Interest In The Common Property In Proportion To The Unit Entitlement Of The Strata Lot As Shown On Form 1

P.I.D. 012-032-590

Parcel “E” (Explanatory Plan 12531) Lot 12 Block “C” Section 34 Block 5 North Range 6 West New Westminster District Plan 1224

P.I.D. 012-032-603

Lot 12 Except: Firstly: South 248.98 Feet Secondly: Parcel “E” (Explanatory Plan 12531), Block “C” Section 34 Block 5 North Range 6 West New Westminster District Plan 1224

3. This Bylaw may be cited as **“Richmond Zoning Bylaw 8500, Amendment Bylaw 9136”**.

FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

MAYOR

CORPORATE OFFICER

| |
|--|
| CITY OF RICHMOND |
| APPROVED by <i>BK</i> |
| APPROVED by Director or Solicitor <i>hl</i> |