



THE CORPORATION OF THE CITY OF COURTENAY

## STAFF REPORT

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**To:** Council

**File No.:** 3360-20-1715

**From:** Chief Administrative Officer

**Date:** August 29<sup>th</sup>, 2022

**Subject:** Zoning Amendment Bylaw No. 2912 – 2650 Copperfield Road

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### **PURPOSE:**

The purpose of this report is for Council to consider Third Reading and Final Adoption of Zoning Amendment Bylaw No. 2912 – 2650 Copperfield Road to rezone the property from Residential One A Zone (R1-A) to the Comprehensive Development 30 Zone (CD-30) and the Parks Public Use and Assembly 2 Zone (PA-2) to permit thirty-nine strata lots (39) and up to forty-six (46) dwelling units.

### **CAO RECOMMENDATIONS:**

That based on the August 29<sup>th</sup>, 2022 staff report “Zoning Amendment Bylaw No. 2912, 2020 – 2650 Copperfield Road” Council approve OPTION 1 and proceed to Third Reading and Final Adoption of Zoning Amendment Bylaw No. 2912, 2020.

Respectfully submitted,

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Geoff Garbutt, M.Pl., MCIP, RPP  
Chief Administrative Officer

### **BACKGROUND:**

The subject property is 2.59ha (6.4 ac.) in size and located on the edge of the City’s western boundary with the Regional District. The property is heavily treed with clusters of second and third growth forest and wetlands throughout and Piercy Creek running along the southeast boundary.

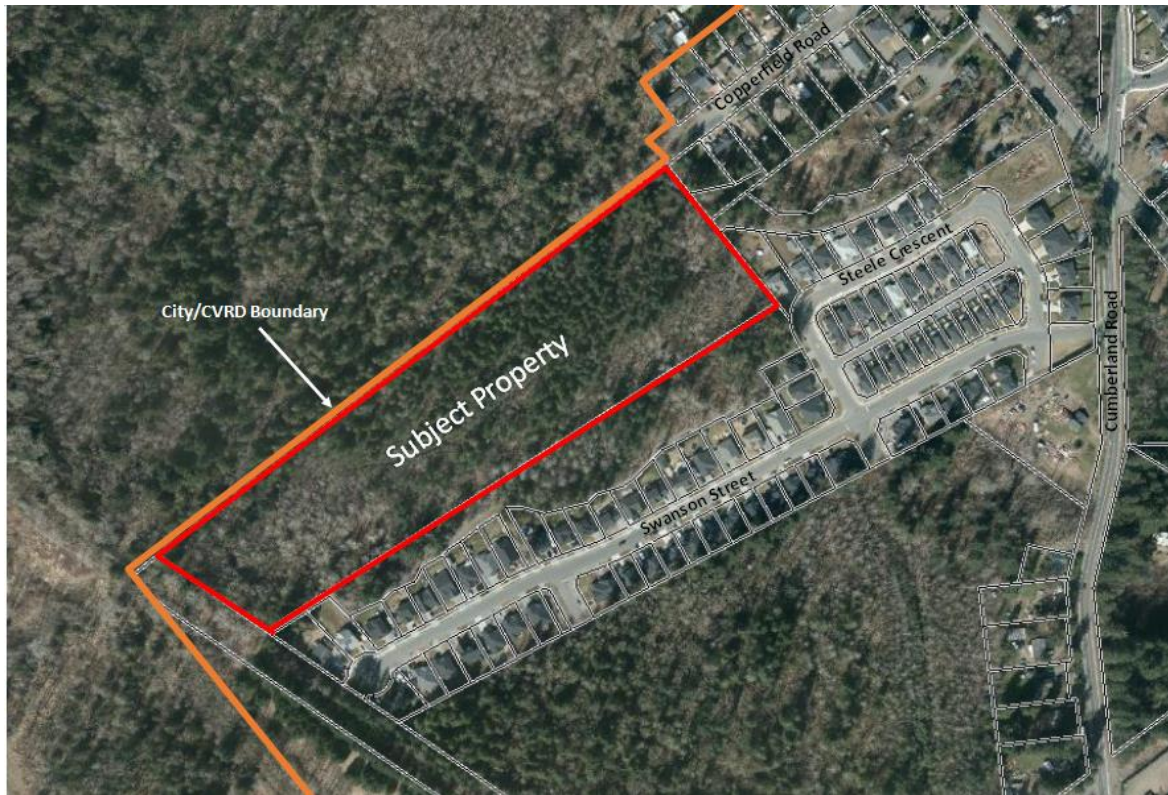


Figure 1: Subject Property and Context

#### First and Second Reading of Bylaws

On October 5<sup>th</sup>, 2020 Council granted First Reading of Official Community Plan (OCP) Amendment Bylaw No. 3018 and Zoning Amendment Bylaw No. 2912. The bylaws proposed to re-designate the property from “Suburban Residential” to “Urban Residential” and rezone the property from the R-1A Zone to the CD-30 Zone and the PA-2 Zone to facilitate the subdivision of a thirty-nine (39) unit strata subdivision.

At the October meeting Council passed a motion to withhold second reading of the bylaws pending Council’s consideration of a Development Cost Charge Frontender Agreement and a Municipal Share Agreement to finance the cost of extending a waterline to the property to provide adequate water services.

After the bylaws were granted first reading the developers’ intent was to submit a concurrent Municipal Share and Development Cost Charge Frontender Agreement application which would have required further Council consideration on financing the water main. At this time staff made it clear that the project was not a priority and funds were not being allocated in the City budget.

Through further discussion with staff, the applicant proposed an alternative solution to solve the water pressure issue that didn’t require a Municipal Share and Development Cost Charge Frontender Agreement. Rather, the solution involved tying together the two existing water mains on Cumberland Road and Arden Road in addition to adding a pressure sustaining valve along Cumberland Road and a new 250mm service

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along Copperfield Road to the development. With this offsite upgrade, appropriate pressure and fire flows could service the development.

The applicant's solution to water pressure concerns were accepted by City staff and the proposal was brought back to the May 3, 2021 Council meeting.

At the May 3<sup>rd</sup>, 2021 Council meeting second reading of OCP Amendment Bylaw No. 3018 and Zoning Amendment Bylaw No. 2912 was granted and City staff were directed to schedule a public hearing.

#### Public Hearing June 23, 2021

A public hearing was advertised in two consecutive issues of the newspaper on June 9, 2021 and June 16, 2021 and was held on June 23, 2021 at 5.P.M. During the advertisement of the hearing thirteen (13) public comments were received from neighbors and residents (as seen in **Attachment No. 3**) who expressed concerns regarding: the proposed density; traffic congestion; intersection safety; encroachment into the environmentally sensitive areas onsite and the lack of trail connections on the property.

#### *Residential Density*

Members of the public noted that the proposed density of thirty-nine (39) lots with a potential of seventy-six (76) units was too dense for this area in the City and was not in keeping with the form and character of the neighborhood. The proposal presented to the public included a request to develop the property with a mix of triplex, duplex and single family style units in addition to carriage homes on select lots.

In response the applicant revised the proposal by reducing the residential density to thirty-nine (39) lots with a potential of forty-six (46) units. Staff notes that since the public hearing was held, the property has been re-designated to Urban Residential within the OCP.

The Urban Residential designation includes neighborhoods with ground orientated single-detached residential buildings and promotes infill in the form of suites, duplexes, carriage homes and garden suites. Triplexes, townhomes and small apartments are also supported particularly in areas along Frequent Transit Networks. Also forming part of the OCP is the Arden Corridor Local Area Plan (LAP) which encourages clustered forms of development where lots are condensed to preserve environmentally sensitive areas and features.

#### *Traffic Congestion and Intersection Safety*

Residents expressed concerns about increases in traffic along Arden and Copperfield Roads and noted the lack of transit service and bike lanes in the immediate vicinity as well as the lack of sidewalks and pedestrian crosswalks along Arden Road.

Residents commented on the safety of the Arden and Cumberland Road intersection. Residents in the neighborhood feel that the intersection is currently unsafe and argue with the increase in vehicles utilizing the intersection from the development it would make the intersection even more dangerous.

In response to these concerns the applicant prepared a Traffic Impact Study (TIS) that included a vehicle trip analysis to estimate the amount of vehicular traffic this development would add to the roadway system based on the proposed land use and size. The TIS also contained a safety analysis of both the site access at Copperfield Road and the Arden and Cumberland Road intersections and examined Insurance Corporation of BC (ICBC) collision data for the Arden and Cumberland Road, Copperfield Road and Arden Road and Lake Trail Road and Arden Road intersections.

### Results of TIS and Trip Generation Analysis

The main site access is proposed at the west of end of Copperfield Road; a two-lane undivided local road with a 50 km/h speed limit.

The TIS examined the following intersections:

- Arden Road / Lake Trail Road (2-way stop controlled on Arden Road);
- Arden Road / Copperfield Road (1-way stop controlled on Copperfield Road) and
- Arden Road / Cumberland Road (2-way stop controlled on Arden Road).

A traffic analysis was conducted on March 29, 2022 during the weekday AM (7:00am to 9:00am) and PM peak hour periods (3:00pm to 6:00pm) for three scenarios: existing conditions (2022), opening day (2025) and the future year (2035), the development opening year plus ten years.

The TIS is referenced in **Attachment No. 5** and concludes that for existing site conditions (2022) all intersection movements are expected to operate at a level of service (LOS) C (represents a stable flow but the operation of individual users becomes significantly affected by interactions with others in the traffic stream and delay is noticeable) or better.

For opening day (2025) all intersection movements are expected to operate at LOS C or better. When examining the post development scenario only the southbound Arden Road approach at Cumberland Road is expected to deteriorate from a LOS C to a LOS D (represents a high-density but stable flow and delay is noticeable and irritating and increases the likelihood of risk taking) in the PM peak period. The Traffic Engineer indicates that the addition of development traffic will result in an additional eight (8) vehicles per hour at the intersection adding a two (2) seconds of delay. All other intersection movements are expected to operate at LOS C or better.

During the 2035-year scenario, the southbound Arden Road approach of Cumberland Road / Arden Road is expected to deteriorate to a LOS C in the AM peak period and to the LOS E (operating conditions at or near the capacity level, delays are approaching tolerance levels and risk-taking behaviour is likely) in the PM peak period. All other movements are expected to operate at LOS C or better.

With the addition of development traffic in 2035, the southbound Arden Road approach is expected to remain within LOS E. Despite the LOS E performance, traffic queues are expected to remain manageable. All other intersection movements are expected to operate at LOS C or better.

### Vehicle Trip Generation

Traffic counts were examined for the development to estimate amount of vehicle traffic that would be added to the surrounding road system based on the land use. For this particular development, the amount of traffic entering and exiting the road system was calculated for weekday AM and PM peak hours (7:00am to 9:00am) and (4:00pm to 6:00pm).

The development is expected to generate 24 and 32 new vehicle trips per hour in the weekday AM and PM peak periods respectively. A total of 336 trips are expected to be generated per weekday.

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Trip generation figures indicate that a majority of the trips are expected to head to and from Downtown Courtenay to the northeast while a smaller portion of trips are expected to head south towards the highway. Additionally, a portion of trips are expected to head west along Lake Trail Road to go to Arden Road Elementary School.

*Safety Analysis: Site Access and Intersections*

Regarding site access, the TIS concluded that there are no existing operational or safety concerns identified at the site access on Copperfield Road.

A safety analysis of the study intersections was examined through the use of ICBC collision data. A review of this data indicates that a total of twenty-one (21) collisions were recorded at Cumberland Road / Arden Road, one (1) collision at Copperfield Road / Arden Road and three (3) collisions at Lake Trail Road / Arden Road.

For the Cumberland Road/Arden Road intersection, bike lane and pavement marking upgrades were installed sometime after August 2019 based on Google Earth historical imagery. Looking only at the collisions from 2019 – 2020, a total of six (6) collisions occurred, with four (4) causing property damage only and two (2) crashes resulting in injury or casualty.

The project Traffic Engineer has concluded that with the addition of the proposed development improvements at the intersections are not required.

*City Plan Policies: Road, Cycling and Pedestrian Networks*

Staff note OCP Bylaw No. 3070, the City Transportation Master Plan and the City Cycling Network Plan policies identify future road, cycling and pedestrian networks in this neighborhood which are directly relevant to the public comments made at the public hearing.

Regarding the road network an additional local road connection between Copperfield Road and Cumberland Road was considered in Bylaw No. 2387 but the road addition was not included in Bylaw No. 3070 or the City's Transportation Master Plan. As a result, no new local road connection to Copperfield Road was considered.

Staff note that the Arden Road/Cumberland Road intersection is identified as a location for safety and operational improvements including traffic control upgrade (i.e. new signals and/or roundabouts).

For cyclists, infrastructure is planned along Arden Road and Lake Trail Road. Also, improvements in the vicinity of the development have been recommended in a list of medium term (10 year) improvements which include a paved multi-use pathway along Arden Road from Morrison Creek to Comox Valley and a along Lake Trail Road from Willemar Avenue to Webdon Road.

For pedestrians there is limited sidewalk infrastructure in the vicinity of the development. No sidewalks are provided along Arden Road or along Lake Trail Road, however, sidewalks are available along Cumberland Road on one side of the road. Plans have identified the Arden Road and Cumberland Road intersection as a desirable location for an improved pedestrian crossing and call for a paved multi-use pathway along Arden Road and along Lake Trail Road.

The Arden Corridor is not currently served by transit, this could change in the future when densities are high enough to support service in the area.

The project Traffic Engineer suggests that safety issues may be mitigated at the Arden Road and Cumberland Road intersection with the installation of a roundabout. It is also recommended that the City monitor traffic growth and operations at unsignalized intersections to determine where and when new signals or roundabouts are needed.

Encroachment into Environmentally Sensitive Areas

The public raised concerns about encroachment of the development into sensitive areas on the property. The site contains five wetlands that are connected by seasonal surface flows to the downstream fish bearing waters of Piercy Creek and tributary 11.

These features require a 30m protective buffer of regardless of the protective buffer identified through the *Riparian Areas Protection Regulation* process (which can sometimes be less than 30m). This has resulted in large portion of the site being undevelopable, in this case fifty-seven percent (57%) of the total site area is being protected from development (as seen in **Figure No.2**).

Staff note that the access road and portions of the development on the eastern edge of the property do encroach into the 30m buffer, however, this has been justified by the project’s biologist and through the dedication of undeveloped areas to offset this encroachment. This encroachment is necessary given there are no other options for accessing the site. This requires the subsequent approval of the City, Department of Fisheries and Oceans and the Province.

Lack of Trails on the Property

The lack of public trails in the immediate area and on the property was another concern resident mentioned at the hearing. The applicant has responded to this concern by updating the park dedication plan for the property and extending the existing trail network through the property.

The applicant has agreed to extend the Arden Road Nature Trail (i.e. Copperfield Trail) through the property so that the trail can continue towards the strata boundary for future connectivity. A new public pedestrian trail connection is also being provided on the southern lot line traversing to the west property line to connect with Comox Logging Road. These lands are being dedicated to the City and are being zoned PA-2 as well as being located outside of the strata boundary so that they can remain publicly accessible.

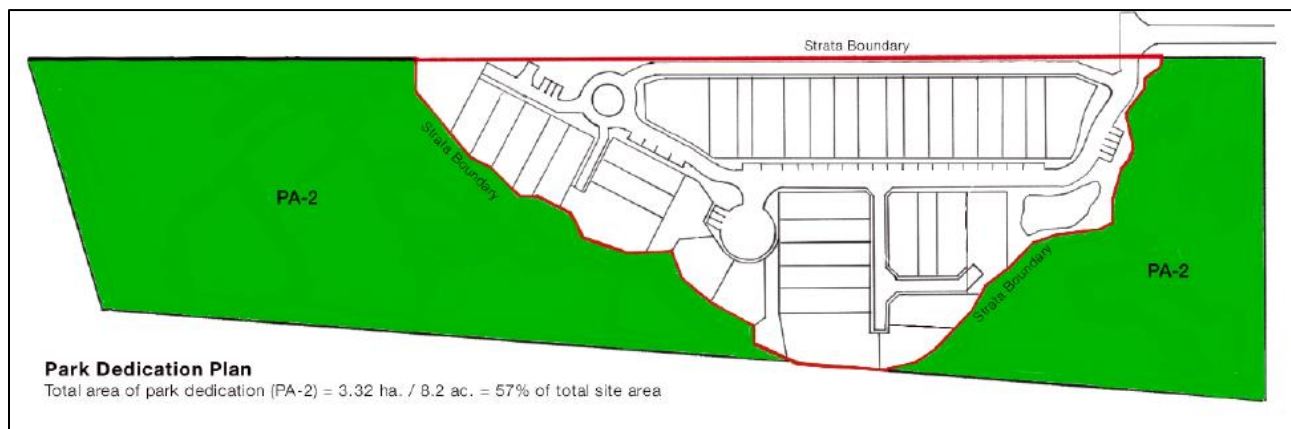


Figure 2: Updated Park Dedication Plan

**DISCUSSION:**

Land Use

The applicant’s 2021 site plan proposed a 39 unit strata development with a mix of triplex, duplex and single family style units in addition to carriage homes on select parcels and permitted density of up to seventy-six (76) dwelling units.

In November 2021 the applicant revised the proposal by reducing the ‘carriage home’ component of the development so that the maximum build-out of the development is 46 units representing a reduction in 30 units. The current proposal includes a mix of single family lots, single family lots with optional carriage homes, duplexes and town homes (as seen in **Table No. 1**).

<b>Proposed Zone</b>	<b>Lots</b>	<b>Maximum Dwelling Units</b>
CD-30A	15	15
CD-30B	7	14
CD-30C	2	2
CD-30D	15	15
<b>Total</b>	<b>39</b>	<b>46</b>

*Table No. 1: Proposed lot and Unit Count*

Zoning Amendment Bylaw No. 2912 has been updated to reflect the applicant’s revised proposal and is referenced in **Attachment No. 6**.

On July 25, 2022 City Council adopted OCP Bylaw No. 3070 at this time the property was redesignated from Suburban Residential to Urban Residential making the previous OCP Amendment, Bylaw No. 3018 redundant.

OCP and Arden Road Local Area Plan (LAP)

The proposal is consistent with the key principles and policies in the OCP and Arden LAP:

- Clustering development to facilitate the conservation of sensitive ecosystems;
- Supporting infill residential development;
- Providing a diversity of housing options;
- Focusing higher density developments within the existing municipal areas;
- Keeping development located outside of environmentally sensitive areas;
- The provision of new parks and trails; and
- Enhancing natural Areas and green space

**Other Related Regulations**

*Amenity Contributions*

Amenity contributions to the City’s Parks, Recreation Culture and Senior’s Facilities Amenity Reserve Fund and the Affordable Housing Amenity Reserve Fund will be required as part of this proposal in accordance with Bylaw No. 3070, Part D, Section B (3), Policy 4b) i) ii) in the amounts stated in tables D-4 and D-5.

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Based on the proposal the applicant will be providing \$236,000.00 as per the amount specified in the OCP. The applicant has agreed to provide these funds prior to the August 29, 2022 Council meeting negating the need for the registration of a covenant to secure amenities prior to final adoption of the zoning amendment bylaw.

#### *Public Hearing*

##### *Local Government Act – s.470 (1)(B)*

This section of the *Local Government Act* is directly applicable to this application. This regulation permits City Council to alter and adopt a bylaw without a further public hearing provided that the alteration does not: (i)(a) alter the use; (b) increase the density; (c) without the owner's consent, decrease the density of any area from that originally specified in the bylaw or (ii) alter the bylaw in relation to residential rental tenure in any area.

#### *Development Permitting*

A Form and Character Development Permit and an Environmental Development Permit (EDP) will be required prior to any development and subdivision of this property and will be assessed based on the Development Permit Area Guidelines in *Zoning Bylaw No. 2500*.

Staff note an Environmental Assessment (EA) was conducted for the property in 2017. As part of the EDP process staff will be requesting the applicant provide an updated report reflecting the revised lot layout and lot configuration in the revised proposal.

#### *Tree Cutting Permit*

The applicant will require a tree cutting permit in advance of any tree removal on the property. A tree assessment was provided in support of the proposal documenting the tree species on the property. No protected species were identified in the assessment.

#### *Coordination of Civil Drawings*

The applicant has to go through a development permit process and subsequent subdivision application process after this rezoning process. The City has granted permission to the applicant to provide detailed civil submissions at the time of development permit after the rezoning process concludes.

#### **OPTIONS:**

##### **OPTION 1: (Recommended)**

That based on the August 29<sup>th</sup>, 2022 staff report “Zoning Amendment Bylaw No. 2912, 2020 – 2650 Copperfield Road” Council approve OPTION 1 and proceed to Third Reading and Final Adoption of Zoning Amendment Bylaw No. 2912, 2020.

**OPTION 2:** Defer consideration of Bylaw No. 2912 with a request for more information.

**OPTION 3:** Defeat Bylaw No. 2912.



Prepared by:



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Dana Beatson, RPP, MCIP  
Planner II- Development Planning

Reviewed by:



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Chris Marshall  
Director of Development Services

Concurrence by:



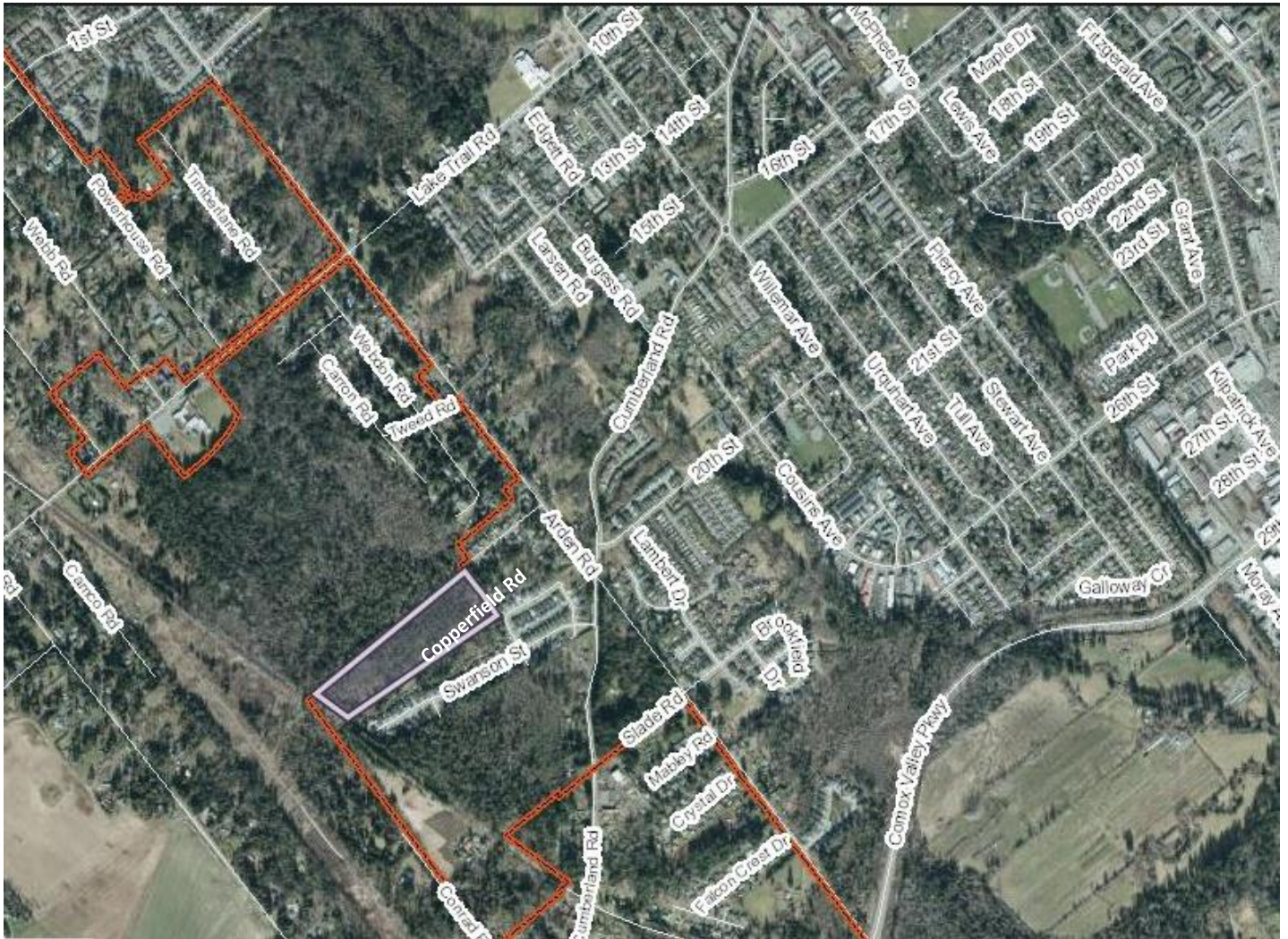
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Geoff Garbutt M. Pl., MCIP, RPP  
Chief Administrative Officer

**Attachments:**

- Attachment No. 1: Property Location and Context Map*
- Attachment No 2: October 5<sup>th</sup>, 2020 Council Resolution*
- Attachment No 3: May 3<sup>rd</sup>, 2021 Council Resolution*
- Attachment No. 4: Public Hearing Comments from City Files, June, 2021*
- Attachment No. 5: Traffic Impact Study*
- Attachment No. 6: Zoning Amendment Bylaw No. 2912*
- Attachment No. 7: Applicant's Letter for Revised Proposal*

**Attachment No. 1: Property Location and Context Map**



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**Attachment No. 2: October 5<sup>th</sup>, 2020 Council Resolution**

**R24/2020 - October 05, 2020**

**4. STAFF REPORTS/PRESENTATIONS**

**4.1 Development Services**

**4.1.1 Official Community Plan (OCP) Amendment Bylaw No. 3018 and Zoning Amendment Bylaw No. 2912 - Lot A (2650) Copperfield Road (6480-20-1003/3360-20-1715)**

**Moved By Frisch**

**Seconded By McCollum**

That based on the October 5<sup>th</sup>, 2020 staff report “Official Community Plan (OCP) Amendment Bylaw No. 3018 and Zoning Amendment Bylaw No. 2912 - Lot A (2650) Copperfield Road” Council approve OPTION 1 and complete the following steps:

1. That Council gives First Reading to Official Community Plan Amendment Bylaw No. 3018 to redesignate the subject property from “Suburban Residential” to “Urban Residential”;
2. That Council gives First Reading of “Zoning Amendment Bylaw No. 2912” to create a new CD-30 Zone and rezone the property legally described as Lot A, District Lot 138, Comox District, Plan 2607 Except Parts in Plans 312R, 14210 and 29833 from R1-A to CD-30 and PA-2; and,
3. That Second Reading of both bylaws is withheld pending Council’s consideration of a Development Cost Charge Frontender Agreement and a Municipal Share Agreement to finance the cost of extending a waterline to the subject property to provide adequate water services.

**Carried**

**4.1.2 Zoning Amendment Bylaw No. 3024 - Update to the Home Occupation Regulations (3360-20-2013)**

**Moved By Morin**

**Seconded By Theos**

That the October 5<sup>th</sup> 2020 staff report “Zoning Amendment Bylaw No. 3024 - Update to the Home Occupation Regulations” be received for information.

**Carried**

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**Attachment No 3: May 3<sup>rd</sup>, 2021 Council Resolution**

**R9/2021 - May 03, 2021**

**4.1.2 Official Community Plan (OCP) Amendment Bylaw No. 3018 and Zoning Amendment Bylaw No. 2912 - Lot A, Copperfield Road (3360-20-1715/6480-20-1003)**

**Moved By Cole-Hamilton**

**Seconded By Frisch**

THAT the May 3<sup>rd</sup>, 2021 staff report “Official Community Plan (OCP) Amendment Bylaw No. 3018 and Zoning Amendment Bylaw No. 2912 - Lot A, Copperfield Road,” be received for information.

**Carried**

**Moved By Cole-Hamilton**

**Seconded By McCollum**

THAT based on the May 3<sup>rd</sup>, 2021 staff report “Updated Proposal - Official Community Plan (OCP) Amendment Bylaw No. 3018 and Zoning Amendment Bylaw No. 2912 - Lot A, Copperfield Road” Council approve OPTION 1 and complete the following steps:

1. THAT Council gives Second Reading to Official Community Plan Amendment Bylaw No. 3018 to redesignate the subject property from “Suburban Residential” to “Urban Residential”;
2. THAT Council gives Second Reading of “Zoning Amendment Bylaw No. 2912” to create a new CD-30 Zone and rezone the property legally described as Lot A, District Lot 138, Comox District, Plan 2607 Except Parts in Plans 312R, 14210 and 29833 from R1-A to CD-30 and PA-2; and,
3. THAT Council direct staff to schedule and advertise a statutory Public Hearing with respect to the above referenced bylaws.

**Carried**

**4.1.3 Local Government Development Approvals Program Funding Application (0400-20-UBCM)**

**Moved By Hillian**

**Seconded By Frisch**

THAT based on the May 3<sup>rd</sup>, 2021 staff report entitled “Local Government Development Approvals Program Funding Application” Council approve Option No. 1 as follows:

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**Attachment No. 4: Public Hearing Comments from City Files, June, 2021**

**PlanningAlias**

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**From:** [REDACTED]  
**Sent:** Tuesday, June 22, 2021 4:27 PM  
**To:** PlanningAlias  
**Subject:** 2650 Copperfeild Rd / File OCP00010/RZ00004

Re: 2650 Copperfeild Rd / File OCP00010/RZ00004

Dear Planning Department,

I am a neighbouring home owner to the proposed Copperfield Road development.  
Although, I am not opposed to development generally, my concerns are as follows:

Why is the zoning being changed from "suburban" to "urban, CD-30"?

An "urban" zoned development with inclusions of low income housing should also have:

- parks and play grounds (larger than the proposed tiny park in the design plan)
- bus routes
- bike lanes
- crosswalks on Arden and Cumberland Road
- sidewalks along Arden Road

Also, I am concerned about the impact on Piercy Creek and the wetlands around it. This is a salmon bearing stream. The development will encroach onto the wetlands that feed the creek and damage the plant life around the creek. We are already seeing many red cedars die along Swanson and Steele Cres due to the modifications to the water table.

In summary, a development like this seems so much better suited to an area closer to the center of town, where it will not impact the environment in the same manner.

sincerely,

[REDACTED]  
2858 Swanson Street  
Courtenay BC

**PlanningAlias**

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**From:** [REDACTED]  
**Sent:** Monday, June 21, 2021 11:19 AM  
**To:** PlanningAlias  
**Subject:** 2650 Copperfield Road File Number: OCP00010/RZ00004

Good Day.

I am writing to you regarding the 2650 Copperfield Road rezoning application.

File Number: OCP00010/RZ00004

Bylaw Numbers: 3018 & 2912

Virtual Public Hearing Wednesday, June 23, 2021. 5P.M.

I would like to acknowledge the lands in question as being on the unceded traditional territory of The K'ómoks First Nation.

I am writing to express my concerns about the rezoning application and the proposed development. As a daily user of the forest, and a resident of the Arden/Webdon area, I see some concerns with a development of any kind and especially of this size.

First, there are real environmental concerns. And while I spend a lot of time in the forest and know what I observe, I am not an environmental scientist (or a scientist of any kind) and I am sharing a more "real" relationship with this forest. Many, MANY birds use the subject property for nesting. Stand still in the space and you will hear an incredible amount of songs. Larger mammals (bears, raccoons, cougars, deer..) use this space to migrate, rest, feed...etc. I have not seen for myself but am told from other residents I meet along the paths that there are salmon still seen in the stream directly along the subject property, at certain times of the year of course.

Encroachment into these wild spaces not only displaces these wild animals and birds but offers them no alternative, and therefore will affect the biodiversity that is known to be so important to the well being of humans and the environment that we live in.

The next concern is the access this space offers to the real people around this area. Access to wild spaces is integral to the health of people. We have great wild spaces at Strathcona, and up near Comox lake, but not all people have the access to transportation to access those spaces. A forest like this one is unlike the Cates park across Cumberland Road, it is wild, full of forageable plants and trails and the lessons for both children and adults are endless. This forest offers a place for healing and general well being and is used daily by so many people. As we saw through the last year of the Covid pandemic, these spaces are more important to the well being of the community than many could ever have imagined.


Please do not underestimate the importance of mental health and the part these forests play on a population. We are seeing more and more issues surrounding mental health and our community has the opportunity to move in the right direction by maintaining spaces and forests such as this one.

My last concern is regarding traffic. There is a concern along Arden road and the speed in which people drive, the current number of vehicles using this road and the lack of safety that already exists. Adding 39 units would create many more potential accidents. There is also a concern in regards to the Arden and Cumberland road intersection. This intersection is already awkward and dangerous and difficult to maneuver at the traffic levels that already exist.

I am in complete agreement that we are in need of higher density rather than sprawling development. That said, reducing the amount of already dwindling wild spaces while coexisting with wildlife, maintaining the healthy community that we all treasure, and being sure to develop within areas that can handle the increased traffic are integral factors to consider when making important decisions such as this one.

I would like to finish by stating that as a renter, I hold no financial stake in these decisions and my statements are made with consideration to the health of both wild and domestic animals, and the humans that use this space and live in/commute around it.

Thank you for taking the time to read my concerns.

  
2575 Webdon Road  
Courtenay, BC  
V9N9K6

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## PlanningAlias

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**From:** [REDACTED]  
**Sent:** Tuesday, June 22, 2021 9:48 PM  
**To:** PlanningAlias  
**Subject:** 2650 Copperfield Rd - File number OCP00010/RZ00004

This letter is to show my opposition to both the proposed redesignation from Suburban Residential to Urban Residential and the rezoning from R-1A to CD-30 at 2650 Copperfield Rd.

This particular property owner/developer has been repeatedly (since 2017) submitting proposals to the City of Courtenay hoping to rezone and develop into a dense urban neighbourhood. On March 14, 2018 the developer led a disastrously planned public meeting at which they had no presentation prepared for the approximately 45-50 guests and hoped we'd all just look at the "pretty" pictures they had printed (which arrived at the location after the advertised start time of the meeting) and ask our questions privately/individually with no record being kept by the developer of our concerns. After an outpouring of opposition from concerned residents about not only the highly dense and environmentally impactful development plan but the poor adherence to city requirements for rezoning applicants we were met with no further information.

Nothing further happened for two years when in May 2020 the developer reissued a new proposed rezoning application. At this point during the covid-19 pandemic the City of Courtenay was requiring only virtual meetings so the developer did not have to live up to as many standards with regard to public information meetings.

In the 2018 proposal they submitted a 32 unit development which included a Geotechnical Investigation Report, which referenced with graphics, an even earlier 52 unit development. Their new/current proposal has changed to a 39 unit development. This includes some unknown number of carriage houses which from the documents available on the City's development tracker I am unable to tell whether they are included in the 39 units or not.

The proposal has changed a bit to accommodate more protection of the sensitive riparian zone on the property but will still require an extension of the Copperfield Rd ROW over a salmon bearing creek and the complete destruction of one sensitive wetland area along with invasion into other wetland areas. These are ok steps in the right direction but I feel the developer can and should do more.

The density of the proposal has not been decreased (it has been increased) so my previous concern with the development not adhering to the character of the neighbourhood stands. Copperfield Rd is a small dead-end road with no sidewalks or crosswalks either on Copperfield Rd or on it's main connector road Arden Rd. For a developer to suggest that lower-income families (with children) will find this an attractive location shows very little thought. There is also only one bus route that services Arden Rd (twice per day total) and there are zero marked bus stops on Arden Rd with the closest marked stop on 20th which would require crossing Cumberland Rd at the 5 corner intersection with no crosswalk. With a huge increase in traffic along this non-conforming city street more traffic accidents will occur. The developer suggests that "an existing trail system" would allow access to Arden Elementary but the current trail system is accessed on the proposed property and with the construction on the property the use will be either curtailed or eliminated so a new trail system would be required.

My property at 2602 Copperfield Rd will be subjected to the most negative impacts of this development. The confluence of Piercy Creek and Tributary 11 occurs at the southwest corner of my lot and winter flooding occurs every year. The highest flood levels (during my ownership) occurred in January 2018 when the creeks




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breached their banks in several spots that showed no indication of breach before and came within inches of a level that would have caused overland flooding to my house. No matter how carefully planned, a development of this size will impact the runoff into those two creeks. Peak flow rates are likely to increase by the developers own modelling documents as well as the destruction of aforementioned wetland areas, which hold water to mitigate flooding, increases the likelihood of downstream flooding.

During the construction phase the only access to the proposed site will begin at my driveway. Tradespeople will park on the non-conforming Copperfield Rd and block or hinder access. Large construction equipment and trucks will have to move along the smaller than normal road and block or hinder access. I don't believe that there would be any way for two dump trucks to pass by each other on Copperfield Rd without at least partially driving off the roadway. A nearby development at 2077 20th St that had a wider and closer access road still took 2 years from land-clearing to the point where the access road was not inhibited by construction traffic or unpaved roadways. With a development of this density and level which will benefit the developer financially I expect more benefits to the neighbourhood than the developer is offering.

In conclusion, considering that the developer has not been very good at anticipating problems with their proposed development resulting in two separate rezoning applications and now needing to redesignate the OCP involved with this property I have very little faith in their ability to hold to their proposal without changes. As well, the proposal still doesn't address neighbourhood concerns regarding density and access and only minorly addresses the environmental concerns.

Yours

  
2602 Copperfield Rd

I would like to say, lastly, that if the insufficient water pressure issue is only to be resolved by using unavailable City funds this project should not go through in any form. Until the developer is willing to either fund the project (described as costing approximately \$1 million) or the City has the project on their agenda as a required upgrade as well as having the funds for it there should be no money spent on it.

## PlanningAlias

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**From:** [REDACTED]  
**Sent:** Tuesday, June 22, 2021 6:19 PM  
**To:** PlanningAlias  
**Subject:** virtual public hearings: urban agriculture and 2650 copper field road, Courtenay

I'm contacting you in support of having bee hives in the city. I had one hive last year and 2 this year and it has been an amazing experience. My daughter knew that I had a great flower garden and wanted to give the bees more flower food than was at Black Creek. My plum tree which has never had more than 2 dozen plums has been loaded with plums both years and everyone comments on my heavy, lush blueberry bushes. I think the bees are responsible for that! I hope you will get lots of support for honeybees in the city. They are no trouble and are unlikely to sting as they're mainly interested in nectar or their queen.

I appreciate you taking the time to find out about beehives for the city.

[REDACTED]

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## PlanningAlias

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**From:** [REDACTED]  
**Sent:** Wednesday, June 23, 2021 10:26 AM  
**To:** PlanningAlias  
**Subject:** File: OCP00010/RZ00004

Re: Bylaw 3018

We are disgusted that this OCP amendment continues to work its way through the City of Courtenay. The site is not the place for a high density subdivision. It would sit on a peninsula bordered on two sides by Piercy Creek and Tributary 11. Both coho bearing streams contrary to the Environmental reports wording. We see the fish. There are no bus services available at this site other than a narrow road access to Arden. The tree inventory was completed in January 2017 and has not been redone. This would not reflect the tree die-off with the current and proposed riparian zone.

This amendment does not fit and we should wait until the new OCP is released and not make changes while the new OCP is in the works.

Thank you

[REDACTED]

2837 Swanson Street  
Courtenay

June 23, 2021

To: Matthew Fitzgerald, City of Courtenay Planning Supervisor  
RE: Proposed Zoning Development, 2650 Copperfield Road  
File Number: OCP00010/RZ00004  
Bylaw Numbers: 3018 & 2912

Dear Mr. Fitzgerald,

Firstly, thank you, again, for your time in considering my following comments concerning the proposed development. I will keep this as brief as possible.

I am a property owner and resident of Copperfield Road. Let me first state that I am not generally opposed to new development if it is performed in a safe manner for the community at large. I am a mechanical engineer and am constantly working towards creating a cleaner and safer working environment for all. I am opposed to the development, as it is currently proposed, for the following reasons, most of which are effectively safety issues for current and future residents and visitors to the community of Copperfield Road.

#### 1) Vehicle Access:

The proposed development would only have one access into and out of the development, namely Copperfield Road. This development will increase the number housing units from a current total of 19 to a proposed total of 58 residences without any access improvement to the development. This is an increase of over 300% which will likely increase the number of vehicles on the road by a factor of at least 3 times. I feel this is unsafe for a few reasons.

In winter, the orientation and slope of Copperfield Road is conducive to sheet ice build-up. This condition only gets worse as more vehicles attempt to go up and down the road slope from Arden Road. Increasing the traffic by three times will only exacerbate this issue. I have personally sanded the bottom of Copperfield Road where it meets Arden Road because it was unsafe. This was because I have nearly slid onto Arden road due to icy conditions at the bottom of the slope of Copperfield Road.

The proposed development is flanked by fish-bearing streams and a heavily wooded area. If a fire were to occur in the wooded area during our increasingly drier and hotter summer seasons, I fear that the large egress of resident vehicles would interfere with the operations of first responders trying to gain access to the street.

Converting Copperfield Road from a dead-end street to a through-road by opening full-time access at Comox Logging Road may alleviate these issues.

## **2) Resident Factors**

I have young grandchildren who recently moved to Copperfield Road. I am delighted to see them playing with other neighbourhood children who also live on Copperfield Road. I would also welcome more young families into the neighbourhood. My concern, however, is the lack of sidewalks between the existing residential areas and the local schools. The access to both Arden and Lake Trail schools from any of the local neighbourhoods is completely devoid of sidewalks or pedestrian-safe zones except for in the immediate vicinity of the schools themselves.

I have always found this unacceptable and am increasingly worried for child safety from the older neighbourhoods, Copperfield Ridge and the proposed Copperfield Road development.

Sidewalks should be installed along Cumberland Road, Arden Road and Lake Trail Road to solve this issue.

## **3) Traffic Factors**

The current intersection at Arden and Cumberland Roads is unsafe and unacceptable in its current configuration, even after the recent road realignment. The proposal to add the Copperfield Road traffic to this already overburdened interchange will only increase the safety risk to all vehicles using this busy area.

As stated before, also increasing the pedestrian load at this point without the development and improvement of this area is dangerous to the public. It is my opinion the further residential development in this area should follow, not precede, corrective development of this busy intersection.

Too many vehicles currently treat Cumberland Road like a highway, rather than a surface street. Proper development of this intersection will slow this traffic down as well as make access from Arden Road safer and more efficient. Arden Road is particularly dangerous for pedestrians due to the ditches which can trap pedestrians between vehicles and the ditch. Street lighting is also woefully inadequate along any of the local thoroughfares.

## **4) Neighbourhood Character**

My family enjoys the Copperfield Road community because it comprises an excellent collection of people from a wide range of demographics and backgrounds. It comprises of retirees, young families with children and working people of all ages.

This fantastic neighbourhood is the result of slow, careful and positive growth over many decades. This measured development continues to the present day, with two new homes added to the Copperfield Road community within the last few years. People have specifically selected Copperfield Road to invest, build a home and create a pleasant place to settle with their families. Every property located on this road was built by people who understood and followed the rules as laid down by the current City of

Courtenay zoning provisions and agreed that this was the type of cul-de-sac neighbourhood into which they wanted to invest their time and money.

Nobody who invested in the Copperfield Road neighbourhood ever foresaw that the few properties that remained at the far end of the cul-de-sac could one day possibly become a high-density urban development. It would be a great disservice to the current residents of Copperfield Road to suddenly change the zoning rules which have provided the environment to create the pleasant, safe, calm, close and friendly neighbourhood we enjoy today. This change will fundamentally change the nature of this well established neighbourhood within the City of Courtenay.

A safer and more sustainable use for the proposed property would be the development of a nature park to provide public access to this beautiful area with a rapidly disappearing combination of fish streams, woodlands, wetlands and walking trails which could be integrated with existing facilities.

#### Summary

These are a few of my concerns about the proposed Copperfield Road development. The City of Courtenay and the Comox Valley is a wonderful place to live and I feel privileged to live here. I am in favour of sharing this beautiful place with other new residents but ask the city to carefully balance the safety and security of all residents and visitors, the preservation of natural environments and the neighbourhood character of Copperfield Road with the plan to greatly increase of the urban density of Copperfield Road as proposed in the current development proposal.

Again, thank you again for your time and attention. Please feel free to contact me if you have questions and comments.

Yours truly,

[REDACTED]

2510 Copperfield Road

M: (250) 218-4601

[REDACTED]

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## PlanningAlias

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**From:** [REDACTED]  
**Sent:** Wednesday, June 23, 2021 12:22 PM  
**To:** PlanningAlias; Fitzgerald, Matthew  
**Subject:** Errata of submission  
**Attachments:** Lot A Submission v2.docx

Please replace my previous submission (a few minutes ago) with the new version (attached)

Or

Please delete the sentence, found in my submission page 8 "The developer quotes that the density of the development is 6.3 units per hectare"; whereas counting the actual number of dwellings (not the number of lots) there would be more like 10 dwellings per hectare." as these figures are probably incorrect.

Replace with "Density of the development should be calculated based on the number of dwellings per hectare, and not the number 'units' per hectare."

Thank You

[REDACTED]

## PlanningAlias

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**From:** [REDACTED]  
**Sent:** Tuesday, June 22, 2021 12:17 PM  
**To:** PlanningAlias  
**Subject:** 2650 Copperfield Road

Our biggest concern with the building of a 39 unit strata development is increased traffic in the area.

Arden Road is already a racetrack with speeders coming from all directions. There are no sidewalks for children coming from school along that road or anyone else trying to walk it. Weren't sidewalks promised when the area was taken into the City years ago? City gets higher taxes but no improvements done to the area.

Getting onto Cumberland Road from Arden Road is already a nightmare. Something needs to be done with the traffic from Cumberland Road (both directions), Arden Road (both directions) & 26th Street....traffic lights? Roundabout?

The area is congested enough & putting in the 39 unit strata development is just adding to the problem. We are not in favour of this proposal.

[REDACTED]  
2556 Webdon Road  
Courtenay, BC

Sent from my iPad



From [REDACTED]  
 Sent: Monday, June 14, 2021 2:22:38 PM  
 To: council@courtenay.ca <council@courtenay.ca>  
 Cc: wcole-hamilton@courtenay.ca <wcole-hamilton@courtenay.ca>; mtheos@shaw.ca <mtheos@shaw.ca>;  
 dhillian59@shaw.ca <dhillian59@shaw.ca>; wmorin@courtenay.ca <wmorin@courtenay.ca>; frisch.david@gmail.com  
 <frisch.david@gmail.com>; mayor@courtenay.ca <mayor@courtenay.ca>; mmccollum@courtenay.ca  
 <mmccollum@courtenay.ca>  
 Subject: Please read before june 23 Copperfield rd development public meeting.

Hello City Council.

I'd like to share a petition put together by the residents of copperfield rd against the proposed development at lot A.

I will be referencing this when I get my opportunity to speak at the June 23rd meeting.

Take note of the document. It has signatures by most if not all residents that live on the road.

**Petition Statement from the Copperfield Rd Community**

We, the owners/residents of Copperfield Rd, oppose in the strongest possible terms rezoning "Lot A Copperfield Rd" (2650 Copperfield). As Citizens of, and Taxpayers to the City of Courtenay, we believe that any change from the current Zoning of A-1 to higher density zoning will severely and negatively impact our neighborhood and the surrounding areas. Increased traffic, lack of infrastructure, poor access design, lack of information from the developer, environmental and several other concerns have put the Copperfield Rd community understandably on edge. Of the 19 families that reside on Copperfield Rd, the signatures below represent the level of opposition by our small tight knit community.

Signature	Name (PRINT)	Date	Address	Owner?
[REDACTED]	[REDACTED]	2018/03/	1855 Arden Rd	
[REDACTED]	[REDACTED]	2018/03/21	2470 Copperfield Rd	✓
[REDACTED]	[REDACTED]	2018/03/	2490 Copperfield Rd	✓
[REDACTED]	[REDACTED]	2018/03/	2510 Copperfield Rd	
[REDACTED]	[REDACTED]	2018/03/	2530 Copperfield Rd	
[REDACTED]	[REDACTED]	2018/03/	2550 Copperfield Rd	✓
[REDACTED]	[REDACTED]	2018/03/18	2562 Copperfield Rd	✓
[REDACTED]	[REDACTED]	2018/03/	2580 Copperfield Rd	✓
[REDACTED]	[REDACTED]	2018/03/	2594 Copperfield Rd	✓
[REDACTED]	[REDACTED]	2018/03/18	2602 Copperfield Rd	✓
[REDACTED]	[REDACTED]	2018/03/	2465 Copperfield Rd	
[REDACTED]	[REDACTED]	2018/03/	2475 Copperfield Rd	✓
[REDACTED]	[REDACTED]	2018/03/18	2493 Copperfield Rd	✓
[REDACTED]	[REDACTED]	2018/03/	2505 Copperfield Rd	
[REDACTED]	[REDACTED]	2018/03/	2529 Copperfield Rd	✓
[REDACTED]	[REDACTED]	<del>2018/03/</del>	<del>2553 Copperfield Rd</del>	
[REDACTED]	[REDACTED]	2018/03/18	2577 Copperfield Rd	✓
[REDACTED]	[REDACTED]	2018/03/	2581 Copperfield Rd	
[REDACTED]	[REDACTED]	2018/03/	2599 Copperfield Rd	
[REDACTED]	[REDACTED]	2018/03/18	2450 CUMBERLAND RD.	✓
[REDACTED]	[REDACTED]	2018/03/22	2533 COPPERFIELD	✓

To Courtenay City Council  
June 11, 2021


Subject: Proposed Zoning Amendment – 2650 Copperfield Road, Folder No. OCP 00010/RZ000004

We are neighbours of the proposed development of Lot A, 2650 Copperfield Road, Folder No. OCP 00010/RZ000004 and strongly oppose the rezoning from R-1A to New Comprehensive Development 30 Zone (CD). Neighbours and local area residents, as well as the Millard/Piercy Watershed Stewards, have expressed concerns based on strong arguments, regarding this proposal and yet the application has gone from 32 to 35 and now to a 39 unit strata development. The City Council recently approved a multi-unit development on Arden Road against significant opposition from neighbours; public consultation is a sham unless it is taken seriously.

Our concerns include the following:

- Access through Copperfield Road is entirely inappropriate. This is a small cul-de-sac with larger lot residences. This proposed development does not respond to local neighbourhood context.
- The traffic intensification resulting from the large number of vehicles traveling from the development through Copperfield Road to Arden and Cumberland Roads would increase the danger of an already unacceptably dangerous intersection for cars, pedestrians, and children walking to school.
- The proposed density of 39 lots in a net developable area of 2.45 ha is too high for the area. There are a number of new developments already being constructed in the immediate neighbourhood and the neighbourhood infrastructure cannot accommodate yet another. The existing R-1A zone is appropriate. We oppose the rezoning to Comprehensive Development 30 Zone (CD).
- Riparian Areas Regulations are not being respected for this highly sensitive area. The Environmental Assessment and Protection Plan report states that “the listed or ranked ecological community within Wetlands 1-4 is considered to meet criteria as rare or endangered”. These wetlands and riparian habitat contain meaningful wildlife habitat. The proposal includes offsets to compensate for the unavoidable impacts on Wetland 4. There should be no waiver of the City of Courtenay LAP 30 m setbacks and the 15-30 m setback (SPEA) in any part of any potential project in any location.

There are far more appropriate sites for development in the Courtenay area than this. We oppose this rezoning application and urge the city of Courtenay to proceed no further with this application.

  
2493 Copperfield Road  
Courtenay, B C V9N 9J5

**PlanningAlias**

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**From:** [REDACTED]  
**Sent:** Friday, May 7, 2021 8:38 AM  
**To:** PlanningAlias  
**Subject:** FW: 2650 Copperfield Road

**From:** Kay  
**Sent:** Friday, May 7, 2021 6:36 AM  
**To:** InfoAlias <info@courtenay.ca>  
**Cc:** Wells, Bob <mayor@courtenay.ca>  
**Subject:** 2650 Copperfield Road

Hi there

A piece of raw land set between two salmon streams with large amounts of wetland should never be considered for development.

I oppose this development. We have a green minded community here and council's decisions should reflect that.

Thank you,

[REDACTED]

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On Jun 11, 2021, at 1:11 PM, Fitzgerald, Matthew <[mfitzgerald@courtenay.ca](mailto:mfitzgerald@courtenay.ca)> wrote:

Hi Tim,

I recommend that this information is summarized in a letter from you or the owner with the table and other information attached. This will be provided to Council at the Hearing so it would be beneficial to have a bit of an introduction/summary to tie this information together.

**Matthew Fitzgerald** RPP MCIP

Manager of Development Planning

P: 250-334-4441 (ext. 7255)

E: [mfitzgerald@courtenay.ca](mailto:mfitzgerald@courtenay.ca)

*The City of Courtenay proudly serves our community by providing a balanced range of sustainable municipal services.*

**OUR CORE VALUES:** **People Matter** | **Be Accountable** | **Depend on Each Other** | **Pursue Excellence** | **Celebrate Success**

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From: [REDACTED]  
Sent: Thursday, June 10, 2021 9:52 AM  
To: Fitzgerald, Matthew  
Cc: [REDACTED]  
Subject: (Revised) Planning Referral RZ00004-2650 Copperfield Rd

Matthew,

Attached below are two documents responding to Councillors' comments during 2nd reading of our application. One is a "high level" traffic study of the estimated increase in traffic along Copperfield Rd. due to our proposed development. The other is an environmental assessment of the construction of an additional stream crossing to accommodate a trail connection from our proposed development to the existing trail above Steele Crescent.

With regard to the traffic study, I have also attached the accompanying email from Neil Penner for your information.

Can you make these documents available to Council or should I send them to the Councillors directly?

Thank you

Tim

**Timothy Nye**  
**Land Planning - Development Consulting - Project Management**  
**(604) 720-3685**  
Email: [tim@timothyvne.com](mailto:tim@timothyvne.com)

**TIMOTHY NYE**  
**Land Planning - Development Consulting - Project Management**

1206 - 150 24<sup>th</sup> Street  
West Vancouver, BC Canada V7V 4G8

604.720.3685  
[tim@timothynye.com](mailto:tim@timothynye.com)

June 12, 2001

Mayor and Council  
City of Courtenay

**Re: (Revised) Planning Referral RZ00004-2650 Copperfield Rd.**

At the Council meeting of May 3 our development application received 2<sup>nd</sup> reading. During the meeting it was noted by Councillor Hillian that there have been concerns expressed by the residents on Copperfield Road regarding the potential increase in traffic due to the proposed development. It was also suggested by Councillor Frisch that we consider the possibility of another trail connection linking the east end of our proposed development to the existing trail above Steele Crescent. This letter is an effort to properly address those issues.

**Traffic**

To give Council an idea of the likely increase in traffic we asked McElhanney Consulting to do a “high level” traffic study (attached) to determine the potential increase in traffic along Copperfield Road. The study determined:

- there would be an additional 336 trips per day;
- during morning peak hours between 7am and 9am there would be 24 trips per hour;
- during evening peak hours between 4pm and 6pm there would be 32 trips per hour;
- the 20 off-peak hours would see 222 trips or an average of 11 trips per hour (1 trip every 5.5 minutes).

**Trail Connection**

To understand the environmental and regulatory impacts we asked Current Environmental to assess the impact of another stream crossing. Their assessment is attached.

Existing Crossing

- the channel is well confined within its banks and is not subject to issues associated with floodplain activation that could undermine the function of the crossing structure;
- connecting the existing crossing with the proposed development should not require additional impacts to sensitive riparian or in-stream aquatic habitat.

TIMOTHY NYE  
Land Planning - Development Consulting - Project Management

1206 - 150 24<sup>th</sup> Street  
West Vancouver, BC Canada V7V 4G8

604.720.3685  
[tim@timothynye.com](mailto:tim@timothynye.com)

- there are no wetland habitats or their associated riparian setbacks within a concerning distance of the trail extension to the existing crossing.

Steele Crescent Crossing

- the section of channel surrounding this proposed location is lower gradient with an active floodplain that is already somewhat constricted between an existing pedestrian trail and development lots north of Steele Cresc. and the south side of Lot D off Copperfield Road;
- establishing a new trail on the north side of Piercy Creek would require partial clearing of a maturing forest stand and riparian vegetation that would otherwise be outside the influence of development and result in additional impacts;
- this crossing site would necessitate additional impacts to the forested riparian area of Tributary 11;
- Provincial Riparian Areas Protection Regulation (RAPR) Implementation Guidelines state that “The construction of formal trail networks within the SPEA are not supported”;
- approval under the WSA for a second pedestrian/cyclist crossing site is unlikely in consideration for the potential impacts to riparian habitat and additional floodplain constrictions that could lead to increased flooding risk to nearby properties;
- because of the substantial width of the active floodplain at this location (approx. 25 m minimum based on 100 year floodplain drawing) culvert options would not be applicable and a clear span bridge with abutments located outside the floodplain may need to be set back further resulting in a large span that may require a complex/expensive engineering solution;
- Current Environmental recommends that the existing crossing structure at Bickle St. be maintained and do not support the establishment of an additional site at Steele Cresc.

If Council has additional questions concerning these items I will be pleased to answer them to the best of my ability during the Public Hearing.

Thank you.



Tim Nye

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## Memorandum



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To: Tim Nye  
From: Dusty Silvester, R.P.Bio

Date: June 10, 2021  
Pages: 2  
Project: 2030

Cc: Rex Thompson

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RE: ALTERNATIVE PEDESTRIAN/CYCLIST CROSSING SITES - LOT A COPPERFIELD

The development proposal for Lot A Copperfield Road includes provisions for connecting existing pedestrian/cyclist pathways from the neighbouring development to the south with new infrastructure proposed for the subject property. Currently, a crossing exists across the Piercy Creek mainstem north of Bickle Street associated with the Swanson Street development. Our understanding of the initial intent of this crossing was to connect the residences around Swanson Street with a future connection towards Arden School that was installed as a requirement of the City's Swanson Street development approval process.

Recently an alternative pedestrian/cyclist crossing site was suggested in a recent meeting of City of Courtenay Council for consideration north of the Steele Cres. SRW along the northeastern boundary of the Lot A Copperfield Development. This memorandum is intended to review the pros/cons for both sites in the context of environmental impact and provide a recommendation for the preferred location.

1. Bickle Street Crossing (existing)

- a) The existing ellipse culvert crossing over the Piercy Creek mainstem north of Bickle Street associated with the Swanson Street development was established in a reach of the creek with a steeper gradient and a channel well confined within its banks that is not subject to issues associated with floodplain activation that could undermine the function of the crossing structure.
- b) Connecting the existing crossing with proposed development on the subject property should not require additional impacts to sensitive riparian or instream aquatic habitat except for some clearing of vegetation to establish a connection between the trail and new infrastructure to the north.
- c) There are no wetland habitats or their associated riparian setbacks within a concerning distance of the trail extension to the existing crossing.

2. Steele Crescent Crossing (alternate)

- a) An alternative crossing site north of the Steele Cres. SRW was suggested in a recent meeting of City Council that would be located immediately downstream of the confluence between the Piercy Creek mainstem, flowing from the west, and Tributary 11 which drains wetlands on DL95, the neighbouring parcel to the northwest.
- b) The section of channel surrounding this proposed location is lower gradient with an active floodplain that is already somewhat constricted between an existing pedestrian trail and development lots north of Steele Cres. and the south side of Lot D off Copperfield Road.

## Memorandum



Anecdotally, the owner at Lot D Copperfield has stated issues/concerns with flooding in their backyard that has threatened to reach the house foundation in the past.

- c) Establishing a new trail on the south side of Piercy Creek would require partial clearing of a maturing forest stand and riparian vegetation that would otherwise be outside the influence of development and result in additional impacts.
- d) This crossing site would necessitate additional impacts to the forested riparian area of Tributary 11 as it would effectively parallel the stream on its left (east) bank and require locating it within the Streamside Protection and Enhancement Area (SPEA) between Steele Cres. and Copperfield Road.
  - i. Best management practices dictate that crossings should be situated perpendicular to channel flows to minimize the area of impact to surrounding riparian vegetation.
  - ii. *Provincial Riparian Areas Protection Regulation (RAPR) Implementation Guidelines*<sup>1</sup> state that "The construction of formal trail networks within the SPEA are not supported". Approval for crossing structures are, however, regulated under the provincial *Water Sustainability Act (WSA)*.
  - iii. Approval under the WSA for a second pedestrian/cyclist crossing site is unlikely in consideration for the potential impacts to riparian habitat and additional floodplain constrictions that could lead to increased flooding risk to nearby properties.
- e) Fish passage criteria calls for native bed materials being retained within crossing structures that allow options for either an ellipse culvert, arch culvert, or clear-span bridge. Because of the substantial width of the active floodplain at this location (approx. 25 m minimum based on 100-year floodplain drawing) culvert options would not be applicable and a clear span bridge with abutments located outside the floodplain may need to be set back further resulting in a large span that may require a complex/expensive engineering solution.

## Conclusion

The existing crossing structure north of Bickle St. will require little to no additional disturbance to aquatic and riparian areas and will not interact with any wetland habitats. The alternative site at Steele Cres. would require establishing trail connections parallel to and within the SPEA of Tributary 11, and potential constrictions to the floodplain where flood risk is already present.

Considering the above information, and in order to avoid and mitigate unnecessary environmental impacts, we recommend that the existing crossing structure at Bickle St. be maintained and do not support the establishment of an additional site at Steele Cres.

Please feel free to contact the undersigned with any comments or questions.

Sincerely,



Dusty Silvester, R.P.Bio.  
Current Environmental Ltd.

<sup>1</sup> [https://www.neef.ca/uploads/library/8210\\_MOE2006\\_Riparian\\_Guidebook.pdf](https://www.neef.ca/uploads/library/8210_MOE2006_Riparian_Guidebook.pdf)



Table 1: Trip Generation Summary

Development Type	Land Use Code <sup>1</sup>	Description	Units	# of Units	Period <sup>4</sup>	Trip Rate	In / Out Ratio		Trips			
							IN %	OUT %	IN	OUT	Total	
Townhome	220 <sup>2</sup>	Low-Rise Multifamily Housing	Dwelling Units	6	Daily	7.32	50	50	22	22	44	
					AM	0.46	23	77	1	2	3	
					PM	0.56	63	37	2	1	3	
Triplex	220 <sup>2</sup>	Low-rise Multifamily Housing	Dwelling Units	9	Daily	7.32	50	50	33	33	66	
					AM	0.46	25	75	1	3	4	
					PM	0.56	63	37	3	2	5	
Duplex	210 <sup>3</sup>	Single-Family Detached Housing	Dwelling Units	2	Daily	9.44	50	50	9	9	18	
					AM	0.74	25	75	0	1	1	
					PM	0.99	63	37	1	1	2	
Single-Family	210	Single-Family Detached Housing	Dwelling Units	22	Daily	9.44	50	50	104	104	208	
					AM	0.74	25	75	4	12	16	
					PM	0.99	63	37	14	8	22	
<b>TOTAL</b>									<b>Daily</b>	<b>168</b>	<b>168</b>	<b>336</b>
									<b>AM</b>	<b>6</b>	<b>18</b>	<b>24</b>
									<b>PM</b>	<b>20</b>	<b>12</b>	<b>32</b>

1. From ITE Trip Gen Manual, 10th Edition

2. Low-rise multifamily housing includes apartments and townhouses with at least three other units

3. Trip generation rates for single-family detached housing were used to remain conservative

4. AM and PM rates correspond to peak hour of adjacent street traffic

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**PlanningAlias**

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**From:** [REDACTED]  
**Sent:** Saturday, June 12, 2021 10:58 AM  
**To:** PlanningAlias  
**Subject:** File number ocp0010/rz00004

My biggest concerns on the subdivision it's definitely going to impact the natural wetlands which should impact the fish bearing stream that is right there and definitely going to change the water table in that area  
Other concerns is the condition of Arden road and that it is not safe for kids to even walk down the road to and from school one thing there's no sidewalks curb edges that would give a pedestrian walking a little protection. And with the added traffic of upwards of 50 plus cars from the proposed 39 unit strata that is a big concern someone's going to be hurt as kids are unpredictable.  
Other concern is the corner of Arden and Cumberland road with this added proposed 39 units and across the road having already approved multi-family site this intersection is going to be very dangerous and already is people coming down Cumberland road I've seen doing 90 plus kilometers when the city had the speed sign posted. Growth is good but infrastructure isn't changing on the surrounding roads to accept this growth that big concern shoving more growth in an area without addressing the roadways is just going to have a big negative impact and is very poor planning

**Attachment No. 5: Traffic Impact Study**



Our File: 2111-47226-01

# TECHNICAL MEMO

<b>To</b> Timothy Nye Real Estate Planning & Development Consultant	<b>Prepared by</b> Davis Su, EIT., Traffic Engineer Branch 2111 / Traffic and Road Safety
<b>Re</b> 2650 Copperfield Road Traffic Impact Study	<b>Reviewed by</b> Mark Merlo, P.Eng., PTOE, Sr. Transportation Engineer Branch 2111 / Traffic and Road Safety
	<b>Date</b> May 10, 2022

## 1. Introduction

The purpose of this technical memo is to review the traffic operations for the proposed development located at 2650 Copperfield Road in Courtenay, BC. The following presents our assumptions, analysis results, and recommendations.

## 2. Background Information

### 2.1. Project Description

The proposed development site is located at 2650 Copperfield Road in Courtenay, BC. It is our understanding that Rosebery Investments Ltd, (the Client) plans to develop the existing vacant lot into 22 single-family homes, 2 duplex units, 15 townhomes, and a maximum of 7 carriage homes. Note that the carriage homes will be optional, some of which may never be constructed. Carriage homes are typically residential suites located above detached garages.

The development will have a single site access along Copperfield Road. An overview of the proposed development, including site access, is included in *Attachment A*.

## 2.2. Location

The proposed development is located at 2650 Copperfield Road in Courtenay, BC. The development is located at the west end of Copperfield Road. The study area for the proposed development is shown on *Figure 1*, which includes the following three study intersections:

- Arden Road / Lake Trail Road (2-way stop controlled on Arden Road),
- Arden Road / Copperfield Road (1-way stop controlled on Copperfield Road) and
- Arden Road / Cumberland Road (2-way stop controlled on Arden Road).





## 2.3. Existing Conditions

Existing conditions for roads within the study area are described in the following section. All road classifications are based on the latest *Draft City of Courtenay Official Community Plan* from January 2022.

### Lake Trail Road

Lake Trail Road is an east-west running two-lane undivided road with a 50 km/h speed limit. The road has bicycle lanes east of Arden Road and paved roadside shoulders west of Arden Road. Lake Trail Road is classified as an arterial road and has a rural cross section with roadside ditches on both sides of the road.

### Arden Road

Arden Road is a north-south running two-lane undivided road with a 50 km/h speed limit. The road has gravel shoulders on certain portions of the road, as well as a roadside ditch on the west side of the road. The road is fronted by driveways for various single-family homes. Arden Road is classified as a rural collector road.

### Cumberland Road

Cumberland Road is a two-lane undivided road with a 50 km/h speed limit which transitions to 60 km/h further to the west of Arden Road. The road provides a connection to Comox Valley Parkway to the south, and thereby Highway 19, as well as Courtenay's commercial areas to the north. The road cross section includes painted bicycle lanes as well as roadside ditches. Cumberland Road is currently classified as an arterial road.

### Copperfield Road

Copperfield road is a two-lane undivided local road with a 50 km/h speed limit. The road currently terminates in a dead-end approximately 250m west of Arden Road.

## 2.4. Future Road Network

In the *City of Courtenay Transportation Master Plan (2019)*, Arden Road / Cumberland Road was identified as a location for potential safety and operational improvements. This may include traffic control upgrades including new signals and / or roundabouts. It is indicated in the report that "*in the long-term, it is recommended that the City monitor traffic growth and operations at unsignalized intersections to determine where and when new signals or roundabouts are needed*". The *Arden Corridor Local Area Plan (2013)* further indicates that roundabouts will be considered for intersection treatments along the Arden Road corridor.

Based on the City of Courtenay's existing Official Community Plan *Road Network Map No. 3*, last revised on September 21, 2007, an additional local road connection between Copperfield Road and Cumberland Road was previously considered as shown in *Figure 2*; however, the same road network additions have not been included in more recent documents and OCP updates including the *Draft Official Community Plan*



from January 2022, the *Arden Corridor Local Area Plan* (2013), or the *City of Courtenay Transportation Master Plan* (2019). As a result, no consideration for additional local road connections to Copperfield Road have been included in this study.

Figure 2: Future Road Network - City of Courtenay OCP Road Network Map No. 3 (2007) (Modified)



### 3. Multimodal Analysis

#### 3.1. Cycling Network

There are currently several cycling facilities within the vicinity of the development. Painted bike lanes are currently available along Lake Trail Road east of Arden Road as well as along Cumberland Road.

Based on the City of Courtenay's Draft OCP, 2021, additional cycling infrastructure is planned along Arden Road as well as the Lake Trail Road as shown in *Figure 3*. Likewise, in the *Transportation Master Plan* (2019), several cycling improvements in the vicinity of the development have been recommended in a list of medium term (10 year) cycling improvements as shown in *Figure 4*. These improvements include:

- Paved multi-use pathway along Arden Road from Morrison Creek to Comox Valley Parkway
- Paved multi-use pathway along Lake Trail Road from Willemar Avenue to Webdon Road

*Figure 3: Long Term Cycling Network Connectivity Opportunities – City of Courtenay OCP Draft, 2022 (Modified)*

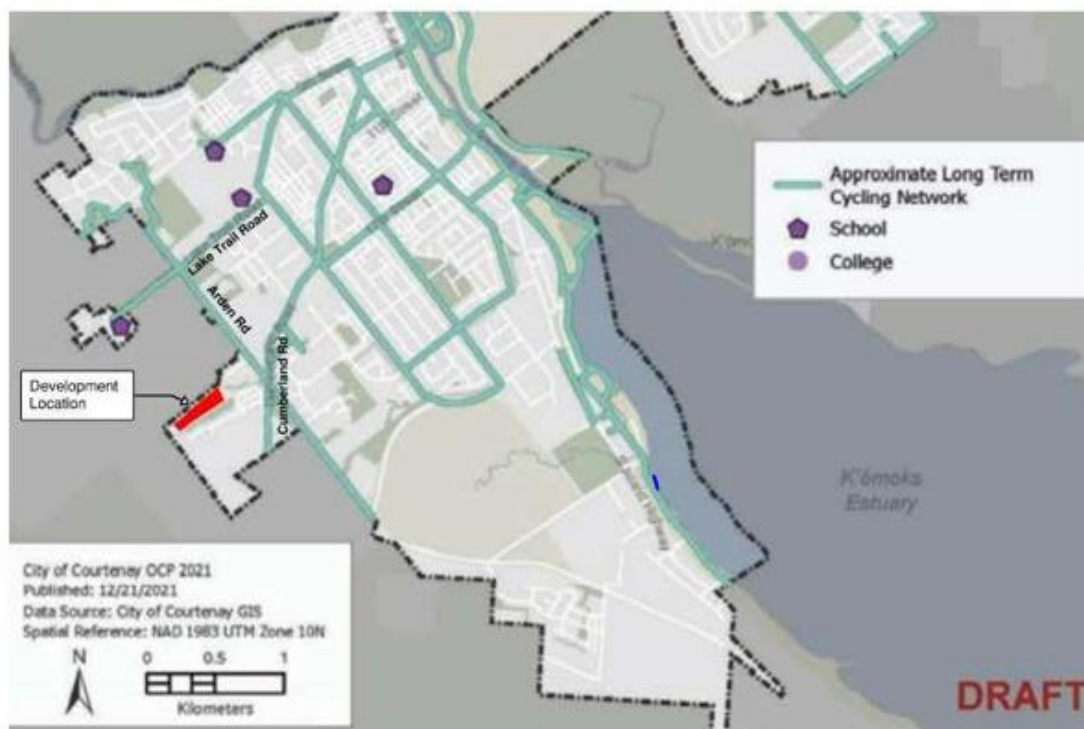
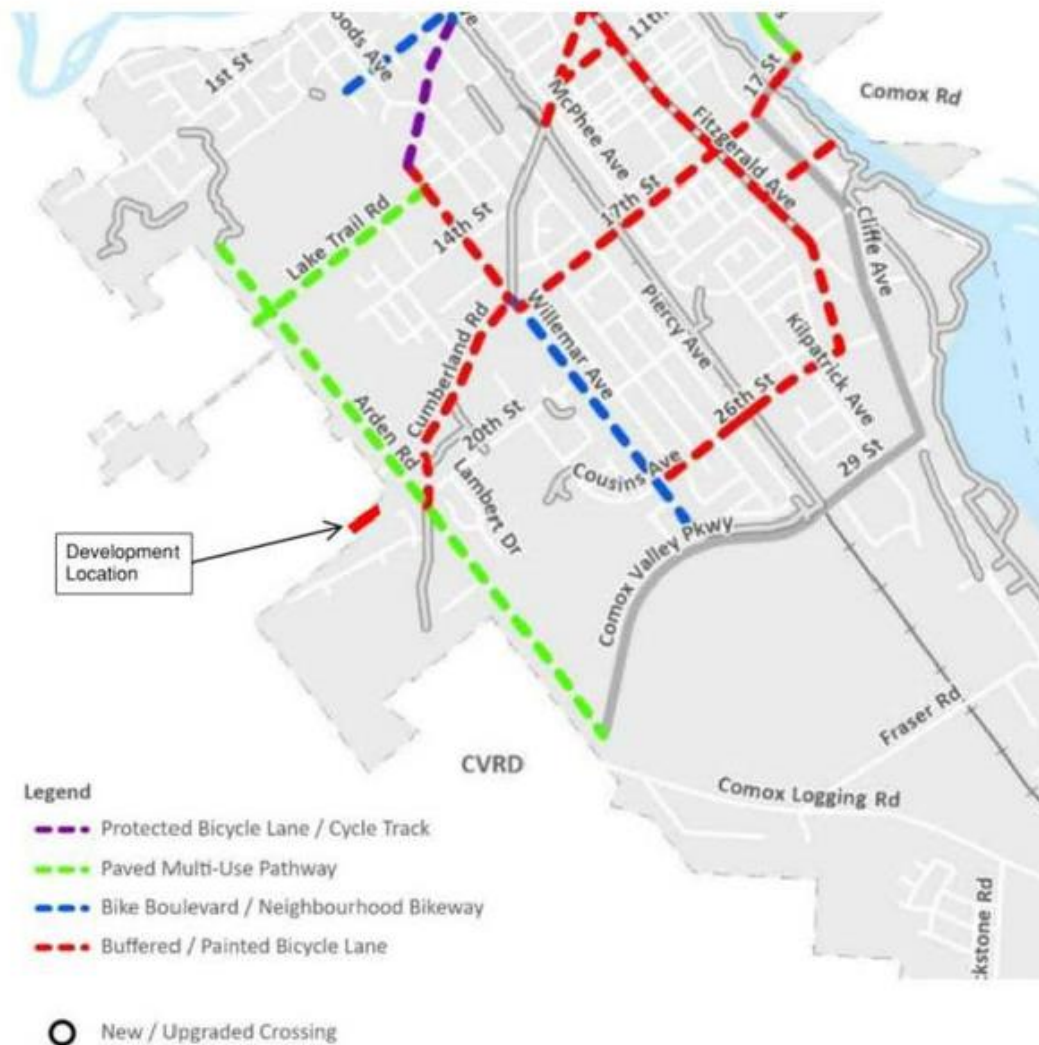




Figure 4: Medium-Term (10 Year) Cycling Improvement Priorities – Transportation Master Plan 2019 (Modified)



### 3.2 Pedestrian Network

There is currently limited sidewalk infrastructure in the vicinity of the development. No sidewalks are provided along Arden Road nor along Lake Trail Road. Sidewalks are available along Cumberland Road along one side of the road. Additionally, there are currently limited protected pedestrian crossings along Cumberland Road and along Lake Trail Road.

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As shown in *Figure 5*, based on the City of Courtenay's draft OCP from 2022, paved multi-use pathways adjacent to the street have been recommended along Arden Road and along Lake Trail Road. Additionally, the *Transportation Master Plan* (2019) and the Draft OCP (2022) both identified the Arden Road and Cumberland Road intersection as a desirable location for an improved pedestrian crossing.

Additionally, multiple conceptual multi-purpose trails were proposed in the *Arden Corridor Local Area Plan* (2013) in the vicinity of the development as shown in *Figure 6*.

*Figure 5: Recommended Pedestrian Network Plan City of Courtenay Draft OCP, 2022 (Modified)*

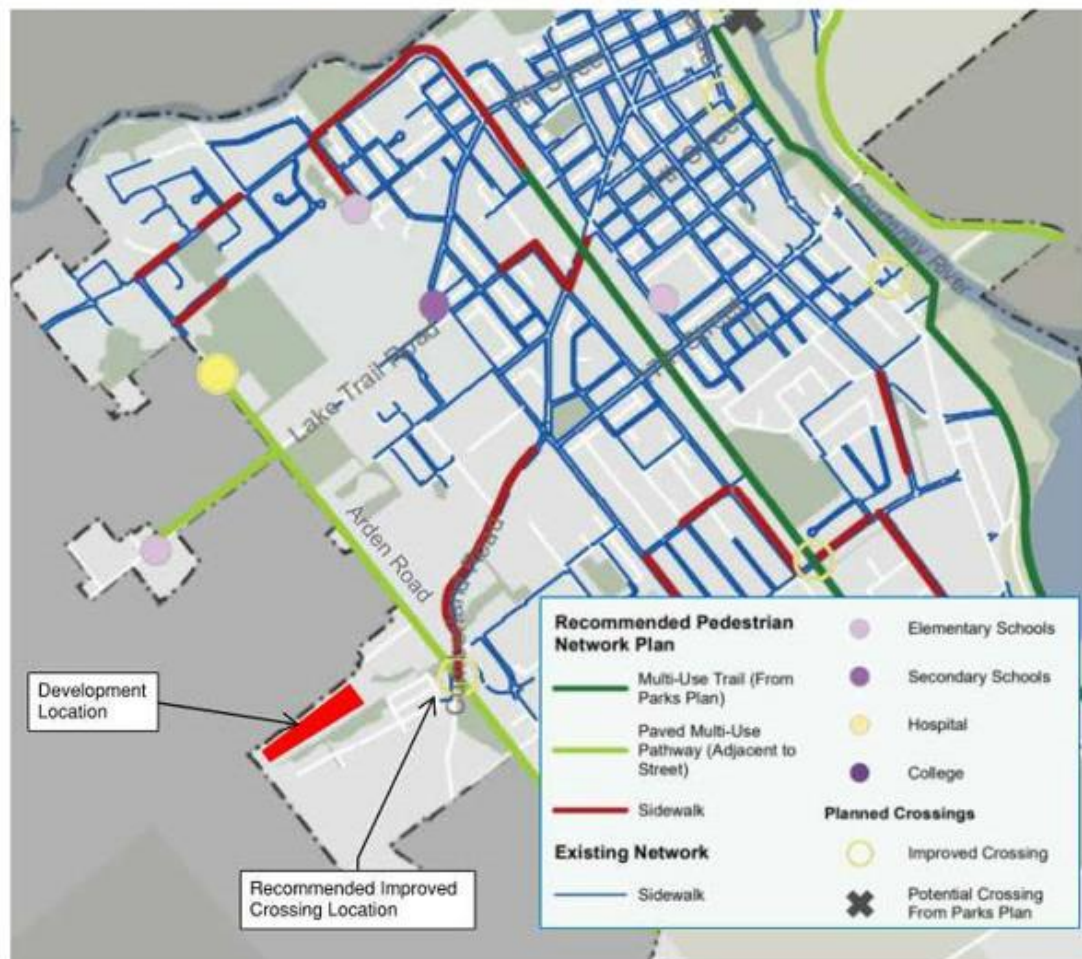


Figure 6: Conceptual Land Use Plan for the Arden Corridor – Arden Corridor Local Area Plan (2013) (Modified)



### 3.3 Transit Network

No BC Transit bus routes are within close walking distance to the development. The nearest bus stop is an approximately 800m walking distance away near 2100 Block of 20<sup>th</sup> Street for BC Transit Route 7 from Arden to Driftwood Mall; however, as noted in the *Arden Corridor Local Area Plan (2013)*, although the Arden Corridor is not currently served by transit, this could change in the future when densities are high enough to support service in the area.

## 4. Traffic Volume Development

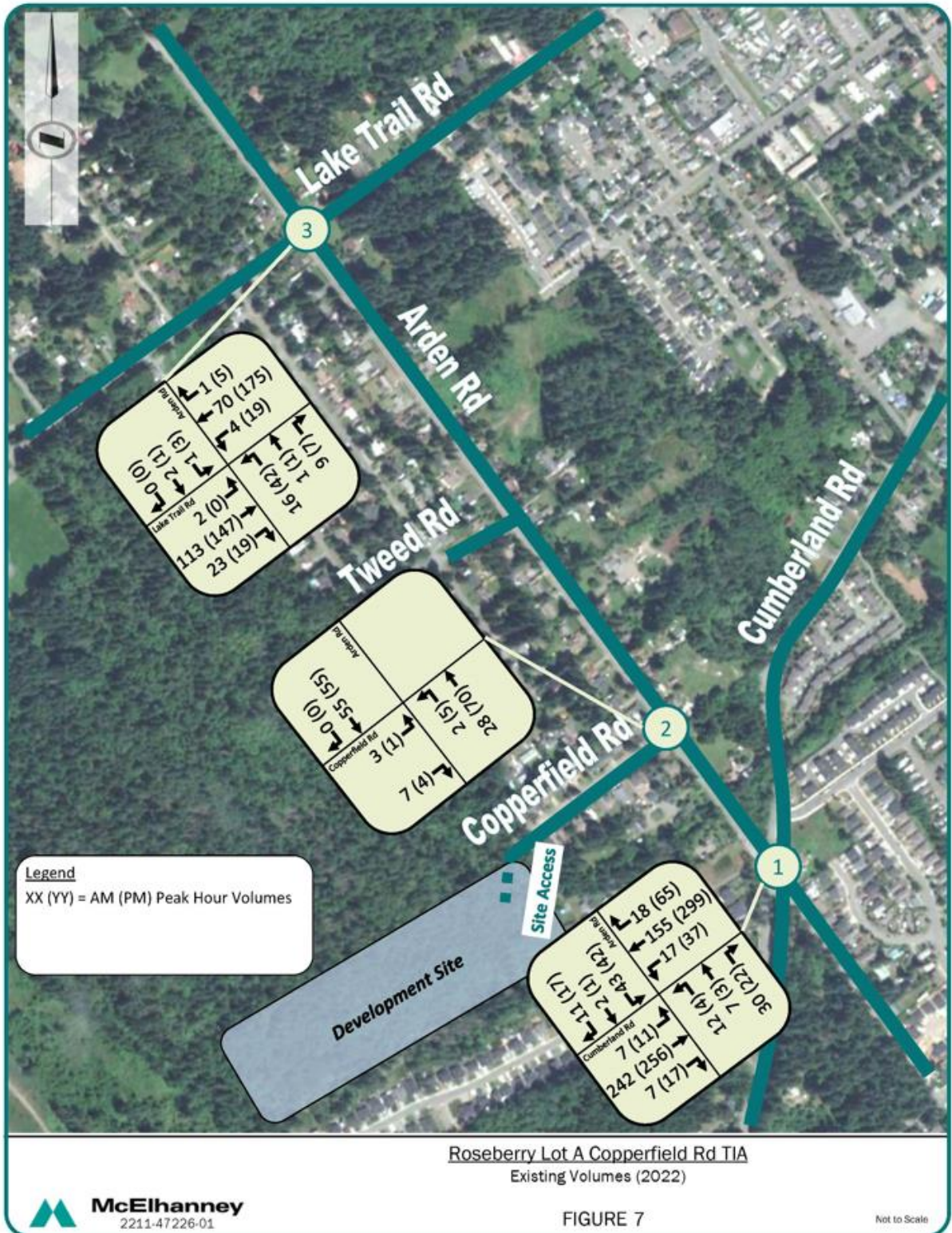
### 4.1. Existing 2022 Traffic Volumes

Traffic counts for the study intersections were collected by McElhanney between March 29 – 31, 2022, via single day counts from the weekday AM and PM peaks (7 – 9 AM and 3 – 6 PM respectively) for the following intersections:

- Lake Trail Road and Arden Road,
- Cumberland Road and Arden Road and
- Copperfield Road and Arden Road.

Existing Conditions (2022) Weekday AM and PM peak hour traffic volumes at the study intersections are shown in *Figure 7*. Detailed traffic count sheets are included in *Attachment B*.





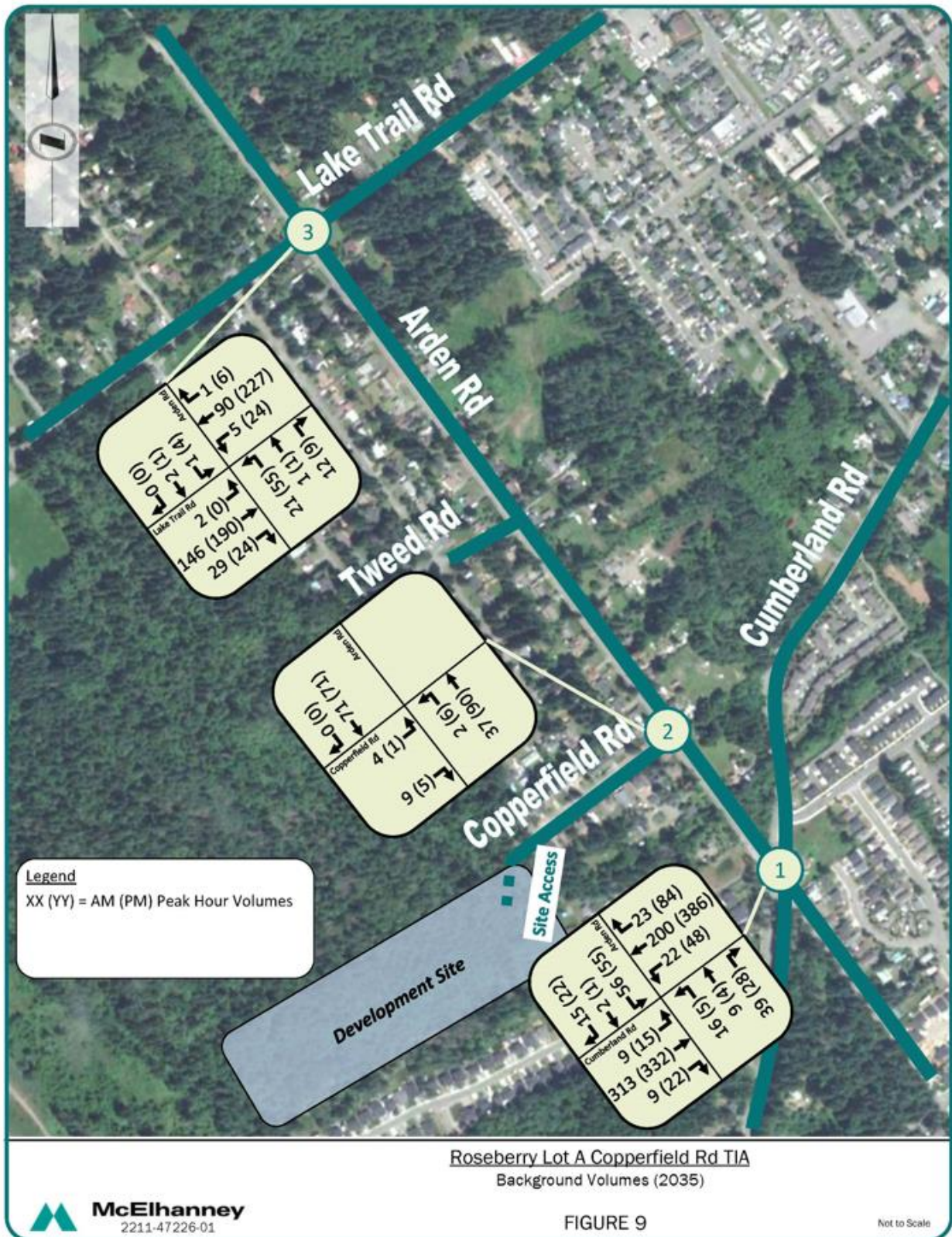
## 4.2. Background Volumes

A 2% annual compound growth rate will be used to project future traffic volumes. This value is consistent with the City of Courtenay's annual population growth projections used in the *Transportation Master Plan* (2019).

A 2025 opening day has been assumed for the purposes of this memo. The opening day (2025) and future opening day + 10 years (2035) Weekday AM and PM peak hour background volumes are presented in *Figure 8* and *Figure 9* respectively.









### 4.3. Trip Generation

Project trip generation refers to the process of estimating the amount of vehicular traffic a development would add to the surrounding roadway system based on land use and development size. For the proposed development, the amount of traffic entering and exiting the road system was calculated for the weekday AM and PM peak hours and the daily totals. For the AM and PM peak hours, the trip rates represent the hourly trips that would occur between the hours of 7:00 – 9:00 AM and 4:00 – 6:00 PM, respectively.

Peak hour and daily trip generation estimates for the proposed development were developed using the ITE *Trip Generation, 10<sup>th</sup> Edition (2017)*. Peak AM and PM and daily ITE trip generation rates were then applied, as summarized in *Table 1* below.

*Table 1: ITE Vehicle Trip Generation Rates*

Land Use Description	Development Type	ITE Code	Unit <sup>1</sup>	Vehicle Trip Rate			In / Out Split		
				AM	PM	Daily	AM (%)	PM (%)	Daily (%)
Single-Family Detached Housing	Single-Family, Duplex	210	DU	0.74	0.99	9.44	25 / 75	63 / 37	50 / 50
Multi-Family Housing (Low-Rise)	Townhome	220	DU	0.46	0.56	7.32	23 / 77	63 / 37	50 / 50

**Notes:**

1. DU = dwelling units

Note that carriage houses have not been explicitly accounted for in *Table 1*. The ITE *Trip Generation, 10<sup>th</sup> Edition (2017)* does not have a specific trip rate for lots that include both single-family homes and carriage houses. Similarly, specific trip rates are not provided for houses that include additional suites (e.g. basement suites). As a result, it is assumed that these types of land uses have already been incorporated in the trip rates for other land uses, which is in line with the typical methodology used for estimating development related trips.

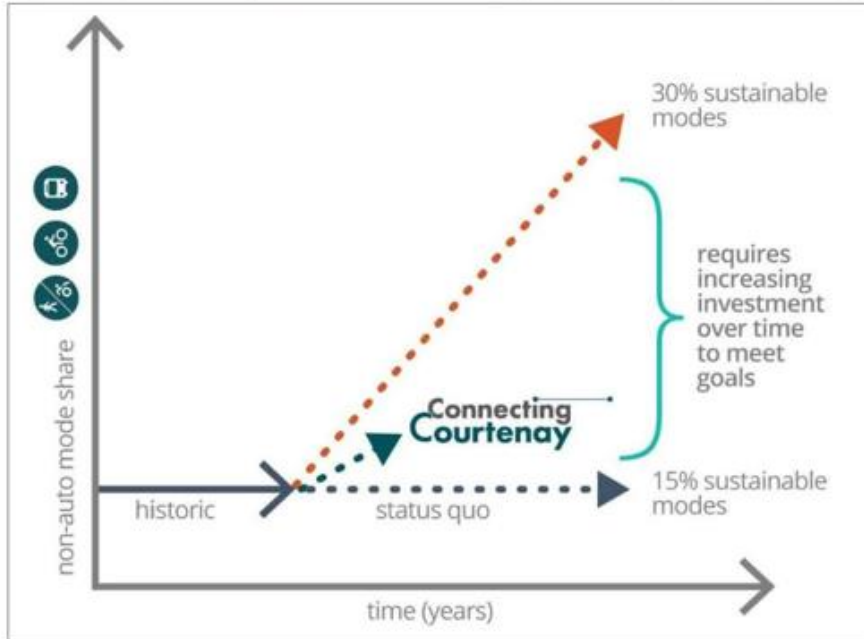
#### 4.3.1. Alternative Transportation Reductions

The City of Courtenay's *Connecting Courtenay – Transportation Master Plan* (Urban Systems, September 2019) states that passenger vehicles account for 85% of all weekday trips made within the City. Walking (8%), cycling (4%) and transit (3%) trips, i.e. sustainable travel modes, account for the remaining 15% of weekday trips. As shown in *Figure 10*, the City has targets to increase the sustainable mode share to 30% in the future. Without transportation investments aimed at improving the transit, walking and cycling infrastructure in the City, the 15% sustainable mode share is expected to continue.



Despite the projected sustainable mode increase, **no reductions for sustainable modes have been assumed** for the traffic analysis conducted in the following sections of the report in order to be conservative.

Figure 10: City of Courtenay Sustainable Mode Share Target – Connecting Courtenay – Transportation Master Plan



#### 4.3.2. Net Vehicle Trip Generated by Development

Table 2 presents the net estimated vehicle trips generated from the development using the rates discussed in Section 4.3. No reduction has been applied to account for sustainable travel modes.

The proposed development is expected to generate 24 vehicle trips (6 inbound / 18 outbound) and 32 vehicle trips (20 inbound / 12 outbound) during the weekday AM and PM peak hours, respectively. Overall, the development will generate approximately 336 (168 inbound / 168 outbound) total weekday daily trips.



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*Table 2: Net Site Generated Vehicle Trips*

Development Type	Land Use Code	Description	Units	# of Units	Period <sup>1</sup>	Trips		
						In	Out	Total
Single-Family	210	Single-Family Detached Housing	Dwelling Units	22	Daily	104	104	208
					AM	4	12	16
					PM	14	8	22
Duplex	210 <sup>2</sup>	Single-Family Detached Housing	Dwelling Units	2	Daily	9	9	18
					AM	0	1	1
					PM	1	1	2
Townhome	220 <sup>3</sup>	Low-Rise Multifamily Housing	Dwelling Units	15	Daily	55	55	110
					AM	2	5	7
					PM	5	3	8
Sub-Total Development Trips					Daily	168	168	336
					AM	6	18	24
					PM	20	12	32

**Notes:**

1. AM and PM rates correspond to peak hour of adjacent street traffic
2. Trip generation rates for single-family detached housing were used to remain conservative
3. Low-rise multifamily housing includes apartments and townhouses with at least three other units

#### 4.4. Trip Distribution

The site generated vehicle trips shown in *Table 2* were distributed into the development's nearby road network. The existing 2022 traffic counts were reviewed to help estimate the trip distribution and assignment for the site generated trips for the weekday AM and PM peak hours. The majority of trips are expected to head to / from Downtown Courtenay to the northeast while a smaller portion of trips are expected to head south towards the highway. Additionally, a portion of trips are expected to head west along Lake Trail Road to go to Arden Elementary.

The trip distribution assumptions are listed below and are shown in *Figure 11*.

- 10% of traffic to / from west along Lake Trail Road,
- 20% of traffic to / from east along Lake Trail Road,
- 20% of traffic to / from west along Cumberland Road and
- 50% of traffic to / from east along Cumberland Road.





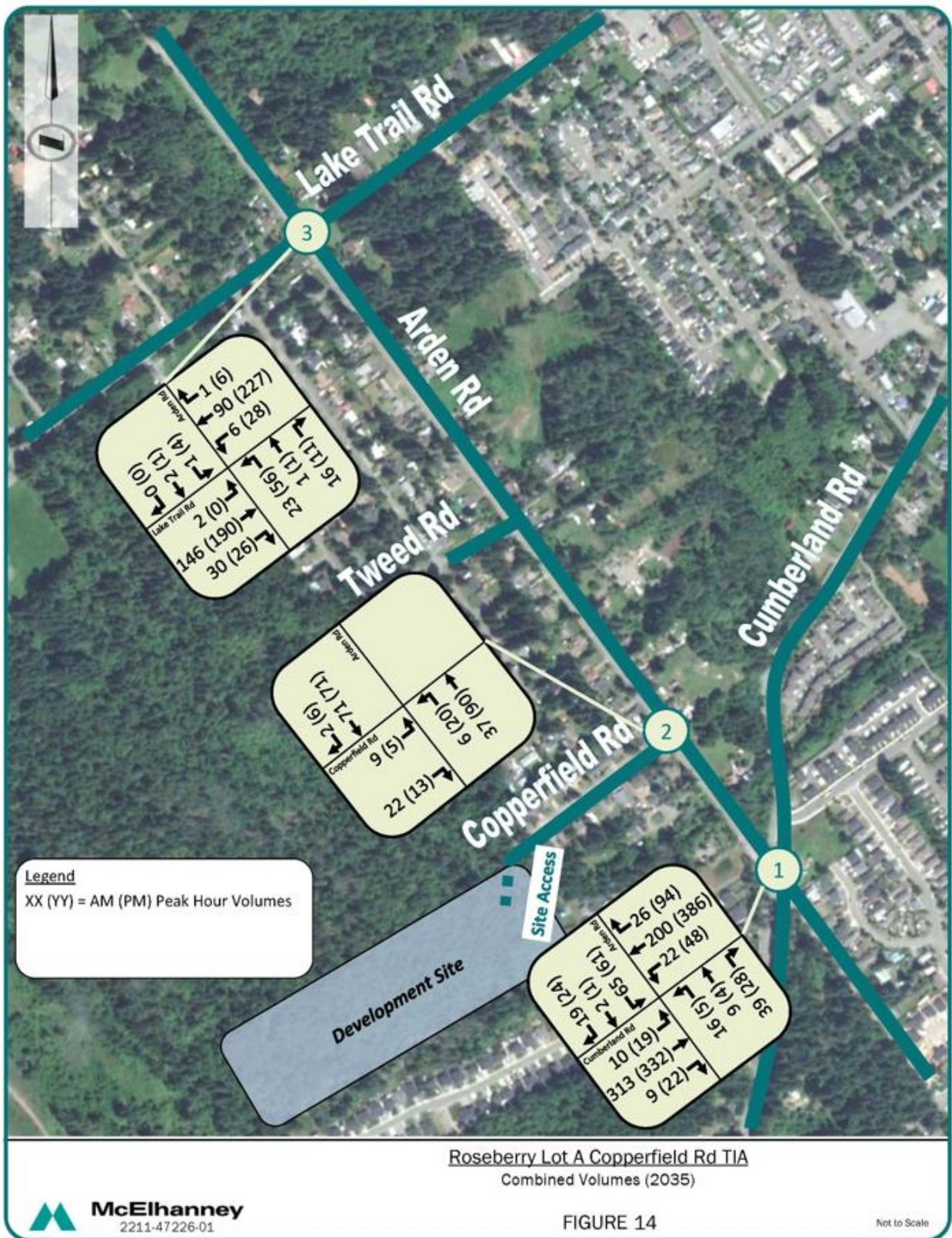
#### 4.5. With Project Volumes

To determine traffic volumes for Opening Day (2025) and Future Year (2035) with the development (i.e. combined), the development trips estimated for the project development (*Table 2*) were added to the background traffic for each of the study scenarios. The development generated traffic volumes are shown in *Figure 12* while the combined Weekday AM and PM peak hour traffic volumes are presented in *Figure 13* and *Figure 14* for the 2025 and 2035 post-development conditions, respectively.











## 5. Traffic Operational Analysis

Traffic operations analysis was conducted for two scenarios:

- Existing (2022)
- Opening Day (2025)
- Future Year (2035)

All scenarios were analyzed for two time periods:

- Weekday AM peak hour
- Weekday PM peak hour

All future scenarios (2025 and 2035) were analyzed with and without the additional trips generated by the proposed development.

### 5.1. Synchro Analysis Software

Synchro software, version 10.0, was used to report the Level of Service (LOS) and average delay at each of the study intersections. Synchro is a traffic software package used to determine traffic conditions based on volumes, laning, and type of traffic control. Synchro calculates average delays and queue lengths for each movement at an intersection. Average delays are then translated into LOS. Detailed Synchro analysis reports can be found in *Attachment C*.

### 5.2. Intersection Level of Service Criteria

Operations of roadway facilities are described in terms of Level of Service (LOS). LOS is a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to manoeuvre. For intersections Level of Service is based on delay. Six service levels are defined, ranging from LOS A, the best operating conditions, to LOS F, the worst operating conditions. LOS E corresponds to "at or near capacity" operations. When volumes exceed capacity, it results in stop-and-go conditions, which is designated as LOS F. The delay thresholds and corresponding LOS are presented in *Table 3*. The typical criterion for acceptable operation is LOS D. Therefore, any movement or intersection operating at LOS E or worse may require improvement.



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Table 3: Intersection Level of Service Definitions

Level of Service	Delay Criteria (sec / veh)		Description
	Signalized Intersections <sup>1</sup>	Unsignalized Intersections <sup>2</sup>	
A	≤ 10	≤ 10	Represents free flow. Individual users are virtually unaffected by others in the traffic stream. Usually no conflicting traffic.
B	> 10 to 20	> 10 to 15	Stable flow, but the presence of other users in the traffic stream begins to be noticeable. Occasionally some delay due to conflicting traffic.
C	> 20 to 35	> 15 to 25	Stable flow, but the operation of individual users becomes significantly affected by interactions with others in the traffic stream. Delay is noticeable, but not inconveniencing.
D	> 35 to 55	> 25 to 35	Represents high-density, but stable flow. Delay is noticeable and irritating; increased likelihood of risk taking.
E	<b>&gt; 55 to 80</b>	<b>&gt; 35 to 50</b>	<b>Represents operating conditions at or near the capacity level. Delay approaching tolerance levels; risk taking behaviour is likely.</b>
F	<b>&gt; 80</b>	<b>&gt; 50</b>	<b>Represents forced or breakdown flow. Delay exceeds tolerance level; high likelihood of risk taking.</b>

**Notes:**

Values shown are n seconds / vehicle. **BOLD** indicates unacceptable LOS.

1. HCM 6<sup>th</sup> Edition
2. HCM 6<sup>th</sup> Edition

For unsignalized (side-street stop-controlled and 4-way stop controlled) intersections, the LOS calculations were conducted based on Synchro's default capacity analysis methodology, which correspond with the methodology from HCM 2000. The LOS rating is based on the average delay expressed in seconds per vehicle. For controlled approaches composed of a single lane, the control delay is computed as the average of all movements in that lane.

It should be noted that although Synchro reports overall intersection LOS at side-street stop-controlled unsignalized intersections, the overall LOS is not a good indicator of the side street performance, as it is calculated from the average delay for all vehicles. As a result, the overall LOS is typically heavily skewed toward the LOS for the free flow major movement, particularly where the proportion of free flow volume on the major street is very high.



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### 5.3. Level of Service Results

#### Existing Conditions (2022)

Analysis was conducted for the Existing (2022) conditions. A summary of the Existing (2022) LOS results can be found in [Table 4](#). The detailed results can be found in [Attachment C](#). For the purposes of the analysis for the Existing (2022) as well as all future scenarios, Arden Road is assumed to be a north-south road. All other roads have been considered east-west.

For existing conditions, all intersection movements are expected to operate at LOS C or better.



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Table 4: Existing (2022) – Intersection Level of Service Results

2022 (Existing Conditions)															
Int.	Time	Attribute	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Cumberland Rd and Arden Rd	AM	Volume	7	242	7	17	155	18	12	7	30	43	2	11	
		v/c Ratio	0.01			0.02			0.12			0.19			
		Delay (s)	0			1			13			17			3
		LOS	A			A			B			C			A
		95% Q (m)	0			1			3			6			
	PM	Volume	11	256	17	37	299	65	4	3	22	42	1	17	
		v/c Ratio	A			A			B			C			
		Delay (s)	0			1			13			21			3
		LOS	A			A			B			C			A
		95% Q (m)	0			1			3			9			
Copperfield Rd and Arden Rd	AM	Volume	3		7				2	28			55	1	
		v/c Ratio	0.01						0			0.04			
		Delay (s)	9						1			0			1
		LOS	A						A			A			A
		95% Q (m)	0						0			0			
	PM	Volume	1		4				5	70			55	1	
		v/c Ratio	0.01						0			0.05			
		Delay (s)	9						1			0			1
		LOS	A						A			A			A
		95% Q (m)	0						0			0			
Lake Trail Rd and Arden Rd	AM	Volume	2	113	23	4	70	1	16	1	9	1	2	1	
		v/c Ratio	0			0			0.05			0.01			
		Delay (s)	0			0			10			10			2
		LOS	A			A			A			B			A
		95% Q (m)	0			0			1			0			
	PM	Volume	1	147	19	19	175	5	42	1	7	3	1	1	
		v/c Ratio	0			0.02			0.13			0.03			
		Delay (s)	0			1			13			12			2
		LOS	A			A			B			B			A
		95% Q (m)	0			0			4			1			

### Opening Day (2025)

For Opening Day (2025) conditions, the analysis was conducted with the background traffic only, and again with the inclusion of the project development traffic. A summary of the Opening Day (2025) LOS results for the background scenario and with development scenario can be found in [Table 5](#) and [Table 6](#). The detailed results can be found in [Attachment C](#).

For the opening day **background scenario**, all intersection movements are expected to operate at LOS C or better.

For the opening day **post development scenario**, the southbound Arden Road approach at Cumberland Road is expected to deteriorate from LOS C to LOS D in the PM peak period. However, it is noted that the development traffic (an additional 8 vehicles per hour) is only expected to add 2 seconds of additional delay. All other intersection movements are expected to operate at LOS C or better.



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Table 5: Opening Day (2025) – Background - Intersection Level of Service Results

2025 (Background Conditions)															
Int.	Time	Attribute	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Cumberland Rd and Arden Rd	AM	Volume	7	257	7	18	164	19	13	7	32	46	2	12	
		v/c Ratio	0.01			0.02			0.13			0.22			
		Delay (s)	0			1			13			18			3
		LOS	A			A			B			C			A
		95% Q (m)	0			1			4			7			
	PM	Volume	12	272	18	39	317	69	4	3	23	45	1	18	
		v/c Ratio	0.01			0.03			0.10			0.32			
		Delay (s)	0			1			13			24			4
		LOS	A			A			B			C			A
		95% Q (m)	0			1			3			11			
Copperfield Rd and Arden Rd	AM	Volume	3		7				2	30			58	1	
		v/c Ratio	0.01						0			0.05			
		Delay (s)	9						1			0			1
		LOS	A						A			A			A
		95% Q (m)	0						0			0			
	PM	Volume	1		4				5	74			58	1	
		v/c Ratio	0.01						0			0.05			
		Delay (s)	9						1			0			1
		LOS	A						A			A			A
		95% Q (m)	0						0			0			
Lake Trail Rd and Arden Rd	AM	Volume	2	120	24	4	74	1	17	1	10	1	2	0	
		v/c Ratio	0			0			0.05			0.01			
		Delay (s)	0			0			10			11			2
		LOS	A			A			A			B			A
		95% Q (m)	0			0			1			0			
	PM	Volume	1	156	20	20	186	5	45	1	7	3	1	1	
		v/c Ratio	0			0.02			0.14			0.03			
		Delay (s)	0			1			14			12			2
		LOS	A			A			B			B			A
		95% Q (m)	0			0			4			1			

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Table 6: Opening Day (2025) – **With Development** - Intersection Level of Service Results

2025 (Combined Conditions)															
Int.	Time	Attribute	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Cumberland Rd and Arden Rd	AM	Volume	8	257	7	18	164	22	13	7	32	55	2	16	
		v/c Ratio	0.01			0.02			0.13			0.27			
		Delay (s)	0			1			13			18			4
		LOS	A			A			B			C			A
		95% Q (m)	0			1			4			9			
	PM	Volume	16	272	18	39	317	79	4	3	23	51	1	20	
		v/c Ratio	0.02			0.03			0.10			0.37			
		Delay (s)	0			1			13			26			4
		LOS	A			A			B			D			A
		95% Q (m)	0			1			3			13			
Copperfield Rd and Arden Rd	AM	Volume	8		20				6	30			58	2	
		v/c Ratio	0.04						0.01			0.05			
		Delay (s)	9						1			0			2
		LOS	A						A			A			A
		95% Q (m)	1						0			0			
	PM	Volume	5		12				19	74			58	6	
		v/c Ratio	0.03						0.02			0.06			
		Delay (s)	9						2			0			2
		LOS	A						A			A			A
		95% Q (m)	1						0			0			
Lake Trail Rd and Arden Rd	AM	Volume	2	120	25	5	74	1	19	1	14	1	2	1	
		v/c Ratio	0			0			0.06			0.01			
		Delay (s)	0			1			10			10			2
		LOS	A			A			A			B			A
		95% Q (m)	0			0			2			0			
	PM	Volume	1	156	22	24	186	5	45	1	8	3	1	1	
		v/c Ratio	0			0.02			0.15			0.03			
		Delay (s)	0			1			14			12			3
		LOS	A			A			B			B			A
		95% Q (m)	0			1			4			1			



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### Future Conditions (2035)

For the Future Year (2035) conditions, the analysis was conducted with the background traffic only, and again with the inclusion of the project development traffic. A summary of the Future Year (2035) LOS results is attached in *Table 7* and *Table 8*. The detailed results can be found in *Attachment C*.

For the Future Year (2035) **background** scenario:

- At Cumberland Road and Arden Road, the southbound Arden Road approach is expected to deteriorate to LOS C in the AM peak and LOS E in the PM peak. As noted previously, the *Transportation Master Plan* contemplates a signal or roundabout at this location in the future which should address this LOS E.
- All other movements are expected to operate at LOS C or better.

With the addition of **development traffic** for the 2035 scenario:

- At Cumberland Road and Arden Road, the southbound approach is expected to deteriorate from LOS C to LOS D in the AM peak and remain at LOS E in the PM peak. Queues are expected to remain manageable, with 95<sup>th</sup> percentile queues of 28m, or approximately 4 passenger vehicles, in the worst-case PM peak.
- All other movements are expected to operate at LOS C or better.





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Table 7: Future Year (2035) – Background - Intersection Level of Service Results

2035 (Background Conditions)															
Int.	Time	Attribute	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Cumberland Rd and Arden Rd	AM	Volume	9	313	9	22	200	23	16	9	39	56	2	15	
		v/c Ratio	0.01			0.03			0.19			0.35			
		Delay (s)	0			1			15			24			4
		LOS	A			A			C			C			A
		95% Q (m)	0			1			6			12			
	PM	Volume	15	332	22	48	386	84	5	4	28	55	1	22	
		v/c Ratio	0.02			0.04			0.15			0.53			
		Delay (s)	1			1			15			41			5
		LOS	A			A			C			E			A
		95% Q (m)	0			1			4			22			
Copperfield Rd and Arden Rd	AM	Volume	4		9				2	37			71	1	
		v/c Ratio	0.02						0			0.06			
		Delay (s)	9						0			0			1
		LOS	A						A			A			A
		95% Q (m)	0						0			0			
	PM	Volume	1		5				6	90			71	1	
		v/c Ratio	0.01						0			0.07			
		Delay (s)	9						1			0			1
		LOS	A						A			A			A
		95% Q (m)	0						0			0			
Lake Trail Rd and Arden Rd	AM	Volume	2	146	29	5	90	1	21	1	12	1	2	1	
		v/c Ratio	0			0			0.07			0.01			
		Delay (s)	0			0			10			11			2
		LOS	A			A			B			B			A
		95% Q (m)	0			0			2			0			
	PM	Volume	1	190	24	24	227	6	55	1	9	4	1	1	
		v/c Ratio	0			0.02			0.2			0.04			
		Delay (s)	0			1			16			14			3
		LOS	A			A			C			B			A
		95% Q (m)	0			1			6			1			

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Table 8: Future Year (2035) – **With Development** - Intersection Level of Service Results

2035 (Combined Conditions)															
Int.	Time	Attribute	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Cumberland Rd and Arden Rd	AM	Volume	10	313	9	22	200	26	16	9	39	65	2	19	
		v/c Ratio	0.01			0.03			0.2			0.41			
		Delay (s)	0			1			15			26			5
		LOS	A			A			C			D			A
		95% Q (m)	0			1			6			15			
	PM	Volume	19	332	22	48	386	94	5	4	28	61	1	24	
		v/c Ratio	0.02			0.04			0.15			0.61			
		Delay (s)	1			1			16			48			6
		LOS	A			A			C			E			A
		95% Q (m)	0			1			4			28			
Copperfield Rd and Arden Rd	AM	Volume	9		22				6	37			71	2	
		v/c Ratio	0.04						0.01			0.06			
		Delay (s)	9						1			0			2
		LOS	A						A			A			A
		95% Q (m)	1						0			0			
	PM	Volume	5		13				20	90			71	6	
		v/c Ratio	0.03						0.02			0.07			
		Delay (s)	9						2			0			2
		LOS	A						A			A			A
		95% Q (m)	1						0			0			
Lake Trail Rd and Arden Rd	AM	Volume	2	146	30	6	90	1	23	1	16	1	2	1	
		v/c Ratio	0			0.01			0.08			0.01			
		Delay (s)	0			1			10			11			2
		LOS	A			A			B			B			A
		95% Q (m)	0			0			2			0			
	PM	Volume	1	190	26	28	227	6	56	1	11	4	1	1	
		v/c Ratio	0			0.03			0.22			0.04			
		Delay (s)	0			1			16			14			3
		LOS	A			A			C			B			A
		95% Q (m)	0			1			7			1			

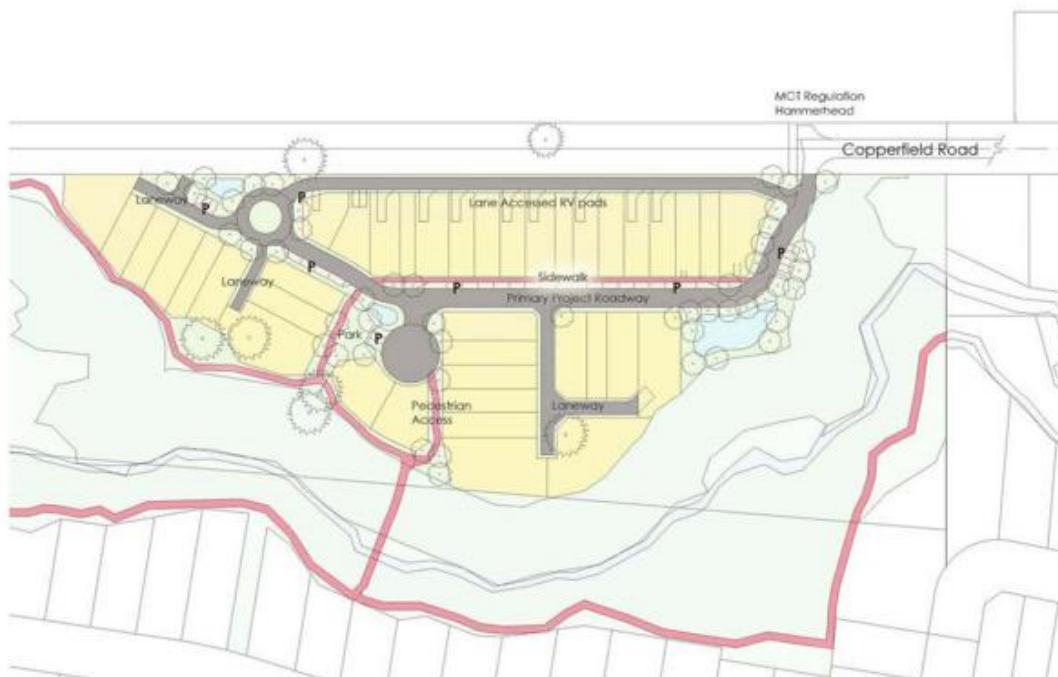


## 6. Site Access

### 6.1. Description

The development site has proposed main entrance at the west end of Copperfield Road. Copperfield Road currently at the site. It has been proposed that Copperfield Road will be terminated at a "hammerhead" turnaround near the site access as shown in *Figure 15*.

*Figure 15: Proposed Development Site Access*



## 7. Safety Analysis

ICBC collision data from ICBC's Tableau Public crash map from 2016 – 2020 was reviewed at the study intersections as shown in *Table 9*. The ICBC map classifies collisions into two categories:

- *Casualty* crashes are crashes resulting in injury or fatality.
- *Property damage only* (PDO) crashes are crashes resulting in material damage and no injury or fatality.

The publicly accessible ICBC data does not provide any additional information on the crashes beyond the number and classification.

Based on the ICBC collision data, Cumberland Road and Arden Road was found to have the highest number of collisions (21) of the three study intersections. It is noted that:

- For the Cumberland Road / Arden Road intersection, bike lane and pavement marking upgrades were installed some time after August 2019 based on Google Earth historical imagery. Looking only at the collisions from 2019 – 2020, a total of 6 collisions occurred, with 4 PDO collisions and 2 casualties.
- As indicated in the City of Courtenay's Draft OCP (January 2022) and the *Arden Corridor Local Area Plan* (2013), further intersection improvements may be installed at Arden Road and Cumberland Road. Options considered in the plans include the potential for a roundabout at the intersection, which may mitigate any existing safety issues.

*Table 9: ICBC Collision Data - 2016 - 2020*

Intersection	Casualty	Property Damage Only	Total
Cumberland Rd and Arden Rd	6	15	21
Copperfield Rd and Arden Rd	0	1	1
Lake Trail Rd and Arden Rd	1	2	3



## 8. Conclusion and Recommendation

### 8.1. Conclusion

The purpose of this letter report was to review the traffic operations for the proposed residential developments at 2650 Copperfield Road in Courtenay, BC.

#### Trip Generation

The proposed developments are expected to generate 24 and 32 new vehicle trips per hour in the weekday AM and PM peak periods respectively. A total of 336 trips are expected to be generated per weekday.

#### Traffic Analysis

Traffic analysis was conducted for the study intersections during the weekday AM and PM peak hour periods. Analysis was also conducted for three horizon years, the Existing (2022), Opening Day (2025) and Future Year (2035).

#### Existing (2022)

For Existing (2022) conditions, all intersection movements operate at LOS C or better.

#### Opening Day (2025)

During the Opening Day (2025) scenario all intersection movements are expected to operate at LOS D or better with and without development traffic.

#### Future Year (2035)

During the Future Year (2035) scenario, the southbound Arden Road approach of Cumberland Road / Arden Road is expected to deteriorate to LOS E in the background case PM peak. With the addition of development traffic, the southbound Arden Road approach is expected to remain within LOS E. Despite the LOS E performance, queues are expected to be manageable, with 95<sup>th</sup> percentile queues of 28m (~4 passenger cars) for the "with development" case. All other intersection movements are expected to perform at LOS D or better with and without development traffic in 2035. The Transportation Master Plan contemplates a signal our roundabout at the Cumberland Road/Arden Road intersection, which would improve the Level of Service.

#### Site Access

No operational or safety concerns were identified at the site access along Copperfield Road.

#### Safety Analysis

Collision data collected over a 5-year period, from 2016 to 2020, was reviewed at the study intersections. A total of 21 collisions were recorded at Cumberland Road / Arden Road, 1 collision at Copperfield Road / Arden Road, and 3 collisions at Lake Trail Road / Arden Road.



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## 8.2. Recommendation

Given the acceptable performance of the study intersections throughout each time horizon with the addition of development traffic, improvements to the intersections are not expected to be required.

## 9. Closing

If you have any questions or concerns regarding this analysis, please contact the undersigned.

Yours truly,

McElhanney Ltd.

Prepared by:



Davis Su, EIT.  
Traffic Engineer  
Traffic & Road Safety Division  
[dsu@mcelhanney.com](mailto:dsu@mcelhanney.com)  
604-424-4803

Reviewed by:



2022-06-10

Mark Merlo, P.Eng., PTOE  
Senior Transportation Engineer  
Traffic & Road Safety Division  
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236-317-5830

Attachments:    A – Development Site Plan  
                      B – Traffic Count Data  
                      C – Synchro Reports  
                      D – Statement of Limitations

CC:                Neil Penner, McElhanney Ltd.  
                      Andy Gaylor, McElhanney Ltd.  
                      Bob Bigelow, McElhanney Ltd.



The remaining Attachments of the Traffic Impact Study are located at the following link:

<https://prospero.courtenay.ca/TempestLive/ourcity/Prospero/FileDownload.aspx?fileId=B3F32B07-F861-4E64-884A-88FE99053492&folderId=6983C171107114444425743>

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**Attachment No. 6: Zoning Amendment Bylaw No. 2912**

**BYLAW NO. 2912**

**A bylaw to amend Zoning Bylaw No. 2500, 2007**

The Council of the Corporation of the City of Courtenay in open meeting assembled enacts as follows:

1. This bylaw may be cited for all purposes as “**Zoning Amendment Bylaw No. 2912, 2020**”.

2. That “Zoning Bylaw No. 2500, 2007” be hereby amended as follows:

(a) Amending Division 8 – Classification of Zones through the addition of:

Part 54 – Comprehensive Development Thirty Zone (CD-30) Lot A - Copperfield Road as attached in **Attachment A**.

(b) by rezoning Lot A, District Lot 138, Comox District, Plan 2607 Except Parts in Plans 312R, 14210 and 29833 (Lot A, Copperfield Road) as shown in bold outline on **Attachment B** which is attached hereto and forms part of this bylaw, from Residential One A (R1-A) to Comprehensive Development Zone Thirty (CD-30) and Public Assembly Two (PA-2).

(c) That Schedule No. 8, Zoning Map be amended accordingly.

3. This bylaw shall come into effect upon final adoption hereof.

Read a first time this                      5<sup>th</sup>      day of                      October, 2020

Read a second time this                      3<sup>rd</sup>      day of                      May, 2021

Considered at a Public Hearing this      23<sup>rd</sup>      day of                      June, 2021

Read a third time this                      XX      day of                      XX, 2022

Finally passed and adopted this      XX      day of                      XX, 2022

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Mayor

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Corporate Officer



## Attachment A

### Part 57 – Comprehensive Development Thirty (CD-30) (Lot A, Copperfield Road)

#### 8.57.1 Intent

The CD-30 Zone is intended to accommodate a strata community on Lot A, District Lot 138, Comox District, Plan 2607 Except Parts in Plans 312R, 14210 and 29833. The property shall be developed in accordance with Schedule A which form part of this zone, to a maximum density of 46 units.

#### 8.57.2 CD-30A

##### (1) Permitted Uses

The following uses are permitted and all other uses are prohibited except as otherwise noted in this bylaw:

- a) Dwelling, Single Residential
- b) Accessory Buildings and Structures

##### (2) Minimum Lot Size

- a) Dwelling, Single Family: 300m<sup>2</sup>

##### (3) Minimum Lot Frontage

- a) Dwelling, Single Family: 10m

##### (4) Maximum Lot Coverage

- a) A lot shall not be covered by building to a greater extent than 70% of the total lot area

##### (5) Setbacks

- a) Front Yard: 4.5m except 2.25m for porch projections and second storey building area
- b) Rear Yard: 7.5m except 1.2m for Accessory Buildings and Structures
- c) Side Yard: 1.5m except 2.25m for side yards abutting the strata road

##### (6) Height

- a) Dwelling, Single Residential: 9.0m

#### 8.57.3 CD-30B

##### (1) Permitted Uses

The following uses are permitted and all other uses are prohibited except as otherwise noted in this bylaw:

- a) Dwelling, Single Family with or without a Carriage House
- b) Accessory Buildings and Structures

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(2) Minimum Lot Size

- a) Dwelling, Single Family with or without a Carriage House: 300m<sup>2</sup>

(3) Minimum Lot Frontage

- a) Dwelling, Single Family with or without a Carriage House: 10m

(4) Maximum Lot Coverage

- a) A lot shall not be covered by building to a greater extent than 70% of the total lot area

(5) Setbacks

- a) Front Yard: 4.5m except 2.25m for porch projections and second storey building area  
b) Rear Yard: 7.5m except 1.2m for Carriages Houses and Accessory Building and Structures  
c) Side Yard: 1.5m except 2.25m for side yards abutting the strata road

(6) Height

- a) Dwelling, Single Residential: 9.0m  
b) Carriage House: 7.5m

**8.57.3 CD-30C**

(1) Permitted Uses

The following uses are permitted and all other uses are prohibited except as otherwise noted in this bylaw:

- a) Dwelling, Duplex  
b) Accessory Buildings and Structures

(2) Minimum Lot Size

- a) Dwelling, Duplex: 200m<sup>2</sup>

(3) Minimum Lot Frontage

- a) Dwelling, Duplex (per unit): 8% of lot perimeter

(4) Maximum Lot Coverage

- a) A lot shall not be covered by building to a greater extent than 70% of the total lot area

(5) Setbacks

- a) Front Yard: 4.5m except 2.25m for porch projections and second storey building area  
b) Rear Yard: 7.5m except 1.2m for Accessory Buildings or Structures  
c) Side Yard: 1.5m except 2.25m for side yards abutting the strata road

(6) Height

- a) Dwelling, Duplex: 9.0m

**8.57.4 CD-30D**

(1) Permitted Uses

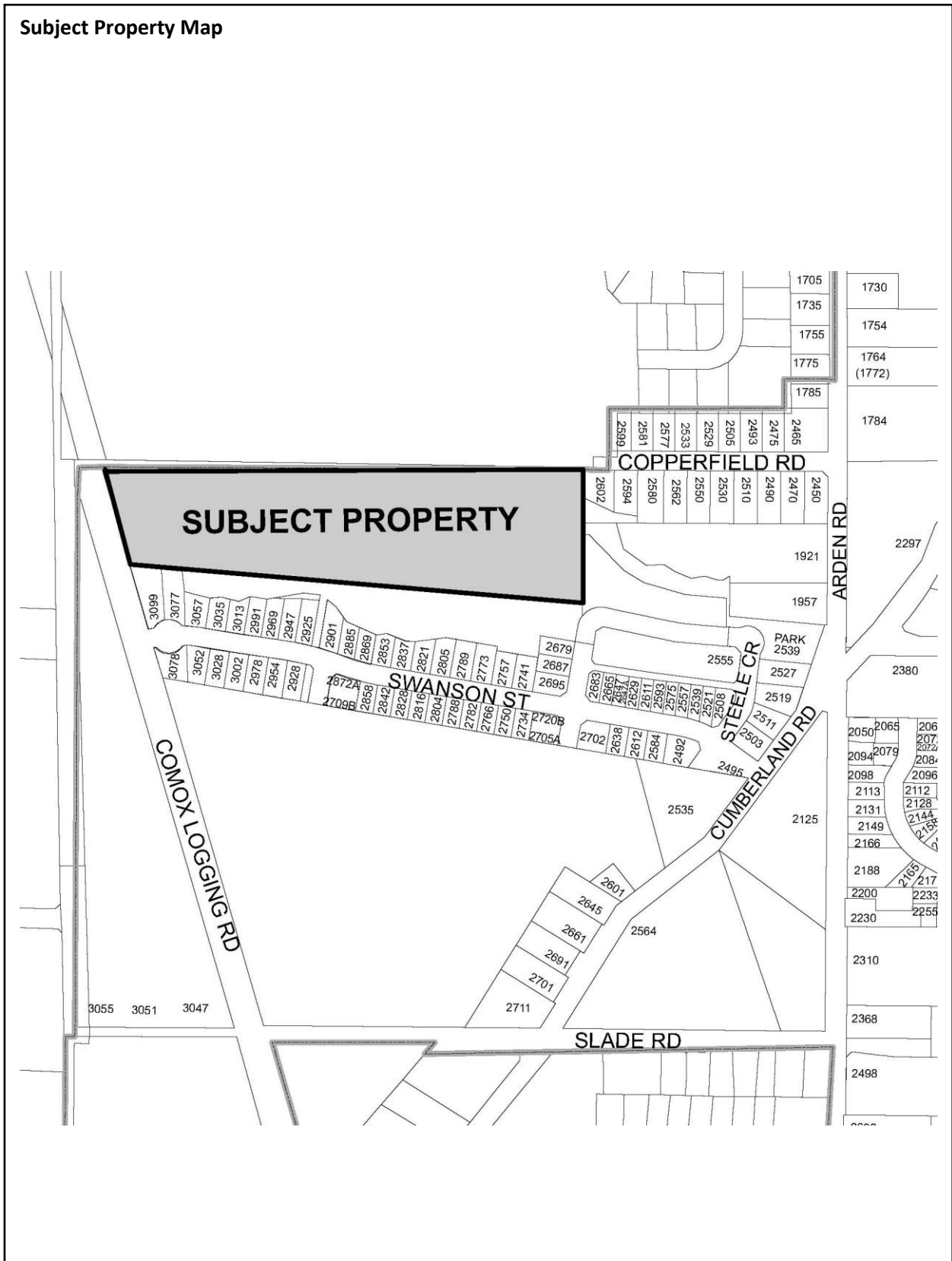
The following uses are permitted and all other uses are prohibited except as otherwise noted in this bylaw:

- a) Dwelling, Townhouse
  - b) Accessory Buildings and Structures
- (2) Minimum Lot Size
- a) Dwelling, Townhouse: 200m<sup>2</sup>
- (3) Minimum Lot Frontage
- a) Dwelling, Townhouse (per unit): 8% of lot perimeter
- (4) Maximum Lot Coverage
- a) A lot shall not be covered by building to a greater extent than 70% of the total lot area
- (5) Setbacks
- a) Front Yard: 4.5m except 2.25m for porch projections and second storey building area
  - b) Rear Yard: 7.5m except 1.2m for Accessory Buildings and Structures
  - c) Side Yard: 0m except 2.25m for side yards adjacent to the strata road or adjacent lands zoned CD-30 A , B and C areas.

**SCHEDULE A**



### Subject Property Map



**Attachment No. 7: Applicant's Letter for Revised Proposal**

**TIMOTHY NYE**

**Land Planning - Development Consulting - Project Management**

1206 - 150 24<sup>th</sup> Street  
West Vancouver, BC Canada V7V 4G8

604.720.3685  
[tim@timothynye.com](mailto:tim@timothynye.com)

November 16, 2021

Matthew Fitzgerald,  
Manager of Development Planning  
City of Courtenay, BC

**Re: (Revised) Planning Referral RZ00004-2650 Copperfield Rd.**

Revised Density

Recognizing some of the concerns expressed by residents at the Public Hearing on June 23, we are proposing to reduce the 'carriage home' component of the proposed development to a total of 7 potential units, so that the maximum build-out of the development is 46 units, down from a potential 76.

We propose that a new Carriage Home specific zone be created (CD-30B) and that CD-30A is amended to remove any reference to Carriage Homes. The duplex and townhome zones would need to be renumbered accordingly.

The corrected lot and unit count would be as follows:

<u>Proposed Zone</u>		<u>Lots</u>	<u>Max. Dwelling Units</u>
CD-30A	single family lots without carriage homes	15	15
CD-30B	single family lots with optional carriage homes	7	14
CD-30C	duplex lots	2	2
CD-30D	townhomes	<u>15</u>	<u>15</u>
<b>Total</b>		<b>39</b>	<b>46</b>

To illustrate these proposed zoning revisions will require that an amended plan be attached to the bylaw. A suggested plan illustrating the four zones and the lots to which they are applicable accompanies this letter as a separate PDF document.

Traffic Impact Assessment

With regard to the Traffic Impact Assessment we asked McElhanney to revise it to include more detail to correctly reflect the number of units including carriage homes. The essential point of the TIA is that it confirms that there are no offsite improvements triggered with a density of 46 units. The revised TIA accompanies this letter as a separate PDF document.

TIMOTHY NYE

Land Planning - Development Consulting - Project Management

1206 - 150 24<sup>th</sup> Street  
West Vancouver, BC Canada V7V 4G8

604.720.3685  
[tim@timothynye.com](mailto:tim@timothynye.com)

Revised Site Servicing Report

The site servicing report has been revised to reflect the correct number of units. The essential points of the traffic study are as follow:

- The City water model has been run with the proposed offsite upgrades and determined that the upgrades will provide the necessary fire flows for the development.
- The City's sanitary model has been run (March 4, 2020 – on file with the City) and no additional hydraulic deficiencies were noted due to the development.
- The stormwater management plan, included as part of the revised site servicing report, meets the City of Courtenay Bylaw 2919 outlining the requirements for stormwater management for subdivisions and development within the City.

The revised servicing report accompanies this letter as a separate PDF document.

It is our view that the development still reflects the underlying intent of the Arden Corridor Local Area Plan by clustering the development to retain environmentally sensitive areas of the site. The development still proposes a diversity of housing types including single family dwellings, duplex dwellings, townhomes and carriage homes. This provides more housing choice as well as attainable housing options aimed at first time home buyers and renters. In short, the purpose of the revised proposal is to balance neighbourhood concerns by tempering the proposed density, while still proposing a development concept that aligns as much as possible with the LAP.

Given the proposed decrease in density, we therefore request that this item be re-scheduled for Public Hearing as soon as possible.

Thank you.



Tim Nye