Staff Report to Council

Planning and Development

FILE: 6480-20-2020-02

REPORT DATE: January 29, 2021 **MEETING DATE:** February 23, 2021

TO: Mayor and Council

FROM: Anne Berry, Director of Planning and Development

SUBJECT: Official Community Plan and Zoning Bylaw Amendments Application for 11812 and 11816 Blakely Rd

CHIEF ADMINISTRATIVE OFFICER REVIEW/APPROVAL:

RECOMMENDATION(S): THAT Council:

A. Direct staff to prepare Official Community Plan and Zoning Bylaw amendments to permit the development of a five-unit townhouse project at 11812 and 11816 Blakely Road, including two live/work units; OR

B. Other.

PURPOSE

To bring back an application for an Official Community Plan and Zoning Bylaw Amendment for the property located at 11812/11816 Blakely Rd to permit a five-unit townhouse project, with two of the units having live/work potential, following a developer information meeting and traffic study.

☐ Information Report ☒ Decision Report ☐ Direction Report

DISCUSSION

Background:

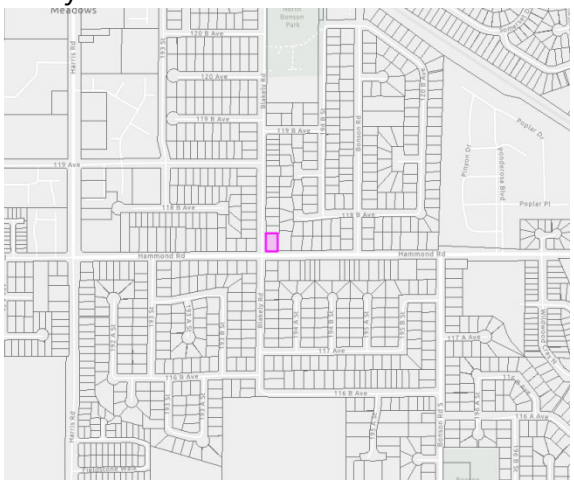
Council initially considered this application at the June 2, 2020 Meeting, where Council passed the following motions:

"A. Direct the applicant to host a (virtual) public information meeting for 11812/11816 Blakely Road in order to hear from the surrounding property owners; AND

B. Direct the applicant to complete a traffic impact assessment for the proposed development at 11812/11816 Blakely Road."

Both the public information meeting hosted by the developer and the traffic impact assessment has been completed. No changes to the original development application are proposed by the developer, other than narrowing the scope of potential commercial uses.

The property is located at the northeast corner of Blakely Rd and Hammond Rd.



Applicant: CityState Consulting Group

Owner: Ajmer and Surinder Bhuller

Civic Address: 11812 & 11816 Blakely Rd

Property Size: 1,025 m²/11,033 ft²

OCP Designation: Residential – Low Density

OCP DPA: DPA#11 – Infill Housing

Zoning: RD (Duplex Residential)

The property currently contains a vacant, former rental duplex in poor condition that fronts onto Blakely Rd.

Relevant Policy, Bylaw or Legislation:

Official Community Plan Bylaw No. 2352, 2007

The property's current Official Community Plan (OCP) Residential – Low-Density designation (see Attachment A) permits low-density residential use in various forms, ranging from single, two and three family housing to townhouses at a density of up to 30 units per net hectare. A new OCP land use designation is required to accommodate this development in the current OCP.

If approved, the property will also be designated as Development Permit Area (DPA) #9 – Multi-Family Development. A development permit following the guidelines in DPA #9 will be required before any construction of buildings. This type of development permit requires approval from council for form and character.

The OCP is currently under review. The initial draft residential land use map for the new OCP identified the intersection of Blakely Rd and Hammond Rd as having a 'Village' designation to provide an area of mixed commercial and residential uses that are appropriate to the scale and character of the surrounding neighbourhoods. However, at the October 20, 2020 Workshop regarding the draft OCP, Council raised several points of concern (see table below) about this 'Village' designation and having commercial uses in this area. Council overall did not have the desire to densify in the Hammond Corridor rather they stated that their preference in this area was to address rezoning opportunities on an 'as needed.

Council Comments	Staff's Comments for the proposed development at 11812/11816 Blakely Road
Not supportive of commercial development at Hammond and Blakely;	The City has designated Hammond Rd as an arterial road and Blakely Rd as a collector road, meaning they are designed for higher traffic volumes to carry people through the City. Hammond Rd is also a designated cycling route with bike lanes in both directions. This type of transportation access makes it an ideal area for a commercial use compared to other areas in the City.
Concern regarding kids from local high school being drawn to commercial area during school hours;	Staff recommend that the proposed zoning only include the following commercial uses already permitted as home-based businesses in those two units: • personal service (e.g. hair salon, day spa, massage therapy) • office (e.g. lawyer, accountant) • other home-based business (e.g. crafts, home office) This uses are not intended to attract high school aged kids.
Concern regarding traffic & pedestrian safety, feel, traffic and parking;	A traffic impact assessment was completed (see Attachment F), and the details of this report are discussed in the analysis section of this staff report.

Medium density is not right for this area;	Staff recommend an easement or highway reservation agreement be required for this application where the driveway is proposed. To ensure potential future access to 19427 Hammond Rd is maintained, should that property be developed in the future. This is a way to plan for future density along this corridor if this development is approved. The overall goal is to minimize the impact on the surrounding neighborhoods.
Concern regarding infill housing designation in one area;	Infill has been limited in certain parts of the City and on corner lots. This proposal aligns with the current infill guidelines (corner lots). At a small scale with only five units, this development offers an opportunity to gradually increase housing diversity along with the City's frequent transit network.
Comparison to Osprey Village is not a fair one;	Staff acknowledges the uniqueness of Osprey Village. The developer is proposal is for a west coast style of architecture that is centered on an arterial and a collector road.
Not supportive of commercial zoning or densification classification;	Staff is proposing and new OCP and zoning designation for this development. The details are provided in the analysis section of this report. While this level of density is a departure from the current and previous land use densities identified in the Official Community Plan at this location on Hammond Road, Hammond Road is now part of the frequent transit network. It may be more appropriate now for a higher level of density.

Zoning Bylaw No. 2505, 2011.

The property's current zoning of Duplex Residential (RD) (see Attachment B) permits a duplex or single-family dwelling.

This application does not comply with the current zoning or any other existing zones. A new zone would be required to accommodate this development.

Analysis:

This application as presented (see Attachments D and E) proposes to amend the Official Community Plan (OCP) and Zoning Bylaw as follows:

	Current	Proposed
OCP		
• land use designation	Residential – Low Density	New, e.g. Village or Live/Work
• development permit area	No. 11 Infill Housing	No. 9 Multi-family Development
Zoning	RD (Duplex Residential)	New, e.g. Village or Live/Work

Project Overview

If approved, these changes will permit the construction of a five-unit townhouse project. The two units closest to the intersection propose to have live/work potential with a small amount of commercial area designed to be locked off from the upstairs residential. It is envisioned that these particular units would be well-suited to a home-based business, such as a hair salon, photography studio or professional office.

Access and Parking

The townhouses are proposed to front onto Hammond Rd, with access via a shared driveway to the back off Blakely Rd (see Figure 1).

Figure 1: Proposed Site Plan

The two live/work units are designed with a tandem garage, and the other three units contain a single garage. The garages are larger (318 to 532 ft²) than typical single or tandem garage spaces and provide additional storage space for residents. Each unit also has an apron in front of the garage deep enough to park an additional vehicle, and there is one additional visitor parking space allocated for the development.

In the City's Zoning Bylaw, 12 parking spaces are required. This accounts for the ten spaces for the units (including one visitor space), plus an additional two spaces for the home-based businesses.

Location

The surrounding neighbourhood is a mix of single-family and duplex low-density residential homes. Hammond Road is an arterial road and cycling route. It is also part of TransLink's frequent transit network, with bus service at least every 15 minutes in both directions throughout the day and into the evening, every day of the week.

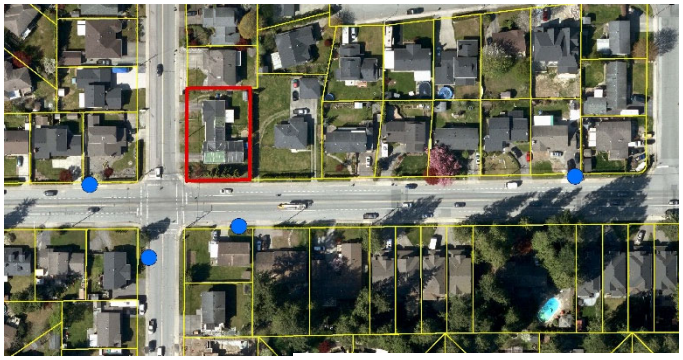


Figure 2: Transit Stops

The property is within close walking distance to elementary and secondary schools and local parks.

The City has designated Hammond Rd as an arterial road and Blakely Rd as a collector road, meaning they are designed for higher traffic volumes to carry people through the City. Hammond Rd is also a designated cycling route with bike lanes in both directions.

Design

The development proposes five family-oriented, 3-bedroom townhouse units in a single building, ranging in size from 1,652 ft² to 2,342 ft².

The two live/work units are proposed as the largest units with the home-based business area on the ground floor. The other three residential units give buyers the option of a 4th bedroom with an ensuite bathroom on the ground floor, suitable for an adult child or ageing parent.

The development proposes three storeys above ground with a maximum height of 9.9 m.

In terms of architecture, the project proposes a contemporary "West Coast" style using pine soffits and a mix of natural stained wood, painted Hardie board siding and brick.

Figure 3: Rendering of proposed building supplied by the applicant

Sustainability

The developer proposes constructing the project with adherence to the BC Step Code 2 requirements and incorporating other sustainable features such as drought-tolerant landscaping and permeable surfaces for parking aprons, sidewalks, and patios. One electric vehicle charging station for each garage is also proposed, and a small garden plot for each unit is proposed in the common area.

Density

The development proposes five units on a site area of 1,045 m², which translates into a density of 47.9 units per ha. Overall, the proposed floor-area ratio is 0.84.

Community Amenity Contribution

The applicant has offered $4,000 per unit as a community amenity contribution, in line with the City's Council Policy C091.

Traffic

A traffic impact assessment was completed (see Attachment F), which evaluated the intersection and based counts on typical weekday peak hour, including capturing the school traffic and adjusting to pre-pandemic levels. The report concludes the following:

- The proposed development is forecasted to generate 17 vehicle trips (eight inbound, nine outbound) during the weekday morning peak hour and 17 vehicle trips (nine inbound, eight outbound) during the weekday afternoon peak hour. The impact on the traffic is minimal, and the intersections continue to perform well.
- The intersection capacity analysis for the study intersections and site access noted that the intersections were forecasted to operate at LOS A to LOS B for all horizon years and scenarios. *(LOS = Level of Service where A is best)*
- With the site fully built out, Hammond Road @ Blakely Road intersection will continue to perform as well as it does currently. The site access will operate acceptably with the forecast traffic.
- The proposed redevelopment will generate a relatively low traffic volume and is not expected to impact pedestrians in the area negatively. The traffic signals at the intersection of Hammond Road @ Blakely Road are actuated on demand by pedestrians and vehicles and are able to provide sufficient crossing time when required.

The report was reviewed by the City's Engineering Department, who provided the following comments:

> "Engineering has no further concerns or comments as it relates to the OCP amendment. The memo did provide sufficient information to confirm that this OCP amendment will not have a negative impact of importance to the intersection. It did not, however, provide any background or justification for the requirement of a sidewalk extension or bulges. Engineering will likely revisit this item at the Development Permit stage."

Public Consultation

A development information sign was posted on the site on May 8, 2020. Numerous community members provided comments favouring and against the proposed development, as included in the previous staff report received by Council at the June 2, 2020 Meeting. The stated concerns are related to density, traffic, building height, and parking. Comments in support favour the mix-used development, density along Hammond Rd, and live-work affordable housing options.

The developer hosted a virtual public information meeting on November 1, 2020 (see Attachment G). Nine members of the public attended. The main concerns addressed parking, traffic and safety and the potential commercial component in the live/work units. One additional letter was sent directly to the City following the meeting (see Attachment H).

An additional opportunity for public feedback will be at the public hearing, which is procedurally required should this application receive second reading.

Staff Comments

Adjacent Property

Ideally, staff would prefer to see this property consolidated with the neighbouring property at 19427 Hammond Rd to permit a larger and more cohesive development. Staff have been advised that an agreement with this property owner could not be reached.

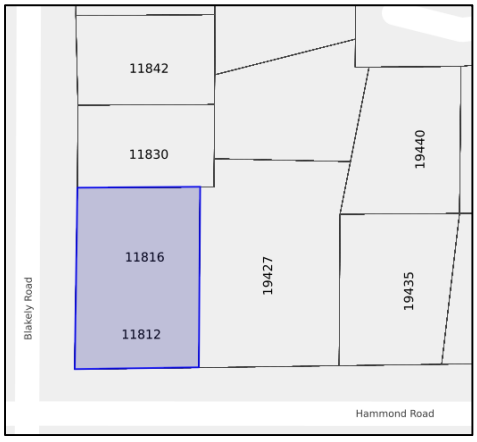


Figure 4: Adjacent Properties

Staff recommend an easement or highway reservation agreement be required for this application where the driveway is proposed. To ensure potential future access to 19427 Hammond Rd is maintained, should that property be developed in the future.

Parking

In general, the City's experience with tandem parking has not been positive. Staff anticipate that this development may result in some similar parking issues. A covenant prohibiting the conversion of the garage space into living space and the conversion of visitor parking into resident parking can be registered on title, as has been done in other developments in the City.

It is proposed that the two live/work units will each have a parking space on the driveway apron of their unit. One visitor parking space will be managed by the strata and some street parking along with Hammond and Blakely Roads. The type of business that can be located in these two units may be limited due to parking. As mentioned earlier, Hammond Rd is part of TransLink's frequent transit network and is a cycling and pedestrian route. Therefore, it is possible that customers of a business in this area could visit using alternative transportation methods.

Commercial Aspect

This proposed development is unique to Pitt Meadows in that it is proposing two of the units as live/work. Initial review of this application included the possibility of retail and restaurant use. However, due to some residents raising concerns about the area becoming a socializing spot for nearby high school students, staff recommend that the proposed zoning only include the following commercial uses already permitted as home-based businesses in those two units:

- personal service (e.g. hair salon, day spa, massage therapy)
- office (e.g. lawyer, accountant)
- other home-based business (e.g. crafts, home office)

Each of the two live/work units will be required to provide one parking space for the commercial business (located on the unit's driveway apron). It is difficult to predict whether or not parking challenges will arrive, depending on the business's nature and how many clients or patrons attend the business.

If desired, staff can look into further restricting the commercial nature of the development, such as not permitting any additional employees other than those living in the unit or limiting the number of customers at any one time. These options are similar to the existing requirements for home-based businesses.

Alternatively, if the application is amended to eliminate the commercial component, the townhouse units would be permitted to have a home office type business only, as with other apartment and townhouse developments.

Density

Based on the size of the property and the seven units proposed, this equates to a density of 47.9 units per hectare.

The following are densities of some more recent multi-family developments in the City that are located in other neighbourhoods:

Project	Density (units/ha)
Brogden Brown (19095 Mitchell Rd)	44.6
Nature's Walk (19451 Sutton Ave)	47.3
Bonson Rd Townhomes (19696 Hammond Rd)	50
Current Application (11812/11816 Blakely Rd)	**47.9**

While this level of density is a departure from the current and previous land use densities identified in the Official Community Plan at this location on Hammond Road, Hammond Road is now part of the frequent transit network. It may be more appropriate now for a higher level of density.

Additionally, the proposal is compliant with the City's Strategic Plan and Housing Action Plan policies, including increasing housing affordability, particularly for young families and seniors; increasing housing diversity, building more ground-oriented townhouses; providing density close to transit; and making a compact, complete community.

Height

Proposed as three storeys above grade with a maximum height of 9.9 m, this is taller than surrounding single-family residential homes permitted, which are allowed a maximum height of 9 m. This development is proposed with a flat roof where 9.9 m is

measured to the top of the roof. In contrast, new, neighbouring single-family residential dwellings built with a peaked roof are permitted 9 m height, but measured to the midpoint. This typically means that the peaked roof's actual highest point on a single-family dwelling can be taller than 9 m.

Figure 5: Height of proposed development

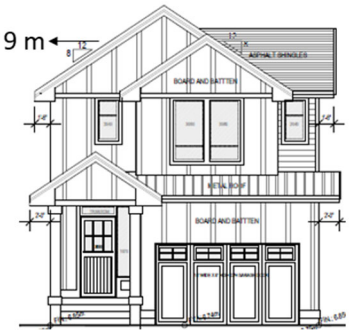


Figure 6: Height example of single family dwelling with peaked roof

The height and massing will make the proposed development more prominent amongst the existing, older stock of single-family dwellings, generally lower in height than more recently constructed single-family dwellings. As surrounding single-family dwellings are redeveloped, the height of this development will likely lose its prominence and better fit in with the neighbourhood character.

A Shadow Analysis was provided by the applicant and is included as Attachment I.

Recommendation

At a small scale with only five units, this development offers an opportunity to gradually increase housing diversity along with the City's frequent transit network.

It includes family-sized dwellings and a place for two home-based businesses to grow. It will also revitalize a prominent street corner and increase housing stock diversity in the City. However, staff recognize that many surrounding neighbours oppose this project and that change to an existing neighbourhood can be difficult. Staff recommend limiting the commercial uses in the live/work units to those already permitted as home-based businesses in residential areas. An alternative could be eliminating the commercial aspect and just permit five residential townhomes as suggested by some members of the public.

If this project is not approved, a new duplex could be constructed on the property, without requiring a rezoning application. If Council wishes to see an alternative development on the property, then the application will have to be amended by the developer. Any other proposal other than a new duplex will require a rezoning and possibly an OCP amendment.

Other monitions for consideration:

- Direct staff to prepare Official Community Plan and Zoning Bylaw amendments to permit the development of a five-unit townhouse project at 11812 and 11816 Blakely Road with no live/work units.
- Direct the applicant to revise the development application for 11812 and 11816 Blakely Road as directed by Council.

COUNCIL STRATEGIC PLAN ALIGNMENT

☐ Principled Governance ☒ Balanced Economic Prosperity ☐ Corporate Excellence
☒ Community Spirit & Wellbeing ☐ Transportation & Infrastructure Initiatives
☐ Not Applicable

Housing Diversity. Encourage diversity in housing types to foster an inclusive, affordable, multi-generational community.

Business Vitality. Foster a vibrant and diverse economy where local businesses thrive. Employment. Help residents improve their quality of life by encouraging and sustaining diverse, well-paying employment opportunities close to home.

FINANCIAL IMPLICATIONS

☒ None ☐ Budget Previously Approved ☐ Referral to Business Planning
☐ Other

PUBLIC PARTICIPATION

☒ Inform ☒ Consult ☐ Involve ☐ Collaborate ☐ Empower

Comment(s):

A public information meeting was completed. A public hearing is required prior to third reading of the bylaws.

KATZIE FIRST NATION CONSIDERATIONS

Referral ☐ Yes ☒ No

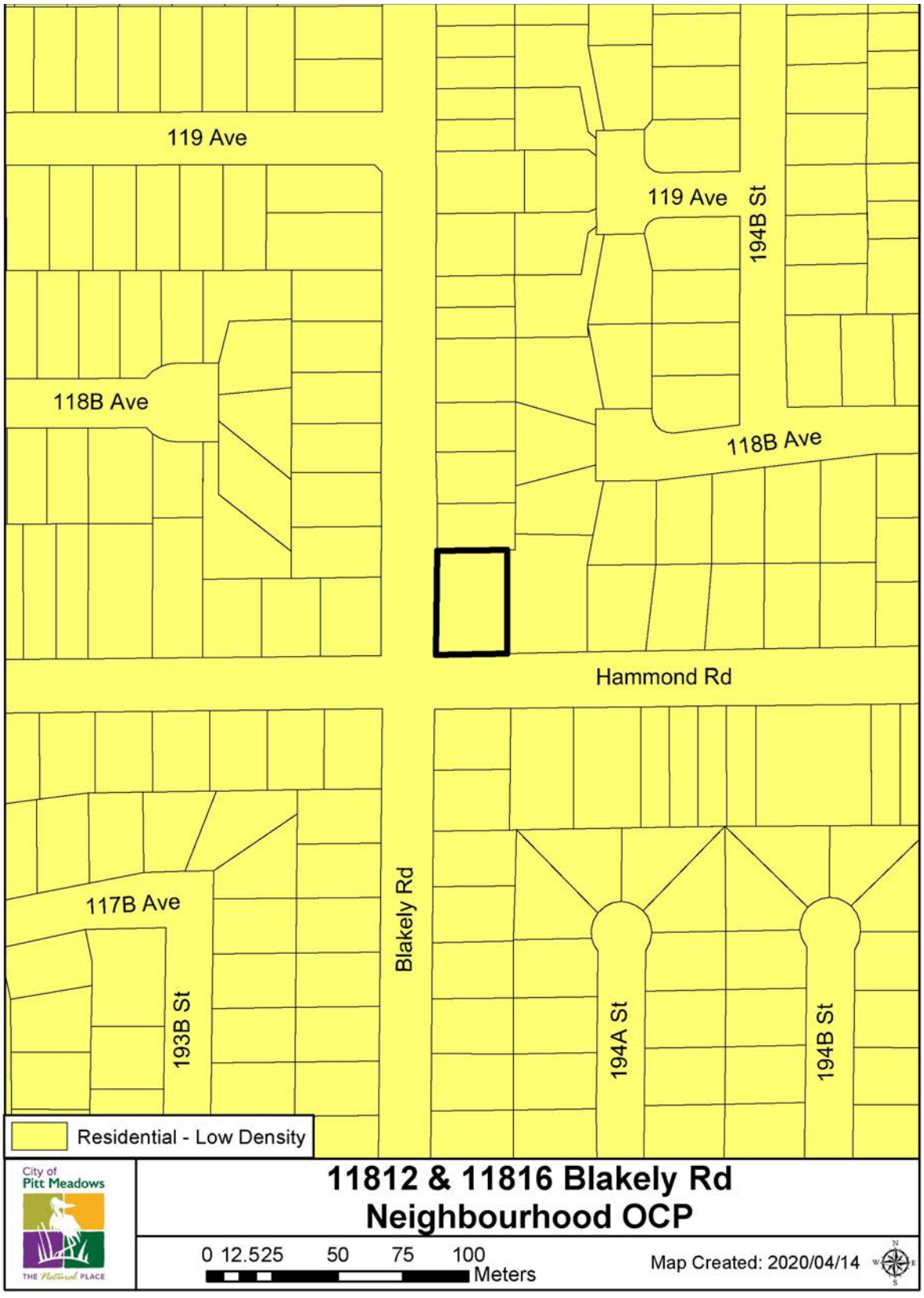
SIGN-OFFS

Written by:	Reviewed by:
Allison Dominelli, Development Services Technician	Alex Wallace, Manager of Community Development

ATTACHMENT(S):

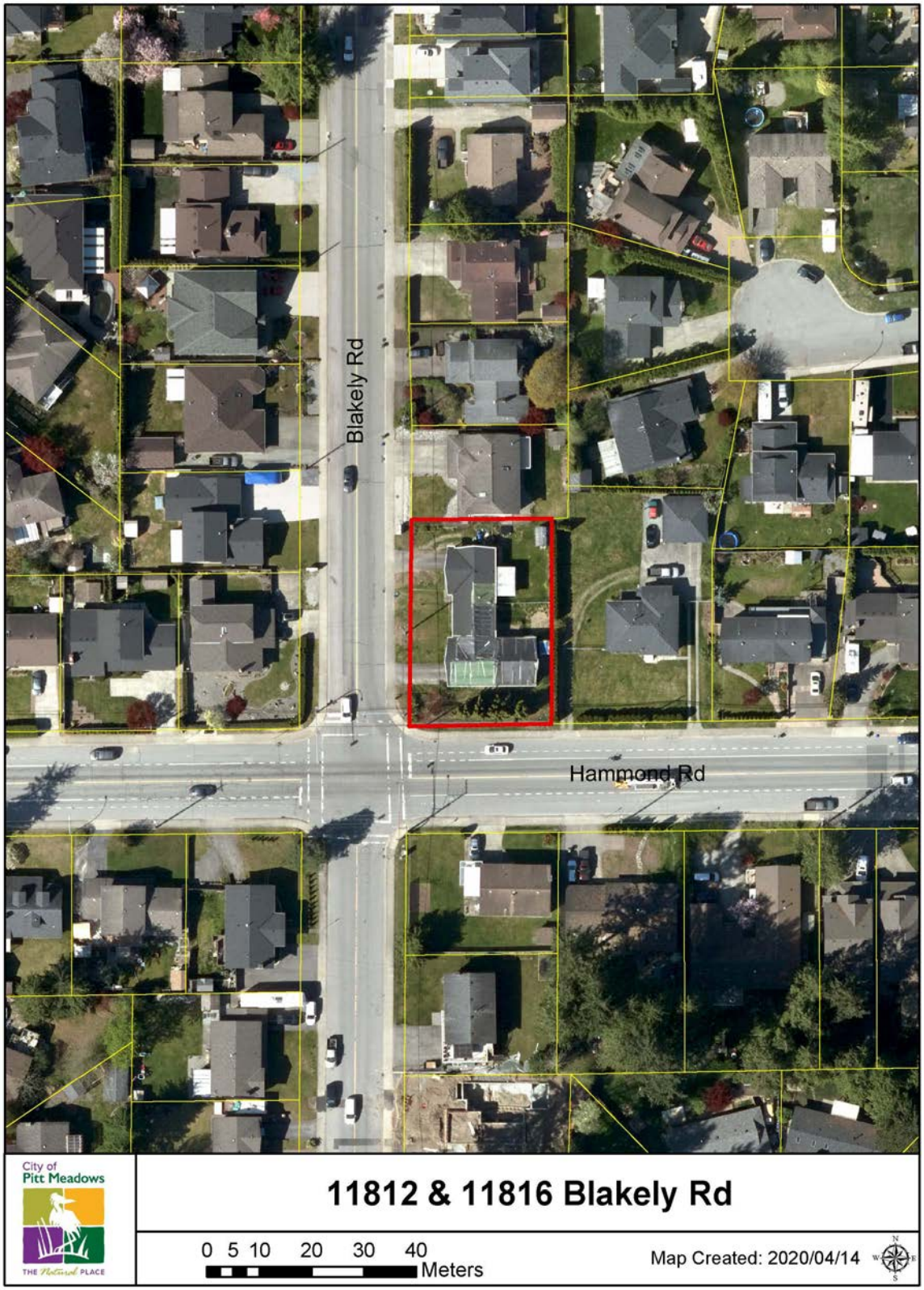
A. Current OCP Land Use Designation
B. Current Zoning
C. Aerial Photo
D. Letter of Intent
E. Plans
F. Traffic Impact Analysis
G. Summary of developer information meeting
H. Letter from neighbour
I. Shadow Analysis

Attachment A: Current OCP Land Use Designation



Attachment B: Current Zoning

Attachment C: Aerial Photo



CITYSTATE BUILDING BETTER COMMUNITIES

Allison Dominelli, City Planner
Planning Division, City of Pitt Meadows
12007 Harris Road, Pitt Meadows, BC V3Y 2B5

February 19, 2020

Dear Allison,

RE: Letter of Intent

11812 Blakely Road, Pitt Meadows, BC – Rezoning from RD to RM-1

CityState is pleased to propose an Official Community Plan Amendment and rezoning of the current residential-duplex lot at 11812 Blakely Road to multi-family residential RM-1 zone, or alternatively CD zone, for a 5-unit townhouse development.

The site is situated along a dominant arterial corridor, Hammond Road, at a signalized traffic intersection with an important neighbourhood collector, Blakely Road.

The Official Community Plan (OCP), adopted in 2008 designates the site as Low-Residential. Pitt Meadows OCP has been under review for at least two years. This area has received strong support from local residents for slightly higher density, particularly along the Hammond Road Corridor.

The proposed zoning is consistent with the views of many residents who participated in the Vision and Values Workshop, 2040 Visioning Event and an open house with display boards held outside City Hall in Summer 2019. A townhouse project, like the one we propose is also consistent with the site's inclusion in the Development Permit Area #11 (Residential Infill) which guides the form and character of densification. Our client's goal is to provide sensitive infill, while offering more affordable housing options to larger families who otherwise would only find more expensive single-family homes.

During Council's workshop to create a visionary plan for "I See Pitt Meadows 2040", there was general agreement that encouraging higher density along the Hammond corridor would help connect large retailers and commercial services on Bonson and Harris Roads. We therefore feel that our proposal is a good fit for this neighbourhood and this specific location.

We look forward to discussing our application proposal with you in the near future.

Kind regards,

Gaetan Royer,
CEO, CityState Consulting Services, Inc.

Site Context

The 11,478 square foot project site is relatively flat and currently occupied by a vacant duplex built in 1968. A line of mature trees is located along Hammond Road. Some will need to be removed to provide access from each unit to the sidewalk. The owner plans to work with a qualified arborist to retain as many of these trees as will prove practical. An arborist report will be provided at the Development Permit stage. Trees to be retained will be maintained and protected for the duration of construction.

Zoning

In this application, we followed the RM-1 zone requirements as closely as possible. The RM-1 zone is used in nearby multi-family developments. Parkside Estates at the intersection of Hammond and Harris roads was built in 1988 for 21 Strata Townhouse Units. East of our site along Hammond Road, at the intersection of Bonson is another RM-1 zoned development: Meadow Highlands Cooperative housing 168 Strata Units.

Map Showing Zoning. Source: iVAULT Mapguide Pitt Meadows GIS

Additionally, it is important to note that existing commercially zoned properties along Hammond help small home-based businesses thrive. These businesses include a dressmaker and dental practice. Encouraging multi-family development along Hammond improves connectivity to locally owned services like these.

As an alternative to rezoning to RM-1 with a few variances, CityState proposes to work with City staff to draft a Comprehensive Development (CD) Zoning Bylaw Amendment.

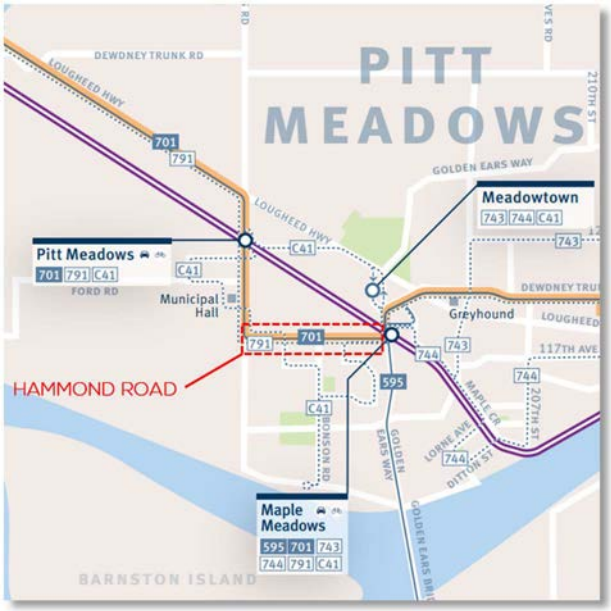
Neighbourhood in Transition

In the Community Engagement Visioning Summary and Draft Official Community Plan Vision considered by council in February 2019, Harris and Hammond Roads are labeled as "key corridors" when studying areas to add higher density and gentle infill.

Pitt Meadows' OCP was created in 2008 and although changes were made since then, the City has yet to complete a full re-write. In 2018, Pitt Meadows engaged the community in *"I See Pitt Meadows 2040",* a comprehensive update of the OCP to guide development and decision making.

Hammond Road currently offers several favourable conditions that allow it to accommodate the type of development that this proposal advocates. These include the street's central location and connectivity within the city, its importance within the transportation network, and its relationship with existing commercial and residential areas.

Hammond Road is centrally located within the urban area of Pitt Meadows as one of the primary east-west streets. It is considered by the City to be an arterial road, providing access to large residential neighbourhoods to the north up to Lougheed and south down to the Fraser River.



Three busses currently operate in Pitt Meadows. All three routes run along Hammond Road. Hammond's importance as a transit corridor with likely remain due to its connection to local residential streets and the great regional road network.

As a result, Hammond Road experiences a high volume of traffic. Residential and commercial traffic uses Hammond Road to access Harris Road and Maple Meadows Way, both prominent streets, which in turn grants them access to the City's current Highway commercial areas, as well as regional roads and the City of Maple Ridge. The traffic circle under Golden Ears Way at the East end of Hammond and the Maple Meadows WestCoast Express station serve a large volume of regional traffic traversing the City. In addition, Hammond and Harris roads form the primary bus route through the City with all 3 local busses travelling along these roads (see transit map above). Hammond Road also supports recreational and commuting cycling with bike lanes in both directions.

Pitt Meadows Station is the Primary West Coast Express station in the City. The service carries commuters to and from Downtown Vancouver, Maple Ridge and Mission.

As noted by the City of Pitt Meadows, most of the area designated for residential development within the urban area has already been developed. Most new housing developments will have to be accommodated through infill and other means of densification. The City's OCP outlines strategies for future residential growth, including the introduction of multi-family dwellings and mixed commercial and residential developments, both ground-oriented and apartments. Diversity of housing mix is important to satisfy the needs of a changing population, including older residents, singles and families

of all sizes and incomes. Housing diversity allows for residents to move to, grow a family and age within Pitt Meadows, rather than being displaced when their housing needs change.

Transit Corridor:

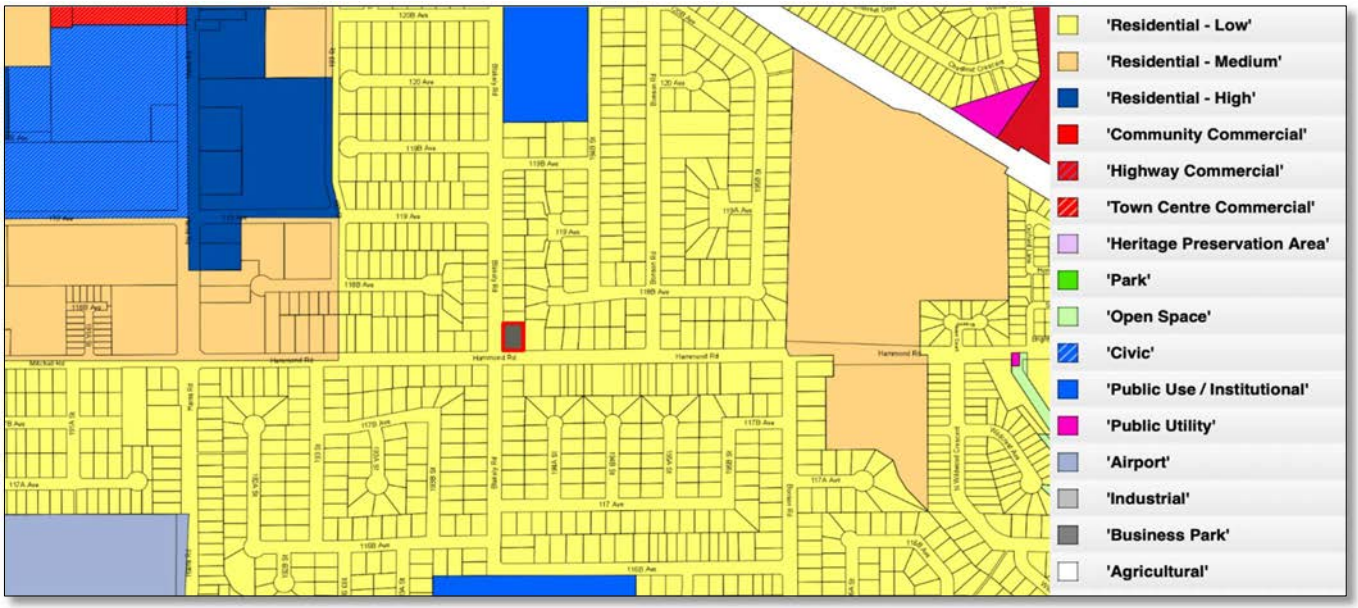
Community mixed-use corridors benefit from high pedestrian traffic, generated by nearby residents and transit users. Hammond Road is likely to remain a prominent transit corridor in Pitt Meadows in the long term due to its central location and connectivity. More population and commercial activity along existing transit routes help the viability of transit corridors and eventually lead to more frequent service: density improves overall ridership.

The 701 bus route, which travels along Hammond Road, connects Pitt Meadows with Coquitlam and Maple Ridge.

The City's 2017 Annual Report reported a population of 19,500. Between 2011 and 2016, the city had an increase in population of approximately 4.7%. While it has had a lower growth rate in recent years – lower than the regional average of 6.5% – the City has maintained a steady increase in population over the past 10 years and is on track to meet its projection of 21,000 residents by the next census in 2021.

Official Community Plan

While the City's Official Community Plan designates 11812 Blakely as Residential - Low, surrounding areas include single-family housing to the North and South, and Residential – Medium multi-family development to the West, Harris Road and East to Bonson Road. The context supports developing along this major arterial route and makes the site appropriate for townhouses and little else.



Land Use and Official Community Plan Designations Source: iVAULT Mapguide Pitt Meadows GIS

Gentle Densification and Affordability

Pitt Meadows has a limited supply of vacant land for new housing in order to meet 2040 goals. Therefore, growth requires redevelopment in the form of infill housing in existing neighbourhoods.

Gentle densification takes a wide variety of forms. As shown by the existing zoning, Pitt Meadows has evolved to include narrow lots, duplex units and townhouses.

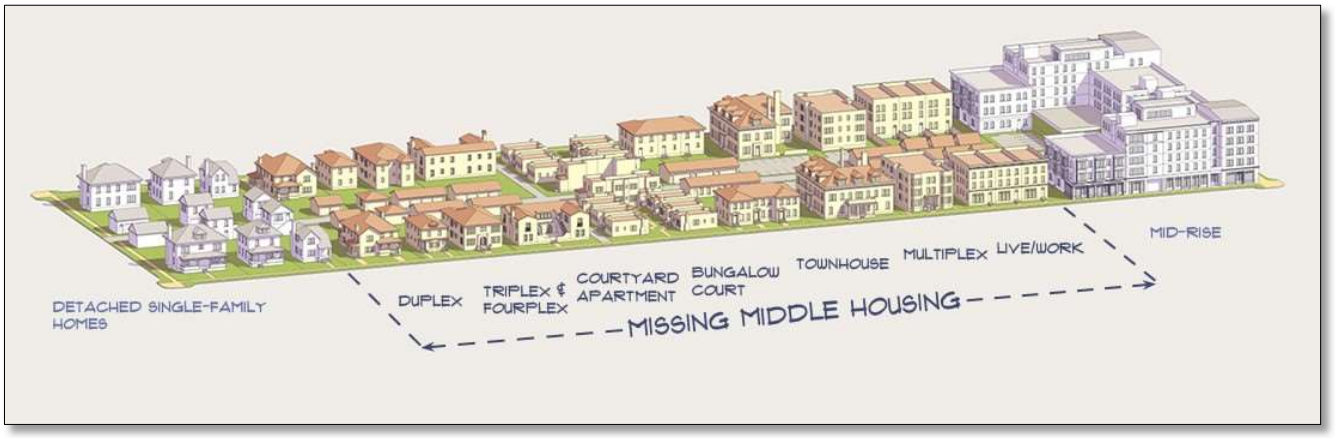


Diagram of Missing Middle Housing Types. Source: Opticos Design, Inc. https://missingmiddlehousing.com/

All these forms of housing are part of the "Missing Middle" (see graphic above; source: Opticos Design, Inc.). The housing types known as the Missing Middle tend to be more affordable. The reason they are so often missing in communities is that larger developers rush to assemble land to provide mid-rise and high-rise housing but ignore this less lucrative segment built on smaller parcels. Owners of smaller properties who take higher risks and accept smaller returns to provide "missing middle" housing should be encouraged in their efforts to fill this important gap in the housing market.

We applaud the City of Pitt Meadows for taking appropriate steps to undergo the review and visioning process of the OCP.

As the city continues to grow, there will be an increased demand for residential and commercial spaces. Hammond is positioned as Pitt Meadows' primary east-west arterial south of Lougheed Highway, so there is significant opportunity to create a community-oriented corridor along this Road.

Proposal

We propose 5 family-oriented, 3-bedroom townhouse units in a single building facing Hammond Rd. Buyers will have the option of a 4th bedroom with ensuite bathroom on the ground floor. This 4th bedroom would assist families with an adult child or aging parent. Ranging in size from 1,652 sf to 1,908 sf, each townhouse will appeal to larger families, while accommodating smaller budgets.

The proposed colour palette and quality of materials enhances the streetscape, blending well with Pitt Meadows latest townhouse and apartment developments.

All units front on Hammond Road and incorporate individual front doors, directly accessible and visible from the street, as recommended in Crime Prevention through Environmental Design (CPTED) Guidelines. Slightly elevated roof features and corner balconies create visual interest as viewed from Blakely and Hammond roads. Landscaping along Hammond is residential in nature with low fences, gates and generous planting. All plants and trees will be native species.

Two units are proposed to have home business space at street level. At 734 sf and 553 sf respectively, these would accommodate modest home business serving local markets.

12460-191 St, Pitt Meadows

Pitt Meadows' most recently completed multi-family project is located at 12460 191 Street (shown left). Similar to that project and other developments in the area, we adopted a contemporary "west coast" style for our project at Blakely and Hammond. We propose the use of pine soffits and a mix of natural stained wood, painted Hardie board siding and brick.

Generous balconies facing Hammond Road reflect human scale and the residential nature of this development. The front yards, shown here fully exposed to better illustrate the architecture, will be partially enclosed with a cedar hedge for privacy. The existing bike lane and sidewalk will be maintained.

Along Hammond Road looking West

Along Hammond Road looking East

Parking

The neighbourhood has expressed concerns with regards to the existing lack of parking and congestion in the area. Some homeowners are said to offer secondary suites but fail to provide on-site parking.

It is important to note far from seeking a variance, our proposal exceeds the Zoning Bylaw's on-site parking requirements. The townhouse development includes one or two covered parking stalls for each of the 5-units proposed. The two units closest to Blakely have a two-car garage.

All units have an apron in front of the garage that is deep enough to accommodate one car outside the unit. This is not required under the Zoning Bylaw for RM-1 developments. The apron provides space that will alleviate the use of street parking. It also provides play space for kids within the project.

In addition, one on-site visitor parking stall is shown on the site plan, which is not required by the City, for a total of thirteen parking stalls (2.6 stalls per unit).

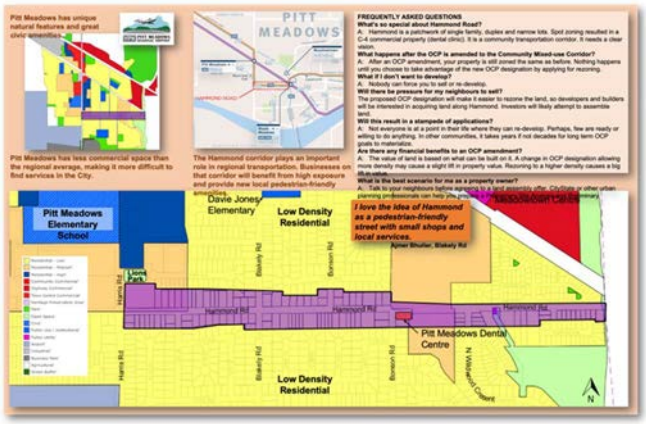
Land Consolidation

The owners 11812 Blakely attempted to assemble two lots east of their property. Legally-binding written offers were made to the owners of 19427 and 19435 Hammond Road. In addition, CityState made numerous attempts to work in partnership with the adjacent property owners before moving forward with architectural plans and this rezoning application.

We understand that access to a side street is important for re-development. As the review process unfolds, the applicant is still willing to work with adjacent property owners, should they wish to join this project. This would result in a more efficient development.

Public consultation

During the OCP review and visioning process, CityState canvassed every home along Hammond Road. We also canvassed homeowners in a 150m radius of the Blakely-Hammond intersection. CityState distributed a brochure to every household. We provided copies of this brochure to the City for information at the time. A snapshot of our brochure is shown below.



Most residents understand and accept the need for a neighbourhood transition to other forms of housing along Hammond Road. This includes many long-time residents. They recognize that the Hammond corridor is not conducive to the widely spaced single-family housing they live in. Residents had different views about the form of housing and the type of density considered. Many would accept modest commercial activity such as home occupations and small shops, however many had reservations regarding parking requirements that go with retail.

Our research points to a positive outlook for gentle infill that brings slightly more density to the Hammond Road corridor. We believe our modest proposal will receive wide public acceptance.

Recently when speaking with neighbours about our proposal, the most common question was: *"when will you demolish this vacant duplex and get on with construction?"*

Based on our interaction to date with existing Hammond Road residents, no major issues are expected. In fact, most neighbours will appreciate certainty about the future of our site.

Proposed 5-unit townhouse project at NorthEast corner of Blakely & Hammond

Project Statistics

Below is a summary of how our project compares with RM-1 and Main St Commercial requirements.

DESCRIPTION	Requirement	Proposed	Variance
Minimum Lot Area	4,000 m2	1,045m2	2,955 m2
Minimum Lot Width	30 m	27.43 m	
Minimum Lot Frontage		27.43 m	
Minimum Lot Depth	30 m	38.10 m	
Building Height	10 m	9.44 m	
Lot Coverage	40% (1,600 m2)	43%	
Front Setback	7.5 m	7.7 m	
Front Setback Main St Commercial	1 m	1 m	
Interior Setback East	1.5 m	1.5 m	
Exterior Setback West	1 m	1 m	
Rear Setback	7.5 m	13.9 m	
Exterior Side Lot Lines	4.5 m		
Courtyard Width			
Density Allowed	-		
Open Space per Unit	30m2		
Off-street Parking	1 per unit	13	
Maximum FAR	?	0.84	0.22

Project statistics based on RM-1 Zoning Bylaw requirements. Main St Commercial setbacks used for home business.

The project meets most of the Zoning Bylaw requirements for RM-1. Exceptions are as follows:

- **Minimum Lot Area.** Although larger lots may provide a slightly more efficient layout, our proposal for 5 units on a 1,045 m2 lot accommodates all other requirements of the RM-1 Zone. We provide a fire access and driveway that meet required standards.
- **Exterior Setback West.** The layout proposed includes a minor variance of the exterior side yard setback. No bedroom or living space will have windows on the East side, so the layout proposed easily meets BC Building Code requirements for Unprotected Opening Exposure. The generous front yard setback provides ample sight lines at the intersection.
- **Maximum FAR.** The density we propose is in line with Pitt Meadows goals and vision for 2040. By shrinking the size of units, we would end up reducing the ability to supply larger homes to more families at a more economical price. The typical FAR for townhouses in neighbouring communities is 0.9.

Sustainability

The owner of this project is a builder with significant experience constructing energy efficient homes. We propose to adhere to the BC Step Code 2 requirements and any other requirements in force at the time of applying for a Building Permit. This project will also adhere to BCBC Part 9 design and construction requirements.

The landscape plan proposes pervious surfaces for parking aprons, sidewalks and patios.

The Site Profile, Sustainability Checklist and proposed on-site environmental features form part of our application.

Attachment E

5 Units Townhouse Project

11812 BLAKELY ROAD, PITT MEADOWS

PROJECT STATISTICS

Required development Data	Max / Min Allowed (Mainstreet Commercial)	Proposed
Area of lot/site (sqm)	Min 450 m2	1045 m2
Ground Area of Building (including Garage)	-	452 m2
Net Areas	-	777 m2
Lot Coverage	95%	43%
Front Setback	1 m	1 m
Rear Setback	6 m	13.9 m
Interior Setback (East)	1 m	1.5 m
Exterior Setback (West)	1 m	2.6 m
Principal Building Height	Max 12 m	Max 9.9 m
Number of Residential Units	-	5
Number of Home-Businesses	-	2
Units pre Acre (Hectare)	-	48
Total Gross Floor Area	-	875 m2
Floor Area Ratio	-	0.84
Residential Parking	9	10
Home-business parking	2	2
Visitor Parking	1	1
Total Parking	12	13
On-street parking	-	6

# Unit	Gross Floor Area	Net Floor Area	# Bedroom
1	2,342 sf	2,071 sf	3 + Home-Business
2	2,029 sf	1,823 sf	3 + Home-Business
3	1,652 sf	1,464 sf	3 + 1
4	1,652 sf	1,464 sf	3 + 1
5	1,747 sf	1,540 sf	3 + 1
Total	9,422 sf	8362 sf	

DRAWING SYMBOLS

BUILDING SECTION

ROOF SLOPE

Main 16'-2 1/4"

ELEVATION

GROUND ELEVATION

PROJECT CONTACTS

PLANNING & DESIGN
CITYSTATE CONSULTING GROUP
Gaetan Royer
(778) 355-5399 gaetan@citystate.ca

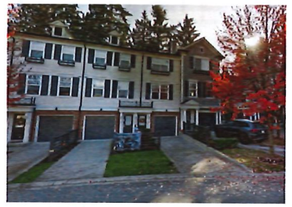
CIVIL DESIGN
WESTERN PACIFIC ENGINEERING
Fabio Morales
(604) 820-7737 fabio@westpeng.com

SURVEYING
TERRA PACIFIC LAND SURVEYING
Mike Bernemann
(604) 463-2509 mike@terrapacific.ca

DRAWING LIST

VICINITY PLAN

CITYSTATE	Gaëtan Royer – CityState Consulting Services 2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2 gaetan@citystate.ca	Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT	Sheet: A01	Description: COVER PAGE	Scale:	Date: 19 FEB 2020 Revised: 12 MAR 2020 Revised: 30 APR 2020 Revised: Revised:	Revised: Revised: Revised: Revised: Revised:



Example of townhouses with tandem parking
One or two cars in garage, one car on apron

KEY FEATURES:

- 2 HOME-BUSINESS UNITS
- 5 FAMILY-ORIENTED TOWNHOUSE UNITS
- 3-STOREY HOMES FACING HAMMOND ROAD
- DESIGN ENHANCES HAMMOND / BLAKELY INTERSECTION

PARKING IS CRITICAL FOR COMMUNITY ACCEPTANCE

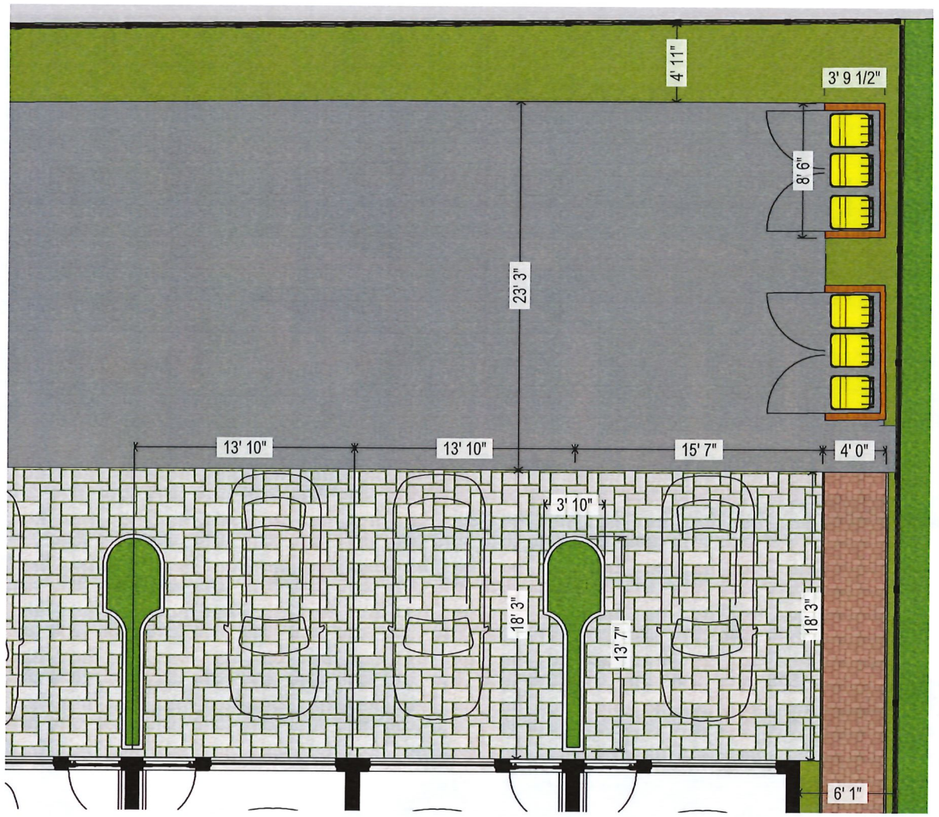
- ALL UNITS HAVE 2 PARKING SPOTS
- PLUS 1 OFF-STREET PARKING PER HOME-BASED BUSINESS (2 IN TOTAL)
- ALL UNITS HAVE AN APRON IN FRONT OF THE GARAGE DEEP ENOUGH TO ACCOMODATE A CAR OUTSIDE FOR VISITORS.
- ONE ADDITIONAL VISITOR PARKING IS PROVIDED
- TOTAL OF 6 ON-STREET PARKING SPACES FOR VISITORS AND BUSINESS CLIENTS

DESIGNED FOR FAMILIES

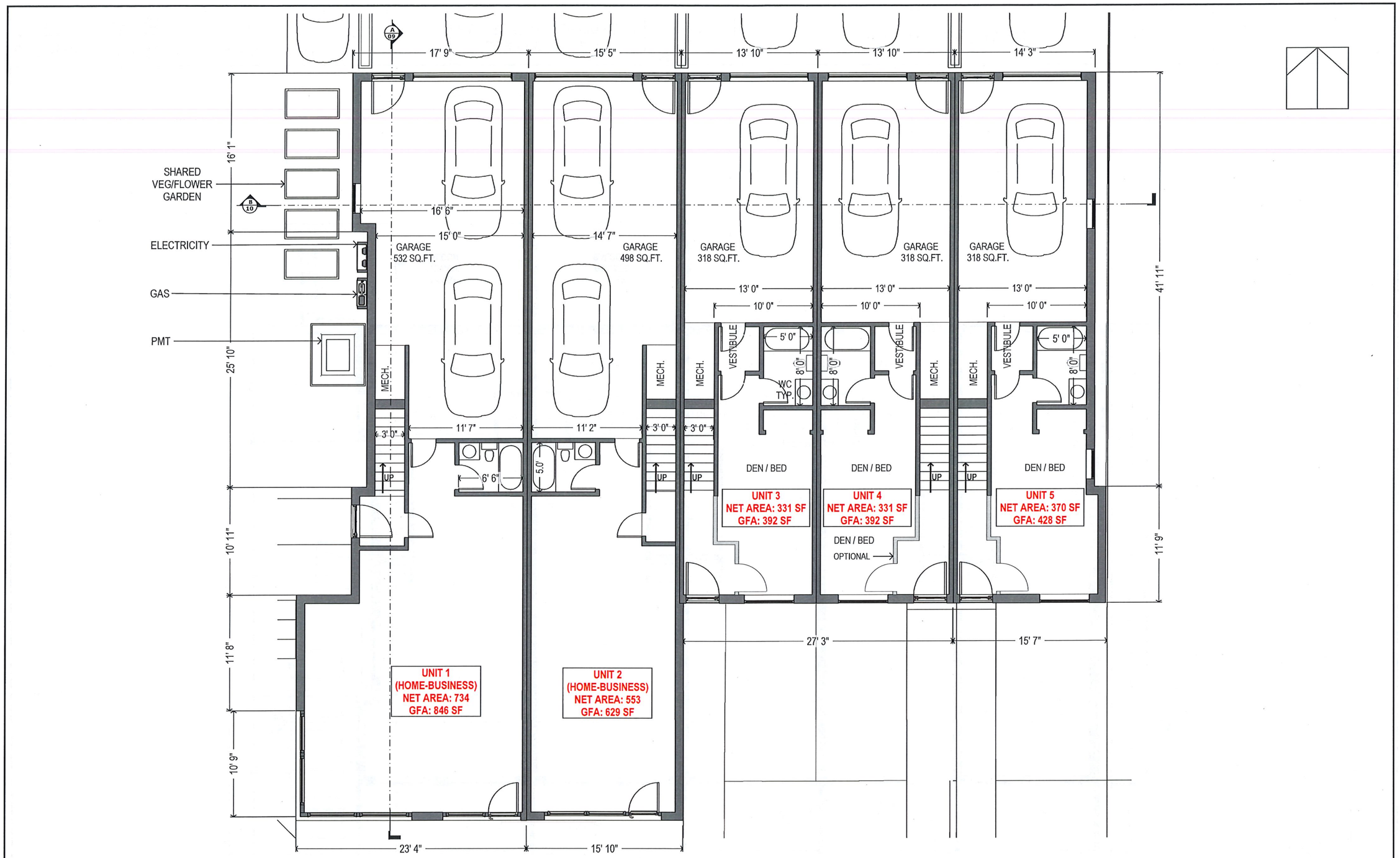
- SPACIOUS GARAGES ACCOMMODATE FAMILY STORAGE NEEDS
- ALL UNITS HAVE PRIVATE OUTDOOR SPACE

SUSTAINBILITY

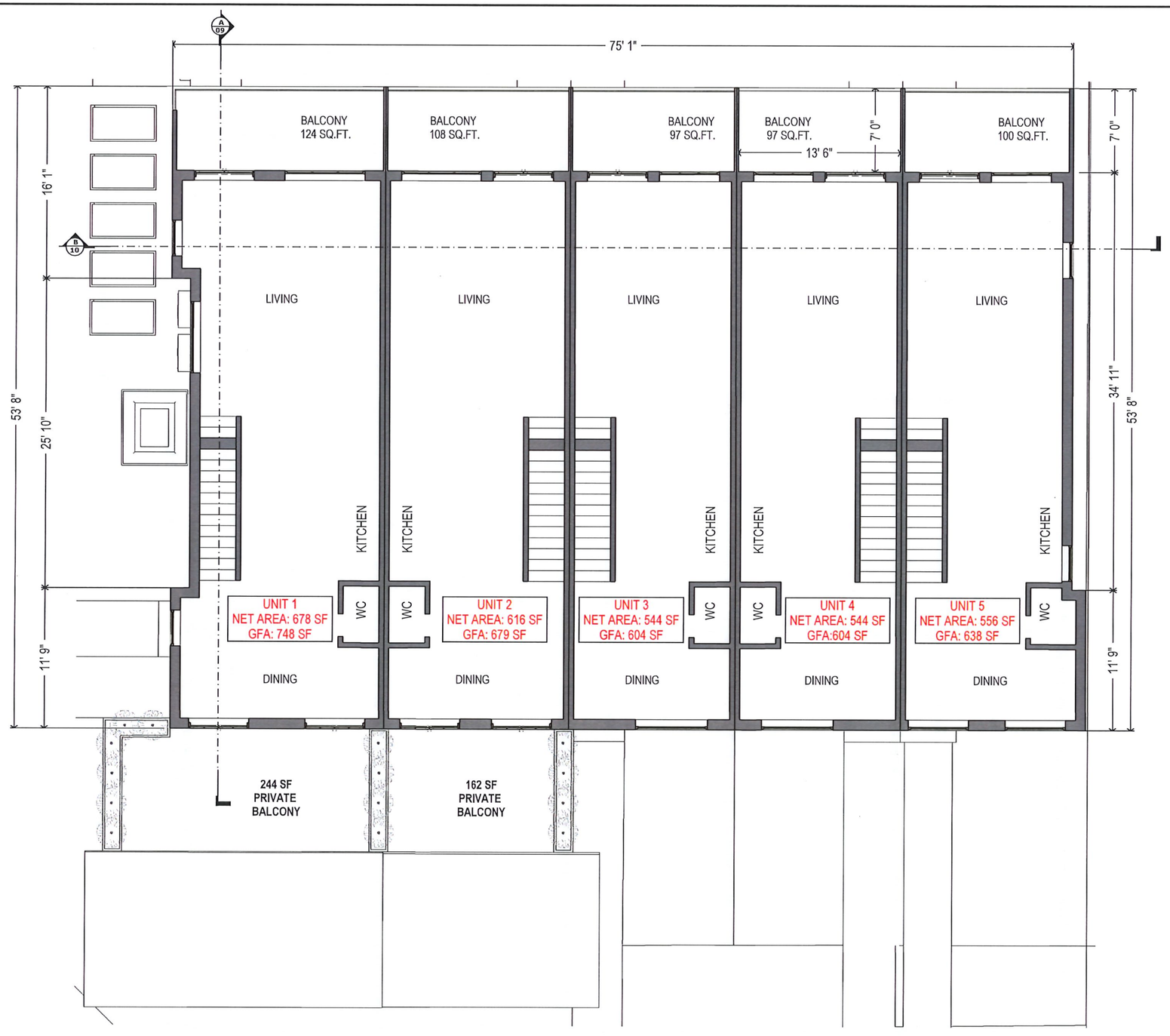
- STEP CODE 2 / BCBC PART 9 CONSTRUCTION
- ENVIRONMENT-FRIENDLY PERVIOUS APRON, SIDEWALKS AND PATIO SURFACES
- SHARED GARDEN SPACE FOR VEGETATION / FLOWER PLANTING



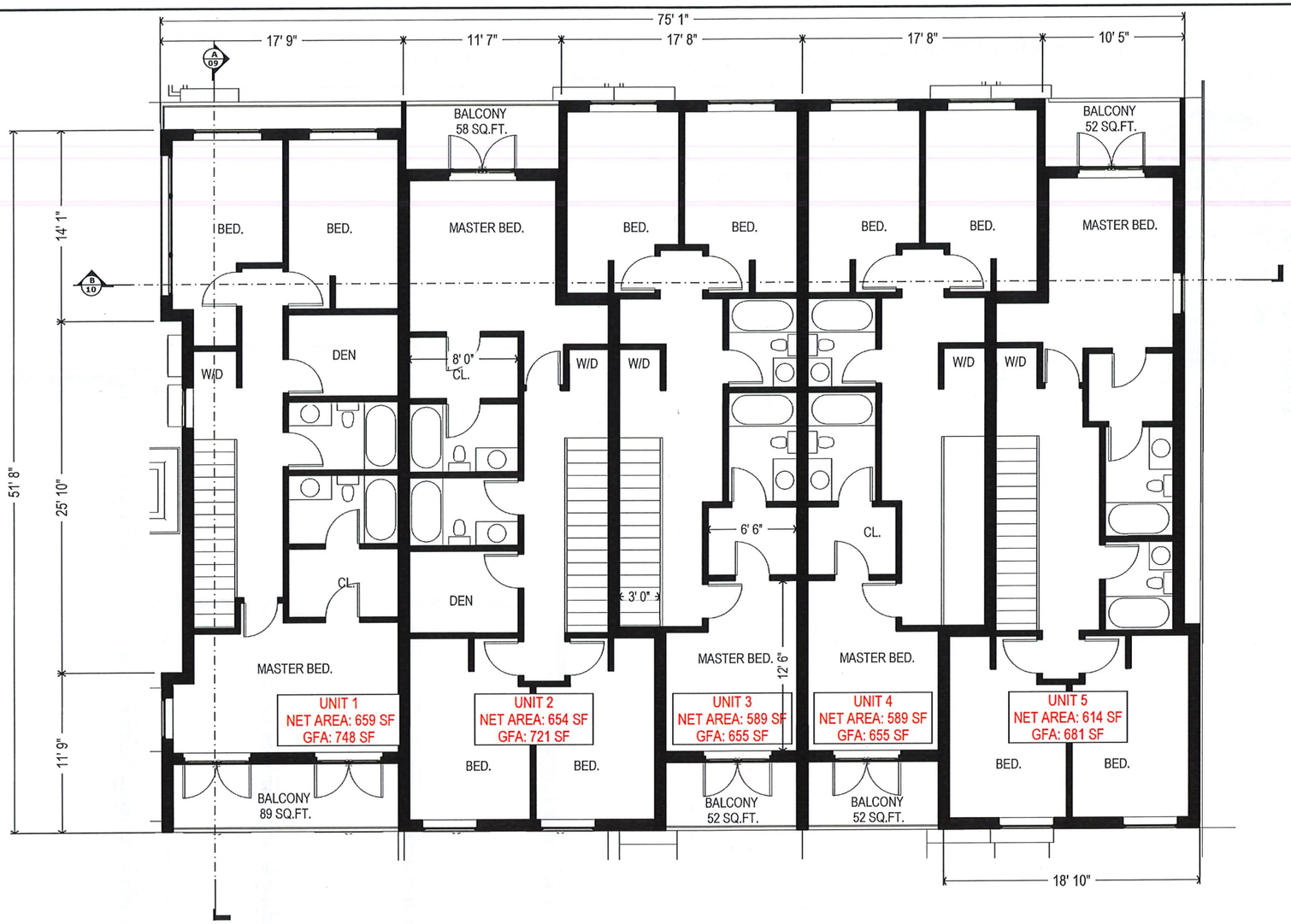
CITYSTATE	Gaëtan Royer – CityState Consulting Services 2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2 gaetan@citystate.ca	Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT	Sheet: A02	Description: SITE PLAN	Scale: 1/8" = 1' 1:96	Date: 19 FEB 2020 Revised: 12 MAR 2020 Revised: 30 APR 2020 Revised: Revised:	Revised: Revised: Revised: Revised: Revised:



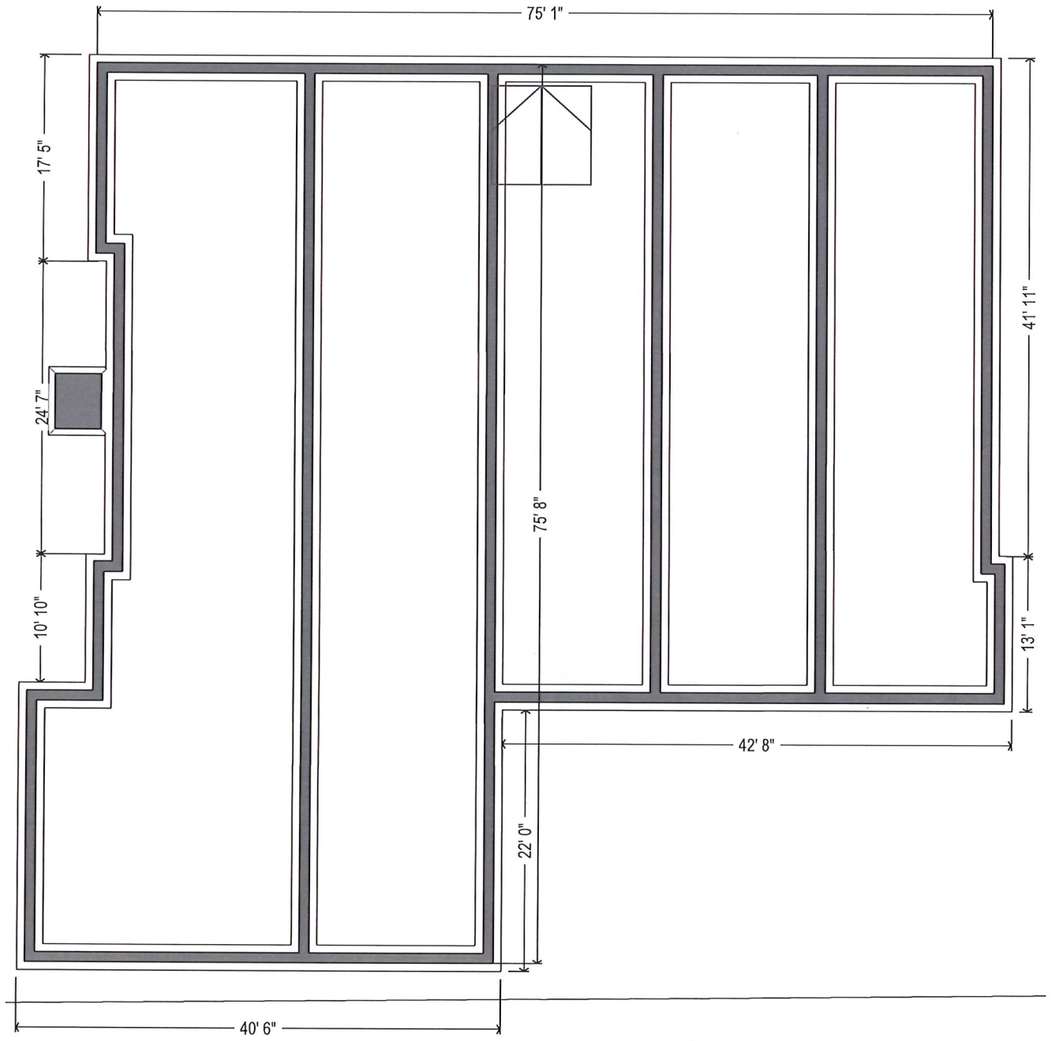
CITYSTATE	Gaëtan Royer – CityState Consulting Services 2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2 gaetan@citystate.ca	Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT	Sheet: A03	Description: GROUND FLOOR PLAN	Scale: 1' = 1/4" 1:48	Date: 19 FEB 2020 Revised: 12 MAR 2020 Revised: 30 APR 2020 Revised: Revised:	Revised: Revised: Revised: Revised: Revised:



CITYSTATE	Gaëtan Royer – CityState Consulting Services 2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2 gaetan@citystate.ca	Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT	Sheet: A04	Description: SECOND FLOOR PLAN	Scale: 1' = 1/4" 1:48	Date: 19 FEB 2020 Revised: 12 MAR 2020 Revised: 30 APR 2020 Revised: Revised:	Revised: Revised: Revised: Revised: Revised:

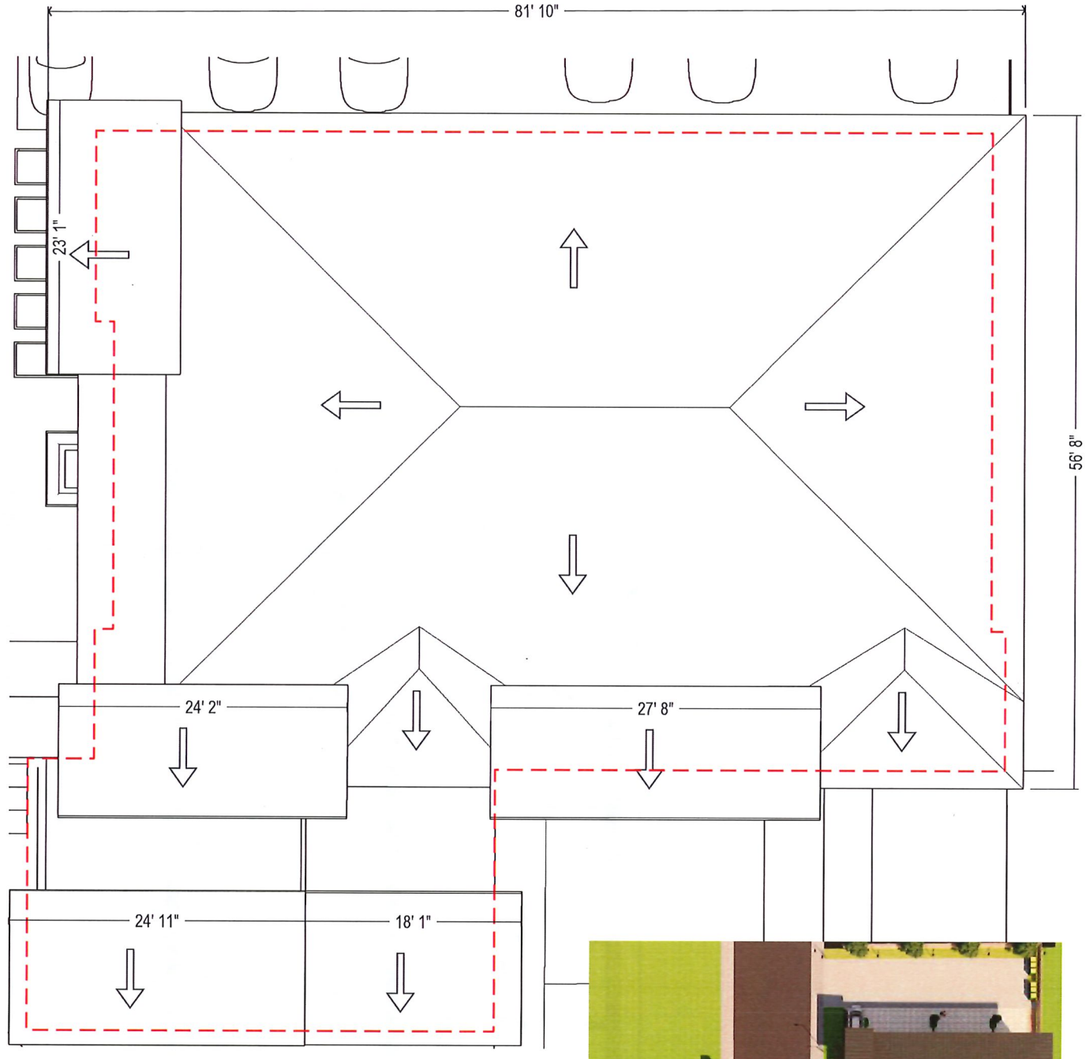


CITYSTATE	Gaëtan Royer – CityState Consulting Services 2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2 gaetan@citystate.ca	Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT	Sheet: A05	Description: THIRD FLOOR PLAN	Scale: 1' = 1/4" 1:48	Date: 19 FEB 2020 Revised: 12 MAR 2020 Revised: 30 APR 2020 Revised: Revised:



A
-

FOUNDATION PLAN



B
-

ROOF PLAN

CITYSTATE	Gaëtan Royer – CityState Consulting Services 2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2 gaetan@citystate.ca	Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT	Sheet: A06	Description: FOUNDATION AND ROOF PLAN	Scale: 1' = 3/16" 1:64	Date: 19 FEB 2020 Revised: 12 MAR 2020 Revised: 30 APR 2020 Revised: Revised:	Revised: Revised: Revised: Revised: Revised:

Unprotected Opening Exposure	Exposed Building Face m²	Unprotected Opening Total m²	(Unprotected Opening Total m² x100)/Exposed Building face m²	Distance From Lot Line (m)	Allowed UPO %
North	**185.8**	**90.1**	**48.4**	**14.02**	**55**
South	**191.2**	**81.0**	**42.3**	**18.44**	**92**
East	**134.6**	**8.0**	**5.9**	**1.87**	**7**
West	**134.6**	**15.0**	**11.1**	**13.41**	**55**

CITYSTATE
Gaëtan Royer – CityState Consulting Services
2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2
gaetan@citystate.ca

Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT

Sheet: A07

Description: SOUTH ELEVATION

Scale: 1' = 1/4" 1:48

Date: 19 FEB 2020
Revised: 12 MAR 2020
Revised: 30 APR 2020
Revised:
Revised:

Revised:
Revised:
Revised:
Revised:
Revised:

CITYSTATE	Gaëtan Royer – CityState Consulting Services 2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2 gaetan@citystate.ca	Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT	Sheet: A08	Description: NORTH ELEVATION	Scale: 1' = 1/4" 1:48	Date: 19 FEB 2020 Revised: 12 MAR 2020 Revised: 30 APR 2020 Revised: Revised:	Revised: Revised: Revised: Revised: Revised:

A
-

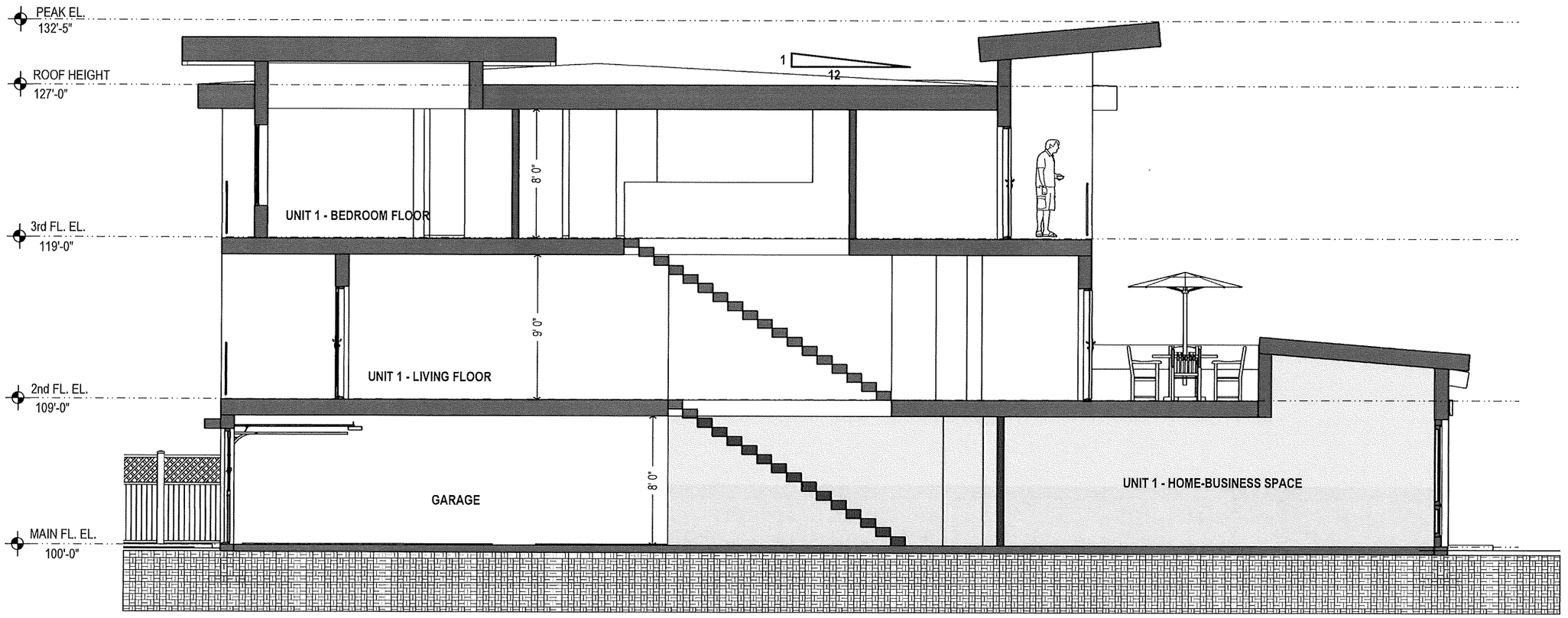
EAST ELEVATION

B
-

WEST ELEVATION

CITYSTATE
Gaëtan Royer – CityState Consulting Services
2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2
gaetan@citystate.ca

Project:	Sheet:	Description:	Scale:	Date: 19 FEB 2020	Revised:
BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT	A09	EAST & WEST ELEVATION	1' = 1/4" 1:48	Revised: 12 MAR 2020 Revised: 30 APR 2020 Revised: Revised:	Revised: Revised: Revised: Revised:



CITYSTATE	Gaëtan Royer – CityState Consulting Services 2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2 gaetan@citystate.ca	Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT	Sheet: A10	Description: SECTION A-A	Scale: 1' = 3/8" 1:32	Date: 19 FEB 2020 Revised: 12 MAR 2020 Revised: 30 APR 2020 Revised: Revised:	Revised: Revised: Revised: Revised: Revised:

CITYSTATE	Gaëtan Royer – CityState Consulting Services 2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2 gaetan@citystate.ca	Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT	Sheet: A11	Description: SECTION B-B	Scale: 1' = 3/8" 1:32	Date: 19 FEB 2020 Revised: 12 MAR 2020 Revised: 30 APR 2020 Revised: Revised:	Revised: Revised: Revised: Revised: Revised:

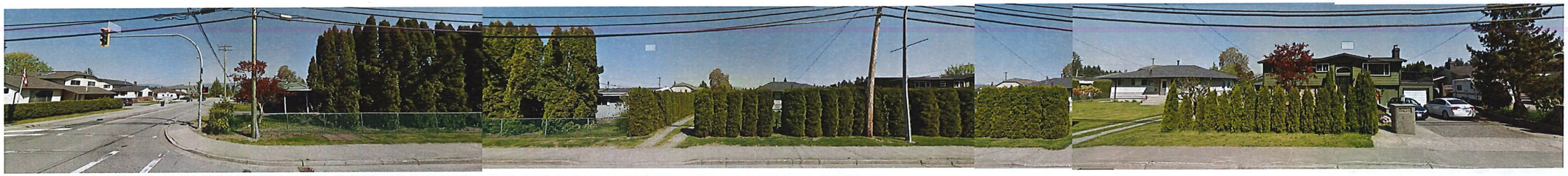
HAMMOND & BLAKELY INTERSECTION

REAR ACCESS DRIVEWAY AT NIGHT

HAMMOND ROAD LOOKING WEST

HAMMOND ROAD LOOKING EAST

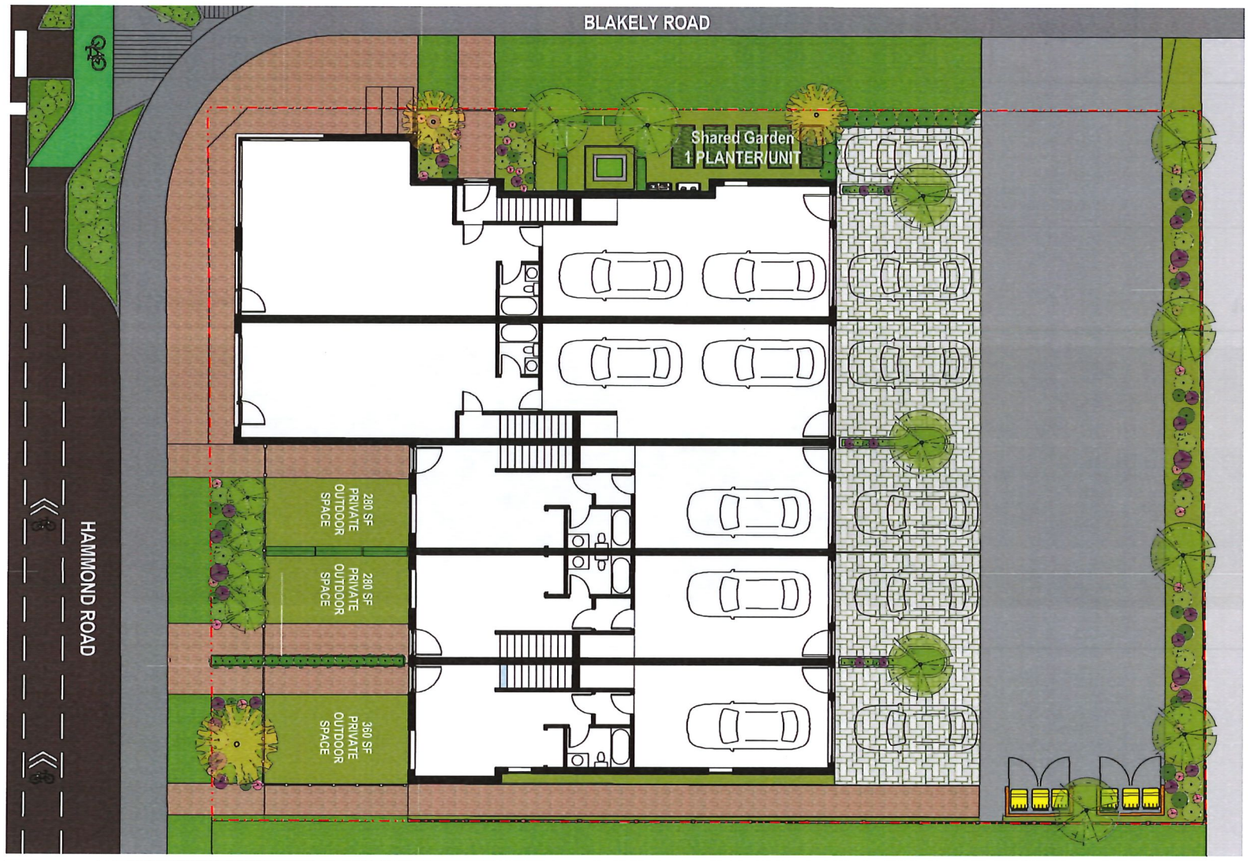
CITYSTATE	Gaëtan Royer – CityState Consulting Services 2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2 gaetan@citystate.ca	Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT	Sheet: A12	Description: PERSPECTIVES	Scale: SCALE	Date: 19 FEB 2020 Revised: 12 MAR 2020 Revised: 30 APR 2020 Revised: Revised:



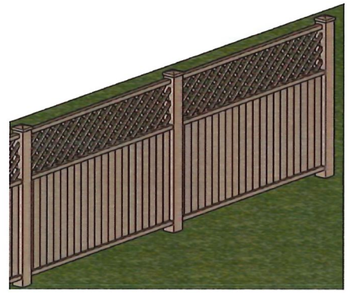
Blakely Road | 11812 Blakely Road | 19427 Hammond Road | 19435 Hammond Road

11830 Blakely Road | 11816 Blakely Road | 11812 Blakely Road | Hammond Road

CITYSTATE	Gaëtan Royer – CityState Consulting Services 2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2 gaetan@citystate.ca	Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT	Sheet: A13	Description: CONTEXT PHOTOS	Scale: SCALE	Date: 19 FEB 2020 Revised: 12 MAR 2020 Revised: 30 APR 2020 Revised: Revised:	Revised: Revised: Revised: Revised: Revised:

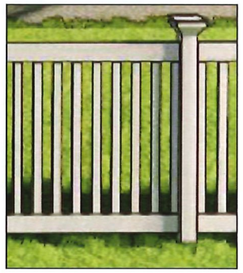


TOTAL LOT SIZE (SQ FT.):	393.7 m2 (4237.75)
IMPERVIOUS:	239.2 m2 (2574.75 ft2)
PERVIOUS:	154.5 m2 (1663 ft2)



2705b ST. GEORGE: FENCING

	TYPE		COLOUR	HEIGHT
2.1	Wooden Fence	Westerrn and Southern fence along Hammond and Blakely Road	white	3 ft
2.2	Wooden Fence	Eastern and Northern fence to separate neighbouring property 2707.	Natural Wood	6 ft



2705b ST. GEORGE: PLANTING SCHEDULE

	TYPE	COLOUR	BOTANICAL	COMMON	HEIGHT	SPREAD	SIZE	UNIT	QTY
1.1	Perennials		Penstemon Pocahontas	Beardtongue	3' - 4'	2' - 3'	plug	ea.	14
			Hosta Minuteman'	'Minuteman' hosta	2' - 3'	3' - 4'	plug	ea.	14
1.2	Shrub		Lavandula Angustifolia	English lavender	2' - 3'	3' - 4'	plug	ea.	14
1.3	Ornamental Grass		Carex 'Ice Dance'	'Ice Dance' sedge	1' - 2'	1' - 2'	plug	ea.	7
1.5	Hedge		Thuja plicata	Red Cedar Hedging	6'-8'	5' - 6'	Cont	ea.	30
	Bushes			Dwarf English Boxwood	1' - 2'	2' - 3'	Cont	ea.	8
1.6	Trees		Acer circinatum	Vine Maple	20' max	15' max	Livestake	ea.	4
			English Laurel	English Laurel	20' max	15' max	Livestake	ea.	9


Beardtongue


English lavender


'Ice Dance' sedge


Vine Maple


English Laurel


Red Cedar Hedging

CITYSTATE
Gaëtan Royer – CityState Consulting Services
2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2
gaetan@citystate.ca

Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT

Sheet: L01

Description: LANDSCAPE PLAN

Scale:

Date: 19 FEB 2020
Revised: 12 MAR 2020
Revised: 30 APR 2020
Revised:
Revised:

Revised:
Revised:
Revised:
Revised:
Revised:

Traffic Engineering Specialists

101A - 1952 Kingsway Avenue
Port Coquitlam, British Columbia
Canada V3C 6C2

604.936.6190
www.cts-bc.com

TECHNICAL MEMORANDUM

TO: **Mr. Rav Sodhi, CityState Consulting Group Ltd**
CC:
FROM: **Kari Fellows, P.Eng.,** Creative Transportation Solutions Ltd. (CTS)
DATE: 25 November 2020
RE: 11812 Blakely Road Traffic Engineering Services
FILE NO: 7313-01

Creative Transportation Solutions Ltd. (CTS) is pleased to submit this report summarising our work on the above study. CTS was retained by CityState to review traffic impacts for a proposed mid-rise multi-family development in the City of Pitt Meadows. The primary objectives of this study are as follows:

1. To conduct a traffic engineering review for the proposed development and,
2. To document the results in a report suitable for submission to the City of Pitt Meadows.

This report documents our analyses and findings.

1 BACKGROUND

1.1 The Site

CityState is proposing to build a multi-family development at 11812 Blakely Road in the City of Pitt Meadows.

The proposed development consists of 5 townhouses of which 2 contain home-based businesses.

The property is currently occupied by a vacant duplex built in 1968 and it is zoned as RD – Duplex Residential. The applicant is proposing to rezone the property to RM-1 – Multi-family Residential or CD – Comprehensive Development to allow for the proposed development.

The key map in **FIGURE 1** illustrates the site location.

Plans for the proposed development are included as **APPENDIX A**.

1.2 Road Network

Hammond Road is an east-west arterial road extending from Golden Ears Way to west of Harris Road.

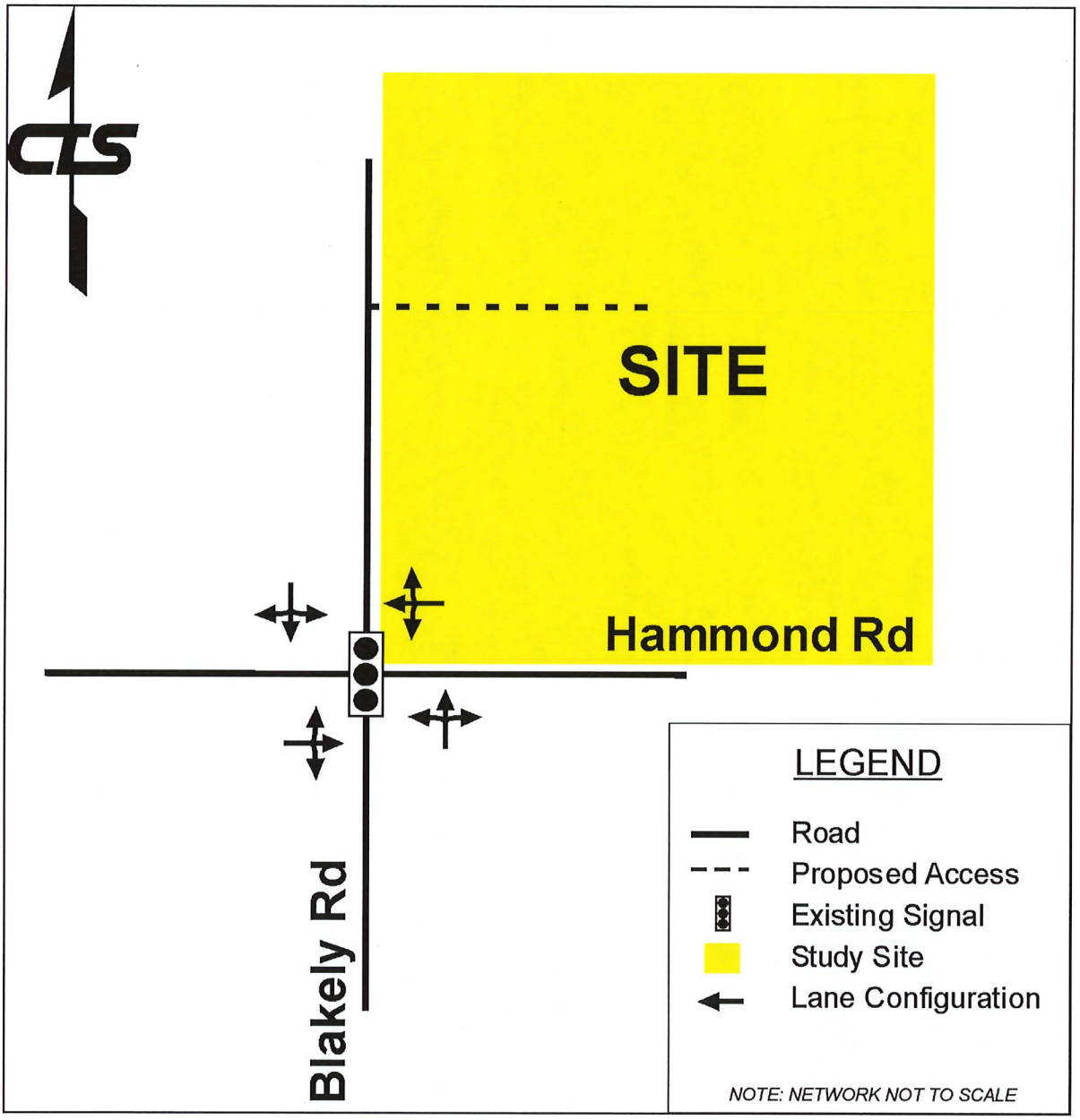
Blakely Road is a local road extending from south of the rail line to 116b Avenue.

The Intersection of Hammond Road @ Blakely Road has a single wide lane on each approach. This is a signalized intersection with a simple two-phase operation. There are pedestrian crosswalks for all crossings, and pedestrian signal displays are active by push buttons.

The lane configuration and current traffic control for the study intersections are illustrated in **FIGURE 2.**

FIGURE 1
KEY MAP OF SITE

FIGURE 2
LANING CONFIGURATION



1.3 Site Visit

A site visit was conducted on Tuesday October 13, 2020 to document current conditions. The following were the key observations from the site visit:

Hammond Road

- Two lane cross section, one in each direction
- Concrete curb and gutter on both sides of the road
- Sidewalk on both sides of the road
- Street lighting
- Bike lanes on both sides of the road
- Bus stops
- 50 km/h speed limit
- Main Bus route
- Side Street Parking

Blakely Road

- Two lane cross section, one in each direction
- Concrete curb and gutter
- Sidewalk on both sides of the road
- Street lighting
- Bus stops
- 50 km/h speed limit
- School zones North and South of Hammond Road
- Side street parking

Hammond Road @ Blakely Road

- Left Turn permitted in all approaches
- Adequate site lines in all directions
- Green resting in east – west direction
- On street parking lanes act like short right turn bays

1.4 Time Periods and Time Horizons Analysed

CTS analyzed the weekday morning and afternoon peak hours for the adjacent road network.

The following scenarios were used in this traffic impact assessment:

1. 2020 existing base traffic (from pandemic adjusted traffic surveys)
2. 2022 future base traffic
3. 2022 future base traffic + proposed development traffic

2 BASE TRAFFIC VOLUMES

2.1 Existing Base Traffic Volumes

2020 Base Traffic Volumes

Due to COVID-19 pandemic, current traffic volumes and patterns might not be representative of "typical" (pre-pandemic) conditions. To evaluate base traffic volumes, the 2020 base traffic volumes were estimated using a combination historic traffic counts near the study intersection, and new traffic counts adjusted to approximate non-pandemic conditions.

Historic data from the CTS database was available for the following intersections:

- Hammond Road @ Harris Road (June 2016 Data)

CTS conducted a turning movement count on Wednesday October 7, 2020 from 07:00 to 09:00, 11:00 to 13:00 and 14:00 to 17:00 to represent the typical weekday peak hour traffic volumes and capture the school traffic for the following intersection:

- Hammond Road @ Blakely Road

To determine how the October 7 count should be adjusted to estimate non-pandemic base conditions, the count at Hammond Road @ Harris Road was adjusted to 2020 volumes with a 1% annual increase. The adjusted east leg traffic was then compared to the west leg traffic at Hammond Road @ Blakely Road. **TABLE 1** steps through the calculations.

TABLE 1
TRAFFIC RATIO BETWEEN BLAKELY ROAD AND HARRIS ROAD ON HAMMOND ROAD

	Traffic Volume	
	AM	*PM*
2016	443	753
2020	461	783
Ratio: 2020	**0.99**	**1.04**

The traffic at Blakely was 99% and 104% of the 2020 estimated traffic volume on Hammond Road east of Harris Road in the morning and afternoon respectively as seen in **TABLE 1.**

To be conservative, factors of 1.0 and 1.04 were applied to the morning and afternoon peak hour count for the intersection of Hammond Road @ Blakely Road to estimate the 2020 base traffic volumes.

The 2020 base weekday morning and afternoon peak hour volumes are illustrated in **FIGURE 3** and **FIGURE 4**.

FIGURE 3
2020 WEEKDAY MORNING PEAK HOUR BASE TRAFFIC VOLUMES

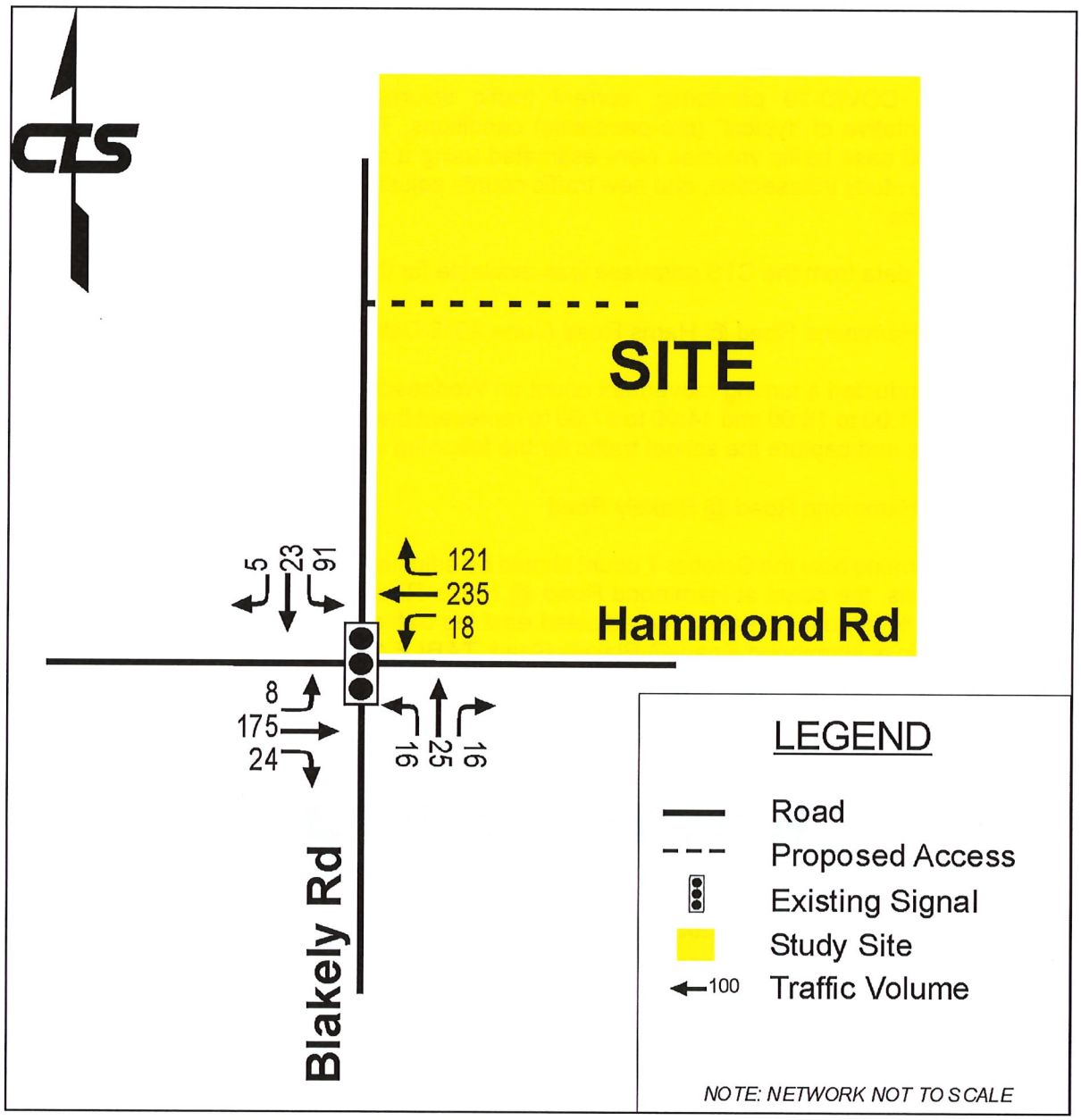
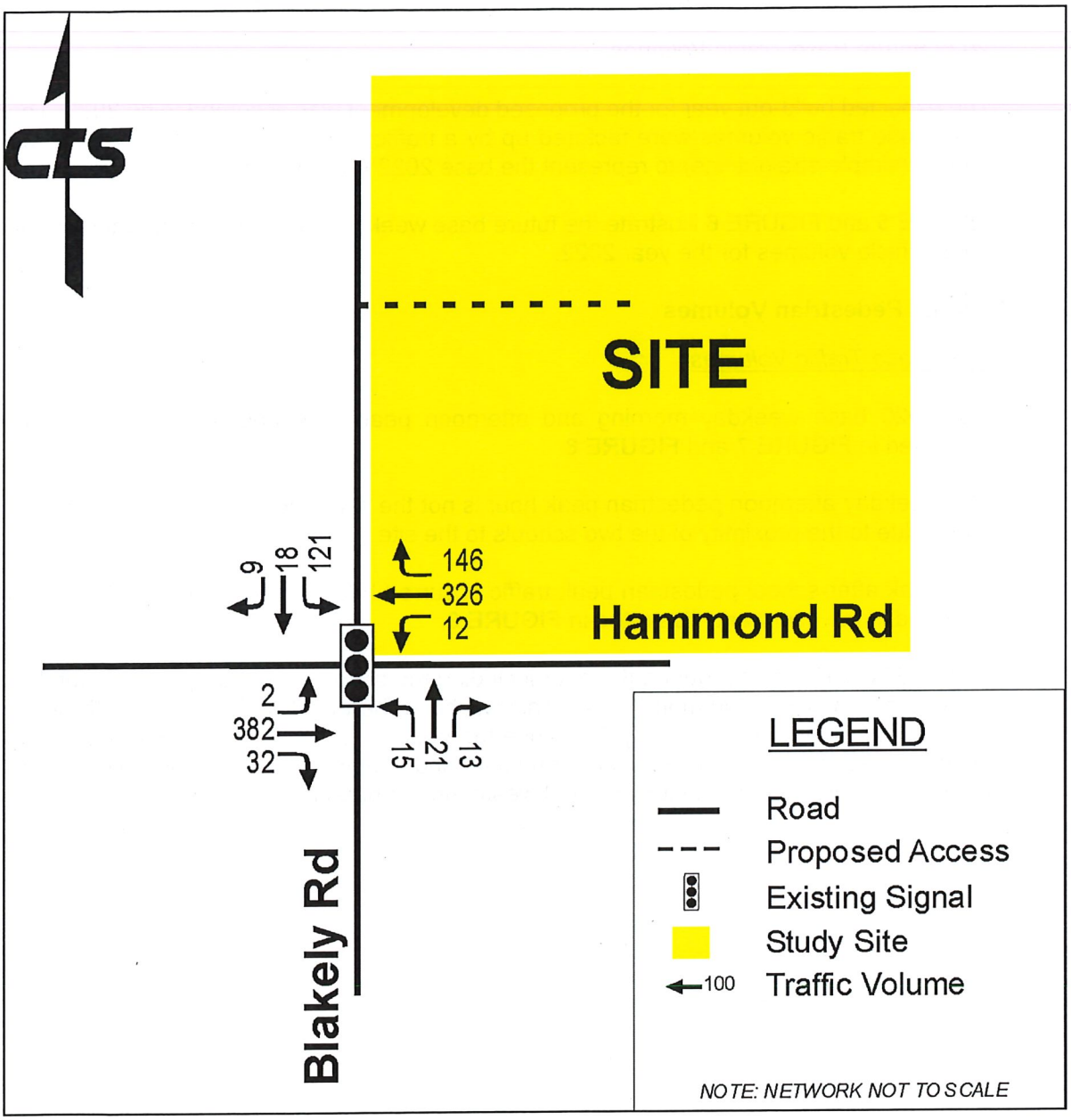


FIGURE 4
2020 WEEKDAY AFTERNOON PEAK HOUR BASE TRAFFIC VOLUMES



2.2 Future Base Traffic Volumes

The proposed development is anticipated to be built-out in the year 2022.

2022 Future Base Traffic Volumes

The expected build-out year for the proposed development was assumed to be 2022. The 2020 base traffic volumes were factored up by a traffic volume growth rate of 1.0% per annum (simple-straight line) to represent the base 2022 traffic volumes.

FIGURE 5 and **FIGURE 6** illustrate the future base weekday morning and afternoon peak hour vehicle volumes for the year 2022.

2.3 Existing Pedestrian Volumes

2020 Base Traffic Volumes

The 2020 base weekday morning and afternoon peak hour pedestrian volumes are illustrated in **FIGURE 7** and **FIGURE 8**.

The weekday afternoon pedestrian peak hour is not the same as the vehicular peak hour that is due to the proximity of the two schools to the site.

The peak after-school pedestrian peak traffic occurred between 14:15 and 15:15. It was captured in the count and illustrated in **FIGURE 9**.

As **FIGURE 9** illustrates, during the hour including the school let out time, a high number of pedestrians cross Hammond Road. This will have the effect of the north-south green time being longer during most cycles, since the pedestrian walk and flashing don't walk intervals give longer green times for northbound and southbound, leaving less time in the traffic signal cycle for the eastbound and westbound approaches.

FIGURE 5
2022 WEEKDAY MORNING PEAK HOUR BASE TRAFFIC VOLUMES

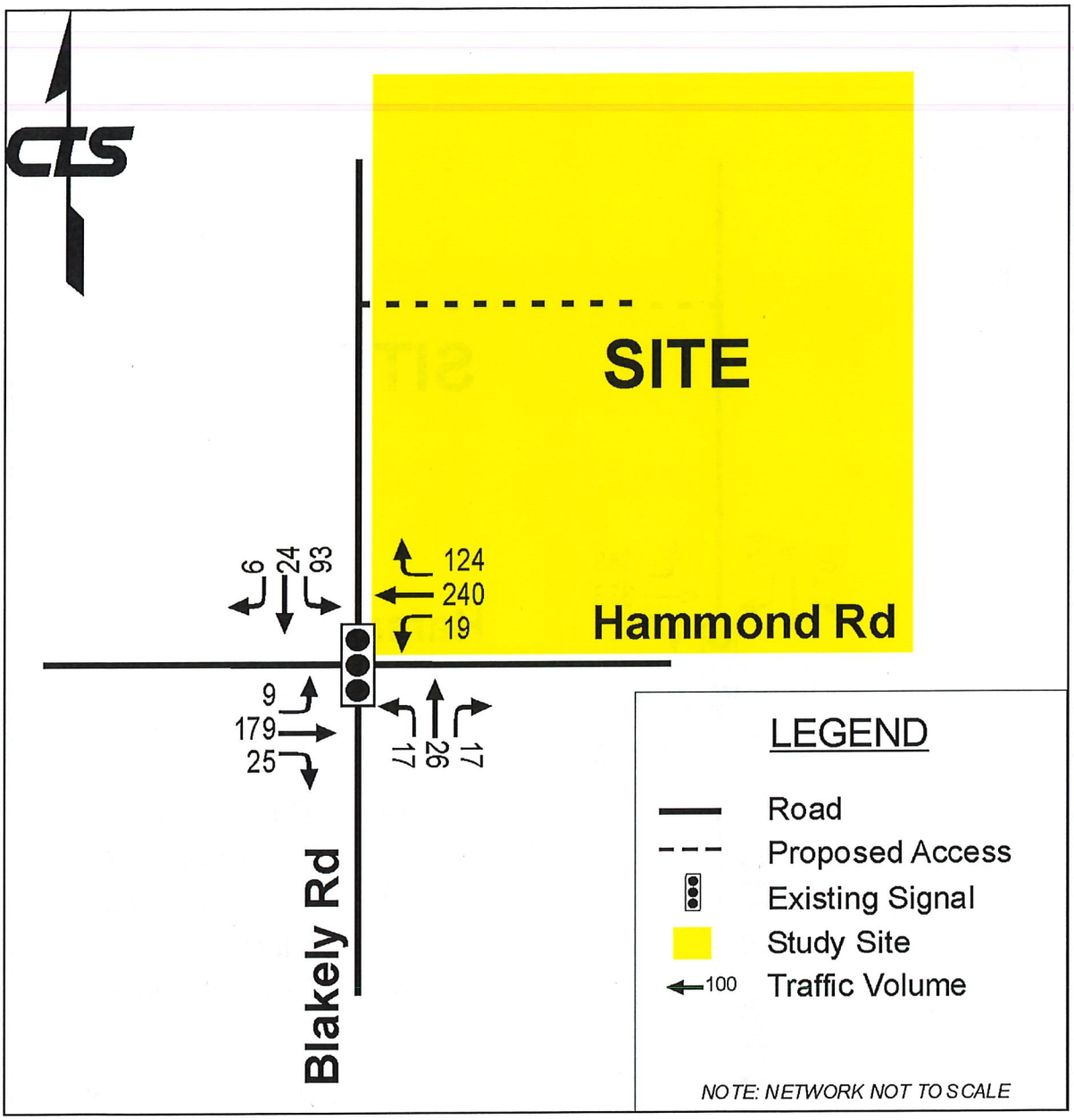


FIGURE 6
2022 WEEKDAY AFTERNOON PEAK HOUR BASE TRAFFIC VOLUMES

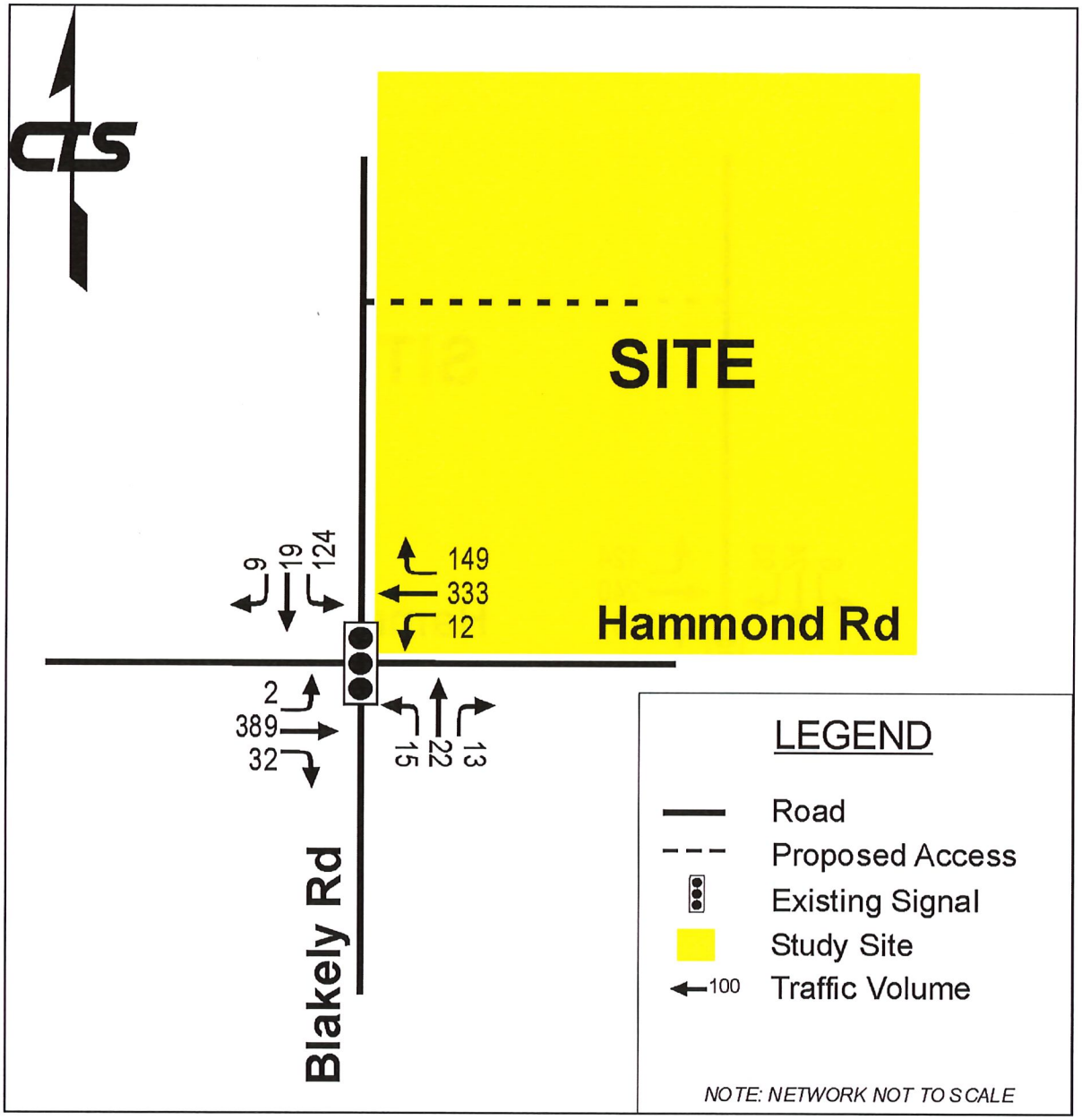


FIGURE 7
2020 WEEKDAY MORNING PEAK HOUR BASE PEDESTRIAN VOLUMES

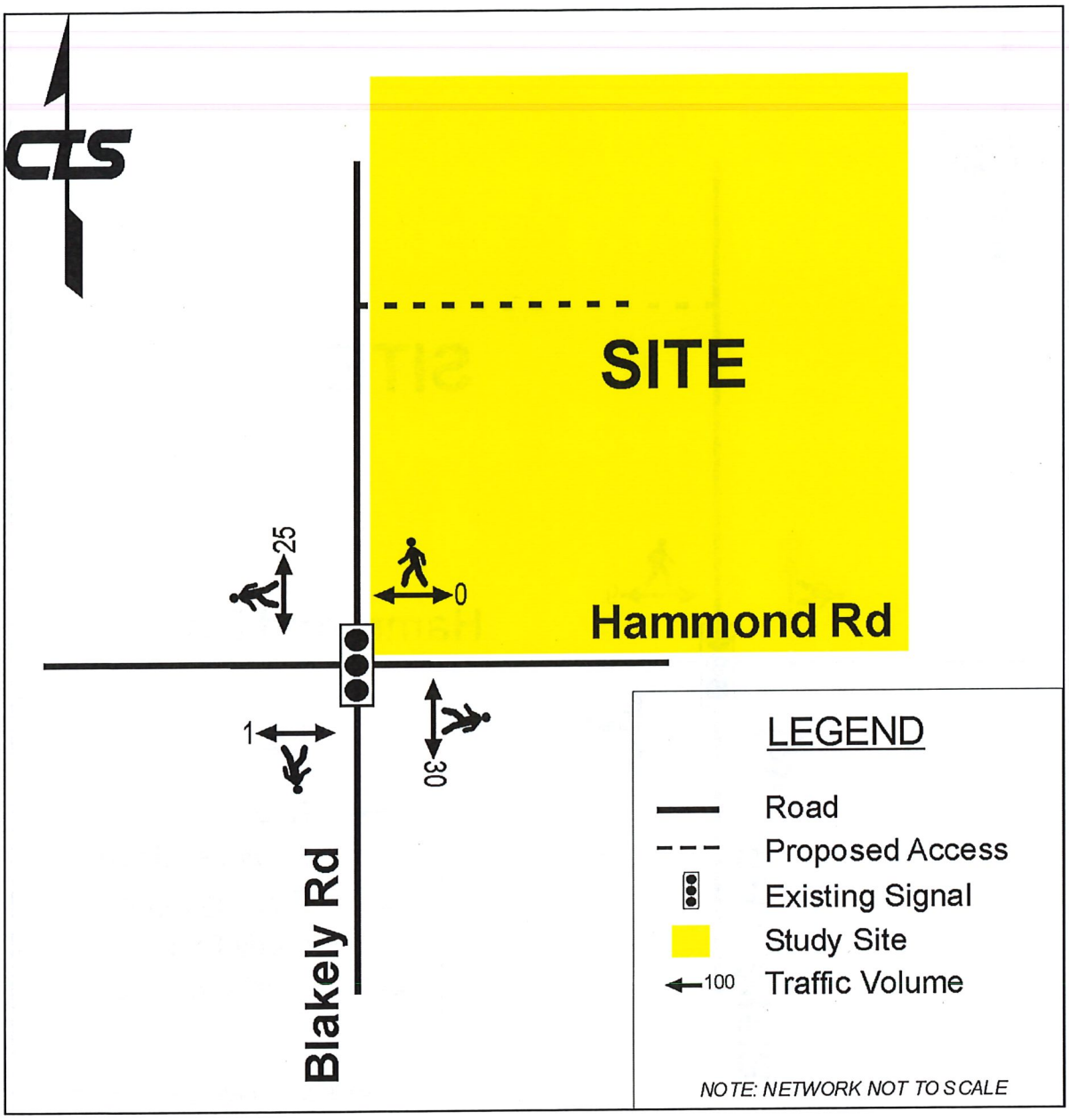


FIGURE 8
2020 WEEKDAY AFTERNOON PEAK HOUR BASE PEDESTRIAN VOLUMES

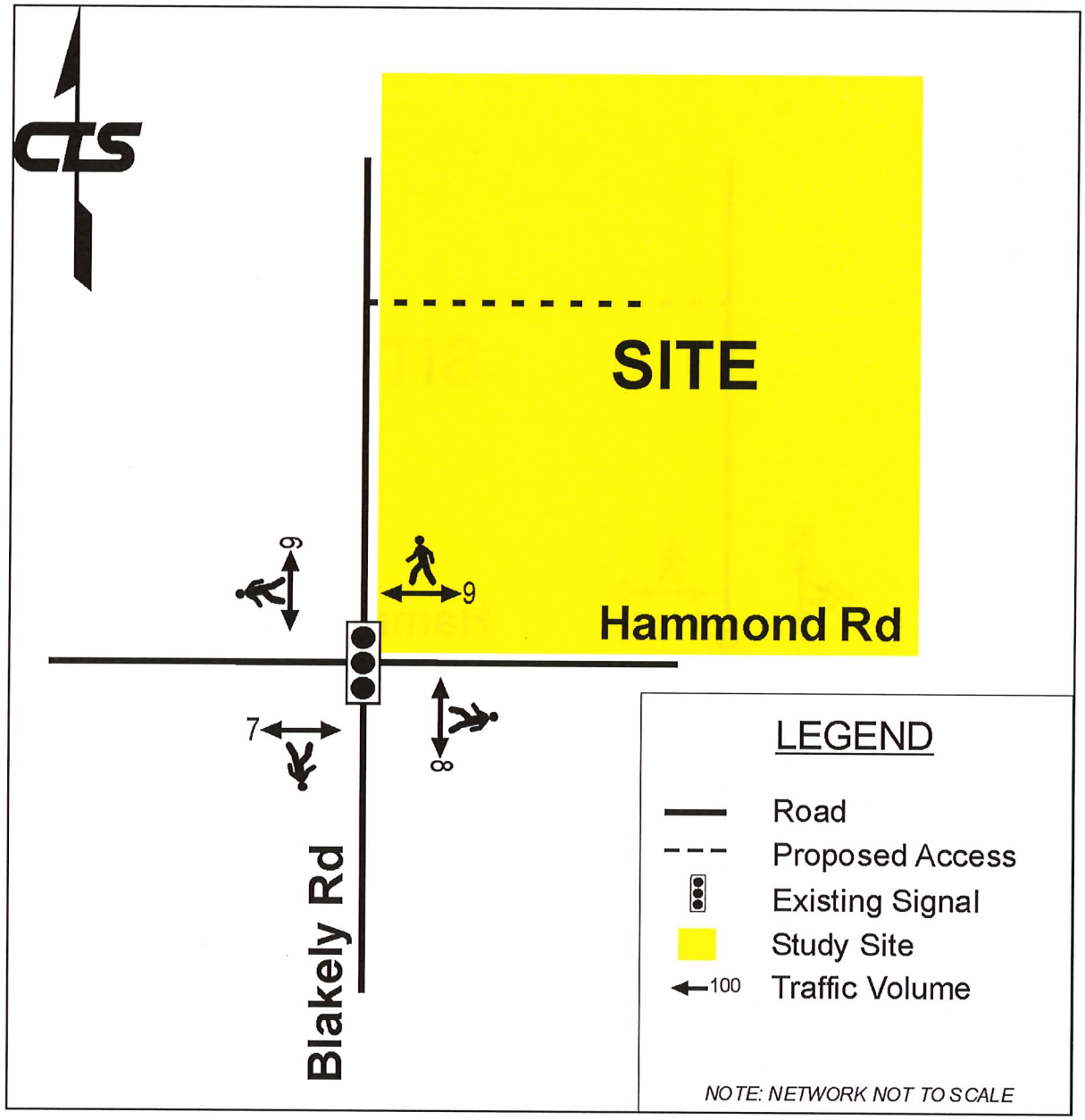
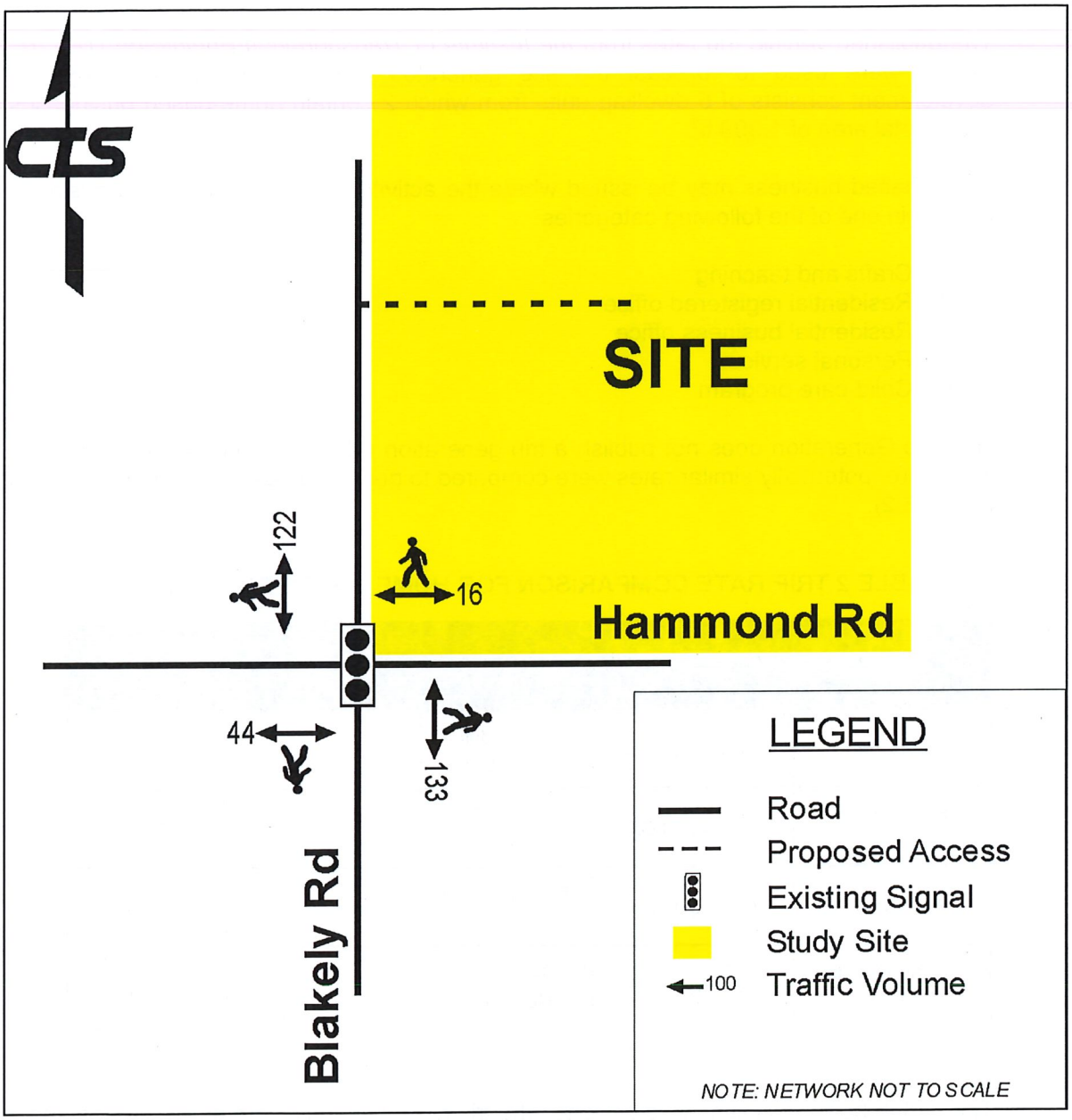


FIGURE 9
2020 WEEKDAY AFTERNOON PEDESTRIAN PEAK HOUR BASE VOLUMES



3 SITE TRAFFIC VOLUMES

3.1 Trip Generation

The published vehicle trip rates from *the Institute of Transportation Engineers (ITE) 10th Edition* were used to forecast the site generated traffic volumes. The proposed development consists of 5 dwelling units from which 2 contain home-based businesses with a total area of 1,399 ft^2.

Home-based business may be issued where the activities of the home-based business are within one of the following categories:

1. Crafts and teaching
2. Residential registered office
3. Residential business office
4. Personal services
5. Child-care program

ITE Trip Generation does not publish a trip generation rate for a home-based business. Therefore, potentially similar rates were compared to guide the selection of suitable rates (**TABLE 2**).

TABLE 2 TRIP RATE COMPARISON FOR HOME-BASED BUSINESS

Land Use	Trip Generation Variable	Trip Rate Source	Weekday AM	Weekday PM
Day Care	1000 Sq. Ft GFA	ITE 10th Edition - Code 565	11	11.12
Small Office building	1000 Sq. Ft GFA	ITE 10th Edition - Code 712	1.92	2.45
Hair Salon	1000 Sq. Ft GFA	ITE 10th Edition - Code 918	1.21	1.45
Arts and Crafts Store	1000 Sq. Ft GFA	ITE 10th Edition - Code 879	4.65	6.21

The 846 ft^2 home-business was assigned the trip rate of the childcare as the highest most conservative trip rate for a relevant business with a relatively larger area.

Subsequently, the 553 ft^2 home-business was assigned trip rates of a small business building representing a relevant use case for the area with a conservative trip rate.

Housing was assigned the trip rates of Single-family detached housing, which includes all single-family detached homes on individual lots. This is also a conservative trip rate with a relevant use case.

TABLE 3 summarizes the estimated site generated traffic for proposed development.

TABLE 3
SUMMARY OF SITE GENERATED TRAFFIC

Land Use	Trip Generation Variable	Scope of Development	Trip Rate Source	Peak Hour	Vehicle Trip Generation Rate	Directional Split		Peak Hour Volumes (vph)		
						% in	% out	in	out	total
Single Family Detached Housing	Dwelling Units	5	ITE 10th Edition - Code 210	Weekday AM	0.99	25%	75%	1	4	5
				Weekday PM	0.99	63%	37%	3	2	5
Day Care	1000 Sq. Ft GFA	0.846	ITE 10th Edition - Code 565	Weekday AM	11.00	53%	47%	5	5	10
				Weekday PM	11.12	47%	53%	5	5	10
Small Office building	1000 Sq. Ft GFA	0.553	ITE 10th Edition - Code 712	Weekday AM	1.92	83%	17%	2	0	2
				Weekday PM	2.45	32%	68%	1	1	2
	Weekday Morning Peak Hour					**47%**	**53%**	**8**	**9**	**17**
	Weekday Afternoon Peak Hour					**53%**	**47%**	**9**	**8**	**17**

General Urban / Suburban
Peak Hour of Adjacent Street Traffic used for Weekday Peaks

From **TABLE 3**, the proposed development is forecasted to generate a total of 17 vehicle trips (8 inbound, 9 outbound) during the weekday morning peak hour and 17 vehicle trips (9 inbound, 8 outbound) during the weekday afternoon peak hour.

3.2 Trip Distribution

The trip distribution parameters for distributing site generated vehicle trips to/from the site were developed based on neighboring attractions and generators. Traffic to/from the site heading west towards Vancouver downtown or the shopping center north of the rail would go in the south direction to catch Hammond Road Eastbound. Similarly, traffic to/from site heading west towards the shopping center would go south to catch Hammond Road Westbound. The assumed distribution and assignment is summarized in **TABLE 4**.

TABLE 4 TRIP DISTRIBUTION

Destination	Route	Traffic %
North - North of Railway (Downtown, Shopping Center)	North	10
North - South of Railway	South	30
South	South	10
West	South	20
East	South	30

Thus, 10% of the traffic to/from the site will be from the north (south of the tracks). The remainder is the split 50% west on Hammond Road 30% East on Hammond Road and 10% south on Blakely Road. It was assumed that inbound and outbound, and AM and PM are all the same.

The weekday morning and afternoon peak hour site generated traffic volumes of the proposed development for the build-out year of 2022 are illustrated in **FIGURE 10** and **FIGURE 11**.

FIGURE 10
WEEKDAY MORNING PEAK HOUR SITE TRAFFIC VOLUMES

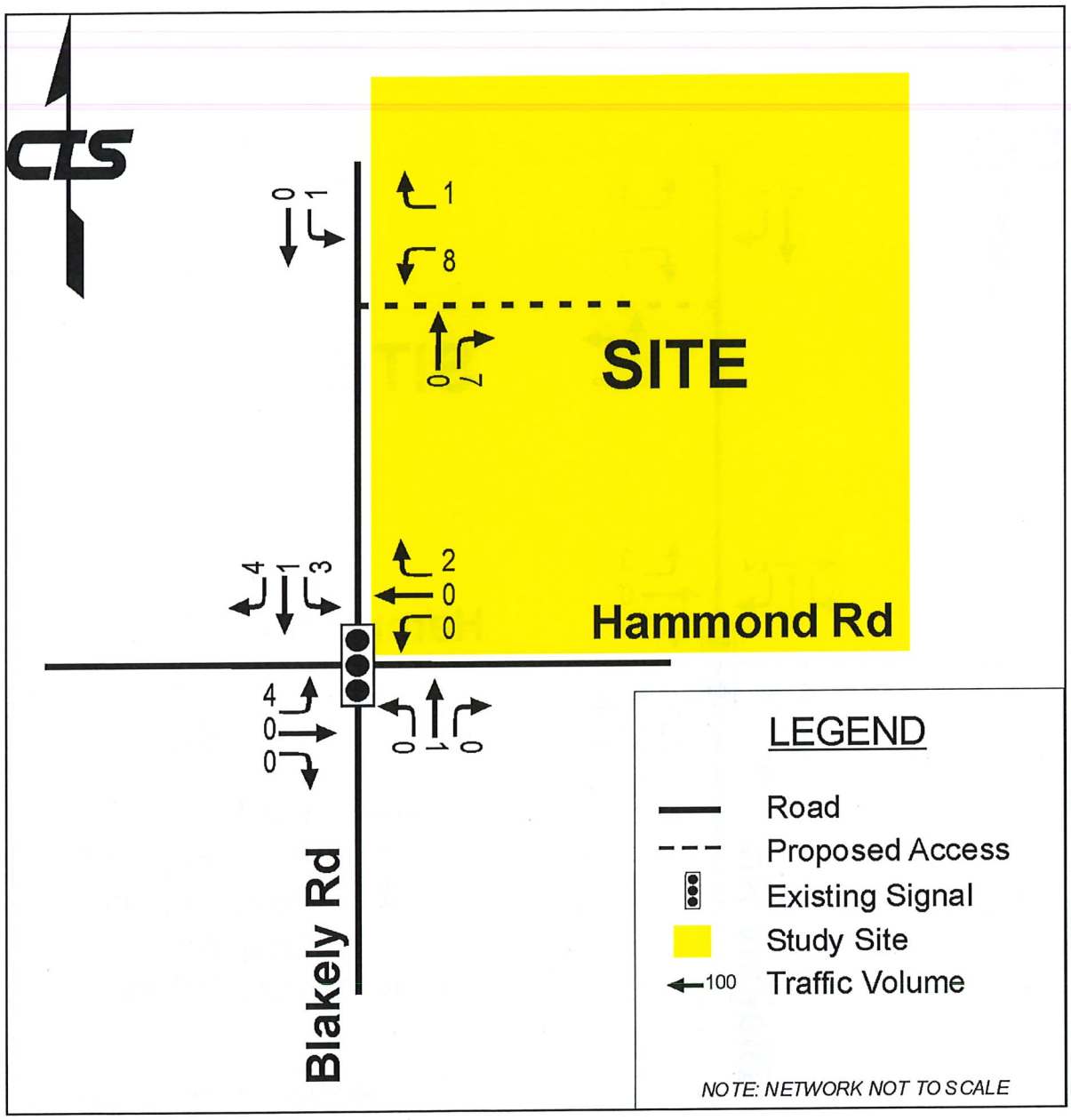
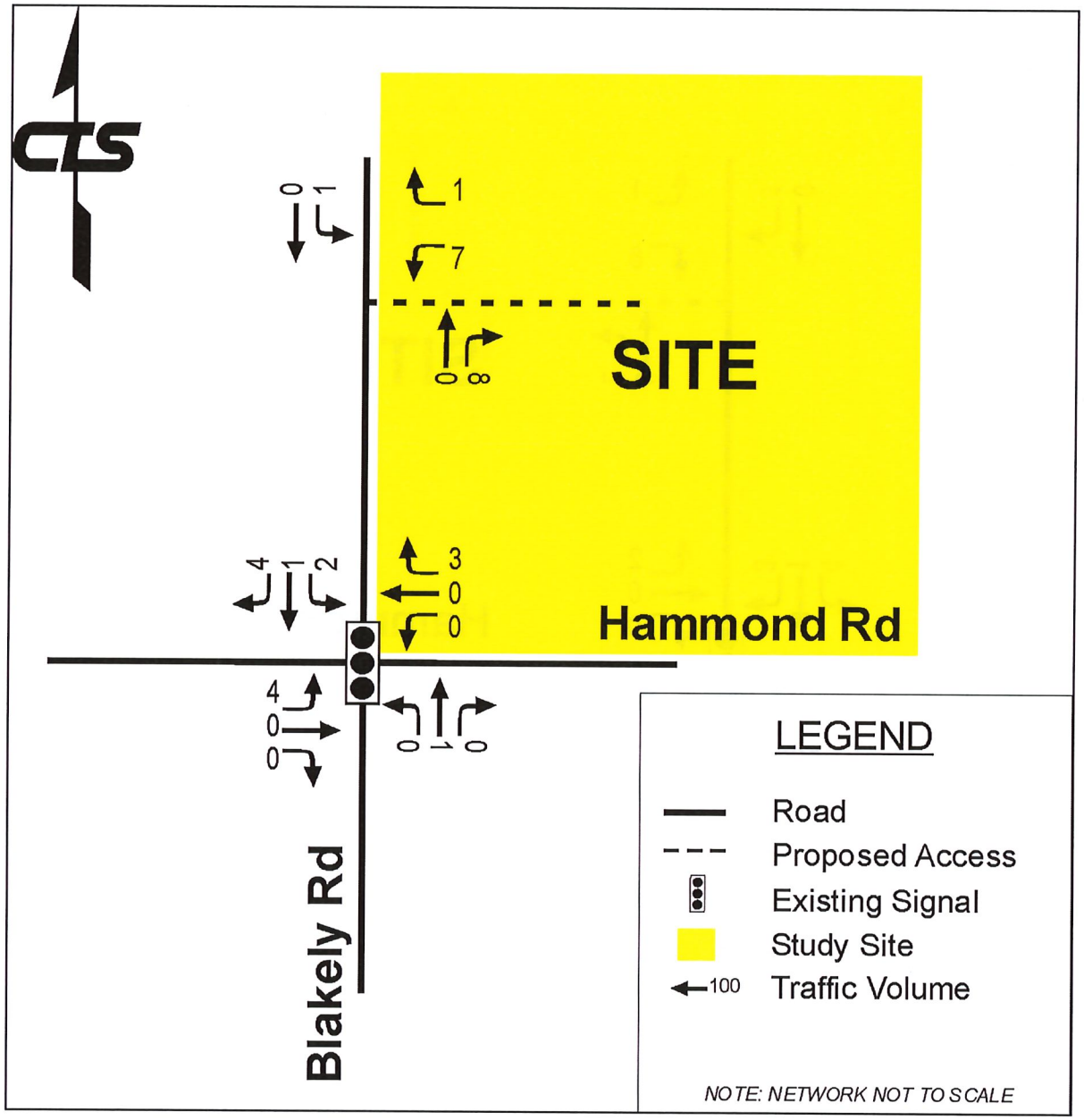


FIGURE 11
WEEKDAY AFTERNOON PEAK HOUR SITE TRAFFIC VOLUMES



4 BASE + SITE TRAFFIC VOLUMES

4.1 2022 Future Base + Site Traffic Volumes

The proposed development is anticipated to be fully built-out and occupied by the year 2022. The 2022 future base plus proposed development traffic volumes were calculated by first factoring up the 2020 base traffic volumes up by the growth rate of 1.0% per annum (simple-straight line) to the year 2022. The forecast traffic generated by the proposed development were then added to the 2022 base traffic volumes.

FIGURE 12 illustrates the total projected traffic for the 2022 weekday morning peak hour consisting of the future base plus the proposed development site generated traffic.

FIGURE 13 illustrates the total projected traffic for the 2022 weekday afternoon peak hour consisting of the future base plus the proposed development site generated traffic.

FIGURE 12
2022 WEEKDAY MORNING PEAK HOUR BASE + SITE TRAFFIC VOLUMES

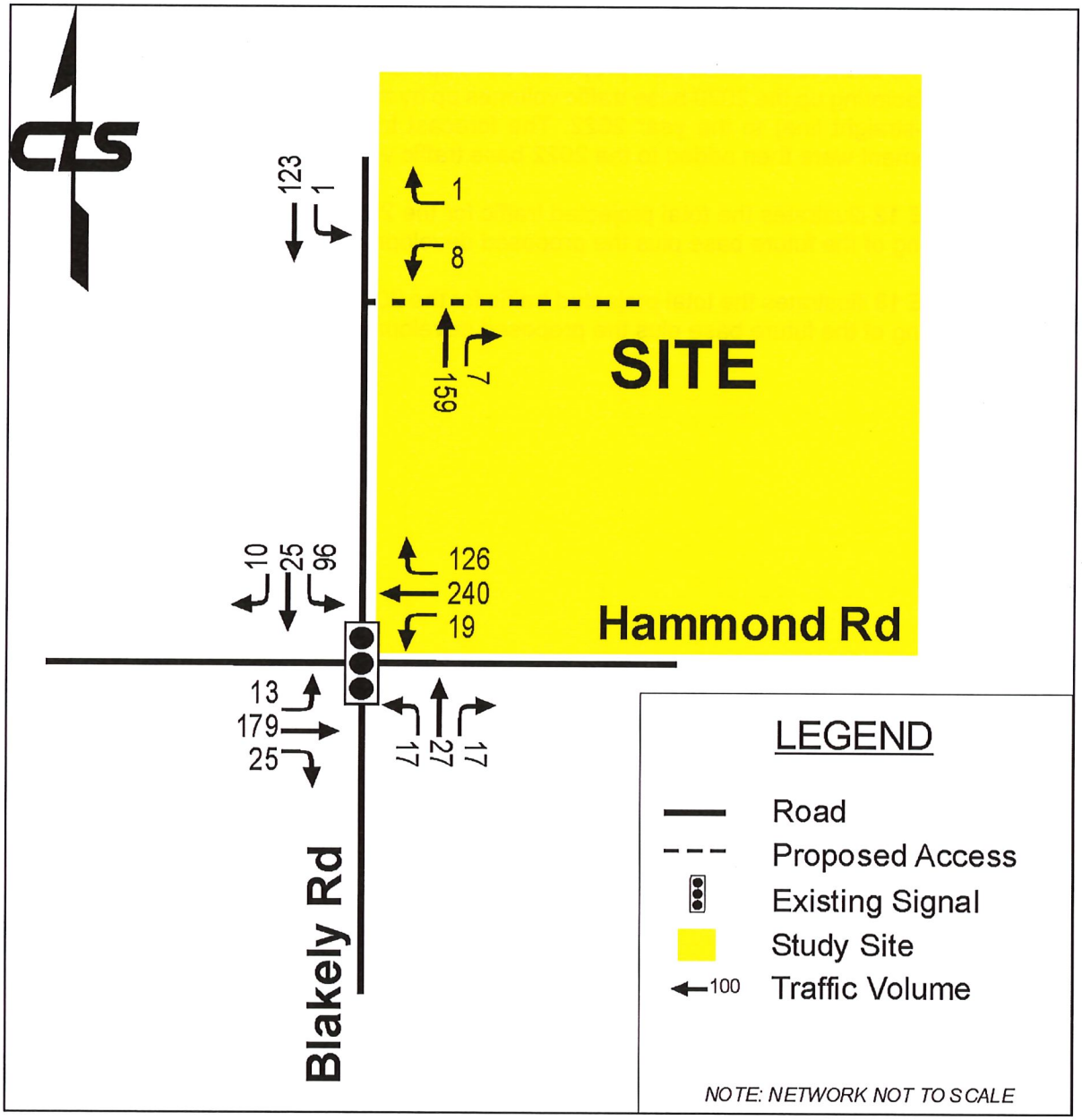
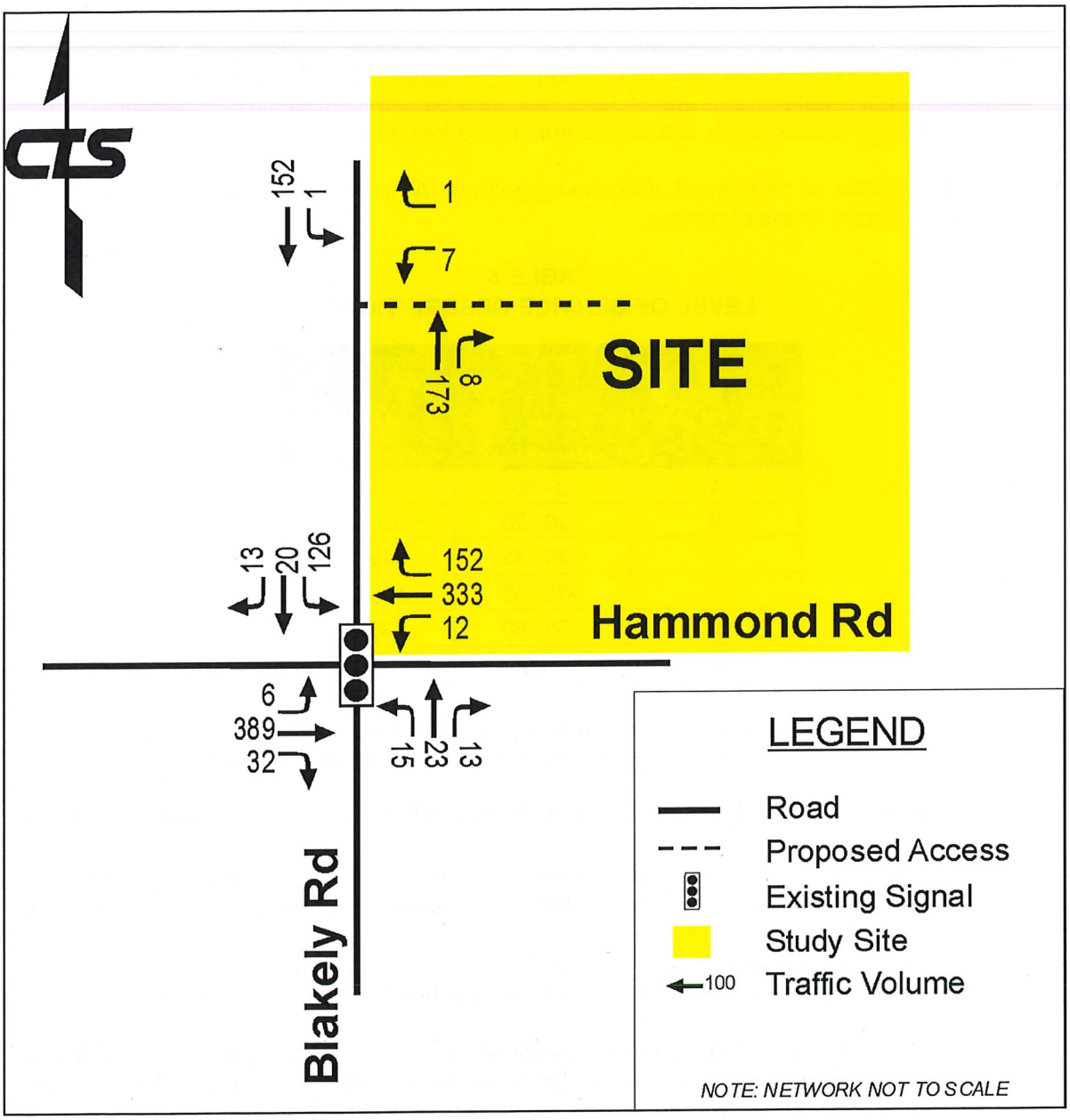


FIGURE 13
2022 WEEKDAY AFTERNOON PEAK HOUR BASE + SITE TRAFFIC VOLUMES



5 TRAFFIC IMPACTS

5.1 Capacity Analysis

Capacity analysis was performed at each of the locations to determine the intersection levels of service (LOS) that is provided to motorists. The LOS for intersections and movements is defined in terms of delay (seconds per vehicle), which is a measure of driver discomfort and frustration, fuel consumption and lost travel time.

An intersection or movement LOS can range from "A" to "F". See **TABLE 5** for description of the different levels of service.

TABLE 5
LEVEL OF SERVICE DESCRIPTIONS

Level of Service	Average Delay (Seconds per Vehicle)	
	Signalized Intersection	Unsignalized Intersection
A	0 - 10	0 - 10
B	>10 - 20	>10 - 15
C	>20 - 35	>15 - 25
D	>35 - 55	>25 - 35
E	>55 - 80	>35 - 50
F	>80	>50

Synchro 10 was used to analyze the signalized intersections and *Highway Capacity Software (HCS 7.8)* was used for the analysis of the unsignalized intersections.

The following assumptions were made with respect to the intersection capacity analysis:

- *Saturation flow rate* = 1,900 passenger cars/hour of green time/lane (pcphgpl)
- *Peak hour factor* (PHF) = 0.92 as a conservative average factor across the movements.
- *Heavy vehicle percentage for roads* = 0% as per the collected count
- *Pedestrian Actuations (in pedestrian peak hour)* = 60 on NB and SB

Saturation flow rate is the equivalent hourly rate at which previously queued vehicles can traverse an intersection approach under prevailing conditions, assuming that the green signal is always available and no lost times are experienced. It is a base rate to which adjustment factors are applied.

Peak Hour Factor is a measure of traffic demand fluctuation within the analysis hour. The closer the number is to 1.00, the less fluctuation during the hour.

TABLE 6 and **TABLE 7** summarize the performance measures from the intersection capacity analysis for the signalized and unsignalized intersections. Base conditions for 2020 and 2022, and base plus site conditions are included in the table. Weekday morning, weekday afternoon and school end peak hours were all analyzed. For the school end

period, the site traffic was conservatively assumed to be equal to the afternoon peak hour site trip generation.

For the signalized intersections, the signal timing sheets were provided by the City of Pitt Meadows. The existing signal timing plans were used for all horizon years and scenarios and are attached as **APPENDIX C**.

The Synchro 10 capacity analysis output are included in **APPENDIX D**. HCS capacity analysis output is included in **APPENDIX E**.

TABLE 6
CAPACITY ANALYSIS FOR SIGNALIZED INTERSECTION
HAMMOND ROAD @ BLAKELY ROAD

Time of Day	Scenario	Performance Measure	Eastbound			Westbound			Northbound			Southbound			LOS
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Weekday Morning Peak Hour	2020 Base	Volumes	8	175	24	18	235	121	16	25	16	91	23	5	A
		Total Delay	5.5			6.2			12.9			21.3			
		V/C	0.20			0.37			0.18			0.45			
		95% Queue (m)	20.4			37.5			10.0			21.3			
		LOS	A			A			B			C			
	2022 Base	Volumes	9	179	25	19	240	124	17	26	17	93	24	6	A
		Total Delay	5.6			6.4			12.8			21.2			
		V/C	0.21			0.38			0.18			0.46			
		95% Queue (m)	21.3			39.1			10.2			21.8			
		LOS	A			A			B			C			
	2022 Base + Site	Volumes	13	179	25	19	240	126	17	27	17	96	25	10	A
		Total Delay	5.8			6.6			12.6			20.8			
		V/C	0.21			0.38			0.18			0.47			
		95% Queue (m)	22.3			40.5			10.2			22.4			
		LOS	A			A			B			C			
Weekday Afternoon Peak Hour	2020 Base	Volumes	1	381	30	11	325	146	14	20	12	120	17	8	B
		Total Delay	8.0			8.6			11.7			21.2			
		V/C	0.40			0.49			0.13			0.50			
		95% Queue (m)	49.9			60.4			8.3			24.1			
		LOS	A			A			B			C			
	2022 Base	Volumes	2	389	32	12	333	149	15	22	13	124	19	9	B
		Total Delay	8.5			9.1			11.4			21.2			
		V/C	0.42			0.50			0.14			0.52			
		95% Queue (m)	53.7			64.6			8.5			24.9			
		LOS	A			A			B			C			
	2022 Base + Site	Volumes	6	389	32	12	333	152	15	23	13	126	20	13	B
		Total Delay	8.8			9.3			11.3			21.0			
		V/C	0.43			0.51			0.14			0.53			
		95% Queue (m)	55.3			66.3			8.6			25.2			
		LOS	A			A			B			C			
Weekday Afternoon Pedestrian Peak Hour	2020 Base	Volumes	5	234	38	24	270	142	35	33	39	116	34	9	B
		Total Delay	11.0			13.8			7.9			14.1			
		V/C	0.32			0.52			0.24			0.42			
		95% Queue (m)	38.4			77.3			11.8			21.8			
		LOS	B			B			A			B			
	2022 Base	Volumes	5	238	39	25	276	145	36	33	40	118	34	9	B
		Total Delay	11.1			14.3			8			14.3			
		V/C	0.33			0.54			0.25			0.43			
		95% Queue (m)	39.2			80.6			12.0			22.3			
		LOS	B			B			A			B			
	2022 Base + Site	Volumes	9	238	39	25	276	148	36	34	40	120	35	13	B
		Total Delay	11.3			14.4			8.0			14.4			
		V/C	0.34			0.54			0.25			0.44			
		95% Queue (m)	40.1			81.3			12.1			22.9			
		LOS	B			B			A			B			

From **TABLE 6**, the following observations can be made:

Hammond Road @ Blakely Road:

- During the weekday morning peak hour:
  - The intersection currently operates at LOS A and is forecasted to remain at LOS A in the future horizon year regardless of development traffic.
  - The southbound 95th percentile queue length does not exceed the distance between the southbound stop bar on Blakely Road and the south edge of the proposed driveway of 26.5 meters.
  - All individual vehicle movements currently operate acceptably and will continue to operate acceptably with traffic generated by the proposed site.

- During the weekday afternoon peak hour:
  - The intersection currently operates at LOS A and is forecasted to remain at LOS A in the future horizon year regardless of development traffic.
  - The southbound 95th percentile queue length does not exceed the distance between the southbound stop bar on Blakely Road and the south edge of the proposed driveway of 26.5 meters.
  - All individual vehicle movements currently operate acceptably and will continue to operate acceptably with traffic generated by the proposed site.
  - Pedestrian traffic during its peak will not negatively impact the operation of any traffic movement.

TABLE 7
CAPACITY ANALYSIS FOR UNSIGNALIZED INTERSECTION
BLAKELY ROAD @ SITE ACCESS

TIME OF DAY	SCENARIO	PERFORMANCE MEASURE	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			LOS
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Weekday Morning Peak Hour	2022 Base + Site	Volumes				8		1		159	7	1	123		B
		Delay				11.3						0.1			
		95% Queue (veh)				0.0						0.0			
		LOS				B						A			
Weekday Afternoon Peak Hour	2022 Base + Site	Volumes				7		1		173	8	1	152		B
		Delay				11.3						0.1			
		95% Queue (veh)				0.0						0.0			
		LOS				B						A			
Weekday Afternoon Pedestrian Peak Hour	2022 Base + Site	Volumes				7		1		183	8	1	161		B
		Delay				13.3						0.1			
		95% Queue (veh)				0.1						0.0			
		LOS				B						A			

Delay = Average Delay (seconds/vehicle)

From **TABLE 7**, the following observations can be made:

Blakely Road @ Site Access:

- During the weekday morning peak hour:
  - The intersection is forecasted at LOS B in the future horizon year regardless of development traffic.
  - All individual vehicle movements will operate acceptably with traffic generated by the proposed site.

- During the weekday afternoon peak hour:
  - The intersection is forecasted at LOS B in the future horizon year regardless of development traffic.
  - All individual vehicle movements will operate acceptably with traffic generated by the proposed site.

5.2 Impacts on Pedestrians

Due to the very low traffic generation by the site and reserve capacity at the intersection, there will be minimal impact on pedestrians due to the proposed development.

6 CONCLUSIONS & RECOMMENDATIONS

6.1 Conclusions

1. CityState is proposing to build a multi-family development at 11812 Blakely Road in the City of Pitt Meadows. The proposed development consists of 5 townhouses from which 2 contain home-based businesses
2. The proposed development is forecasted to generate a total of 17 vehicle trips (8 inbound, 9 outbound) during the weekday morning peak hour and 17 vehicle trips (9 inbound, 8 outbound) during the weekday afternoon peak hour. The impact on the traffic is minimal and the intersections continue to perform well.
3. The intersection capacity analysis for the study intersections and site access noted that the intersections were forecasted to operate at LOS A to LOS B for all horizon years and scenarios.
4. With the site fully built out, Hammond Road @ Blakely Road intersection will continue to perform as well as it does currently. The site access will operate acceptably with the forecast traffic.
5. The proposed redevelopment will generate a relatively low volume of traffic and is not expected to negatively impact pedestrians in the area. The intersection of Hammond Road @ Blakely Road is actuated separately by pedestrians and vehicles and is able to adapt to provide sufficient crossing time when required.

6.2 Recommendations

Based on this study, CTS recommends the following:

1. That the City of Pitt Meadows accept this technical memorandum in support of the development application.

We would like to take this opportunity to thank you for this unique project and we look forward to working with you again in the future. Please call the undersigned should you have any questions or comments.

Yours truly,

CREATIVE TRANSPORTATION SOLUTIONS LTD.

Prepared by:

PROFESSIONAL ENGINEER PROVINCE OF K.L. FELLOWS BRITISH COLUMBIA

NOV 25, 2020

Kari Fellows, P.Eng.

Engineering Group Manager

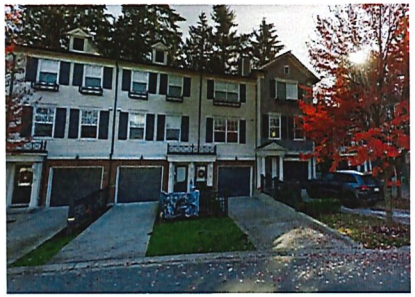
Prepared by:

Omar El Masri, MASc, EIT

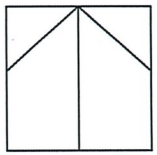
Junior Traffic Engineer

Attachment

Appendix A
Architectural Drawing



Example of townhouses with tandem parking
One or two cars in garage, one car on apron



KEY FEATURES:

- 2 HOME-BUSINESS UNITS
- 5 FAMILY-ORIENTED TOWNHOUSE UNITS
- 3-STOREY HOMES FACING HAMMOND ROAD
- DESIGN ENHANCES HAMMOND / BLAKELY INTERSECTION

PARKING IS CRITICAL FOR COMMUNITY ACCEPTANCE

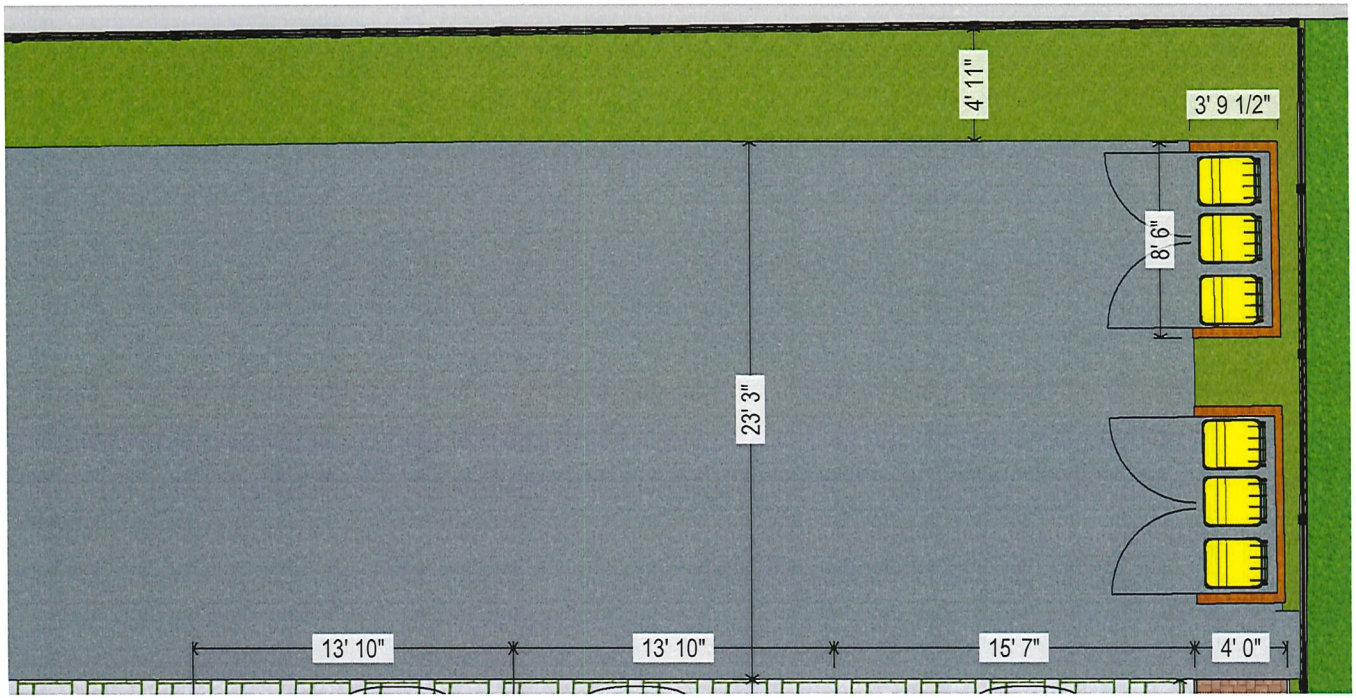
- ALL UNITS HAVE 2 PARKING SPOTS
- PLUS 1 OFF-STREET PARKING PER HOME-BASED BUSINESS (2 IN TOTAL)
- ALL UNITS HAVE AN APRON IN FRONT OF THE GARAGE DEEP ENOUGH TO ACCOMODATE A CAR OUTSIDE FOR VISITORS.
- ONE ADDITIONAL VISITOR PARKING IS PROVIDED
- TOTAL OF 6 ON-STREET PARKING SPACES FOR VISITORS AND BUSINESS CLIENTS

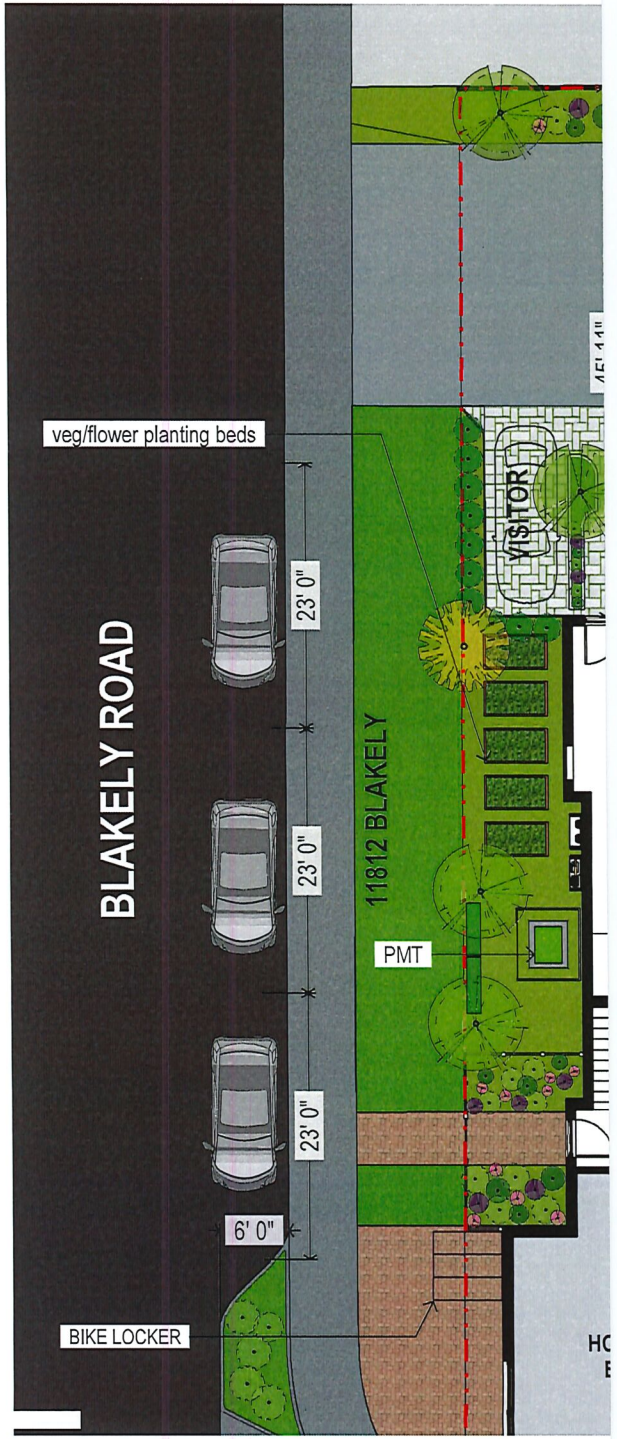
DESIGNED FOR FAMILIES

- SPACIOUS GARAGES ACCOMMODATE FAMILY STORAGE NEEDS
- ALL UNITS HAVE PRIVATE OUTDOOR SPACE

SUSTAINBILITY

- STEP CODE 2 / BCBC PART 9 CONSTRUCTION
- ENVIRONMENT-FRIENDLY PERVIOUS APRON, SIDEWALKS AND PATIO SURFACES
- SHARED GARDEN SPACE FOR VEGETATION / FLOWER PLANTING





Appendix B
Traffic Count Data

Blakely Rd & Hammond Rd

Wednesday, October 07, 2020

Vehicle Classification Summary

Project: #7313: 11812 Blakely Road Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Fog
Notes: **Pandemic Data!**

Time Period	Entering Intersection	Vehicle Classification					Total
		Passenger Cars	Heavy Vehicles (3 or more axles)				
Morning (07:00 - 09:00)	Volume	1,204	1				1,205
	%	99.9%	0.1%				100.0%
Midday (11:00 - 13:00)	Volume	1,205	1				1,206
	%	99.9%	0.1%				100.0%
Afternoon (14:00 - 17:00)	Volume	2,818	0				2,818
	%	100.0%	0.0%				100.0%
Total (7 Hours)	**Volume**	**5,227**	**2**				**5,229**
	%	**100.0%**	**0.0%**				**100.0%**

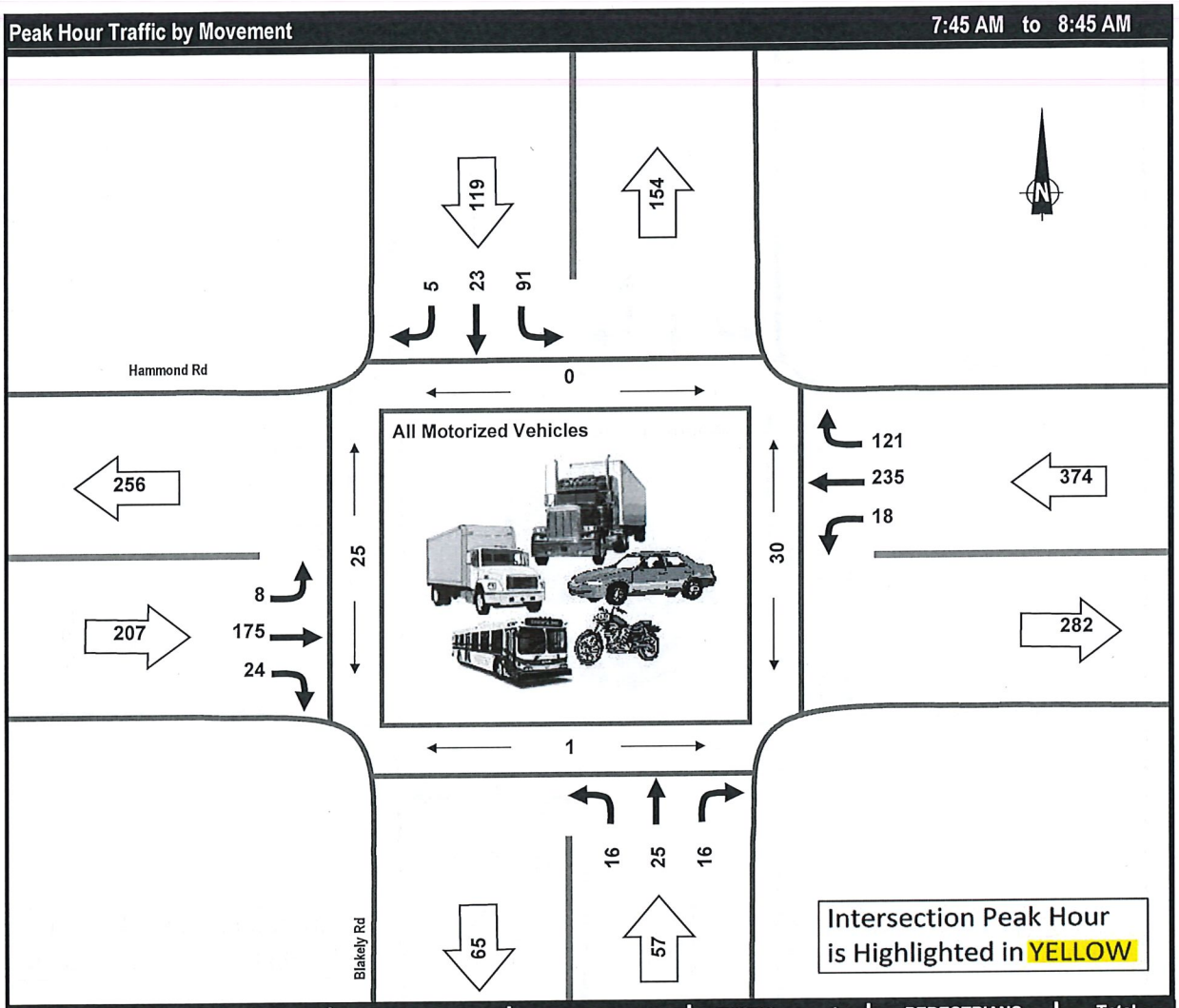
Blakely Rd & Hammond Rd

Wednesday, October 07, 2020

Morning Peak Period

Project: #7313: 11812 Blakely Road Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Fog
Vehicle Class: All Motorized Vehicles
Notes: Pandemic Data!

Peak Hour Traffic by Movement 7:45 AM to 8:45 AM



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	**91**	**23**	**5**	**16**	**25**	**16**	**8**	**175**	**24**	**18**	**235**	**121**	**0**	**1**	**25**	**30**	**757**
PHF	0.69	0.72	0.42	0.67	0.63	0.57	0.40	0.81	0.60	0.75	0.90	0.62	0.00	0.25	0.57	0.63	0.83
Peak 15 X 4	132	32	12	24	40	28	20	216	40	24	260	196	0	4	44	48	908
Average Hour	76	16	3	12	22	12	6	147	15	12	205	80	1	3	14	15	606
Survey Total	152	32	5	23	43	23	11	294	29	23	410	160	2	5	28	30	1,205
7:00	10	3	0	3	2	2	2	21	3	1	39	6	1	0	0	0	92
7:15	16	2	0	2	5	1	1	28	0	0	32	6	0	0	0	0	93
7:30	23	4	0	2	5	3	0	37	2	3	50	12	0	1	1	0	141
7:45	19	2	0	1	3	7	0	43	4	6	65	13	0	0	2	1	163
8:00	13	8	0	6	9	5	3	42	2	6	55	42	0	1	10	12	191
8:15	33	6	2	5	10	3	5	36	10	4	64	49	0	0	11	6	227
8:30	26	7	3	4	3	1	0	54	8	2	51	17	0	0	2	11	176
8:45	12	0	0	0	6	1	0	33	0	1	54	15	1	3	2	0	122

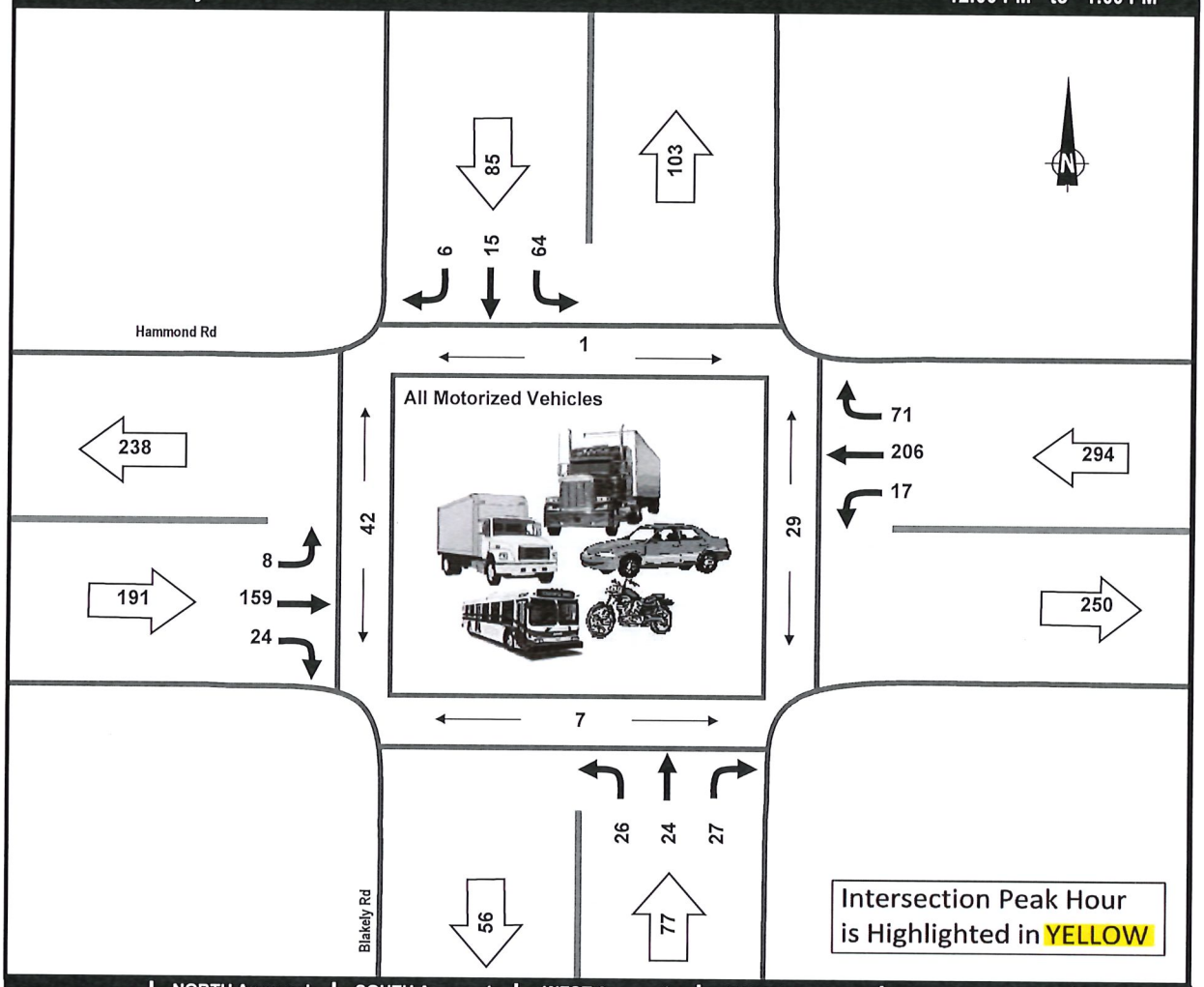
Blakely Rd & Hammond Rd

Wednesday, October 07, 2020

Midday Peak Period

Project: #7313: 11812 Blakely Road Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Fog
Vehicle Class: All Motorized Vehicles
Notes: Pandemic Data!

Peak Hour Traffic by Movement 12:00 PM to 1:00 PM



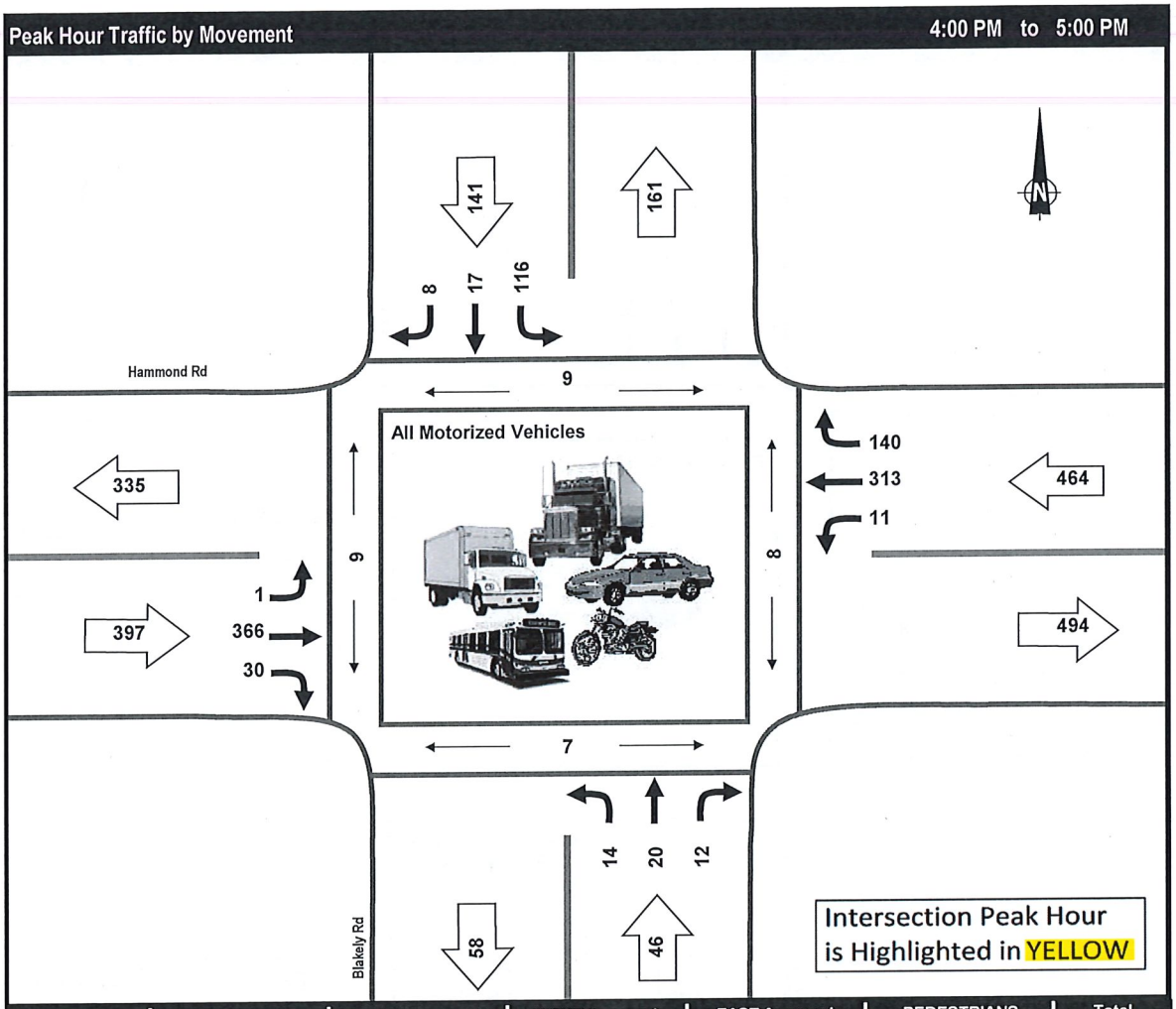
Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	**64**	**15**	**6**	**26**	**24**	**27**	**8**	**159**	**24**	**17**	**206**	**71**	**1**	**7**	**42**	**29**	**647**
PHF	0.84	0.75	0.50	0.72	0.67	0.61	0.50	0.81	0.55	0.53	0.76	0.81	0.25	0.88	0.50	0.56	0.86
Peak 15 X 4	76	20	12	36	36	44	16	196	44	32	272	88	4	8	84	52	756
Average Hour	61	12	4	17	14	16	7	162	20	14	209	69	2	4	26	16	605
Survey Total	122	23	8	33	28	32	13	324	40	27	418	138	3	7	52	32	1,206
11:00	12	0	0	1	1	2	2	41	0	3	54	18	0	0	3	0	134
11:15	18	4	1	1	0	2	2	42	3	2	56	16	1	0	0	1	147
11:30	17	2	0	4	2	0	0	37	7	1	54	15	0	0	6	2	139
11:45	11	2	1	1	1	1	1	45	6	4	48	18	1	0	1	0	139
12:00	19	5	1	4	1	7	0	35	4	3	51	12	0	1	3	3	142
12:15	14	2	2	9	6	11	1	45	11	8	42	20	0	2	21	13	171
12:30	15	5	0	8	9	5	3	30	4	4	45	17	1	2	9	6	145
12:45	16	3	3	5	8	4	4	49	5	2	68	22	0	2	9	7	189

Blakely Rd & Hammond Rd

Wednesday, October 07, 2020

Afternoon Peak Period

Project: #7313: 11812 Blakely Road Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Fog
Vehicle Class: All Motorized Vehicles
Notes: Pandemic Data!



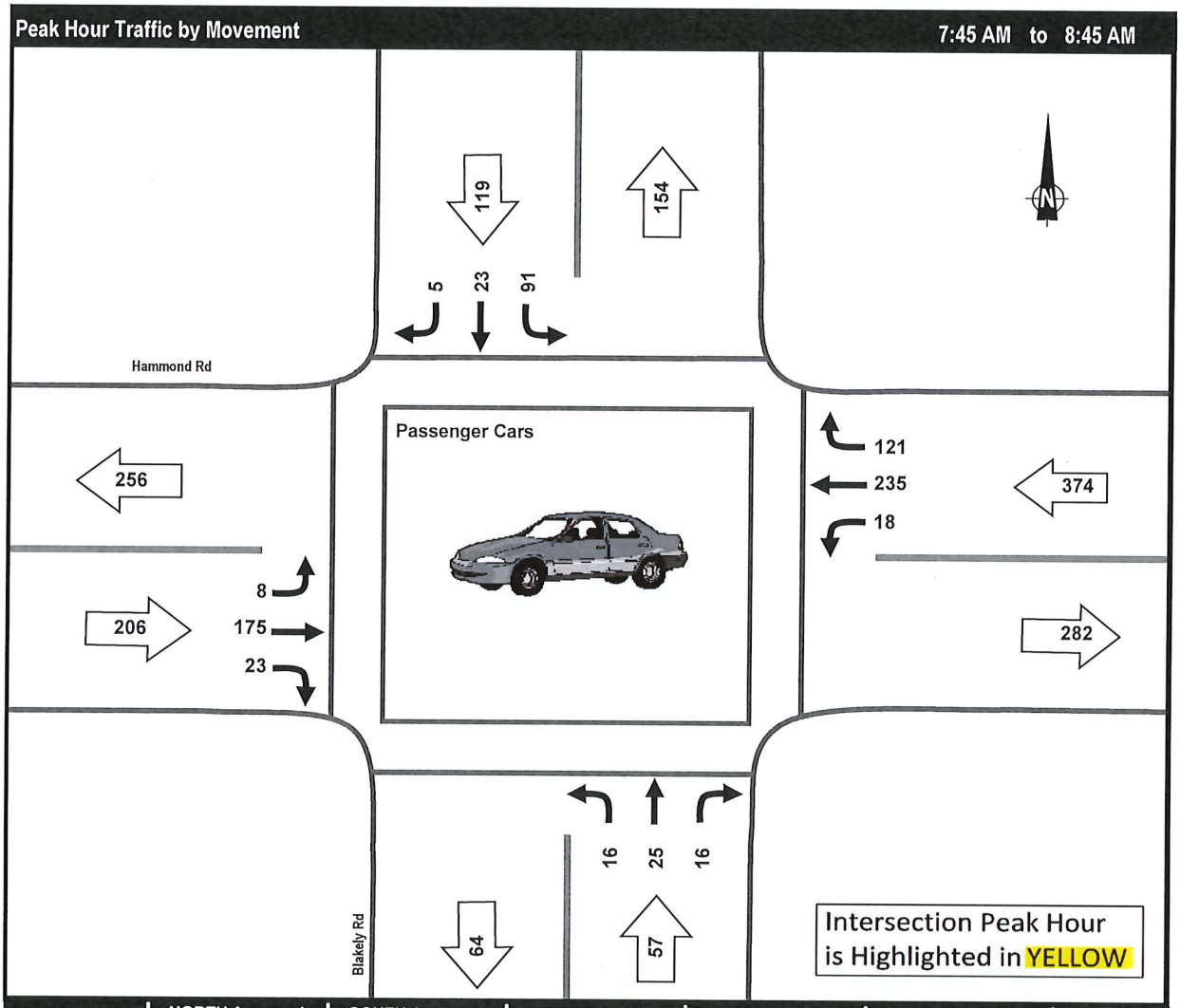
Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	116	17	8	14	20	12	1	366	30	11	313	140	9	7	9	8	1,048
PHF	0.83	0.47	0.67	0.88	0.83	0.60	0.25	0.66	0.68	0.46	0.82	0.80	0.28	0.44	0.56	0.50	0.83
Peak 15 X 4	140	36	12	16	24	20	4	552	44	24	380	176	32	16	16	16	1,260
Average Hour	104	22	6	20	21	22	2	282	30	15	286	130	10	18	47	52	940
Survey Total	311	65	19	61	63	66	6	847	89	44	858	389	29	54	140	155	2,818
14:00	15	5	0	3	5	5	0	49	12	5	69	39	0	0	3	4	207
14:15	20	9	2	3	9	15	3	47	11	7	70	39	7	15	60	39	235
14:30	40	14	5	11	10	10	1	70	11	6	74	36	5	24	48	84	288
14:45	26	6	1	8	9	8	0	57	7	8	54	29	3	4	7	6	213
15:00	25	3	0	11	3	4	0	50	7	2	61	32	1	1	7	4	198
15:15	21	1	1	5	1	7	0	65	3	2	71	21	3	0	2	1	198
15:30	22	5	1	3	4	2	0	83	5	0	85	31	0	3	3	2	241
15:45	26	5	1	3	2	3	1	60	3	3	61	22	1	0	1	7	190
16:00	32	9	2	4	4	3	1	96	6	1	55	29	0	1	4	0	242
16:15	22	3	2	4	6	3	0	50	7	6	95	44	8	0	1	4	242
16:30	35	2	3	3	4	5	0	138	11	1	83	30	1	4	2	2	315
16:45	27	3	1	3	6	1	0	82	6	3	80	37	0	2	2	2	249

Blakely Rd & Hammond Rd

Wednesday, October 07, 2020

Morning Peak Period

Project: #7313: 11812 Blakely Road Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Fog
Vehicle Class: Passenger Cars
Notes: Pandemic Data!



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	91	23	5	16	25	16	8	175	23	18	235	121					756
PHF	0.69	0.72	0.42	0.67	0.63	0.57	0.40	0.81	0.58	0.75	0.90	0.62					0.83
Peak 15 X 4	132	32	12	24	40	28	20	216	40	24	260	196					908
Average Hour	76	16	3	12	22	12	6	147	14	12	205	80					605
Survey Total	152	32	5	23	43	23	11	294	28	23	410	160					1,204
7:00	10	3	0	3	2	2	2	21	3	1	39	6					92
7:15	16	2	0	2	5	1	1	28	0	0	32	6					93
7:30	23	4	0	2	5	3	0	37	2	3	50	12					141
7:45	19	2	0	1	3	7	0	43	3	6	65	13					162
8:00	13	8	0	6	9	5	3	42	2	6	55	42					191
8:15	33	6	2	5	10	3	5	36	10	4	64	49					227
8:30	26	7	3	4	3	1	0	54	8	2	51	17					176
8:45	12	0	0	0	6	1	0	33	0	1	54	15					122

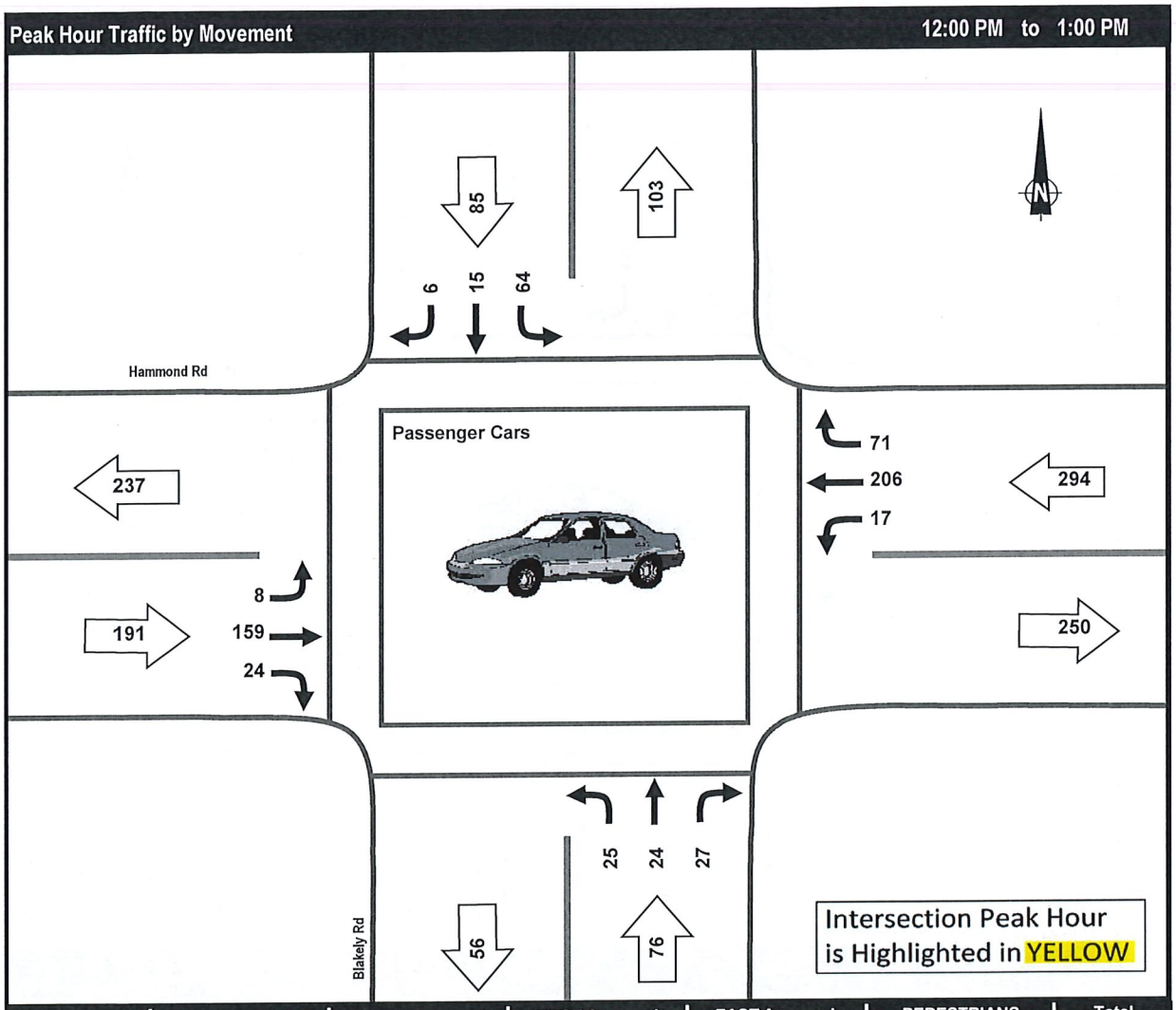
CTS

Blakely Rd & Hammond Rd

Wednesday, October 07, 2020

Midday Peak Period

Project: #7313: 11812 Blakely Road Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Fog
Vehicle Class: Passenger Cars
Notes: Pandemic Data!



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	Volumes
Peak Hour	**64**	**15**	**6**	**25**	**24**	**27**	**8**	**159**	**24**	**17**	**206**	**71**					**646**
PHF	0.84	0.75	0.50	0.69	0.67	0.61	0.50	0.81	0.55	0.53	0.76	0.81					0.85
Peak 15 X 4	76	20	12	36	36	44	16	196	44	32	272	88					756
Average Hour	61	12	4	16	14	16	7	162	20	14	209	69					604
Survey Total	122	23	8	32	28	32	13	324	40	27	418	138					1,205
11:00	12	0	0	1	1	2	2	41	0	3	54	18					134
11:15	18	4	1	1	0	2	2	42	3	2	56	16					147
11:30	17	2	0	4	2	0	0	37	7	1	54	15					139
11:45	11	2	1	1	1	1	1	45	6	4	48	18					139
12:00	19	5	1	4	1	7	0	35	4	3	51	12					142
12:15	14	2	2	9	6	11	1	45	11	8	42	20					171
12:30	15	5	0	7	9	5	3	30	4	4	45	17					144
12:45	16	3	3	5	8	4	4	49	5	2	68	22					189

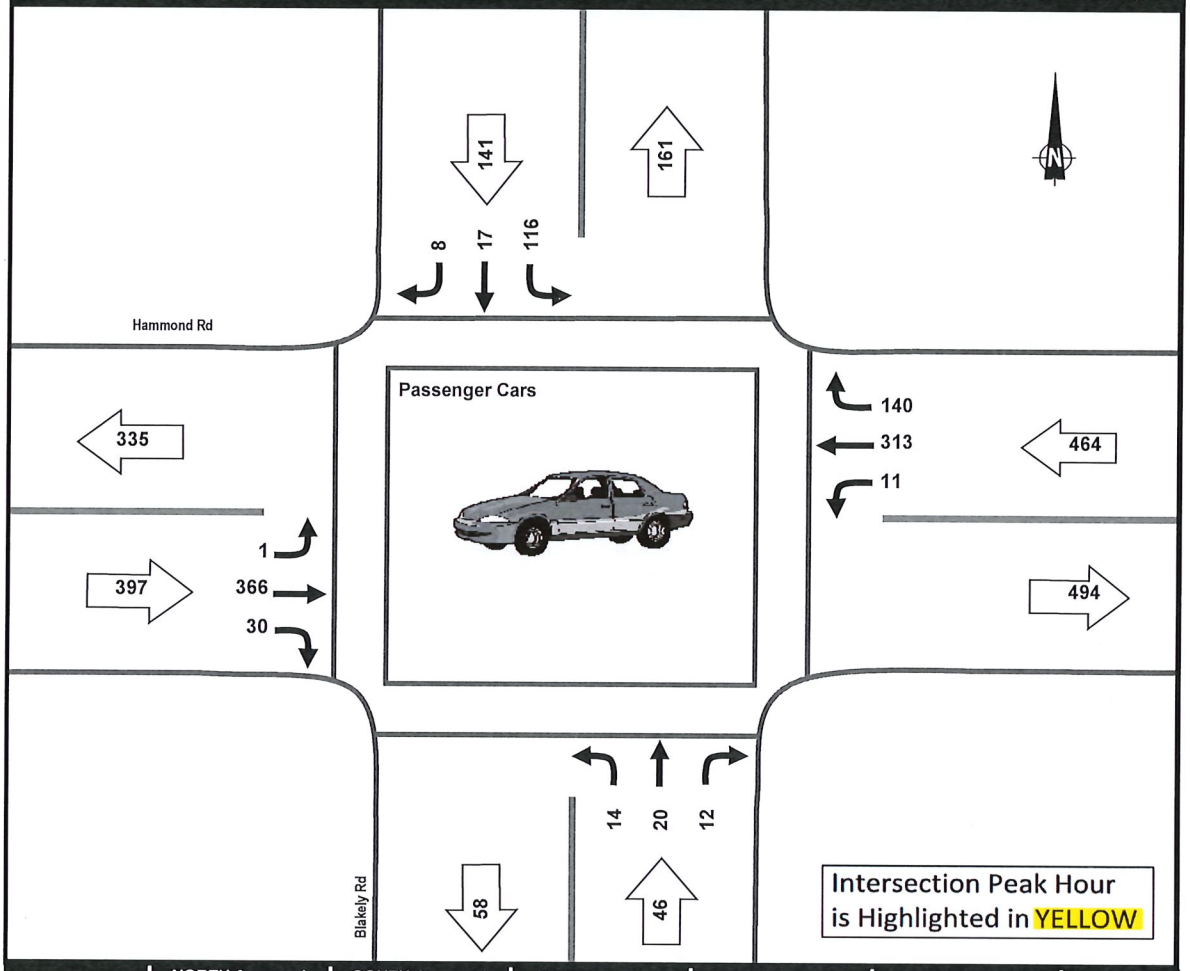
Blakely Rd & Hammond Rd

Wednesday, October 07, 2020

Afternoon Peak Period

Project: #7313: 11812 Blakely Road Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Fog
Vehicle Class: Passenger Cars
Notes: Pandemic Data!

Peak Hour Traffic by Movement 4:00 PM to 5:00 PM



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	116	17	8	14	20	12	1	366	30	11	313	140					1,048
PHF	0.83	0.47	0.67	0.88	0.83	0.60	0.25	0.66	0.68	0.46	0.82	0.80					0.83
Peak 15 X 4	140	36	12	16	24	20	4	552	44	24	380	176					1,260
Average Hour	104	22	6	20	21	22	2	282	30	15	286	130					940
Survey Total	311	65	19	61	63	66	6	847	89	44	858	389					2,818
14:00	15	5	0	3	5	5	0	49	12	5	69	39					207
14:15	20	9	2	3	9	15	3	47	11	7	70	39					235
14:30	40	14	5	11	10	10	1	70	11	6	74	36					288
14:45	26	6	1	8	9	8	0	57	7	8	54	29					213
15:00	25	3	0	11	3	4	0	50	7	2	61	32					198
15:15	21	1	1	5	1	7	0	65	3	2	71	21					198
15:30	22	5	1	3	4	2	0	83	5	0	85	31					241
15:45	26	5	1	3	2	3	1	60	3	3	61	22					190
16:00	32	9	2	4	4	3	1	96	6	1	55	29					242
16:15	22	3	2	4	6	3	0	50	7	6	95	44					242
16:30	35	2	3	3	4	5	0	138	11	1	83	30					315
16:45	27	3	1	3	6	1	0	82	6	3	80	37					249

CTS

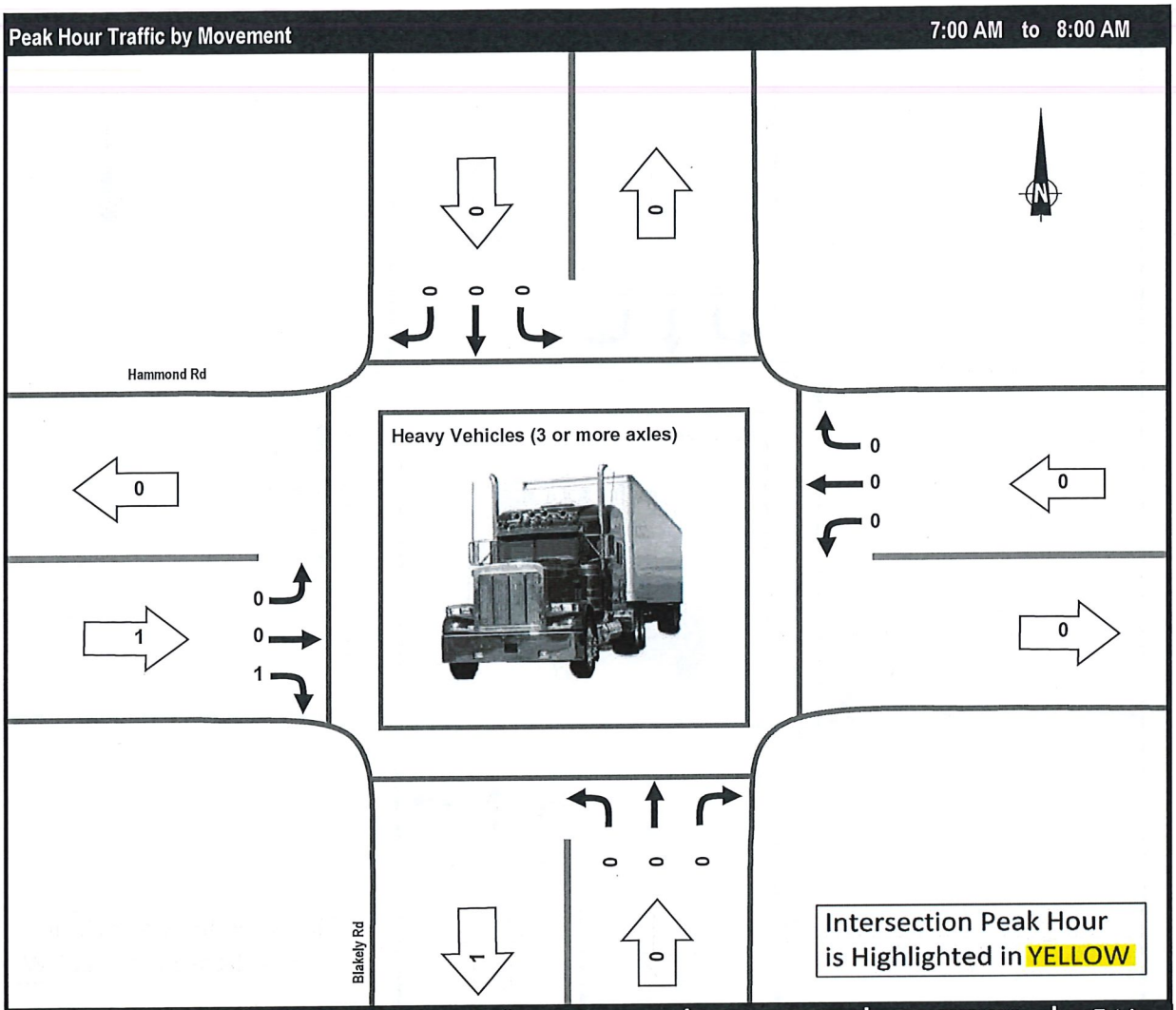
Blakely Rd & Hammond Rd

Wednesday, October 07, 2020

Morning Peak Period

Project: #7313: 11812 Blakely Road Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Fog
Vehicle Class: Heavy Vehicles (3 or more axles)
Notes: Pandemic Data!

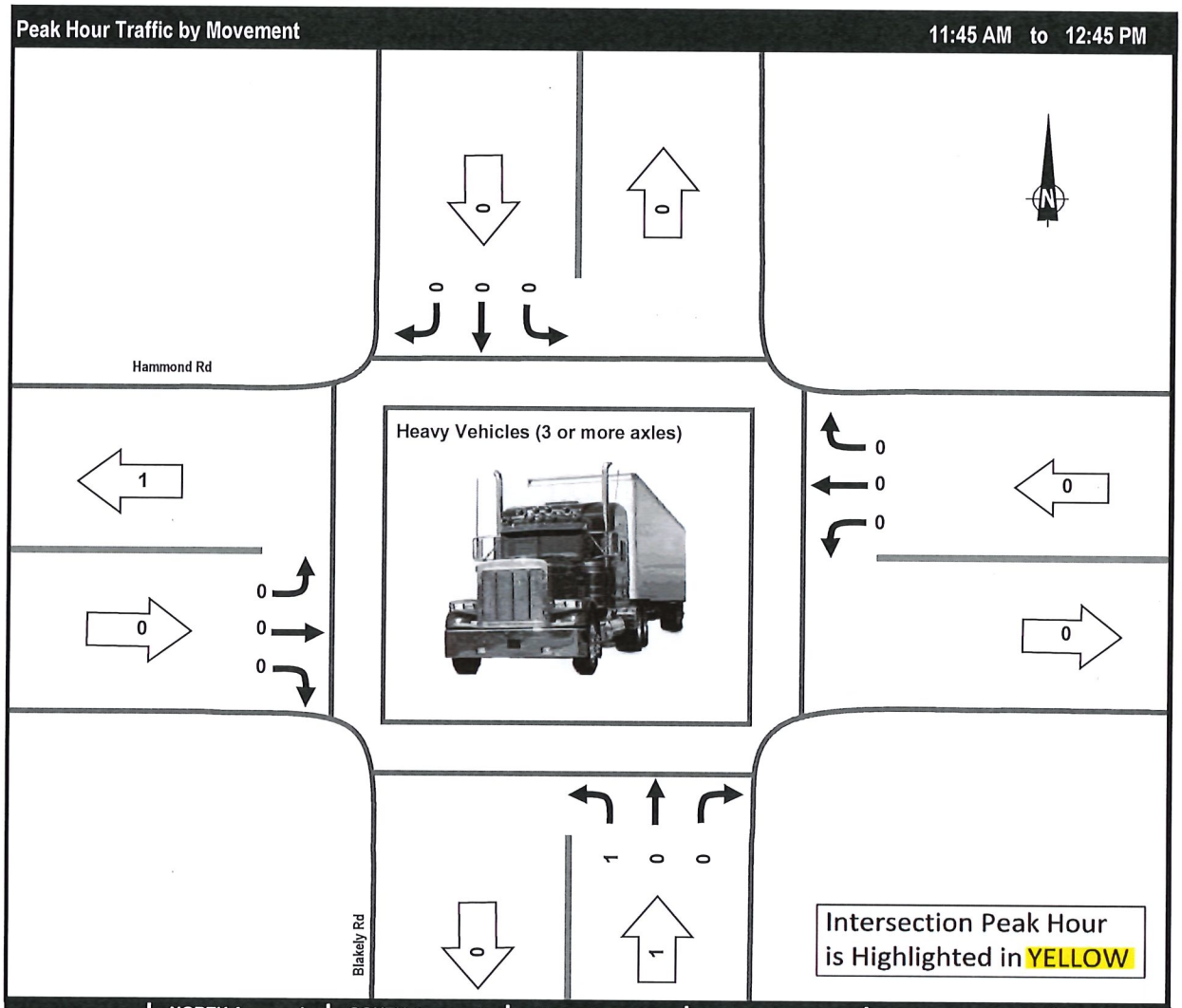
Peak Hour Traffic by Movement 7:00 AM to 8:00 AM



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	Volumes
Peak Hour	0	0	0	0	0	0	0	0	1	0	0	0					1
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00					0.25
Peak 15 X 4	0	0	0	0	0	0	0	0	4	0	0	0					4
Average Hour	0	0	0	0	0	0	0	0	1	0	0	0					1
Survey Total	0	0	0	0	0	0	0	0	1	0	0	0					1
7:00	0	0	0	0	0	0	0	0	0	0	0	0					0
7:15	0	0	0	0	0	0	0	0	0	0	0	0					0
7:30	0	0	0	0	0	0	0	0	0	0	0	0					0
7:45	0	0	0	0	0	0	0	0	1	0	0	0					1
8:00	0	0	0	0	0	0	0	0	0	0	0	0					0
8:15	0	0	0	0	0	0	0	0	0	0	0	0					0
8:30	0	0	0	0	0	0	0	0	0	0	0	0					0
8:45	0	0	0	0	0	0	0	0	0	0	0	0					0

Midday Peak Period

Project: #7313: 11812 Blakely Road Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Fog
Vehicle Class: Heavy Vehicles (3 or more axles)
Notes: Pandemic Data!



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	1	0	0	0	0	0	0	0	0					1
PHF	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.25
Peak 15 X 4	0	0	0	4	0	0	0	0	0	0	0	0					4
Average Hour	0	0	0	1	0	0	0	0	0	0	0	0					1
Survey Total	0	0	0	1	0	0	0	0	0	0	0	0					1
11:00	0	0	0	0	0	0	0	0	0	0	0	0					0
11:15	0	0	0	0	0	0	0	0	0	0	0	0					0
11:30	0	0	0	0	0	0	0	0	0	0	0	0					0
11:45	0	0	0	0	0	0	0	0	0	0	0	0					0
12:00	0	0	0	0	0	0	0	0	0	0	0	0					0
12:15	0	0	0	0	0	0	0	0	0	0	0	0					0
12:30	0	0	0	1	0	0	0	0	0	0	0	0					1
12:45	0	0	0	0	0	0	0	0	0	0	0	0					0

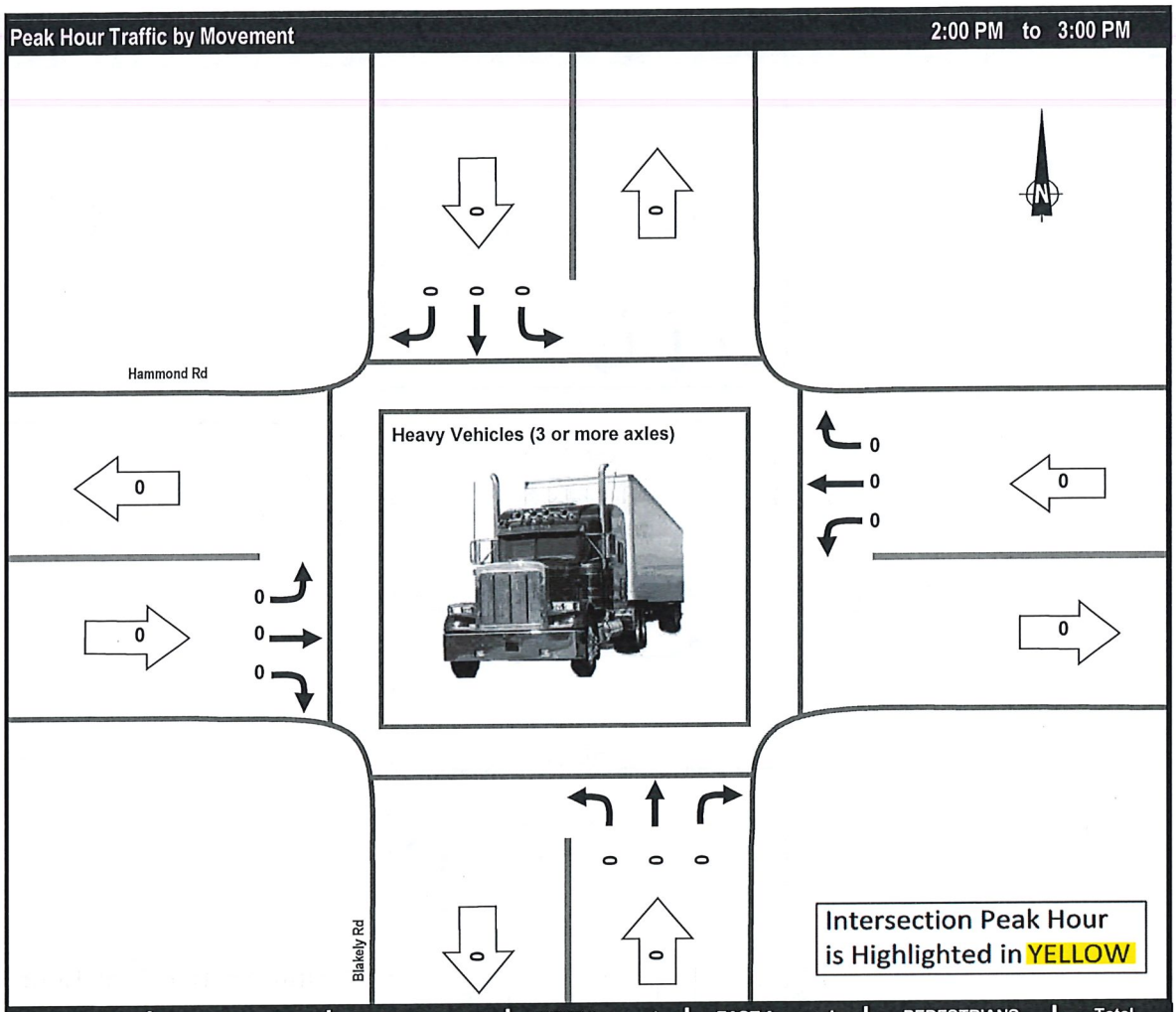
CTS

Blakely Rd & Hammond Rd

Wednesday, October 07, 2020

Afternoon Peak Period

Project: #7313: 11812 Blakely Road Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Fog
Vehicle Class: Heavy Vehicles (3 or more axles)
Notes: Pandemic Data!

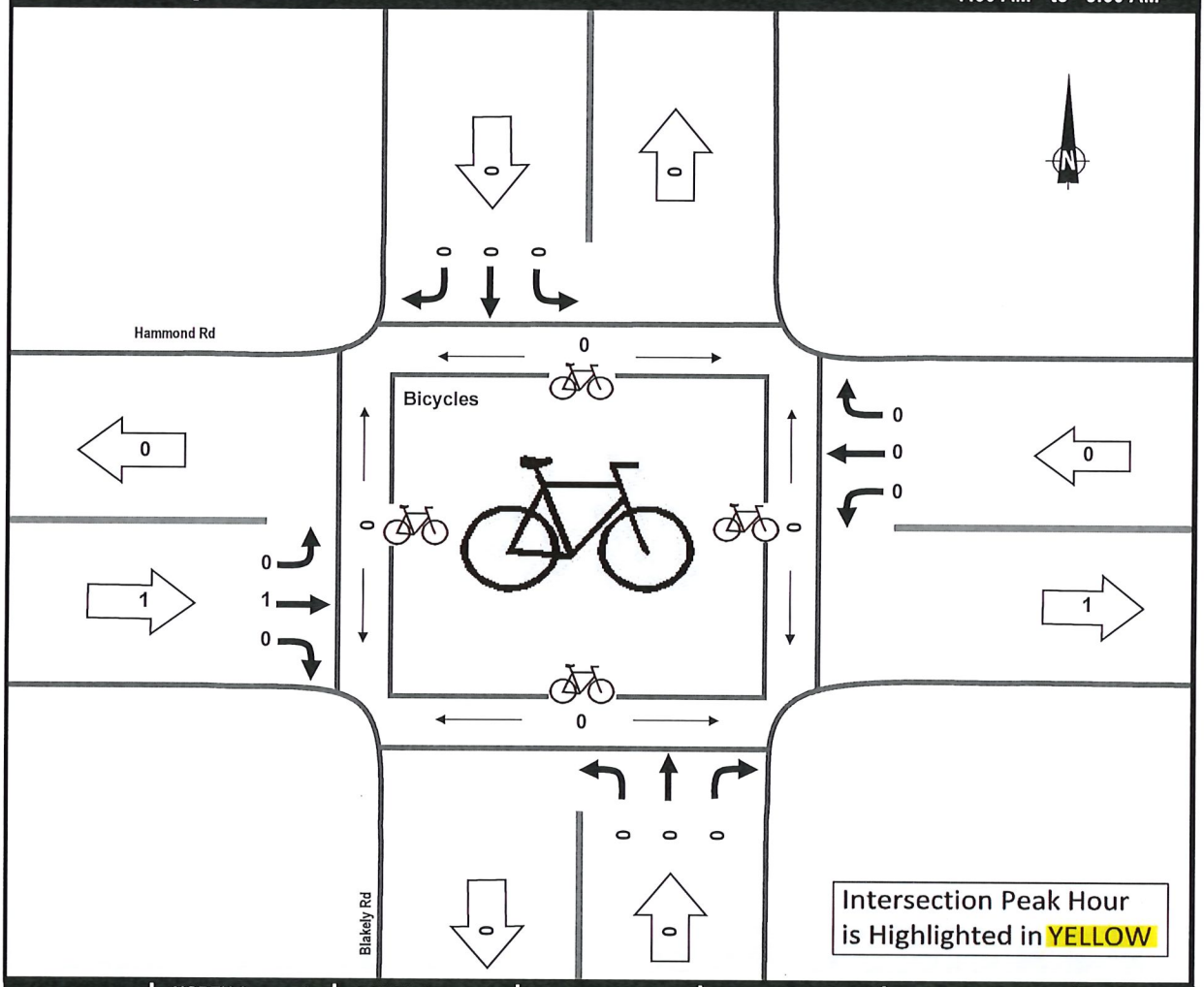


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0					0
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.00
Peak 15 X 4	0	0	0	0	0	0	0	0	0	0	0	0					0
Average Hour	0	0	0	0	0	0	0	0	0	0	0	0					0
Survey Total	0	0	0	0	0	0	0	0	0	0	0	0					0
14:00	0	0	0	0	0	0	0	0	0	0	0	0					0
14:15	0	0	0	0	0	0	0	0	0	0	0	0					0
14:30	0	0	0	0	0	0	0	0	0	0	0	0					0
14:45	0	0	0	0	0	0	0	0	0	0	0	0					0
15:00	0	0	0	0	0	0	0	0	0	0	0	0					0
15:15	0	0	0	0	0	0	0	0	0	0	0	0					0
15:30	0	0	0	0	0	0	0	0	0	0	0	0					0
15:45	0	0	0	0	0	0	0	0	0	0	0	0					0
16:00	0	0	0	0	0	0	0	0	0	0	0	0					0
16:15	0	0	0	0	0	0	0	0	0	0	0	0					0
16:30	0	0	0	0	0	0	0	0	0	0	0	0					0
16:45	0	0	0	0	0	0	0	0	0	0	0	0					0

Morning Peak Period

Project: #7313: 11812 Blakely Road Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Fog
Vehicle Class: Bicycles
Notes: Pandemic Data!

Peak Hour Traffic by Movement 7:30 AM to 8:30 AM

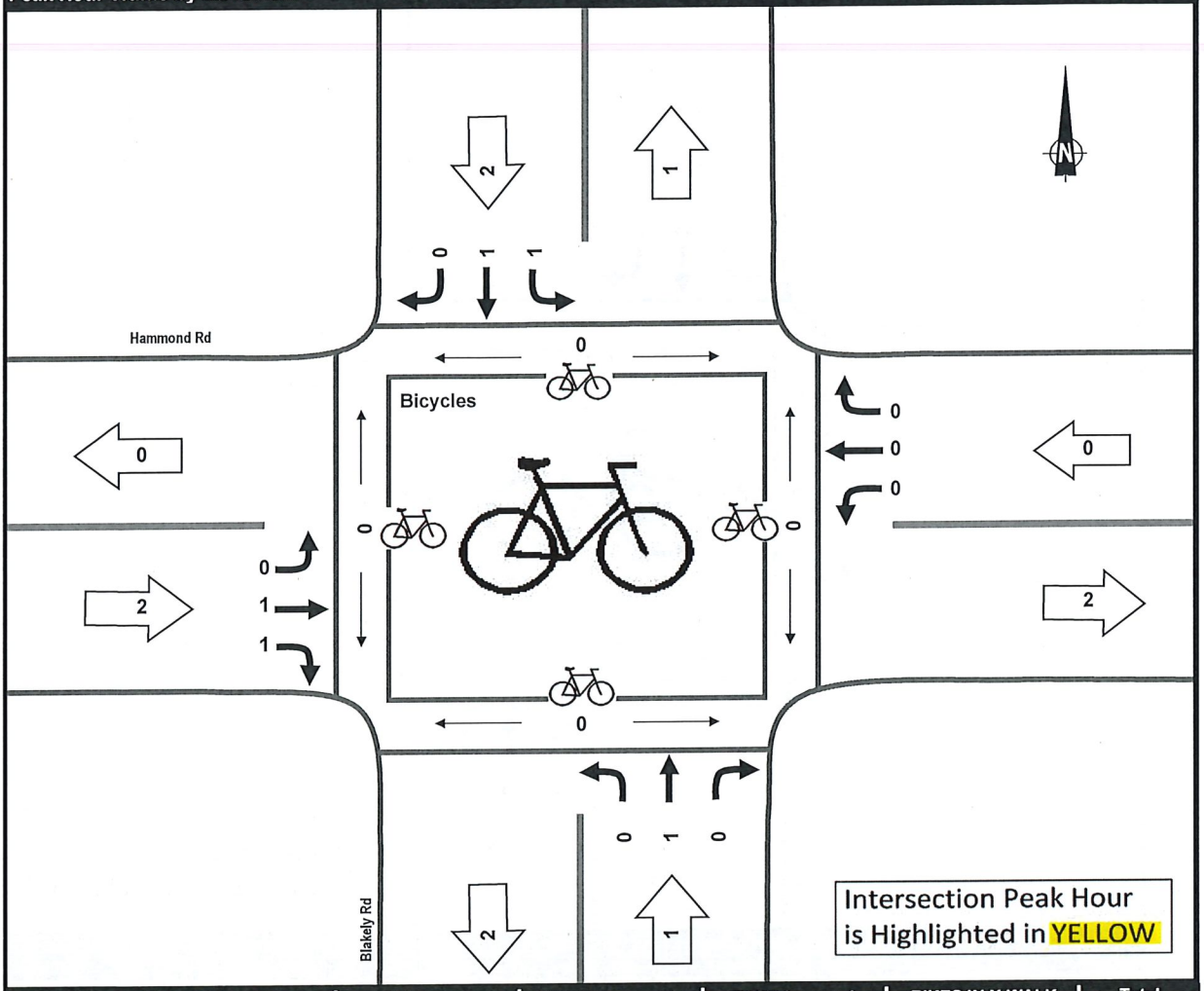


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES IN X-WALK				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
Peak 15 X 4	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
Average Hour	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Survey Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Midday Peak Period

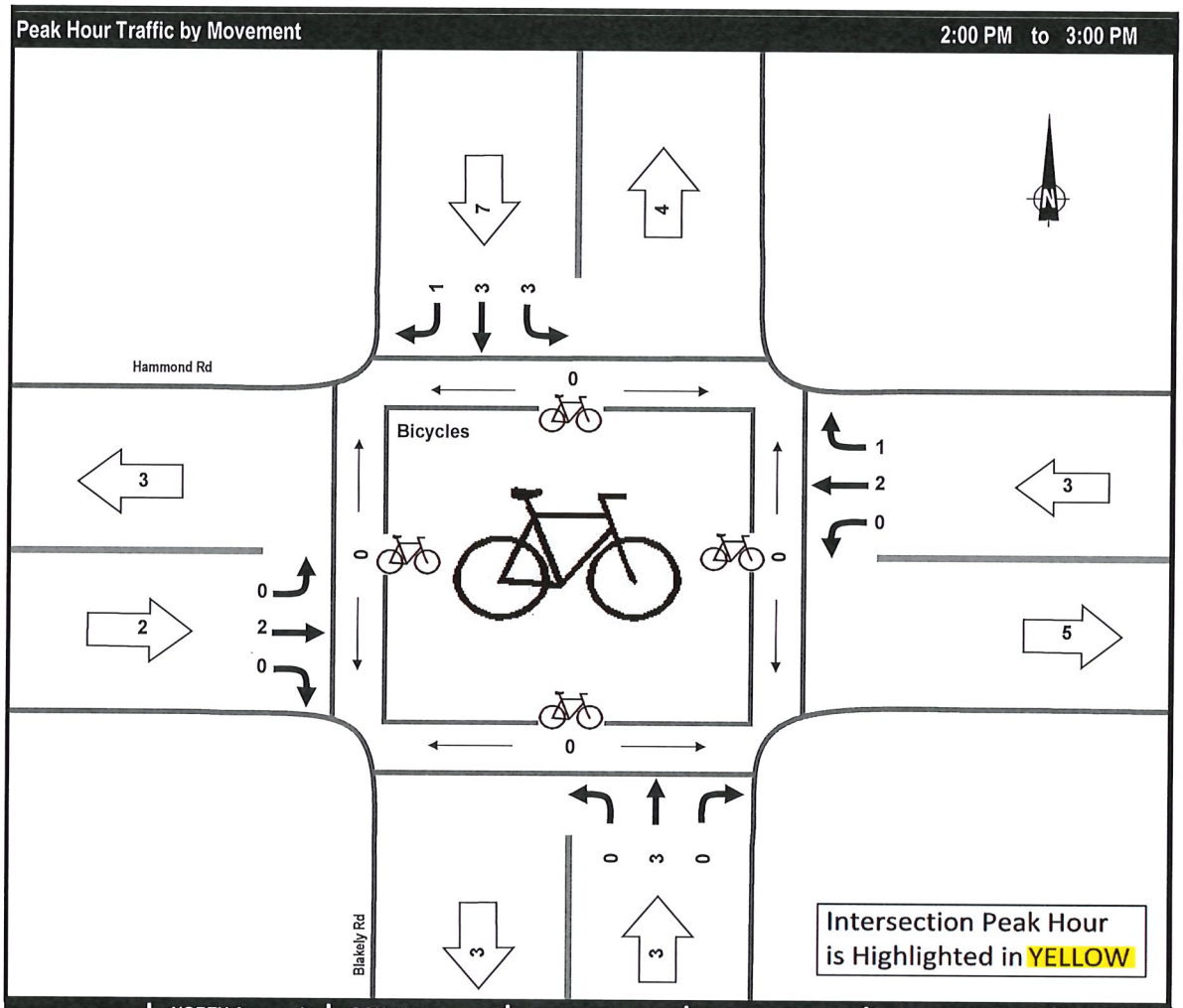
Project: #7313: 11812 Blakely Road Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Fog
Vehicle Class: Bicycles
Notes: Pandemic Data!

Peak Hour Traffic by Movement 11:15 AM to 12:15 PM



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES IN X-WALK				Total
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	Volumes
Peak Hour	1	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	5
PHF	0.25	0.25	0.00	0.00	0.25	0.00	0.00	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42
Peak 15 X 4	4	4	0	0	4	0	0	4	4	0	0	0	0	0	0	0	12
Average Hour	1	1	0	0	1	0	0	2	1	0	0	0	0	0	0	0	6
Survey Total	1	1	0	0	2	0	0	4	1	0	0	0	0	0	0	0	9
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
12:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
12:45	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2

Project: #7313: 11812 Blakely Road Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Fog
Vehicle Class: Bicycles
Notes: Pandemic Data!



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES IN X-WALK				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	3	3	1	0	3	0	0	2	0	0	2	1	0	0	0	0	15
PHF	0.25	0.25	0.25	0.00	0.38	0.00	0.00	0.25	0.00	0.00	0.50	0.25	0.00	0.00	0.00	0.00	0.38
Peak 15 X 4	12	12	4	0	8	0	0	8	0	0	4	4	0	0	0	0	40
Average Hour	1	1	0	0	1	0	0	1	0	0	2	1	0	0	0	0	7
Survey Total	4	3	1	0	4	0	0	3	0	0	5	4	0	0	0	0	24
14:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
14:15	3	3	1	0	2	0	0	0	0	0	0	1	0	0	0	0	10
14:30	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
14:45	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	2
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
15:30	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	3
16:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1

Appendix C
Signal Timing Plans

SIGNAL TIMING SHEET

DATE ISSUED	November 26, 2019	INTERSECTION	Hammond Road at Blakely Road
CONTROLLER TYPE	Econolite ASC/3	LOCATION	Pitt Meadows
CABINET TYPE	TS2	SHEET NUMBER & REVISION	-
SEQUENCE	NEMA DUAL RING	SITE CODE	-

PHASE NUMBER	1	2	3	4	5	6	7	8
PHASE SETTING	OFF	ON	OFF	ON	OFF	ON	OFF	ON
DESCRIPTION		BLAKELY RD NBTH EMERG. PE #4		HAMMOND EBTH EMERG. PE #3		BLAKELY RD SBTH EMERG. PE #4		HAMMOND WBTH EMERG. PE #3
FUNCTION		Ø2		Ø4		Ø6		Ø8
OVERLAP		-		-		-		-
MINIMUM GREEN		7		10		7		10
PASSAGE		3.0		3.0		3.0		3.0
YELLOW		3.4		3.4		3.4		3.4
RED		2.3		2.0		2.3		2.0
TIMING PLAN 1 - MAX1/2/3		14 14 13		17 17 18		14 14 13		17 17 18
TIMING PLAN 2 - MAX1/2/3		14		17		14		17
WALK		7		7		7		7
PEDESTRIAN CLEAR		16		13		16		13
WALK		STEADY		STEADY		STEADY		STEADY
RECALL		OFF		EXT		OFF		EXT
MEMORY		OFF		OFF		OFF		OFF
COORDINATION ON PHASE		-		-		-		-
FIRST GREEN DISPLAY		XXXX				XXXX		
INTERSECTION FLASH		RED		RED		RED		RED
AWF TIME [s]		-		-		-		-
AWF TIME [s] [CH1/CH2]		- -		- -		- -		- -

DELAY DETECTION TIMING	
L3,L6	3 SEC (LT CLIP)
L1,L2,L4,L5	5 SEC (RT)

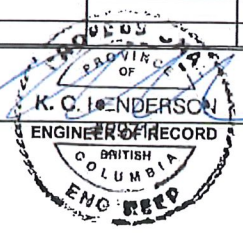
PROGRAMMING COMMENTS	
1.	EMERG. PRE-EMPT.: MAX TIME = 45s, EXIT TO DWELL PHASES,
2.	NO CHANGE TO ENTRY & EXIT CLEARANCES.
3.	6 SECONDS OF ALL-RED WHEN ENTERING 3-COLOUR OPERATION.
4.	

PRE-EMPTION TYPE	OPTICOM
DELAY TIME	0 SECONDS
PRE-EMPTION TIME	HOLD ON INPUT
VOLUME LOGGING & MOES	15 MINUTES
SGO	PASSAGE CAN RESET 4&8

OPERATIONAL COMMENTS	
1.	THIS STS UPDATES ALL GREEN AND CLEARANCE TIMES. NO CHANGES MADE
2.	TO PRE-EMPTION SEQUENCES.
3.	POSTED SPEED IS 50KM/H FOR ALL DIRECTIONS.
4.	

PED PERMISSIVE	AUTO	CYCLE (1 TO 8)							
		1	2	3	4	5	6	7	8
OFFSET (1 TO 4)									

TIME CLOCK SETTINGS							
TIME OF DAY	DAY OF WEEK	ACTION PLAN	CYCLE LENGTH	OFFSET VALUE	TIMING PLAN	MAX 1/2/3	ADDITIONAL TIME CLOCK INFORMATION
0530-1000	MON-FRI	1	-	-	1	1	
1000-1530	MON-FRI	2	-	-	1	2	
1530-2130	MON-FRI	3	-	-	1	3	
1000-2130	SAT-SUN	4	-	-	2	1	



K. C. HENDERSON
ENGINEER OF RECORD

Nov 26/19
DATE

Appendix D
Capacity Analysis Summary Sheets
Synchro

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	175	24	18	235	121	16	25	16	91	23	5
Future Volume (vph)	8	175	24	18	235	121	16	25	16	91	23	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			0.98			0.97	
Frt		0.984			0.956			0.962			0.995	
Flt Protected		0.998			0.998			0.986			0.963	
Satd. Flow (prot)	0	1675	0	0	1631	0	0	1597	0	0	1635	0
Flt Permitted		0.985			0.983			0.894			0.736	
Satd. Flow (perm)	0	1653	0	0	1607	0	0	1438	0	0	1219	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			53			17			5	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		248.0			302.4			229.5			216.9	
Travel Time (s)		17.9			21.8			16.5			15.6	
Confl. Peds. (#/hr)			1	1			25		30	30		25
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	9	190	26	20	255	132	17	27	17	99	25	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	225	0	0	407	0	0	61	0	0	129	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (%)	47.0%	47.0%		47.0%	47.0%		53.0%	53.0%		53.0%	53.0%	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		-1.4			-1.4			-1.7			-1.7	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Min	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)		36.9			36.9			12.6			12.6	
Actuated g/C Ratio		0.68			0.68			0.23			0.23	
v/c Ratio		0.20			0.37			0.18			0.45	
Control Delay		5.5			6.2			12.9			21.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.5			6.2			12.9			21.3	
LOS		A			A			B			C	
Approach Delay		5.5			6.2			12.9			21.3	
Approach LOS		A			A			B			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (m)		7.7			14.4			3.6			11.0	
Queue Length 95th (m)		20.4			37.5			10.0			21.3	
Internal Link Dist (m)		224.0			278.4			205.5			192.9	
Turn Bay Length (m)												
Base Capacity (vph)		1131			1112			665			559	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.20			0.37			0.09			0.23	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54.1			
Actuated Cycle Length: 54.1			
Offset: 28.7 (53%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.45			
Intersection Signal Delay: 8.9		Intersection LOS: A	
Intersection Capacity Utilization 50.3%		ICU Level of Service A	
Analysis Period (min) 15			

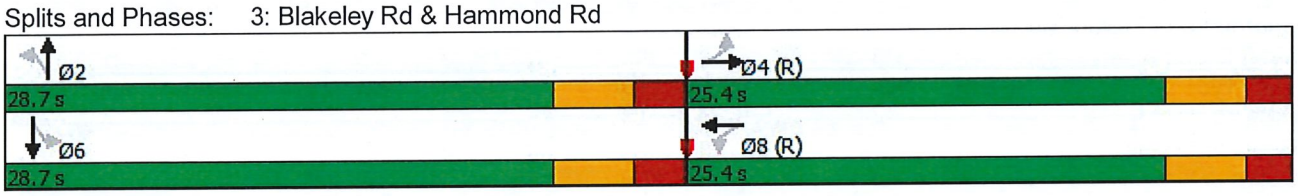
Splits and Phases: 3: Blakeley Rd & Hammond Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	179	25	19	240	124	17	26	17	93	24	6
Future Volume (vph)	9	179	25	19	240	124	17	26	17	93	24	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			0.98			0.97	
Frt		0.984			0.956			0.962			0.993	
Flt Protected		0.998			0.997			0.986			0.964	
Satd. Flow (prot)	0	1675	0	0	1630	0	0	1597	0	0	1633	0
Flt Permitted		0.983			0.982			0.891			0.737	
Satd. Flow (perm)	0	1650	0	0	1605	0	0	1433	0	0	1218	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			53			18			7	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		248.0			302.4			229.5			216.9	
Travel Time (s)		17.9			21.8			16.5			15.6	
Confl. Peds. (#/hr)			1	1			25		30	30		25
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	10	195	27	21	261	135	18	28	18	101	26	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	232	0	0	417	0	0	64	0	0	134	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (%)	47.0%	47.0%		47.0%	47.0%		53.0%	53.0%		53.0%	53.0%	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		-1.4			-1.4			-1.7			-1.7	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Min	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)		36.8			36.8			12.7			12.7	
Actuated g/C Ratio		0.68			0.68			0.23			0.23	
v/c Ratio		0.21			0.38			0.18			0.46	
Control Delay		5.6			6.4			12.8			21.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.6			6.4			12.8			21.2	
LOS		A			A			B			C	
Approach Delay		5.6			6.4			12.8			21.2	
Approach LOS		A			A			B			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (m)		8.1			15.1			3.8			11.3	
Queue Length 95th (m)		21.3			39.1			10.2			21.8	
Internal Link Dist (m)		224.0			278.4			205.5			192.9	
Turn Bay Length (m)												
Base Capacity (vph)		1125			1107			664			559	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.21			0.38			0.10			0.24	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54.1			
Actuated Cycle Length: 54.1			
Offset: 28.7 (53%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 9.0		Intersection LOS: A	
Intersection Capacity Utilization 50.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Blakeley Rd & Hammond Rd

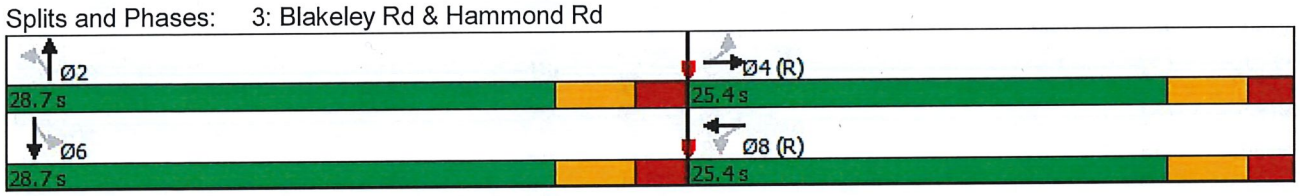


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	179	25	19	240	126	17	27	17	96	25	10
Future Volume (vph)	13	179	25	19	240	126	17	27	17	96	25	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			0.98			0.97	
Frt		0.985			0.956			0.963			0.990	
Flt Protected		0.997			0.998			0.986			0.965	
Satd. Flow (prot)	0	1675	0	0	1631	0	0	1599	0	0	1627	0
Flt Permitted		0.974			0.982			0.896			0.742	
Satd. Flow (perm)	0	1636	0	0	1605	0	0	1444	0	0	1222	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			53			18			10	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		248.0			302.4			229.5			216.9	
Travel Time (s)		17.9			21.8			16.5			15.6	
Confl. Peds. (#/hr)			1	1			25		30	30		25
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	14	195	27	21	261	137	18	29	18	104	27	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	236	0	0	419	0	0	65	0	0	142	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (%)	47.0%	47.0%		47.0%	47.0%		53.0%	53.0%		53.0%	53.0%	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		-1.4			-1.4			-1.7			-1.7	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Min	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)		36.5			36.5			12.9			12.9	
Actuated g/C Ratio		0.67			0.67			0.24			0.24	
v/c Ratio		0.21			0.38			0.18			0.47	
Control Delay		5.8			6.6			12.6			20.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.8			6.6			12.6			20.8	
LOS		A			A			B			C	
Approach Delay		5.8			6.6			12.6			20.8	
Approach LOS		A			A			B			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (m)		8.4			15.4			3.8			11.7	
Queue Length 95th (m)		22.3			40.5			10.2			22.4	
Internal Link Dist (m)		224.0			278.4			205.5			192.9	
Turn Bay Length (m)												
Base Capacity (vph)		1109			1100			669			563	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.21			0.38			0.10			0.25	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54.1			
Actuated Cycle Length: 54.1			
Offset: 28.7 (53%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 9.2		Intersection LOS: A	
Intersection Capacity Utilization 49.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Blakeley Rd & Hammond Rd

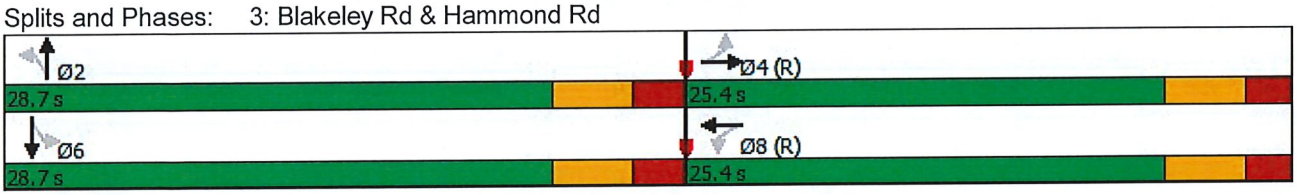


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	381	30	11	325	146	14	20	12	120	17	8
Future Volume (vph)	1	381	30	11	325	146	14	20	12	120	17	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99			0.99			0.99	
Frt		0.990			0.959			0.965			0.992	
Flt Protected					0.999			0.985			0.960	
Satd. Flow (prot)	0	1689	0	0	1621	0	0	1613	0	0	1626	0
Flt Permitted		0.999			0.989			0.888			0.728	
Satd. Flow (perm)	0	1687	0	0	1605	0	0	1450	0	0	1224	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			48			13			7	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		248.0			302.4			229.5			216.9	
Travel Time (s)		17.9			21.8			16.5			15.6	
Confl. Peds. (#/hr)	9		7	7		9	9		8	8		9
Confl. Bikes (#/hr)			1			2			1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	1	414	33	12	353	159	15	22	13	130	18	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	448	0	0	524	0	0	50	0	0	157	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (%)	47.0%	47.0%		47.0%	47.0%		53.0%	53.0%		53.0%	53.0%	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		-1.4			-1.4			-1.7			-1.7	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Min	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)		35.8			35.8			13.7			13.7	
Actuated g/C Ratio		0.66			0.66			0.25			0.25	
v/c Ratio		0.40			0.49			0.13			0.50	
Control Delay		8.0			8.6			11.7			21.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.0			8.6			11.7			21.2	
LOS		A			A			B			C	
Approach Delay		8.0			8.6			11.7			21.2	
Approach LOS		A			A			B			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (m)		20.5			23.4			2.9			13.2	
Queue Length 95th (m)		49.9			60.4			8.3			24.1	
Internal Link Dist (m)		224.0			278.4			205.5			192.9	
Turn Bay Length (m)												
Base Capacity (vph)		1118			1078			669			562	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.40			0.49			0.07			0.28	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54.1			
Actuated Cycle Length: 54.1			
Offset: 28.7 (53%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 10.2		Intersection LOS: B	
Intersection Capacity Utilization 57.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Blakeley Rd & Hammond Rd

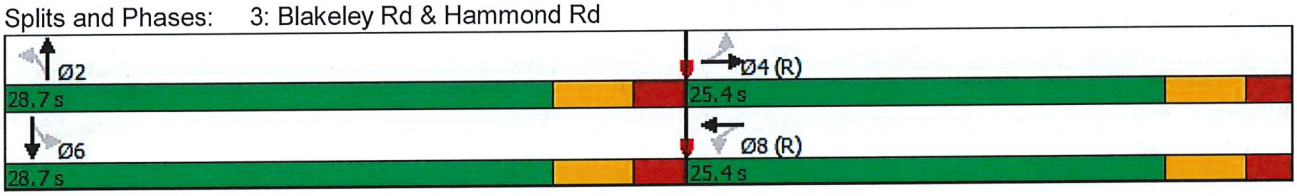


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	389	32	12	333	149	15	22	13	124	19	9
Future Volume (vph)	2	389	32	12	333	149	15	22	13	124	19	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			0.98			0.97	
Frt		0.990			0.959			0.965			0.992	
Flt Protected					0.999			0.985			0.961	
Satd. Flow (prot)	0	1690	0	0	1638	0	0	1602	0	0	1625	0
Flt Permitted		0.999			0.988			0.888			0.729	
Satd. Flow (perm)	0	1688	0	0	1620	0	0	1435	0	0	1200	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			48			14			8	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		248.0			302.4			229.5			216.9	
Travel Time (s)		17.9			21.8			16.5			15.6	
Confl. Peds. (#/hr)			1	1			25		30	30		25
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	2	423	35	13	362	162	16	24	14	135	21	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	460	0	0	537	0	0	54	0	0	166	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (%)	47.0%	47.0%		47.0%	47.0%		53.0%	53.0%		53.0%	53.0%	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		-1.4			-1.4			-1.7			-1.7	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Min	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)		35.3			35.3			14.1			14.1	
Actuated g/C Ratio		0.65			0.65			0.26			0.26	
v/c Ratio		0.42			0.50			0.14			0.52	
Control Delay		8.5			9.1			11.4			21.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.5			9.1			11.4			21.2	
LOS		A			A			B			C	
Approach Delay		8.5			9.1			11.4			21.2	
Approach LOS		A			A			B			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (m)		21.9			25.1			3.1			13.8	
Queue Length 95th (m)		53.7			64.6			8.5			24.9	
Internal Link Dist (m)		224.0			278.4			205.5			192.9	
Turn Bay Length (m)												
Base Capacity (vph)		1105			1074			662			552	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.42			0.50			0.08			0.30	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54.1			
Actuated Cycle Length: 54.1			
Offset: 28.7 (53%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 10.6		Intersection LOS: B	
Intersection Capacity Utilization 59.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Blakeley Rd & Hammond Rd

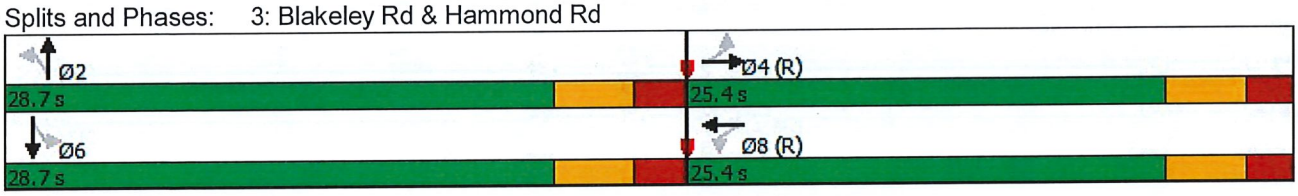


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	389	32	12	333	152	15	23	13	126	20	13
Future Volume (vph)	6	389	32	12	333	152	15	23	13	126	20	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			0.98			0.97	
Frt		0.990			0.959			0.966			0.989	
Flt Protected		0.999			0.999			0.986			0.962	
Satd. Flow (prot)	0	1688	0	0	1638	0	0	1606	0	0	1620	0
Flt Permitted		0.993			0.988			0.889			0.734	
Satd. Flow (perm)	0	1678	0	0	1620	0	0	1439	0	0	1204	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			48			14			11	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		248.0			302.4			229.5			216.9	
Travel Time (s)		17.9			21.8			16.5			15.6	
Confl. Peds. (#/hr)			1	1			25		30	30		25
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	7	423	35	13	362	165	16	25	14	137	22	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	465	0	0	540	0	0	55	0	0	173	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (%)	47.0%	47.0%		47.0%	47.0%		53.0%	53.0%		53.0%	53.0%	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		-1.4			-1.4			-1.7			-1.7	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Min	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)		35.2			35.2			14.3			14.3	
Actuated g/C Ratio		0.65			0.65			0.26			0.26	
v/c Ratio		0.43			0.51			0.14			0.53	
Control Delay		8.8			9.3			11.3			21.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.8			9.3			11.3			21.0	
LOS		A			A			B			C	
Approach Delay		8.8			9.3			11.3			21.0	
Approach LOS		A			A			B			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (m)		22.6			25.7			3.2			14.1	
Queue Length 95th (m)		55.3			66.3			8.6			25.2	
Internal Link Dist (m)		224.0			278.4			205.5			192.9	
Turn Bay Length (m)												
Base Capacity (vph)		1094			1069			664			555	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.43			0.51			0.08			0.31	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54.1			
Actuated Cycle Length: 54.1			
Offset: 28.7 (53%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 10.8		Intersection LOS: B	
Intersection Capacity Utilization 58.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Blakeley Rd & Hammond Rd

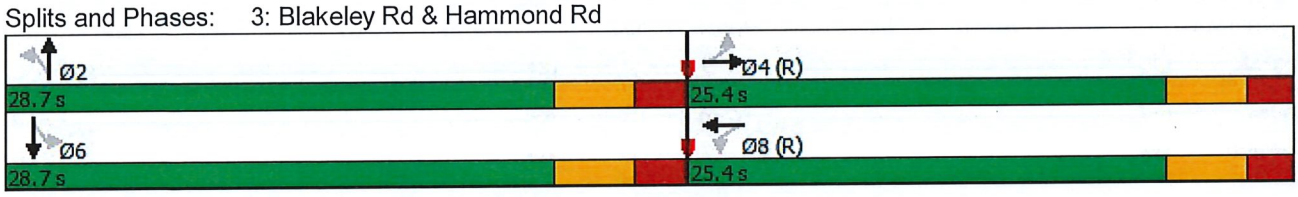


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	234	38	24	270	142	35	33	39	116	34	9
Future Volume (vph)	5	234	38	24	270	142	35	33	39	116	34	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98			0.90			0.89	
Frt		0.982			0.956			0.951			0.992	
Flt Protected		0.999			0.997			0.984			0.965	
Satd. Flow (prot)	0	1659	0	0	1608	0	0	1500	0	0	1622	0
Flt Permitted		0.993			0.975			0.871			0.759	
Satd. Flow (perm)	0	1649	0	0	1570	0	0	1280	0	0	1152	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			53			42			8	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		248.0			302.4			229.5			216.9	
Travel Time (s)		17.9			21.8			16.5			15.6	
Confl. Peds. (#/hr)	16		44	44		16	122		133	133		122
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	5	254	41	26	293	154	38	36	42	126	37	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	300	0	0	473	0	0	116	0	0	173	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (%)	47.0%	47.0%		47.0%	47.0%		53.0%	53.0%		53.0%	53.0%	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		-1.4			-1.4			-1.7			-1.7	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Min	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)		30.4			30.4			19.0			19.0	
Actuated g/C Ratio		0.56			0.56			0.35			0.35	
v/c Ratio		0.32			0.52			0.24			0.42	
Control Delay		11.0			13.8			7.9			14.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			13.8			7.9			14.1	
LOS		B			B			A			B	
Approach Delay		11.0			13.8			7.9			14.1	
Approach LOS		B			B			A			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (m)		20.3			34.8			4.1			10.0	
Queue Length 95th (m)		38.4			#77.3			11.8			21.8	
Internal Link Dist (m)		224.0			278.4			205.5			192.9	
Turn Bay Length (m)												
Base Capacity (vph)		934			906			607			530	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.32			0.52			0.19			0.33	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54.1			
Actuated Cycle Length: 54.1			
Offset: 28.7 (53%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 12.4		Intersection LOS: B	
Intersection Capacity Utilization 62.7%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: Blakeley Rd & Hammond Rd

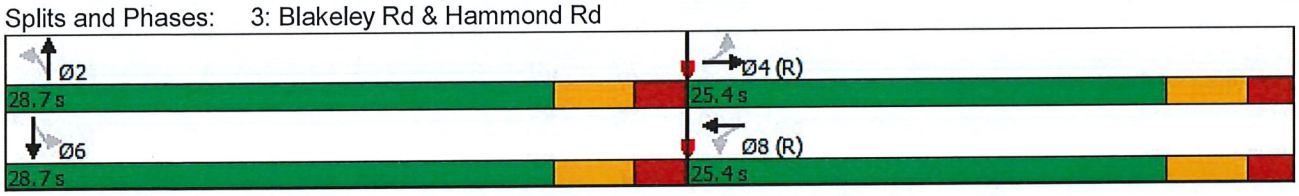


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	238	39	25	276	145	36	33	40	118	34	9
Future Volume (vph)	5	238	39	25	276	145	36	33	40	118	34	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98			0.90			0.89	
Frt		0.981			0.956			0.951			0.992	
Flt Protected		0.999			0.997			0.984			0.965	
Satd. Flow (prot)	0	1658	0	0	1608	0	0	1499	0	0	1622	0
Flt Permitted		0.993			0.974			0.869			0.758	
Satd. Flow (perm)	0	1647	0	0	1568	0	0	1276	0	0	1150	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			53			43			7	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		248.0			302.4			229.5			216.9	
Travel Time (s)		17.9			21.8			16.5			15.6	
Confl. Peds. (#/hr)	16		44	44		16	122		133	133		122
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	5	259	42	27	300	158	39	36	43	128	37	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	306	0	0	485	0	0	118	0	0	175	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (%)	47.0%	47.0%		47.0%	47.0%		53.0%	53.0%		53.0%	53.0%	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		-1.4			-1.4			-1.7			-1.7	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Min	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)		30.4			30.4			19.0			19.0	
Actuated g/C Ratio		0.56			0.56			0.35			0.35	
v/c Ratio		0.33			0.54			0.25			0.43	
Control Delay		11.1			14.3			8.0			14.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.1			14.3			8.0			14.3	
LOS		B			B			A			B	
Approach Delay		11.1			14.3			8.0			14.3	
Approach LOS		B			B			A			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (m)		20.8			36.2			4.2			10.3	
Queue Length 95th (m)		39.2			#80.6			12.0			22.3	
Internal Link Dist (m)		224.0			278.4			205.5			192.9	
Turn Bay Length (m)												
Base Capacity (vph)		933			904			605			528	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.33			0.54			0.20			0.33	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54.1			
Actuated Cycle Length: 54.1			
Offset: 28.7 (53%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 12.7		Intersection LOS: B	
Intersection Capacity Utilization 63.9%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: Blakeley Rd & Hammond Rd

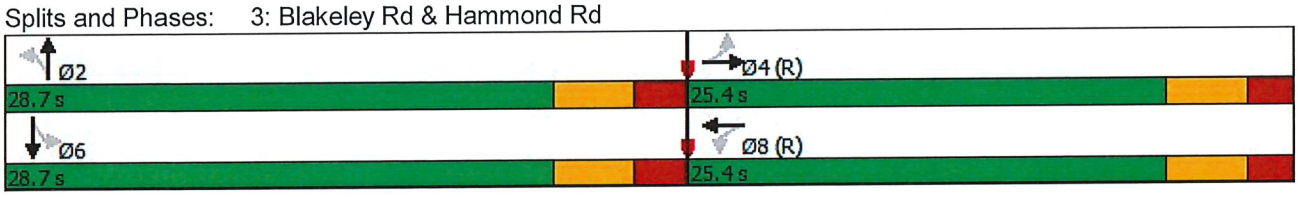


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	238	39	25	276	148	36	34	40	120	35	13
Future Volume (vph)	9	238	39	25	276	148	36	34	40	120	35	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98			0.90			0.89	
Frt		0.982			0.955			0.951			0.990	
Flt Protected		0.998			0.997			0.984			0.966	
Satd. Flow (prot)	0	1658	0	0	1606	0	0	1500	0	0	1615	0
Flt Permitted		0.984			0.974			0.868			0.761	
Satd. Flow (perm)	0	1634	0	0	1566	0	0	1276	0	0	1152	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			54			43			10	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		248.0			302.4			229.5			216.9	
Travel Time (s)		17.9			21.8			16.5			15.6	
Confl. Peds. (#/hr)	16		44	44		16	122		133	133		122
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	10	259	42	27	300	161	39	37	43	130	38	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	311	0	0	488	0	0	119	0	0	182	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (s)	25.4	25.4		25.4	25.4		28.7	28.7		28.7	28.7	
Total Split (%)	47.0%	47.0%		47.0%	47.0%		53.0%	53.0%		53.0%	53.0%	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		-1.4			-1.4			-1.7			-1.7	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Min	C-Min		C-Min	C-Min		None	None		None	None	
Act Effct Green (s)		30.4			30.4			19.1			19.1	
Actuated g/C Ratio		0.56			0.56			0.35			0.35	
v/c Ratio		0.34			0.54			0.25			0.44	
Control Delay		11.3			14.4			8.0			14.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.3			14.4			8.0			14.4	
LOS		B			B			A			B	
Approach Delay		11.3			14.4			8.0			14.4	
Approach LOS		B			B			A			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (m)		21.3			36.4			4.2			10.5	
Queue Length 95th (m)		40.1			#81.3			12.1			22.9	
Internal Link Dist (m)		224.0			278.4			205.5			192.9	
Turn Bay Length (m)												
Base Capacity (vph)		924			902			605			531	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.34			0.54			0.20			0.34	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54.1			
Actuated Cycle Length: 54.1			
Offset: 28.7 (53%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 61.2%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: Blakeley Rd & Hammond Rd



Appendix E
Capacity Analysis Summary Sheets
HCS

HCS7 Two-Way Stop-Control Report

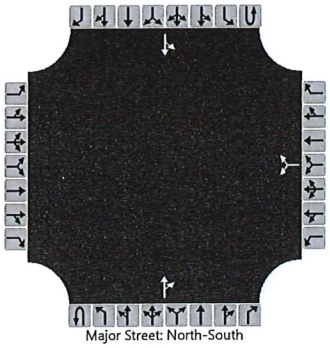
General Information

Analyst	Omar El Masri
Agency/Co.	CTS
Date Performed	10/16/2020
Analysis Year	2022
Time Analyzed	AM
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Blakeley Rd & Site Access
Jurisdiction	Pitt meadows
East/West Street	Site access
North/South Street	Blakeley Rd
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						8		1			159	7		1	123	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked						0.000		0.000						0.000		
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							10							1		
Capacity, c (veh/h)							611							1333		
v/c Ratio							0.02							0.00		
95% Queue Length, Q_{95} (veh)							0.0							0.0		
Control Delay (s/veh)							11.0							7.7		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)					11.0								0.1			
Approach LOS					B											

HCS7 Two-Way Stop-Control Report

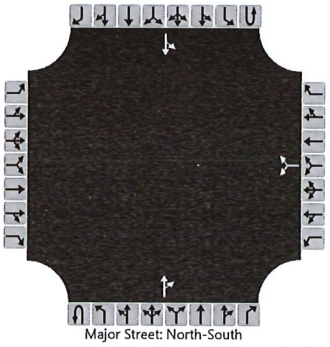
General Information

Analyst	Omar El Masri
Agency/Co.	CTS
Date Performed	10/16/2020
Analysis Year	2022
Time Analyzed	PM
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Blakeley Rd & Site Access
Jurisdiction	Pitt meadows
East/West Street	Site access
North/South Street	Blakeley Rd
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						7		1			173	8		1	152	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked						0.000		0.000						0.000		
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.20		

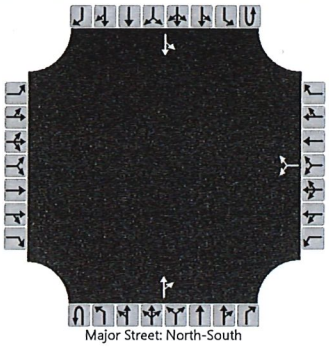
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							9							1		
Capacity, c (veh/h)							578							1315		
v/c Ratio							0.02							0.00		
95% Queue Length, Q_{95} (veh)							0.0							0.0		
Control Delay (s/veh)							11.3							7.7		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)					11.3								0.1			
Approach LOS					B											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Omar El Masri	Intersection	Blakeley Rd & Site Access
Agency/Co.	CTS	Jurisdiction	Pitt meadows
Date Performed	10/16/2020	East/West Street	Site access
Analysis Year	2022	North/South Street	Blakeley Rd
Time Analyzed	PM PED	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description			

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						7		1			183	8		1	161	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked						0.000		0.000						0.000		
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							9							1		
Capacity, c (veh/h)							444							1060		
v/c Ratio							0.02							0.00		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							13.3							8.4		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)					13.3								0.1			
Approach LOS					B											

CITYSTATE BUILDING BETTER COMMUNITIES

Mayor and Council
City of Pitt Meadows
12007 Harris Road, Pitt Meadows, BC V3Y 2B5

November 16, 2020

Dear Mayor and Council,

Re: Public Input from Community Outreach Session #3 – November 2020 – 11812 Blakely

On behalf of the owners of 11812 Blakely, we are pleased to present the findings of our public Community Outreach for this project. We held two rounds of consultation, one in 2019 and one earlier this year. We held a 3rd round on November 1, 2020 to re-introduce our proposal to Pitt Meadows residents and get feedback from as many people as possible for our small project.

We publicized the event with an advertisement in the Maple Ridge and Pitt Meadows News for two-consecutive runs, in addition to mailing invitations directly to 49 dwellings within the mandated notification area. Out of 17 individuals who had registered, a total of 9 people attended the online consultation sessions. We divided participants into focus groups to allow everyone equal speaking opportunity. We also invited the public to submit written comments for an extended two-week period after our Online Community Outreach Forum.

Please find attached a summary of public input and our project presentation slides.

This property is at an important intersection along Hammond Rd. We appreciate Council's willingness to listen to residents who encouraged density where it makes sense, along arterial roads, like Hammond and at signalized intersections with Harris and Blakely. The owners are committed to exceeding the City's minimum requirements for consultation. We thank you in advance for your consideration.

Sincerely,

Gaëtan Royer
CEO, CityState Consulting Services

Distribution

Mayor & Council

Public input from Community Outreach Session #3
Sunday, November 1, 2020, via UberConference

Forum Registered Participants: 17
Forum Registered Attendees: 9

Online Engagement Forum Agenda:

- 15-minute presentation by CityState, including:
  - Draft City of Pitt Meadows OCP Review and Public Consultation
  - Context and proposed Site Plan Overview
  - Traffic, proposed Parking Plan and City Requirements
  - Design elements and options
- 30-minute Question and Answer Period

Note that we would have extended the Q&A period if there had been further questions.

Main Topics and Concerns

Topic 1 (Traffic): CityState commissioned an up-to-date, traffic count and analysis, conducted on a school day, on October 13, 2020. Traffic volume was similar to pre-covid conditions. Our Traffic Engineer's peak hour assessment is that 8 additional cars are predicted to be added to the existing traffic flow of 757 vehicles at the Blakely-Hammond intersection. Our Traffic Engineer initially said that our project was too small to warrant a Traffic Study, however we insisted to meet the concerns of Council and residents.

Topic 2 (Parking): 4% of neighbours within the notification area voiced concerns about parking related to new residents and commercial activity. Cars are always an issue. Nearly every developer requests that we reduce the parking count. In this case, the developer proposes that our onsite parking exceed the minimum required 12 stalls, by providing 13 parking stalls.

Topic 3 (Commercial Activity): 4% of neighbours within the notification area voiced concerns about the development becoming a potential *hang-out* hub for students. In response to these comments, we propose to create language in the Zoning Bylaw that limits commercial activity to personal services, professional office and by-appointment businesses.

Topic 4 (Safety): 4% of neighbours within the notification area shared concerns about safety. It is our understanding that 2 pedestrians have been hit at this intersection over the last 3 years. We sympathize and reiterate that our proposal will provide more eyes on the road and an improved, safer and well-lit pedestrian crossing.

Main Topic Responses	Number of respondents

Concerned about traffic	5
Concerned about parking	4
Concerned about commercial activity	2
Concerned about safety	3

Conclusion

We invite Council to consider that during our first 2 rounds of door-knocking, 7 neighbours reported that they were in support of the project, or indifferent to our proposed development; while 32 residents did not respond to our request for feedback, some of these neighbours voiced support during our first two rounds of public consultation.

In preparation for the November session, we worked closely with staff to meet the recommendations of Public Engagement during Covid-19.

At this third consultation session, we heard mainly traffic-related comments and one person expressed being satisfied that we listened early on and downscaled the project from 6 to 5 units.

One resident stands out as a strong opponent of the project. Her house is located close to the Village Commercial area. I met her at the door during our second round of consultation in March. I personally took her recent phone calls and spent time providing traffic counts, answering queries and explaining various details. Her voice is important and I encouraged her to write to Council.

At this point, we think that we achieved the *right-sized* mix of uses and the appropriate density for the site. Many residents previously expressed positive views about the form and character of this small Hammond corridor project.

I certify that this accurately documents written comments collected from the public and reflects the essence of the verbal comments shared by attendees and our team during this second consultation forum. A full record of unredacted comments and input is available to staff upon request.

Gaetan Royer,
CEO, CityState Consulting Services Inc.

November 16, 2020

To: carola@citystate.ca
adominelli@pittmeadows.ca

Ref: 11812 Blakely Road., Application No. 6480-20-2020-02

Good Day,

I am writing in regards to the proposed property development at 11812 Blakely Road.

My name is Roy Johnson and my wife Kellie Winters and I have lived at 11760 Blakely Rd. since 2004 after we moved from Coquitlam due to high density projects in our neighborhood which increased traffic and crime immensely.

We chose Pitt Meadows as we were spending a lot of time here and enjoyed the quite, well established neighborhoods. In particular, we chose this area with older houses and larger lots as opposed to purchasing a newer home with a much smaller lot size in Osprey village. Although we fully understand the need for a city to grow and change over time, we did not expect our already established neighborhood to change so much.

Since we have moved here traffic on Blakely has increased immensely, partly due to the new sports field behind the high school. Also, many of the houses on the large lots have been torn down and replaced with duplex's and even a threeplex next to us in which one side appears to be only 25 feet wide despite the fact that the other houses on the street have 70 foot wide lots.

The duplexes are causing parking problems since they have no on street parking themselves due to the 2 car wide driveways per side. If you look around, almost all houses have a minimum of 3 vehicles, whether it be a kids car, work vehicle, motorhome, boat, etc. if any of these homeowners have more than 2 vehicles or visitors, they have to park in front of the neighbors houses which takes away from their parking. If this is a problem with duplexes, imagine what it will be like with a 5-suite residential / commercial building right on a busy corner with no street parking for residents, visitors, or potential customers.

The development as we see it is a bad idea due to the fact that it does not fit in this neighborhood. This is a residential area between 2 schools, a dog park, and a sports field with heavy pedestrian and vehicle traffic. A development like this will certainly affect vehicle traffic, parking, and the safety of our children walking to and from school.

As I am sure you are aware, the neighbors in the Bonson and Hammond area are not very happy with the parking situation caused by the dental office (which has a good size parking lot), especially during the recent renovation project.

There is plenty of commercial space with walking distance of this neighborhood and if this is the design that the builder wants to pursue there are many more suitable areas within walking distance that would be much more appropriate for commercial building.

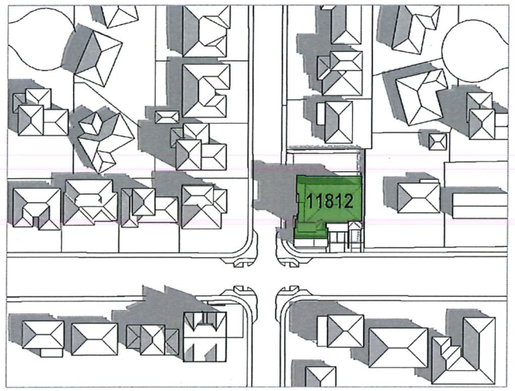
Already established residential areas with schools should be left as they are and not rezoned for high density or commercial properties. We have heard of no convincing arguments on how this will be of any benefit to our neighborhood aside from the possibility of increased property values which is only valid for someone who also wants to rezone and/or sell their property, not for us steady taxpayers who want to stay and enjoy the relaxed residential neighborhood that we moved into

This leaves us with the conclusion that no one benefits from this proposed project aside from the property owner and builder who most likely do not reside in this neighborhood and do not have to live with the negative effect that this proposal will have on the rest of us.

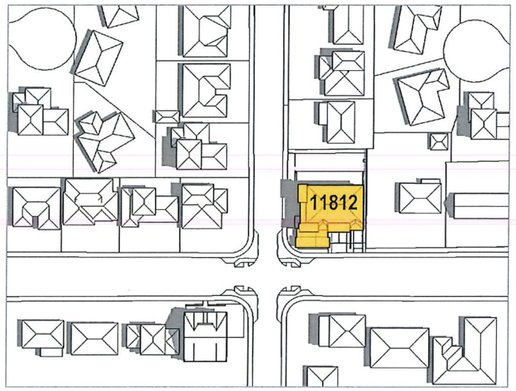
Thank you for allowing us to express our opinions and concerns with this project.

Best Regards,

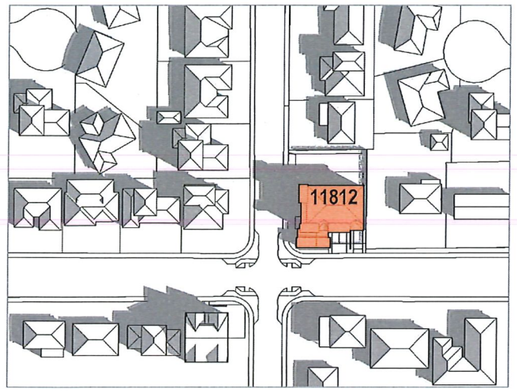
Roy Johnson
[redacted]



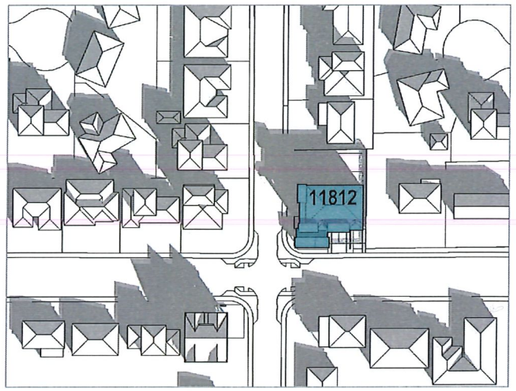
March 21, 9am



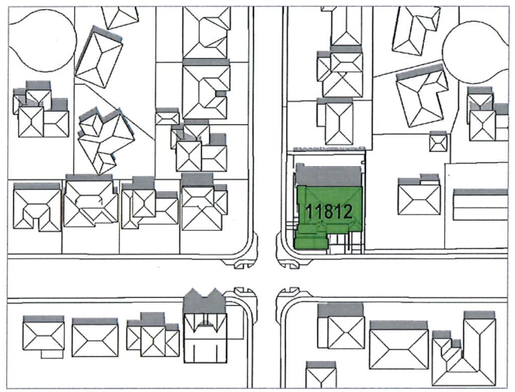
June 21, 9am



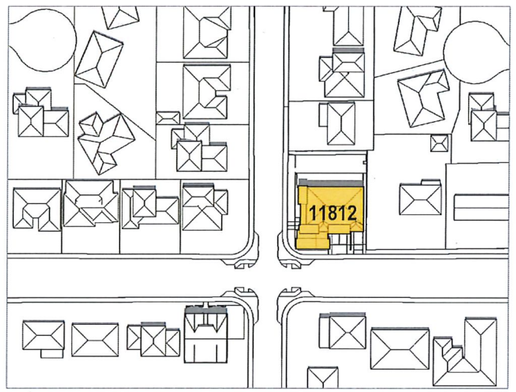
September 21, 9am



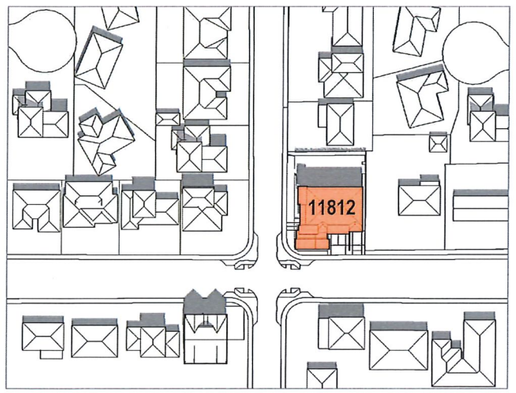
December 21, 9am



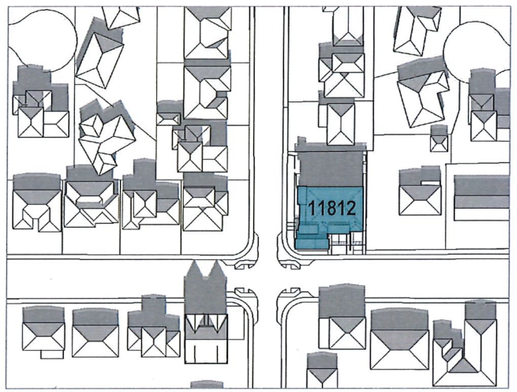
March 21, 12pm



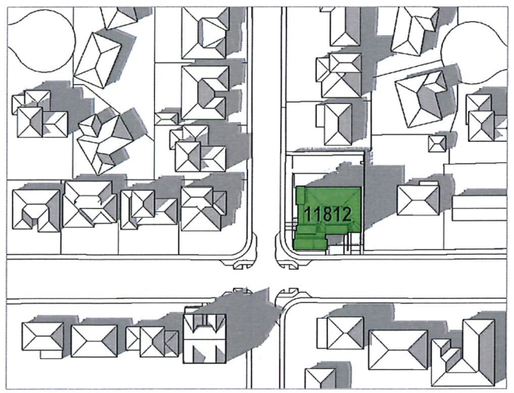
June 21, 12pm



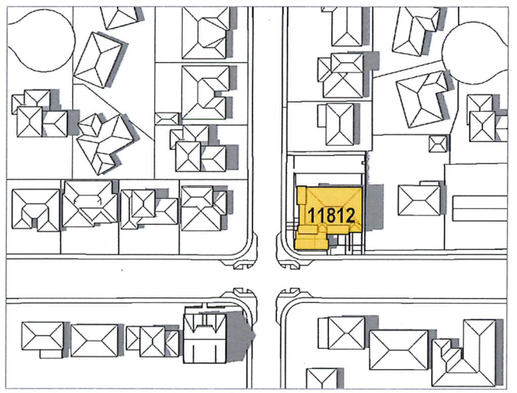
September 21, 12pm



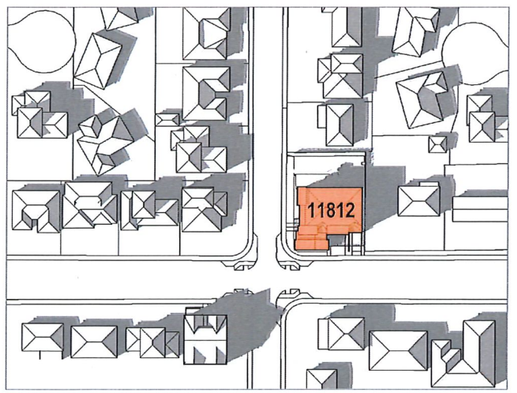
December 21, 12pm



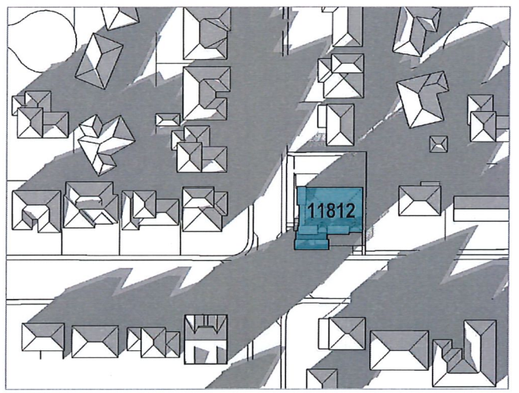
March 21, 4pm



June 21, 4pm



September 21, 4pm



December 21, 4pm

CITYSTATE	Gaëtan Royer – CityState Consulting Services 2419 Clarke Street, Port Moody, BC, Canada V3H 1Z2 gaetan@citystate.ca	Project: BLAKELY HAMMOND RM-1 TOWNHOUSE PROJECT	Sheet: A14	Description: SHADOW ANALYSIS	Scale: 1"=80' 1:196	Date: 19 FEB 2020 Revised: 12 MAR 2020 Revised: 30 APR 2020 Revised: Revised: