

# Pinnacle Ridge Anmore Transportation Impact Assessment

Version 3

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Prepared for

Anmore Hillside Landowners (Trez/MNP, Anmore Gate LP, and  
BellaTerra 2)

Date

December 19, 2023

Project No.

04-23-0326

December 19, 2023  
04-23-0326

Ali Sarpoushan  
Urbanex Strategies Ltd.  
1857 Burrill Ave  
North Vancouver, BC  
V7K 1M3

Dear Ali:

**Re: Pinnacle Ridge Anmore  
Transportation Impact Assessment**

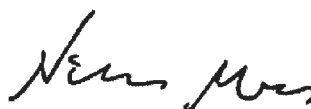
Bunt & Associates Engineering Ltd. (Bunt) has completed a Transportation Impact Assessment (TIA) study for the proposed residential development located in southeast Anmore, BC. Our report is provided and addresses the potential transportation impacts related to the proposed development.

We trust that the TIA report will be of assistance with the approval process. Please do not hesitate to contact us should you have any questions regarding this report.

Yours truly,  
**Bunt & Associates**



Amanda Reale, EIT  
Transportation Analyst



Nicolas Moss, P.Eng.  
Transportation Engineer

## CORPORATE AUTHORIZATION

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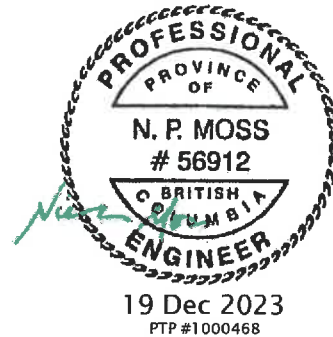
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Date: 2023-12-19

Project No. 04-23-0326

Approved By: Yulia Liem, P.Eng., PTOE  
Principal, Regional Manager BC



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# 1. INTRODUCTION

## 1.1 Study Purpose & Objectives

Urbanex Strategies is representing a group of three landowners (Trez/MNP, Anmore Gate LP, and BellaTerra 2) to develop lands east of East Road in the Village of Anmore, BC. The project, known as Pinnacle Ridge, is proposing to subdivide the land for development of a combination of single-family homes, semi-detached dwellings, and townhouses through an Official Community Plan (OCP) Amendment. To support the approval process, the following study will review the estimated traffic impacts of this development.

## 1.2 Study Scope & Area

The study area for this project includes two intersections:

- East Road and Kinsey Drive
- East Road and Charlotte Crescent

The site is located in the southeast corner the Village of Anmore which borders the City of Port Moody. The site location and study area are shown in **Exhibit 1.1**. The site plan is shown in **Exhibit 1.2**. As shown in both exhibits, the new development will include an extension of North Charlotte Road to East Road, as well as additional local roads within the site. The site will be accessed from either North Charlotte Road from the south, or Kinsey Drive/Ridge Mountain Drive all via East Road. Additional land adjacent to this site is expected to be developed by other landowners, which is shown in **Exhibit 1.2**, but is not considered within this study.

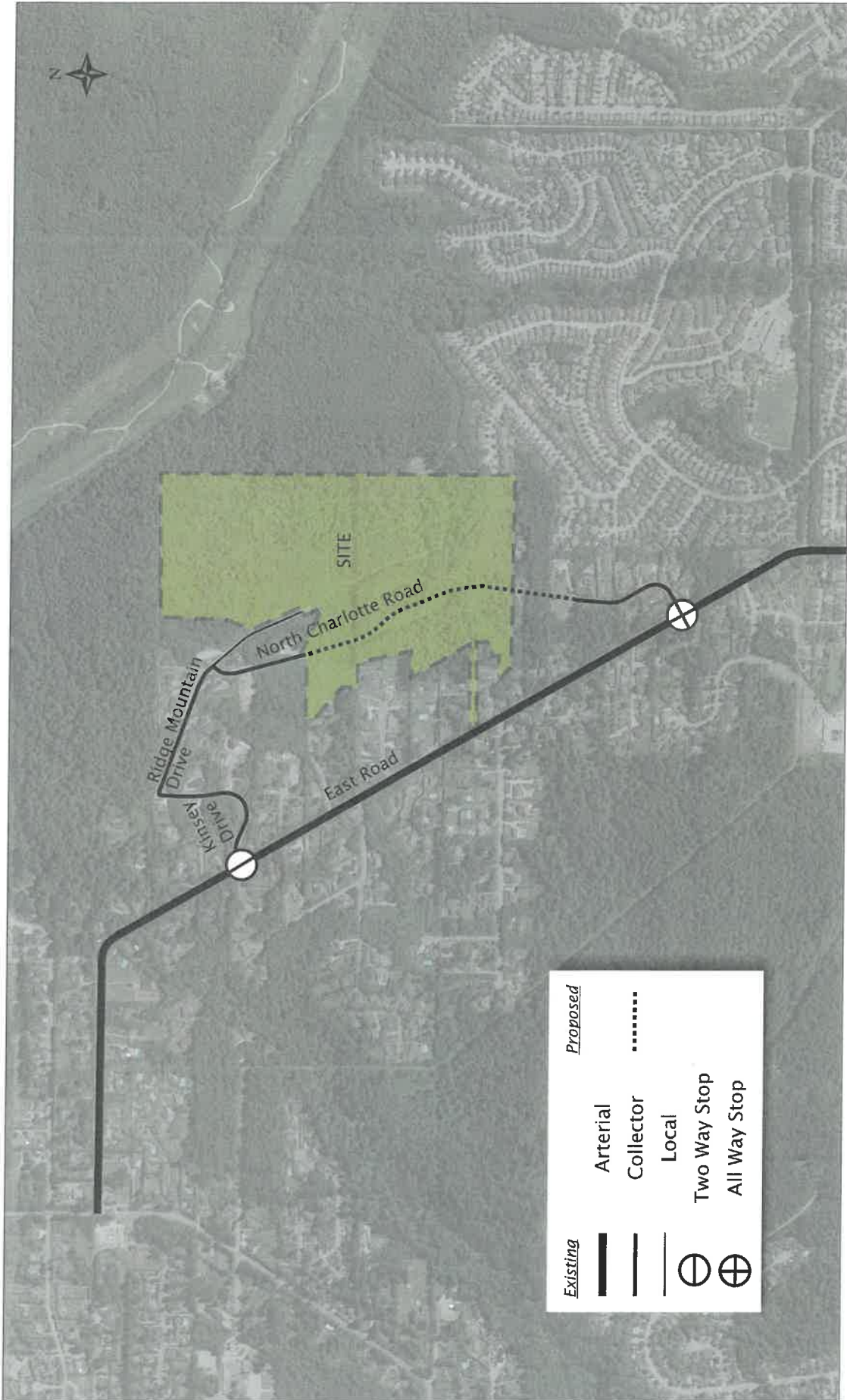
## 1.3 Proposed Development

The proposed residential development includes a combination of single-family homes, semi-detached dwellings, and townhouses. **Table 1.1** summarizes the proposed residential development composition.

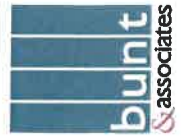
**Table 1.1: Proposed Land Uses**

LAND USE	UNITS
Single Family Homes	59
Semi-Detached Dwellings and Townhouses	202
<b>TOTAL</b>	<b>261</b>





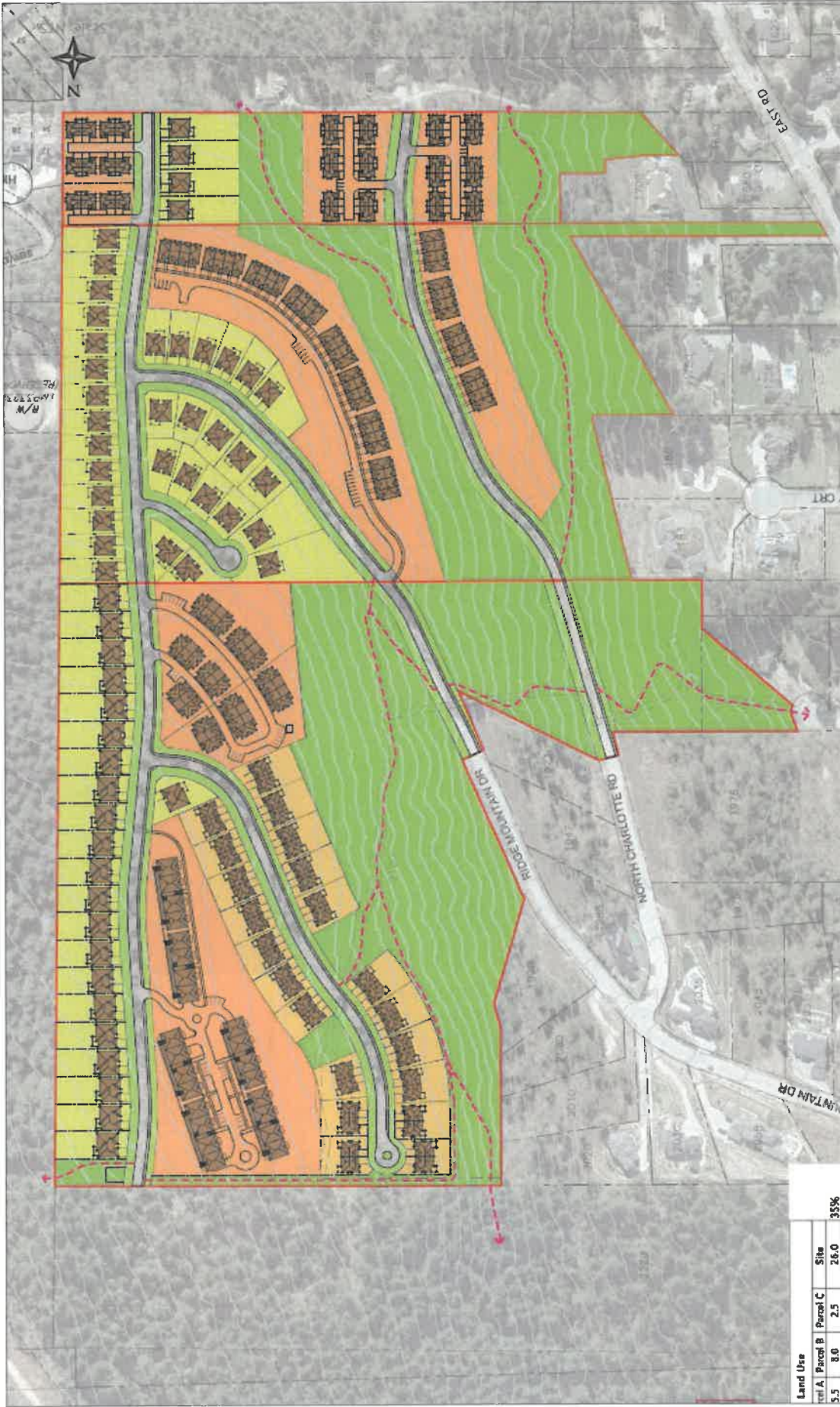
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# Exhibit 1.1 Study Area

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## Exhibit 1.2 Site Plan

Pinnacle Ridge Anmore  
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## 2. EXISTING CONDITIONS

### 2.1 Land Use

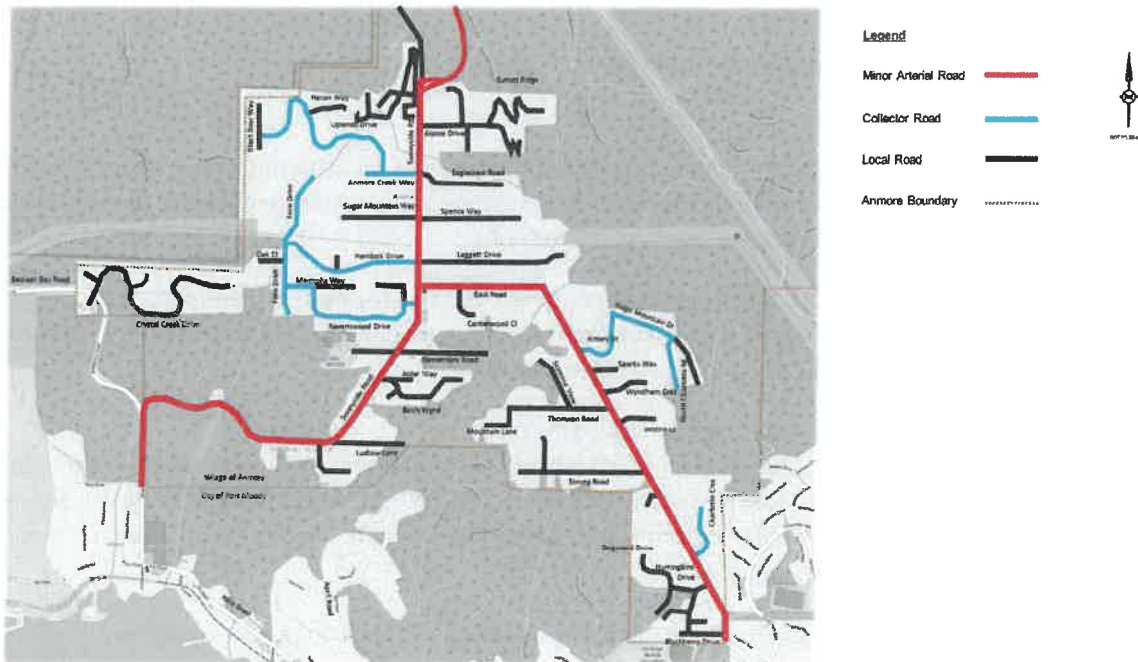
The area surrounding the site is generally residential. There are few amenities within Anmore, with residents travelling into surrounding areas to access most services.

### 2.2 Existing Transportation Network

#### 2.2.1 Road Network

**Figure 2.1**, taken from the Village of Anmore *Road Network Plan*<sup>1</sup>, illustrates current roadways and their classification in Anmore. East Road, classified as a minor arterial road, is a main corridor for the site area connecting Anmore to Port Moody and Coquitlam via Heritage Mountain Road and David Avenue, respectively. Kinsey Drive, Ridge Mountain Drive, and North Charlotte Road will connect the site to East Road and are classified as collectors.

**Figure 2.1: Village of Anmore Existing Road Network and Classification**



Source: ISL, 2017.

<sup>1</sup> *Village of Anmore: Road Network Plan*. ISL, 2017. <http://anmore.com/wp-content/uploads/2017/08/Road-Network-Plan-2017.pdf>

**Table 2.1** summarizes the existing street network in the immediate site area.

**Table 2.1: Existing Street Characteristics**

STREET	CLASSIFICATION	NUMBER OF TRAVEL LANES	POSTED SPEED	PARKING FACILITIES
East Road	Minor Arterial Road	2	30-50 Km/h	None
Kinsey Drive	Collector Road	2	30 Km/h	North side
Ridge Mountain Drive	Collector Road	2	30 Km/h	South side

### 2.2.2 Transit Network

The area is currently directly served by bus routes 179 and 182. Route 182 runs from Belcarra in the west, through East Road, south to connect to Moody Centre Station. Route 179 is a seasonal (summer) route which runs from Coquitlam Central Station to Buntzen Lake.

### 2.2.3 Pedestrian and Cycling Facilities

The area is generally not pedestrian or cyclist oriented, with little pedestrian and cycling facilities. Most roads within the area, including East Road, have narrow sidewalks on one side of the street.

## 2.3 Current Relevant Policies and Plans

### *Village of Anmore OCP*

The Village of Anmore Official Community Plan (OCP)<sup>2</sup> focuses on achieving faster rates of development in the short term, providing more flexible lot size restrictions, and supporting denser forms of development, while keeping population growth carefully monitored.

Anmore residents are currently dependent on private vehicles for most of their daily activities. To tackle this issue and to provide more sustainable transportation modes, the Village of Anmore relies on TransLink's Northeast Sector Area Transit Plan (NESATP).

### *Transportation 2050 – Regional Transportation Strategy*

Metro Vancouver adopted the Transport 2050 Regional Transportation Strategy (RTS) in early 2022. The five overarching goals of Transportation 2050 are to provide transportation that is convenient, reliable, affordable, safe & comfortable, and carbon-free. The Plan identifies a wide range of action items to achieve these goals, and include among others:

- Quadrupling the size of the rapid transit network, from 100 to 400 kilometres
- Building out an 850-kilometre traffic-protected Major Bikeway Network

<sup>2</sup> *Official Community Plan*. Village of Anmore, 2014. <http://anmore.com/wp-content/uploads/2017/06/Official-Community-Plan.pdf>

- Putting frequent transit within a short walk of most homes and jobs
- Dedicating more streets to walking, biking, rolling, and transit
- Promoting electrified and shared bikes, scooters, and cars

#### *Northeast Sector Area Transit Plan (NESATP)*

TransLink's Northeast Sector Area Transit Plan (NESATP)<sup>3</sup> provides for a 30-year long-term vision for service and infrastructure priorities for Coquitlam, Port Moody, Port Coquitlam, Anmore, and Belcarra. This plan, developed over the period from 2013-2015, acknowledges that transit in this area has not been properly aligned with recent land developments.

Stakeholder and public consultation input was used to develop a long-term vision and identify short-term priorities for transit improvements, further improved by the Evergreen Extension of the Millennium Line, which initiated service in 2016.

As part of the near-term priorities, new routes were proposed for the study area and identified as *medium priority*, for which TransLink will seek additional funding before being able to provide any new services. It is expected for the implementation of these new routes to increase transit mode share in the mid-term future. Currently at Phase 4, efforts are being made towards monitoring and reporting on the progress of the Area Transit Plan to ensure land use and transportation planning continue to be coordinated.

## 2.4 Existing Traffic Volumes

Bunt & Associates collected weekday traffic volumes at each of the study intersections on Wednesday October 25, 2023 in sunny and dry road conditions. The traffic volumes in this area vary due to seasonal activities such as visiting Buntzen Lake recreation area. Bunt has collected traffic volumes at East Road and Sunnyside during summer (Tuesday August 1<sup>st</sup>, 2023) and earlier fall (Tuesday September 19<sup>th</sup>, 2023) periods for other studies within the area. The summer and fall counts collected at Sunnyside and East Road showed link volumes of 236 and 291 during the AM peak, and 317 and 255 during the PM peak, respectively. The traffic volumes collected for this study (Tuesday October 25<sup>th</sup>, 2023) showed link volumes of 467 during the AM peak and 395 during the PM peak. The traffic volumes collected October 25<sup>th</sup> exceed those collected during summer and earlier fall and were therefore utilized in the analysis without any adjustments for seasonal variation, as the highest volumes would allow for the most conservative analysis. The traffic volume data sheets can be found in **Appendix A. Exhibit 2.1** presents the existing peak hour vehicle traffic volumes.

<sup>3</sup> *Northeast Sector Area Transit Plan*. TransLink, 2015. <https://www.translink.ca/Plans-and-Projects/Area-Planning/Northeast-Sector-Area-Transit-Plan.aspx>

## 2.5 Existing Operations

### 2.5.1 Performance Thresholds

The existing operations of study area intersections and access points were assessed using the methods outlined in the 2000 Highway Capacity Manual (HCM), using the Synchro 11 analysis software. The traffic operations were assessed using the performance measures of Level of Service (LOS) and volume-to-capacity (V/C) ratio. Where volume-to-capacity ratio is unavailable for unsignalized intersections, the degree of utilization is referenced.

The LOS rating is based on average vehicle delay and ranges from "A" to "F" based on the quality of operation at the intersection. LOS "A" represents optimal, minimal delay conditions while a LOS "F" represents an over-capacity condition with considerable congestion and/or delay. Delay is calculated in seconds and is based on the average intersection delay per vehicle.

**Table 2.2** below summarizes the LOS thresholds for the six Levels of Service for unsignalized intersections.

**Table 2.2: Intersection Level of Service Thresholds**

LEVEL OF SERVICE	AVERAGE CONTROL DELAY PER VEHICLE (SECONDS)
	UNSIGNALIZED
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	>50

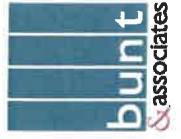
Source: Highway Capacity Manual

The volume to capacity (V/C) ratio of an intersection represents ratio between the demand volume and the available capacity. A V/C ratio less than 0.85 indicates that there is sufficient capacity to accommodate demands and generally represents reasonable traffic conditions in suburban settings. A V/C value between 0.85 and 0.95 indicates an intersection is approaching practical capacity; a V/C ratio over 0.95 indicates that traffic demands are close to exceeding the available capacity, resulting in saturated conditions. A V/C ratio over 1.0 indicates a very congested intersection where drivers may have to wait through several signal cycles. In downtown and Town Centre contexts, during peak demand periods, V/C ratios over 0.90 and even 1.0 are common.





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## Exhibit 2.1 Existing Peak Hour Traffic Volumes

Pinnacle Ridge Anmore  
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#### Unsignalized Intersections:

- Individual movement Level of Service = LOS E or better, unless the volume is very low in which case LOS F is acceptable.

In interpreting of the analysis results, note that the HCM methodology reports performance differently for various types of intersection traffic control. In this report, the performance reporting convention is as follows:

- For unsignalized two-way stop-controlled intersections: HCM 2000 LOS and V/C output is reported just for individual lanes as the HCM methodology does not report overall performance. SimTraffic estimated queues and delays have also been reported.
- For unsignalized All-way Stop controlled intersections: HCM 2000 unsignalized LOS is reported for the overall intersection as well as by intersection approach LOS. The HCM 2000 methodology does not report an overall V/C ratio for All Way Stop controlled intersections. Degree of Utilization calculated with the HCM 2000 methodology is reported for individual movements in place of V/C, which is not part of the HCM 2000 report. SimTraffic estimated queues and delays have also been reported.

The performance reporting conventions noted above have been consistently applied throughout this document and the detailed outputs are provided in **Appendix B**.

#### 2.5.2 Existing Conditions Analysis Assumptions

The heavy vehicle percentages and peak hour factors observed during data collection were applied to the Synchro Model. The study area is generally not a pedestrian or cyclist-oriented area, as such, low volumes of pedestrians and cyclists were observed and included in the analysis.

#### 2.5.3 Existing Operational Analysis Results

**Table 2.3** shows the existing condition operations for each of the two study intersections during the AM and PM peak-hour traffic periods. As shown, no intersections or individual movements exceed thresholds for mitigation consideration.

**Table 2.3: Existing Traffic Operations 2023**

INTERSECTION/ TRAFFIC CONTROL	MOVEMENT	AM			PM		
		LOS	V/C	95TH Q (M)	LOS	V/C	95TH Q (M)
East Road and Kinsey Drive/Private Road <i>(Minor Stop Control)</i>	EBLTR	B	0.00	5	B	0.00	5
	WBLTR	B	0.02	10	B	0.01	10
	NBLTR	A	0.00	5	A	0.00	0
	SBL	A	0.00	0	A	0.00	0
	SBTR	A	0.16	0	A	0.10	0
East Road and Charlotte Crescent <i>(All-way Stop Control)</i>	WBLR	A	0.01	5	A	0.01	5
	NBTR	A	0.29	20	A	0.27	20
	SBLT	B	0.41	25	A	0.24	20

## 3. FUTURE TRAFFIC CONDITIONS

### 3.1 Traffic Forecasts

#### 3.1.1 Background Traffic Forecasts

Background traffic is traffic that would be present on the road network if the site did not redevelop. The future background traffic was estimated by applying a 2% yearly linear growth rate. For the purposes of the study, the opening day of the development was assumed to be 2027. **Exhibit 3.1** shows the estimated background traffic forecasts for the future horizon year, opening day plus five years (2032).

#### 3.1.2 Site Traffic

##### *Trip Generation*

**Table 3.1** provides the ITE trip rates for both single-family attached and detached housing land uses which were selected as the most appropriate uses for the proposed development. The rates used are representative of an auto-oriented General Urban/Suburban area with minimal use of alternate modes. The existing homes and traffic observed during each peak period were analyzed to generate an existing trip generation rate. The concluded rates were determined to be lower than the ITE trip rates, and therefore the ITE rates were used as a conservative measure. It is estimated that the semi-detached dwellings may generate similar trip volumes to single family detached housing. Given the trip generation rate of single-family detached housing is significantly higher than that of single-family attached housing, 50% of the semi-attached/townhouse units were classified as detached housing and utilized the higher trip rate as a conservative measure.

**Table 3.1: Peak Hour Vehicle Trip Rates**

LAND USE	UNITS	AM PEAK HOUR			PM PEAK HOUR		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Single-Family Attached Housing (ITE 215)	101	25%	75%	0.48	59%	41%	0.57
Single-Family Detached Housing (ITE 210)	160	25%	75%	0.70	63%	37%	0.94
	261						

**Table 3.2** summarizes the anticipated future site generated vehicle trips for the proposed development based on the above rates.

**Table 3.2: Estimated Peak Hour Site Vehicle Trips**

LAND USE	AM PEAK HOUR			PM PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Single-Family Attached Housing	15	35	50	35	25	60
Single-Family Detached Housing	30	85	115	95	55	150
	45	120	165	130	80	210





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### Exhibit 3.1 Opening Day + 5 Years (2032) Background Traffic Forecasts

Pinnacle Ridge Anmore  
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In conclusion, the site is estimated to generate approximately 165 two-way trips in the AM peak traffic hour and 210 two-way trips in the PM peak traffic hour.

#### *Trip Distribution & Assignment*

The trip distribution is based upon the existing turning movements of vehicles travelling in and out of the existing residential roads of Kinsey Drive/Ridge Mountain Drive and Charlotte Crescent and is summarized in **Table 3.3**.

**Table 3.3: Estimated Trip Distribution**

ORIGIN/DESTINATION	AM PEAK HOUR		PM PEAK HOUR	
	IN (%)	OUT (%)	IN (%)	OUT (%)
East Road North	15	25	20	15
East Road South	85	75	80	85
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

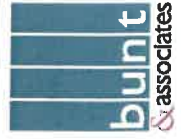
The forecasted site generated traffic is shown in **Exhibit 3.2**. Trips to and from East Road south are assumed to mainly utilize the extended North Charlotte Drive to access the site (85%) with limited trips (15%) continuing north to utilize Kinsey Drive/Ridge Mountain Drive. The reverse has been assumed for trips to and from the north. Trips to and from East Road north are mainly assumed to utilize Kinsey Drive/Ridge Mountain Drive to access the site (85%), with limited trips utilizing the new North Charlotte Road extension (15%). In general, vehicles tend to travel in the direction of the ultimate destination, however, the site plan arrangement may cause vehicles to utilize the intersection which is closest to home regardless of the origin/destination of the trip.

#### **3.1.3 Total Traffic**

Total traffic has been estimated by summing the background traffic with the assumed growth rate of 2% per year, with the estimated generated site traffic. The estimated total traffic for opening day plus five years (2032) is shown in **Exhibit 3.3**.



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### Exhibit 3.2 Site Traffic Forecasts

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### Exhibit 3.3 Opening Day + 5 Years (2032) Total Traffic Forecasts



### 3.2 Future Traffic Operations

#### Future Conditions Analysis Assumptions

The same analysis assumptions regarding heavy vehicle percentages, pedestrian conflicts, and peak hour factors as the existing conditions have been used in the future conditions analysis.

#### Future Background Traffic Operations

**Table 3.4** summarizes the traffic operations for the study area intersections for the background traffic without the subject development.

**Table 3.4: Opening Day + 5 Years (2032) Background Traffic Estimated Vehicle Operations**

INTERSECTION/ TRAFFIC CONTROL	MOVEMENT	AM			PM		
		LOS	V/C	95TH Q (M)	LOS	V/C	95TH Q (M)
East Road and Kinsey Drive (Minor Stop Control)	EBLTR	B	0.00	5	B	0.00	5
	WBLTR	B	0.02	10	B	0.02	10
	NBLTR	A	0.00	5	A	0.00	0
	SBL	A	0.00	0	A	0.00	0
	SBTR	A	0.19	0	A	0.12	0
East Road and Charlotte Crescent (All-way Stop Control)	WBLR	A	0.01	5	A	0.01	5
	NBTR	A	0.35	20	A	0.33	20
	SBLT	B	0.49	25	A	0.28	20

#### Future Traffic Operations

**Table 3.5** shows the traffic operations for the study area intersections for Opening Day + 5 Years (2032). The table displays the operations with background traffic growth, as well as the site generated traffic.

**Table 3.5: Opening Day + 5 Years (2032) Total Traffic Estimated Vehicle Operations**

INTERSECTION/ TRAFFIC CONTROL	MOVEMENT	AM			PM		
		LOS	V/C	95TH Q (M)	LOS	V/C	95TH Q (M)
East Road and Kinsey Drive (Minor Stop Control)	EBLTR	B	0.01	5	B	0.00	5
	WBLTR	B	0.10	15	B	0.05	15
	NBLTR	A	0.00	0	A	0.00	0
	SBL	A	0.01	0	A	0.02	10
	SBTR	A	0.19	0	A	0.12	0
East Road and Charlotte Crescent (All-way Stop Control)	WBLR	A	0.18	15	A	0.11	15
	NBTR	B	0.44	25	B	0.47	25
	SBLT	B	0.56	25	A	0.32	20

### *Summary of Traffic Impacts*

As noted in **Tables 3.4** and **3.5**, the additional vehicle traffic generated from the subject development slightly increased the v/c ratios at the study intersections, but all movements are well within acceptable thresholds. No capacity constraints are expected due to the additional traffic generated.

## 4. CONCLUSIONS

Based on Bunt's analysis, the following is concluded:

- The site development proposes a combination of 59 single-family homes and 202 semi-attached dwellings and townhouses.
- The site is estimated to generate 165 two-way trips in the AM peak traffic hour (45 inbound and 120 outbound) and 210 two-way trips in the PM peak traffic hour (130 inbound and 80 outbound).
- The study area intersections are not expected to experience any capacity constraints with the additional traffic generated from the site.

*The attached information is provided to support the agency's review process  
and shall not be distributed to other parties without written consent from  
Bunt & Associates Engineering Ltd.*

# APPENDIX A

## Traffic Data

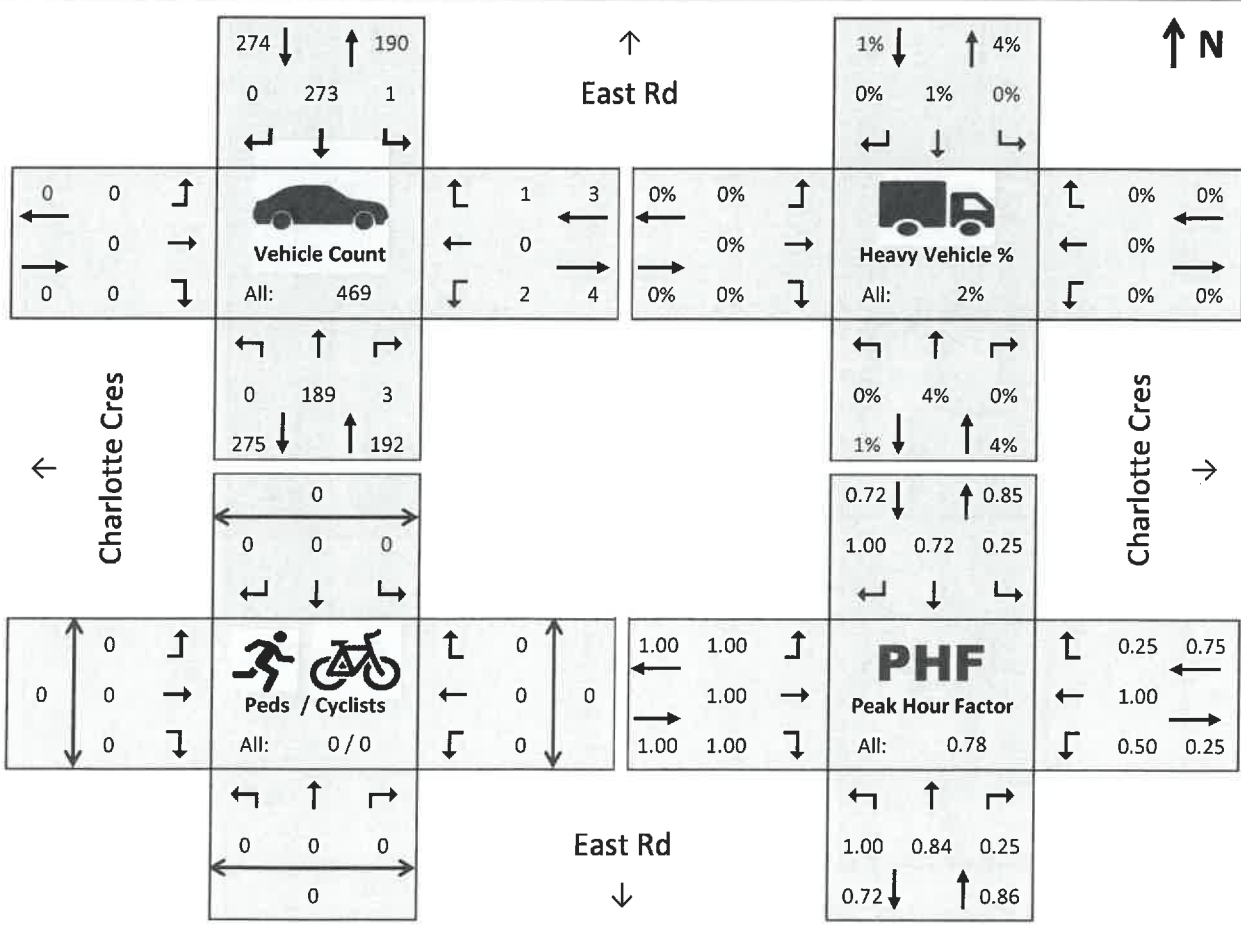


# East Rd @ Charlotte Cres – Anmore, BC



**Project#:** 04-23-0326      **Weather:** Sunny      **Analysis Period:** 8:30 - 9:30  
**Date:** Oct 25, 2023 (Wed)      **Road Cond:** Dry      **Intersection Peak:** 8:30 - 9:30  
**Notes:**

TIME INTERVAL	AUTOMOBILE COUNT												PEDESTRIANS			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	N	S	E	W
7:30 - 7:45	0	11	0	1	39	0	0	0	0	0	1	0	0	0	0	
7:45 - 8:00	0	23	0	0	57	0	0	0	2	0	0	0	0	0	0	
8:00 - 8:15	0	34	1	0	46	0	0	0	0	0	0	0	0	0	0	
8:15 - 8:30	0	33	1	0	53	0	0	0	0	0	0	0	0	0	0	
8:30 - 8:45	0	28	0	0	63	0	0	0	0	0	0	0	0	0	0	
8:45 - 9:00	0	53	0	1	69	0	0	0	0	0	1	0	0	0	0	
9:00 - 9:15	0	52	3	0	95	0	0	0	1	0	0	0	0	0	0	
9:15 - 9:30	0	56	0	0	46	0	0	0	1	0	0	0	0	0	0	
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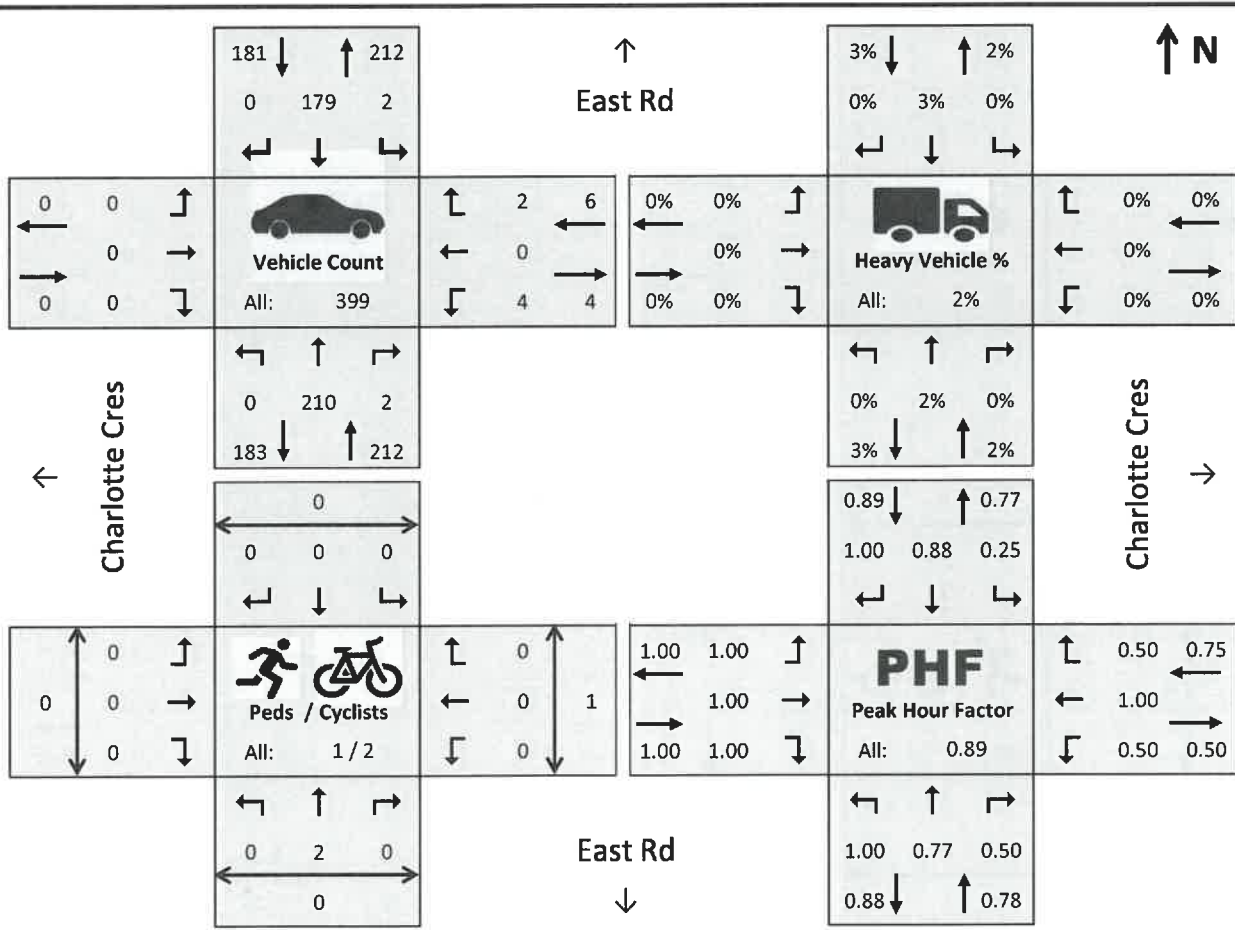


# East Rd @ Charlotte Cres – Anmore, BC



**Project#:** 04-23-0326      **Weather:** Sunny      **Analysis Period:** 15:30 - 16:30  
**Date:** Oct 25, 2023 (Wed)      **Road Cond:** Dry      **Intersection Peak:** 15:15 - 16:15  
**Notes:**

TIME INTERVAL	AUTOMOBILE COUNT												PEDESTRIANS			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	N	S	E	W
14:30 - 14:45	0	68	0	0	33	0	0	0	0	1	0	0	0	0	0	0
14:45 - 15:00	0	41	1	0	37	0	0	0	0	2	0	0	0	0	0	0
15:00 - 15:15	0	33	0	0	48	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	44	3	0	58	0	0	0	0	1	0	0	0	0	0	0
15:30 - 15:45	0	68	0	0	43	0	0	0	0	0	0	1	0	0	0	0
15:45 - 16:00	0	59	1	2	39	0	0	0	0	1	0	1	0	0	0	0
16:00 - 16:15	0	33	1	0	46	0	0	0	0	2	0	0	0	0	1	0
16:15 - 16:30	0	50	0	0	51	0	0	0	0	1	0	0	0	0	0	0
16:30 - 16:45	0	53	2	0	39	0	0	0	0	0	0	1	0	0	0	0
16:45 - 17:00	0	54	2	0	41	0	0	0	0	0	0	0	0	0	0	0
17:00 - 17:15	0	48	1	0	30	0	0	0	0	1	0	0	0	0	0	0
17:15 - 17:30	0	42	1	0	40	0	0	0	0	2	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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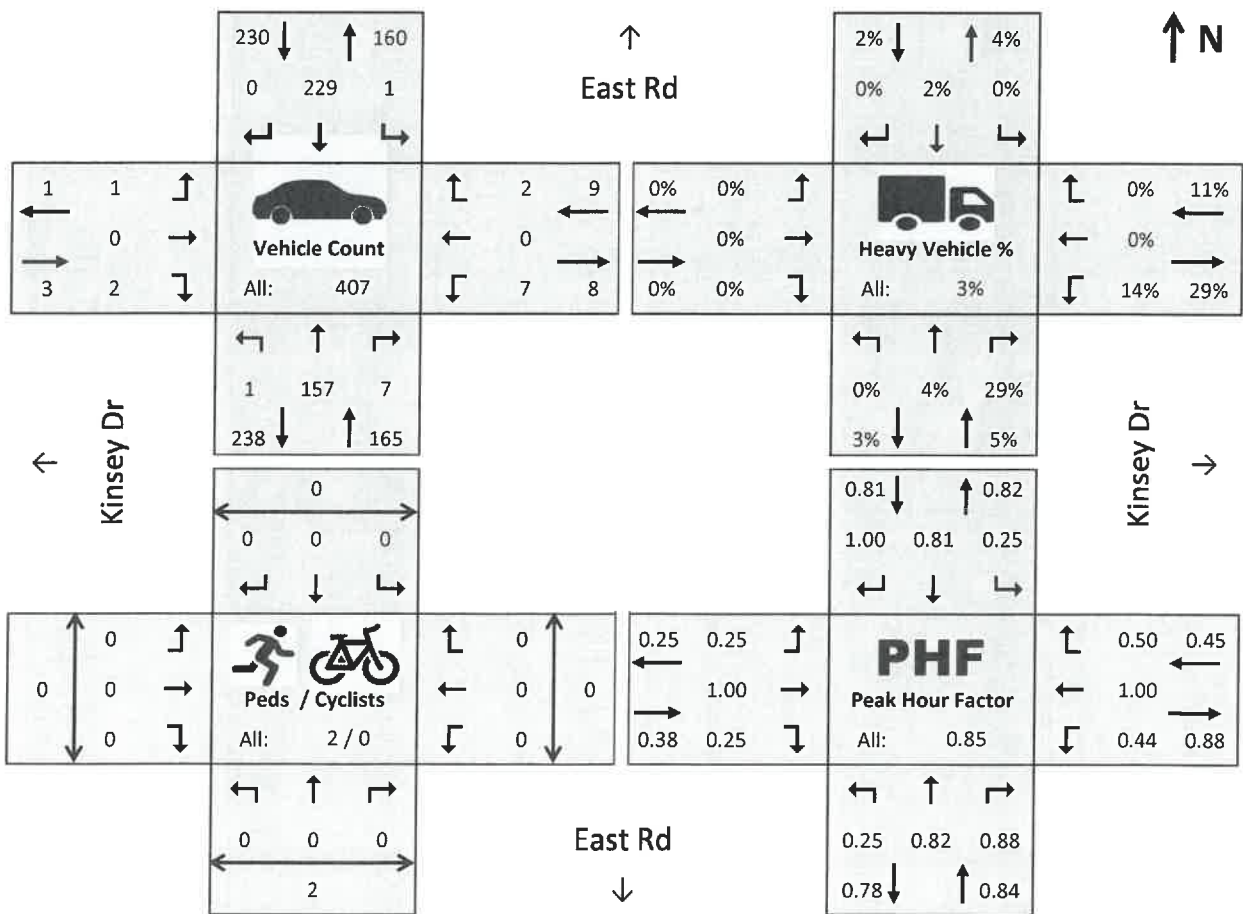


# East Rd @ Kinsey Dr – Anmore, BC



**Project#:** 04-23-0326      **Weather:** Sunny      **Analysis Period:** 8:30 - 9:30  
**Date:** Oct 25, 2023 (Wed)      **Road Cond:** Dry      **Intersection Peak:** 8:30 - 9:30  
**Notes:**

TIME INTERVAL	AUTOMOBILE COUNT												PEDESTRIANS			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	N	S	E	W
7:30 - 7:45	0	7	0	1	30	0	0	0	0	0	0	0	0	0	0	0
7:45 - 8:00	0	17	1	0	40	0	0	0	0	5	0	1	0	0	0	0
8:00 - 8:15	0	27	0	0	38	0	0	0	0	0	0	0	0	0	0	0
8:15 - 8:30	0	29	0	0	48	0	0	0	0	0	0	0	0	0	0	0
8:30 - 8:45	0	23	2	0	47	0	0	0	0	0	0	0	0	2	0	0
8:45 - 9:00	0	45	2	1	60	0	1	0	0	4	0	1	0	0	0	0
9:00 - 9:15	1	41	2	0	71	0	0	0	2	3	0	0	0	0	0	0
9:15 - 9:30	0	48	1	0	51	0	0	0	0	0	0	1	0	0	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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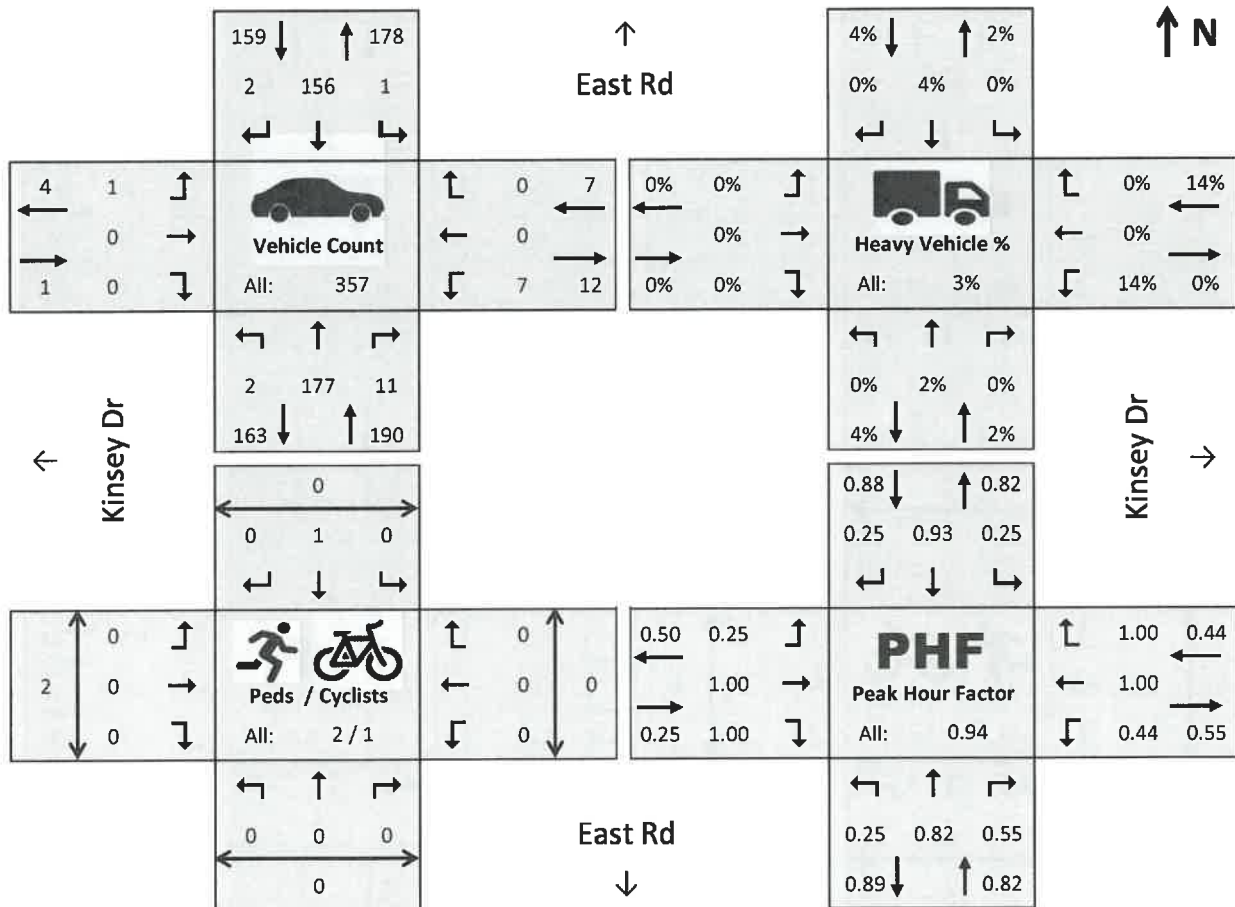


# East Rd @ Kinsey Dr – Anmore, BC



**Project#:** 04-23-0326      **Weather:** Sunny      **Analysis Period:** 15:30 - 16:30  
**Date:** Oct 25, 2023 (Wed)      **Road Cond:** Dry      **Intersection Peak:** 15:30 - 16:30  
**Notes:**

TIME INTERVAL	AUTOMOBILE COUNT												PEDESTRIANS			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	N	S	E	W
14:30 - 14:45	0	54	4	0	28	0	0	0	0	2	0	0	0	0	0	0
14:45 - 15:00	0	38	0	1	29	0	0	0	0	2	0	0	0	0	0	0
15:00 - 15:15	0	23	2	0	40	0	0	0	0	1	0	0	0	0	0	0
15:15 - 15:30	0	21	1	0	51	0	0	0	0	1	0	0	1	0	0	0
15:30 - 15:45	0	54	4	0	34	0	0	0	0	2	0	0	0	0	0	0
15:45 - 16:00	2	48	5	0	38	0	1	0	0	1	0	0	0	0	0	0
16:00 - 16:15	0	33	0	1	42	2	0	0	0	0	0	0	0	0	0	2
16:15 - 16:30	0	42	2	0	42	0	0	0	0	4	0	0	0	0	0	0
16:30 - 16:45	0	42	1	0	27	0	0	0	0	3	0	1	0	0	0	0
16:45 - 17:00	0	45	3	0	36	0	0	0	0	2	0	1	0	0	0	0
17:00 - 17:15	1	36	0	0	27	0	0	0	0	2	0	0	2	0	0	0
17:15 - 17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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*The attached information is provided to support the agency's review process  
and shall not be distributed to other parties without written consent from  
Bunt & Associates Engineering Ltd.*

## APPENDIX B

### Synchro and SimTraffic Reports

# HCM Unsignalized Intersection Capacity Analysis










## 1: East Road & Private Road/Kinsey Drive

AM Existing 2023  
Timing Plan: AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	2	7	0	2	1	157	7	1	229	0
Future Volume (Veh/h)	1	0	2	7	0	2	1	157	7	1	229	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	1	0	2	8	0	2	1	185	8	1	269	0
Pedestrians								2				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	464	466	271	466	462	189	269			193		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	464	466	271	466	462	189	269			193		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	98	100	100	100			100		
cM capacity (veh/h)	510	496	771	485	499	858	1306			1392		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total	3	10	194	1	269							
Volume Left	1	8	1	1	0							
Volume Right	2	2	8	0	0							
cSH	659	531	1306	1392	1700							
Volume to Capacity	0.00	0.02	0.00	0.00	0.16							
Queue Length 95th (m)	0.1	0.5	0.0	0.0	0.0							
Control Delay (s)	10.5	11.9	0.0	7.6	0.0							
Lane LOS	B	B	A	A								
Approach Delay (s)	10.5	11.9	0.0	0.0								
Approach LOS	B	B										
<b>Intersection Summary</b>												
Average Delay			0.4									
Intersection Capacity Utilization			22.7%		ICU Level of Service					A		
Analysis Period (min)			15									













HCM Unsignalized Intersection Capacity Analysis  
 2: East Road & Charlotte Crescent

AM Existing 2023  
 Timing Plan: AM Peak

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	2	1	189	3	1	273
Future Volume (vph)	2	1	189	3	1	273
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	3	1	242	4	1	350
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	4	246	351			
Volume Left (vph)	3	0	1			
Volume Right (vph)	1	4	0			
Hadj (s)	0.00	0.06	0.02			
Departure Headway (s)	5.2	4.3	4.2			
Degree Utilization, x	0.01	0.29	0.41			
Capacity (veh/h)	616	819	845			
Control Delay (s)	8.2	9.1	10.0			
Approach Delay (s)	8.2	9.1	10.0			
Approach LOS	A	A	B			
Intersection Summary						
Delay			9.6			
Level of Service			A			
Intersection Capacity Utilization			25.2%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis  
 1: East Road & Private Road/Kinsey Drive










PM Existing 2023  
 Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↙	↘	
Traffic Volume (veh/h)	1	0	0	7	0	0	2	177	11	1	156	2
Future Volume (Veh/h)	1	0	0	7	0	0	2	177	11	1	156	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	1	0	0	7	0	0	2	188	12	1	166	2
Pedestrians		2										
Lane Width (m)		3.6										
Walking Speed (m/s)		1.2										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	369	375	169	366	370	194	170			200		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	369	375	169	366	370	194	170			200		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	100	100			100		
cM capacity (veh/h)	589	557	879	567	561	853	1417			1384		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total	1	7	202	1	168							
Volume Left	1	7	2	1	0							
Volume Right	0	0	12	0	2							
cSH	589	567	1417	1384	1700							
Volume to Capacity	0.00	0.01	0.00	0.00	0.10							
Queue Length 95th (m)	0.0	0.3	0.0	0.0	0.0							
Control Delay (s)	11.1	11.4	0.1	7.6	0.0							
Lane LOS	B	B	A	A								
Approach Delay (s)	11.1	11.4	0.1	0.0								
Approach LOS	B	B										
<b>Intersection Summary</b>												
Average Delay			0.3									
Intersection Capacity Utilization			21.6%		ICU Level of Service					A		
Analysis Period (min)			15									




















HCM Unsignalized Intersection Capacity Analysis  
 2: East Road & Charlotte Crescent

PM Existing 2023  
 Timing Plan: PM Peak

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop		Stop	
Traffic Volume (vph)	4	2	210	2	2	179
Future Volume (vph)	4	2	210	2	2	179
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	4	2	236	2	2	201
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	6	238	203			
Volume Left (vph)	4	0	2			
Volume Right (vph)	2	2	0			
Hadj (s)	-0.03	0.03	0.04			
Departure Headway (s)	4.8	4.1	4.2			
Degree Utilization, x	0.01	0.27	0.24			
Capacity (veh/h)	677	854	850			
Control Delay (s)	7.8	8.7	8.5			
Approach Delay (s)	7.8	8.7	8.5			
Approach LOS	A	A	A			
Intersection Summary						
Delay			8.6			
Level of Service			A			
Intersection Capacity Utilization			21.2%	ICU Level of Service	A	
Analysis Period (min)			15			










HCM Unsignalized Intersection Capacity Analysis  
 1: East Road & Private Road/Kinsey Drive

AM Background 2032  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	2	8	0	2	1	185	8	1	270	0
Future Volume (Veh/h)	1	0	2	8	0	2	1	185	8	1	270	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	1	0	2	9	0	2	1	218	9	1	318	0
Pedestrians								2				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	546	549	320	548	544	222	318			227		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	546	549	320	548	544	222	318			227		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	98	100	100	100			100		
cM capacity (veh/h)	450	445	724	426	448	822	1253			1353		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total	3	11	228	1	318							
Volume Left	1	9	1	1	0							
Volume Right	2	2	9	0	0							
cSH	602	467	1253	1353	1700							
Volume to Capacity	0.00	0.02	0.00	0.00	0.19							
Queue Length 95th (m)	0.1	0.6	0.0	0.0	0.0							
Control Delay (s)	11.0	12.9	0.0	7.7	0.0							
Lane LOS	B	B	A	A								
Approach Delay (s)	11.0	12.9	0.0	0.0								
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.3									
Intersection Capacity Utilization			24.9%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis  
 2: East Road & Charlotte Crescent

AM Background 2032  
 Timing Plan: AM Peak

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	2	1	223	4	1	322
Future Volume (vph)	2	1	223	4	1	322
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	3	1	286	5	1	413
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	4	291	414			
Volume Left (vph)	3	0	1			
Volume Right (vph)	1	5	0			
Hadj (s)	0.00	0.06	0.02			
Departure Headway (s)	5.4	4.4	4.2			
Degree Utilization, x	0.01	0.35	0.49			
Capacity (veh/h)	583	808	837			
Control Delay (s)	8.4	9.7	11.1			
Approach Delay (s)	8.4	9.7	11.1			
Approach LOS	A	A	B			
Intersection Summary						
Delay			10.5			
Level of Service			B			
Intersection Capacity Utilization			27.7%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis  
 1: East Road & Private Road/Kinsey Drive










PM Background 2032  
 Timing Plan: PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↙	↘	
Traffic Volume (veh/h)	1	0	0	8	0	0	2	209	13	1	184	2
Future Volume (Veh/h)	1	0	0	8	0	0	2	209	13	1	184	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	1	0	0	9	0	0	2	222	14	1	196	2
Pedestrians		2										
Lane Width (m)		3.6										
Walking Speed (m/s)		1.2										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	434	441	199	431	435	229	200			236		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	434	441	199	431	435	229	200			236		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	98	100	100	100			100		
cM capacity (veh/h)	533	511	846	530	515	815	1382			1343		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total	1	9	238	1	198							
Volume Left	1	9	2	1	0							
Volume Right	0	0	14	0	2							
cSH	533	530	1382	1343	1700							
Volume to Capacity	0.00	0.02	0.00	0.00	0.12							
Queue Length 95th (m)	0.0	0.4	0.0	0.0	0.0							
Control Delay (s)	11.8	11.9	0.1	7.7	0.0							
Lane LOS	B	B	A	A								
Approach Delay (s)	11.8	11.9	0.1	0.0								
Approach LOS	B	B										
<b>Intersection Summary</b>												
Average Delay			0.3									
Intersection Capacity Utilization			23.4%		ICU Level of Service				A			
Analysis Period (min)			15									




















HCM Unsignalized Intersection Capacity Analysis  
 2: East Road & Charlotte Crescent

PM Background 2032  
 Timing Plan: PM Peak

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	5	2	248	2	2	211
Future Volume (vph)	5	2	248	2	2	211
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	6	2	279	2	2	237
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	8	281	239			
Volume Left (vph)	6	0	2			
Volume Right (vph)	2	2	0			
Hadj (s)	0.03	0.03	0.04			
Departure Headway (s)	5.0	4.2	4.2			
Degree Utilization, x	0.01	0.33	0.28			
Capacity (veh/h)	640	845	830			
Control Delay (s)	8.1	9.2	8.9			
Approach Delay (s)	8.1	9.2	8.9			
Approach LOS	A	A	A			
Intersection Summary						
Delay			9.0			
Level of Service			A			
Intersection Capacity Utilization			23.2%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis  
 1: East Road & Private Road/Kinsey Drive

AM Total 2032  
 Timing Plan: AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	2	22	0	28	1	190	13	6	271	0
Future Volume (Veh/h)	1	0	2	22	0	28	1	190	13	6	271	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	1	0	2	26	0	33	1	224	15	7	319	0
Pedestrians								2				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	600	574	321	570	566	232	319			239		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	600	574	321	570	566	232	319			239		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	94	100	96	100			99		
cM capacity (veh/h)	397	429	723	411	433	813	1252			1340		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total	3	59	240	7	319							
Volume Left	1	26	1	7	0							
Volume Right	2	33	15	0	0							
cSH	568	568	1252	1340	1700							
Volume to Capacity	0.01	0.10	0.00	0.01	0.19							
Queue Length 95th (m)	0.1	2.8	0.0	0.1	0.0							
Control Delay (s)	11.4	12.1	0.0	7.7	0.0							
Lane LOS	B	B	A	A								
Approach Delay (s)	11.4	12.1	0.0	0.2								
Approach LOS	B	B										
<b>Intersection Summary</b>												
Average Delay				1.3								
Intersection Capacity Utilization			25.3%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis  
 2: East Road & Charlotte Crescent


















AM Total 2032  
 Timing Plan: AM Peak



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑			↔
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	79	6	228	33	2	336
Future Volume (vph)	79	6	228	33	2	336
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	101	8	292	42	3	431
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	109	334	434			
Volume Left (vph)	101	0	3			
Volume Right (vph)	8	42	0			
Hadj (s)	0.14	-0.02	0.02			
Departure Headway (s)	5.8	4.7	4.6			
Degree Utilization, x	0.18	0.44	0.56			
Capacity (veh/h)	554	737	752			
Control Delay (s)	10.0	11.4	13.4			
Approach Delay (s)	10.0	11.4	13.4			
Approach LOS	B	B	B			
Intersection Summary						
Delay			12.2			
Level of Service			B			
Intersection Capacity Utilization			30.7%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis  
1: East Road & Private Road/Kinsey Drive










PM Total 2032  
Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	0	18	0	10	2	211	28	23	188	2
Future Volume (Veh/h)	1	0	0	18	0	10	2	211	28	23	188	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	1	0	0	19	0	11	2	224	30	24	200	2
Pedestrians		2										
Lane Width (m)		3.6										
Walking Speed (m/s)		1.2										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	505	509	203	491	495	239	204			254		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	505	509	203	491	495	239	204			254		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	96	100	99	100			98		
cM capacity (veh/h)	466	460	841	461	469	805	1377			1323		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total	1	30	256	24	202							
Volume Left	1	19	2	24	0							
Volume Right	0	11	30	0	2							
cSH	466	547	1377	1323	1700							
Volume to Capacity	0.00	0.05	0.00	0.02	0.12							
Queue Length 95th (m)	0.1	1.4	0.0	0.4	0.0							
Control Delay (s)	12.7	12.0	0.1	7.8	0.0							
Lane LOS	B	B	A	A								
Approach Delay (s)	12.7	12.0	0.1	0.8								
Approach LOS	B	B										
<b>Intersection Summary</b>												
Average Delay			1.1									
Intersection Capacity Utilization			27.0%		ICU Level of Service				A			
Analysis Period (min)			15									



HCM Unsignalized Intersection Capacity Analysis  
 2: East Road & Charlotte Crescent

PM Total 2032  
 Timing Plan: PM Peak

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	62	4	263	90	6	221
Future Volume (vph)	62	4	263	90	6	221
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	70	4	296	101	7	248
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	74	397	255			
Volume Left (vph)	70	0	7			
Volume Right (vph)	4	101	0			
Hadj (s)	0.19	-0.12	0.04			
Departure Headway (s)	5.5	4.3	4.6			
Degree Utilization, x	0.11	0.47	0.32			
Capacity (veh/h)	583	821	759			
Control Delay (s)	9.2	11.1	9.7			
Approach Delay (s)	9.2	11.1	9.7			
Approach LOS	A	B	A			
Intersection Summary						
Delay			10.4			
Level of Service			B			
Intersection Capacity Utilization			29.7%	ICU Level of Service	A	
Analysis Period (min)			15			



Intersection: 1: East Road & Private Road/Kinsey Drive

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	2.9	7.1	0.9
Average Queue (m)	0.6	2.5	0.2
95th Queue (m)	3.8	10.4	2.2
Link Distance (m)	117.7	245.7	1106.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: East Road & Charlotte Crescent

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (m)	1.7	18.8	20.1
Average Queue (m)	0.5	13.0	15.6
95th Queue (m)	3.7	20.9	22.7
Link Distance (m)	164.7	125.6	1106.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: East Road & Private Road/Kinsey Drive

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (m)	1.5	6.2
Average Queue (m)	0.3	1.6
95th Queue (m)	2.7	7.5
Link Distance (m)	117.7	245.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: East Road & Charlotte Crescent

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (m)	5.1	20.0	18.2
Average Queue (m)	1.5	13.7	13.5
95th Queue (m)	6.8	21.8	20.1
Link Distance (m)	164.7	125.6	1106.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: East Road & Private Road/Kinsey Drive

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	3.7	8.3	1.8
Average Queue (m)	1.0	2.4	0.4
95th Queue (m)	5.1	9.8	3.2
Link Distance (m)	117.7	245.7	1106.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: East Road & Charlotte Crescent

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (m)	0.9	18.6	20.8
Average Queue (m)	0.2	13.8	16.9
95th Queue (m)	2.2	20.6	22.8
Link Distance (m)	164.7	125.6	1106.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: East Road & Private Road/Kinsey Drive

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	1.6	6.1	0.9
Average Queue (m)	0.3	2.1	0.2
95th Queue (m)	2.8	8.1	2.2
Link Distance (m)	117.7	245.7	1106.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: East Road & Charlotte Crescent

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (m)	5.8	17.3	18.5
Average Queue (m)	1.8	12.8	14.6
95th Queue (m)	7.4	19.1	20.9
Link Distance (m)	164.7	125.6	1106.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0



Intersection: 1: East Road & Private Road/Kinsey Drive

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (m)	2.2	13.4
Average Queue (m)	0.4	7.9
95th Queue (m)	3.2	16.6
Link Distance (m)	117.7	245.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: East Road & Charlotte Crescent

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (m)	12.8	22.6	23.9
Average Queue (m)	9.5	15.4	18.7
95th Queue (m)	15.5	25.0	26.0
Link Distance (m)	164.7	125.6	1106.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: East Road & Private Road/Kinsey Drive

Movement	EB	WB	SB
Directions Served	LTR	LTR	L
Maximum Queue (m)	0.8	14.6	7.8
Average Queue (m)	0.2	6.6	1.6
95th Queue (m)	2.0	16.5	7.6
Link Distance (m)	117.7	245.7	123.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: East Road & Charlotte Crescent

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (m)	13.1	21.5	19.3
Average Queue (m)	8.7	16.3	15.2
95th Queue (m)	14.6	23.5	22.1
Link Distance (m)	164.7	125.6	1106.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

