DECEMBER 5, 2024

PROJECT NO: 0912-6881

SENT VIA: EMAIL

Town of Caledon 6311 Old Church Road Caledon, ON L7C 1J6

Region of Peel Transportation Division, Public Works 10 Peel Centre Drive, Suite B, 4th Floor Brampton, ON L6T 4B9



Attn: Kavleen S. Younan, P.Eng., Transportation Engineer, Town of Caledon Yifan Shen, Specialist, Transportation Development, Region of Peel

RE: TRANSPORTATION CONFORMANCE LETTER ALLOA (BT) DRAFT PLAN

Dear Kavleen and Yifan,

C.F. Crozier & Associates Inc. (Crozier) has been retained to prepare a Transportation Compliance Letter in support of the Alloa (BT) Draft Plan development application. The Alloa (BT) Draft Plan is comprised of parts of Lot 20, Concession 3, West of Hurontario Street, in the Town of Caledon, Regional Municipality of Peel. The Draft Plan is also located within the Alloa Secondary Plan and Alloa Phase 1 Tertiary Plan.

A Transportation Impact Study (TIS) (Crozier, December 2024) was prepared in support of the Alloa Phase 1 Tertiary Plan. The TIS comprehensively evaluated the impacts of Alloa Phase 1 Lands from a transportation perspective, identifying required mitigation measures as warranted. The Tertiary Plan was designed to comprise the intended individual Draft Plans such that the Tertiary Plan's road network and land use layout was reflective of the respective Draft Plans for each parcel.

The Transportation Conformance Letter builds on and accompanies the Alloa Phase 1 Tertiary Plan TIS (Crozier, December 2024), and is in support of the Draft Plan development application. The letter herein reviews the following:

- Site Context
- Development Proposal
- Site Generated Traffic Review
- Recommendations



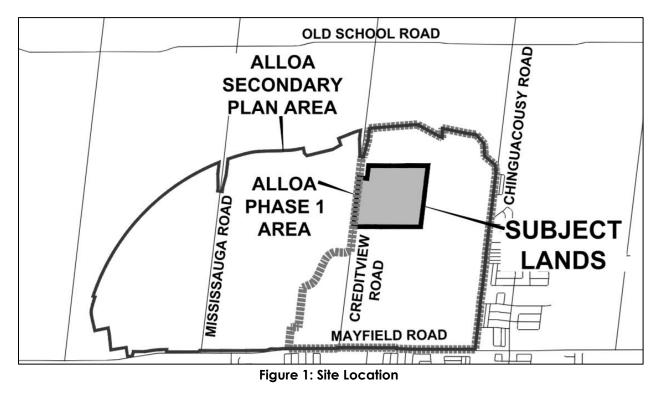


1.0 Site Context

1.1 Subject Lands

The Alloa (BT) Draft Plan is located within the Alloa Phase 1 Lands and covers an area of approximately 40.14 ha and is currently undeveloped greenfield lands. The Subject Site is located on the west side of the Alloa Phase 1 Lands and is generally bound by Creditview Road to the west, and undeveloped greenfield lands to the north, south and east.

Figure 1 illustrates the site location.



1.2 Existing Transportation Context

 Table 1 outlines the roadways near the Subject Site, including road and active transportation network features.

Feature	Roadway					
reature	Mayfield Road	Creditview Road				
Direction	Two-Way (East-West)	Two-Way (North-South)				
Span	Winston Churchill Blvd to Albion Vaughan Rd	The Garage Sideroad to Mayfield Rd				
Jurisdiction	Region of Peel	Town of Caledon				
Number of Travel Lanes	Two Lanes	Two Lanes				
Pedestrian Facilities	None	None				
Cycling Facilities	None	None				

Table 1: Existing Roadway Network

1.3 Future Transportation Context

Capital road network improvements are planned near the Alloa (BT) Draft Plan Lands to support future traffic growth. In addition, a collector road network is proposed to service the Alloa Secondary Plan Area, with some road located within the Alloa (BT) Draft Plan.

 Table 2 outlines the future transportation improvements, relevant to the Alloa (BT) Draft Plan.

Roadway	Improvement	Improvement Type	
Mayfield Road	Widening to Six Lanes	Capital Work	
Highway 413	New Highway	Capital Work	
Black Horse Drive (Street F in the Tertiary Plan)	New Collector Road	Alloa Secondary Plan Collector Road Network	

Further details regarding these improvements are included within the Alloa Phase 1 Tertiary Plan Transportation Impact Study (Crozier, December 2024).

Attachment 1 includes excerpts from the Alloa Phase 1 Tertiary Plan Transportation Impact Study (Crozier, December 2024).

2.0 Development Proposal

The Alloa (BT) Draft Plan proposes a number of residential uses in addition to institutional and recreational uses. **Table 3** summarizes the Development Proposal.

Table 3:	Development	Proposal
----------	-------------	----------

Plan	Land Use		Statistic	Area	
Tertiens Dieni	Decidential	Low Density	363 units	11.81 ha	
Tertiary Plan ¹	Residential	Medium Density	177 units	2.74 ha	
Draft Dian	Decidential	Low Density	380 units	11.81 ha	
Draft Plan	Residential	Medium Density	183 units	2.74 ha	

Note 1: Alloa (BT) Draft Plan represents 66% of Zone E medium density residential and Zone E low density residential as well as Zones F, G and H.

Attachment 2 includes the Draft Plan prepared by Glen Schnarr & Associates Inc and dated September 30, 2024.

3.0 Site Generated Traffic Review

For comparative purposes, trip generation rates were calculated based on the Alloa Phase 1 Tertiary Plan trip generation and development yield, as outlined in the Alloa Phase 1 Tertiary Plan Transportation Impact Study (Crozier, December 2024), given the non-linear nature of the trip generation rates outlined in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition (September 2021).

 Table 4 outlines the trip generation rates based on the Alloa Phase 1 Tertiary Plan trip generation and development yield.

Land Use		Statistic	A.	M.	P.M.		
		Sidiisiic	In	Out	In	Out	
Comme	rcial ¹	52,003 m ²	0.35/100 m ²	0.26/100 m ²	0.86/100 m ²	0.89/100 m ²	
	Low Density	2,171 units	0.10/unit	0.32/unit	0.40/unit	0.24/unit	
Residential	Medium Density	2,565 units	0.05/unit	0.18/unit	0.21/unit	0.13/unit	
	Medium-High Density1	4,429 units	0.07/unit	0.26/unit	0.18/unit	0.11/unit	
Elementary	/ School	1 <i>5</i> 0 jobs	1.25/job	1.05/job	0.26/job	0.31/job	

Table 4: Trip Generation Rates

Note 1: Includes mixed use development yield.

 Table 5 outlines the trip generation for the Alloa (BT) Draft Plan.

Land Use	Statistic	A.M. Trips ¹			P.M. Trips ¹			
Lana use	Sichistic	In	Out	Total	In	Out	Total	
Low Density Residential (LUC 210)	380 units	37	123	159	153	92	245	
Medium Density Residential (LUC 220)	183 units	10	34	44	39	23	63	
Alloa Phase 1 Internal Trips ²	-	6	8	14	11	17	28	
Total		52	165	217	204	133	336	

Table 5: Trip Generation

Note 1: Rounding may cause the appearance of discrepancies.

Note 2: Based on the Tertiary Plan development yield. For the Draft Plan, the internal trips are scaled based on the development yield of the Tertiary Plan and Draft Plan

The Alloa (BT) Draft Plan is expected to generate 217 and 336 two-way vehicle trips during the weekday a.m. and p.m. peak hours, respectively.

3.1 Tertiary Plan Comparison

The Alloa Phase 1 Tertiary Plan was split into zones for the purpose of trip distribution and assignment. The total Tertiary Plan trip generation was also divided into these zones, based on the proportional area of each zone in comparison to the total area for each land use. The Alloa (BT) Draft Plan is representative of 66% of Zone E medium density residential and Zone E low density residential, as well as Zones F, G and H, as outlined in the Alloa Phase 1 Transportation Impact Study (Crozier, December 2024).

 Table 6
 outlines the trip generation for the Alloa (BT) Lands based on the Alloa (BT) Draft Plan

 and the zonal approximation of the Alloa Phase 1 Lands Tertiary Plan.

Plan	Land Use	Statistic		A.M. Trips	1		P.M. Trips	I
FIGH		STUTISTIC	In	Out	Total	In	Out	Total
	Low Density Residential (LUC 210)	363 units	35	117	152	147	88	235
Tertiary	Medium Density Residential (LUC 220)	177 units	9	33	42	38	23	60
Plan Assumption Alloa Phase 1 Int Trips ²	Alloa Phase 1 Internal Trips ²	-	5	8	13	10	17	27
	Total		49	158	207	194	128	322
	Low Density Residential (LUC 210)	380 units (+17 units)	37	123	159	153	92	245
Draft Plan	Medium Density Residential (LUC 220)	183 units (+6 units)	10	34	44	39	23	63
Draft Plan	Alloa Phase 1 Internal Trips ²	-	6	8	14	11	17	28
	Total		52	165	217	204	133	336
Net Change			+3	+7	+9	+9	+5	+14

Table 6: Trip Generation (Comparison)

Note 1: Rounding may cause the appearance of discrepancies.

Note 2: Based on the Tertiary Plan development yield. For the Tertiary Plan, the internal trips are estimated by a zonal approach. For the Draft Plan, the internal trips are scaled based on the development yield of the Tertiary Plan and Draft Plan.

In comparison to trip generation for the Proposed Development outlined in the Alloa Phase 1 Tertiary Plan Transportation Impact Study, the Draft Plan is estimated to generate an additional 9 and 14 two-way vehicle trips during the weekday a.m. and p.m. peak hours, respectively. As the increase in trips are not significant (less than 10% increase), the Alloa Phase 1 Tertiary Plan Transportation Impact Study (Crozier, December 2024) conclusions are considered valid therefore, an updated traffic operations analysis was not prepared herein.

Attachment 1 includes excerpts from the Alloa Phase 1 Tertiary Plan Transportation Impact Study (Crozier, December 2024).

Finally, due to a planned aggressive buildout, it is expected that most of the Alloa Phase 1 collector road network will be in place prior to buildout of the subject Draft Plan. As a result, supplementary traffic analysis that considers additional phasing of this and potentially other nearby draft plans is not required since recommended improvements for the Tertiary Plan would be implemented.

4.0 Recommendations

The Alloa Phase 1 Tertiary Plan Transportation Impact Study (Crozier, December 2024) outlined recommendations to support the Alloa Phase 1 Lands. The section herein reviews the multi-modal transportation network recommendations as it relates to the Alloa (BT) Draft Plan.

4.1 Automobile

Table 7 summarizes the automobile recommendations to accommodate the Alloa Phase 1Tertiary Plan and to support the Alloa (BT) Draft Plan.

Location	Improvement	Responsibility
Black Horse Drive & McMinn Drive	Implement all-way stop control.	Proponent
Creditview Road & McMinn Drive	Implement one-way stop control.	Proponent

Table 7: Alloa Phase 1 Tertiary Plan Relevant Recommendations

In addition to the above recommendations, on-street parking is proposed, as outlined by the Parking Plan prepared by Glen Schnarr & Associates Inc.

Attachment 1 includes excerpts from the Alloa Phase 1 Tertiary Plan Transportation Impact Study (Crozier, December 2024). Attachment 3 include the Parking Plan.

4.2 Active Transportation

Active transportation facilities, including sidewalks and pedestrian crossings, are proposed throughout the Draft Plan, as outlined in the Parking Plan prepared by Glen Schnarr & Associates Inc. We note that the pedestrian crossings identified the Pedestrian Circulation Plan are generally consistent with the considerations and recommendations outlined in the Alloa Phase 1 Tertiary Plan Transportation Impact Study (Crozier, December 2024).

Attachment 1 includes excerpts from the Alloa Phase 1 Tertiary Plan Transportation Impact Study (Crozier, December 2024). Attachment 4 includes the Pedestrian Circulation Plan.

4.3 Transit

The Alloa Phase 1 Tertiary Plan Transportation Impact Study (Crozier, December 2024) outlined a proposed transit network to service the Alloa Phase 1 Lands. The Alloa (BT) Draft Plan can be serviced by the proposed Brampton Transit Route 27 extension that operates along Black Horse Drive.

Attachment 5 includes the proposed transit network for the Alloa Phase 1 Lands.

5.0 Conclusions

The Alloa (BT) Draft Plan is located within the Alloa Phase 1 Lands, for which a Transportation Impact Study (Crozier, December 2024) was prepared. Overall, there are no material changes for the Subject Development between the Draft Plan and the Alloa Phase 1 Tertiary Plan. As such, the analysis and conclusions outlined in the Alloa Phase 1 Tertiary Plan Transportation Impact Study (Crozier, December 2024) remains valid and are not updated herein.

Should you have any questions or require any further information, please do not hesitate to contact the undersigned.

Respectfully submitted by,

C.F. CROZIER & ASSOCIATES INC.

My-Link Yee, EIT Engineering Intern, Transportation

C.F. CROZIER & ASSOCIATES INC.

Michael A. Linton, MASc., P.Eng., Associate Senior Project Manager, Transportation

Enclosed

Attachment 1: Alloa Phase 1 Tertiary Plan Transportation Impact Study Excerpts Attachment 2: Draft Plan Attachment 3: Parking Plan Attachment 4: Circulation Plan Attachment 5: Proposed Transit Network

/MY

J:\2400\2448 - Alloa Landowners Group\6683 - Alloa Development Area\Letters\2024.10.28_Argo BT Transportation Conformance Letter\2024.12.05 Argo BT Transportation Conformance Letter.docx

C.F. CROZIER & ASSOCIATES INC.

Aidan Hallsworth, EIT Engineering Intern, Transportation

C.F. CROZIER & ASSOCIATES INC.

Alexander Fleming, P. Eng., MBA, Partner Director, Transportation

Attachment 1:

Alloa Phase 1 Tertiary Plan Transportation Impact Study Excerpts

TRANSPORTATION IMPACT STUDY

ALLOA PHASE 1 LANDS TERTIARY PLAN

TOWN OF CALEDON REGION OF PEEL

PREPARED FOR:

ALLOA PHASE 1 LANDOWNERS GROUP INC.

PREPARED BY:

C.F. CROZIER & ASSOCIATES INC. 211 YONGE STREET, SUITE 600 TORONTO, ON M5B 1M4

DECEMBER 2024

CFCA FILE NO. 2448-7006

The material in this report reflects best judgment in light of the information available at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. C.F. Crozier & Associates Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.



1.2 Development Proposal

The Alloa Phase 1 Tertiary Plan proposes a mixed-use community comprising 26,724 population and jobs across a number of low, medium and high-density residential uses, in addition to commercial, institutional and recreational uses. As outlined in the Tertiary Plan and development statistics prepared by Glen Schnarr & Associates Inc., dated August 20, 2024, and June 3, 2024, respectively, the Alloa Phase 1 Lands consists of 7,203 residential units and 27,478 m² of commercial gross floor area, as well as mixed-use areas consisting of 1,962 residential units and 24,525 m² commercial gross floor area.

In addition to the existing road network and planned capital works by the Town of Caledon (Town), Region of Peel (Region) and Ontario Ministry of Transportation (MTO), the Tertiary Plan also proposes an internal network of collector and local roads, intended to support multimodal connectivity within the Secondary Plan area and to the external study road network.

 Table 1 summarizes the Development Proposal.

Land Use	Туре	Statistic ¹	Area ¹	Jobs/Population ¹
Commercial		27,478 m ²	12.49 ha	550 jobs
		24,525 m ²		491 jobs
ſ	Aixed Use	1,962 units	9.81 ha	4,061 people
	Low Density	2,171 units	72.35 ha	7,901 people
Residential	Residential Medium Density		42.75 ha	8,465 people
	Medium-High Density	2,467 units	16.44 ha	5,106 people
Elementary School		3 schools	8.91 ha	150 jobs
Parks		-	15.52 ha	-

Table 1: Development Proposal

Note 1: Alloa Phase 1 statistics based on the latest Alloa Secondary Plan Development Statistics, dated June 3, 2024, from Glen Schnarr & Associates Inc.

Figure 2 illustrates the Alloa Phase 1 Tertiary Plan. Appendix A includes the Alloa Phase 1 Tertiary Plan as well as the proposed statistics.



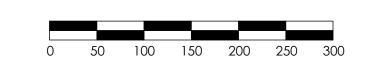
- MIXED-USE

- SECONDARY PLAN BOUNDARY



ALLOA SECONDARY PLAN TERTIARY PLAN - PHASE 1

PART OF LOTS 18-21, CONCESSIONS 3 & 4, TOWNSHIP OF CHINGUACOUSY TOWN OF CALEDON, REGIONAL MUNICIPALITY OF PEEL







Mode	2041 Vision ¹	2051 Vision
Automobile Driver	68%	60%
Automobile Passenger (Carpool)	10%	13%
Transit	3%	6%
Walk	4%	6%
Cycle	1%	1%
Other ²	15%	14%
Total	100%	100%
Sustainable Mode Share	32%	40%

Table 12: Town of Caledon Mode Share Targets

Note 1: Consistent with the Region of Peel's Long Range Transportation Plan (2019).

Note 2: Other includes motorcycle and school bus.

Appendix H outlines the relevant excerpts from the Town of Caledon MMTMP (June 2024).

4.1.5 Town of Caledon Active Transportation Plan

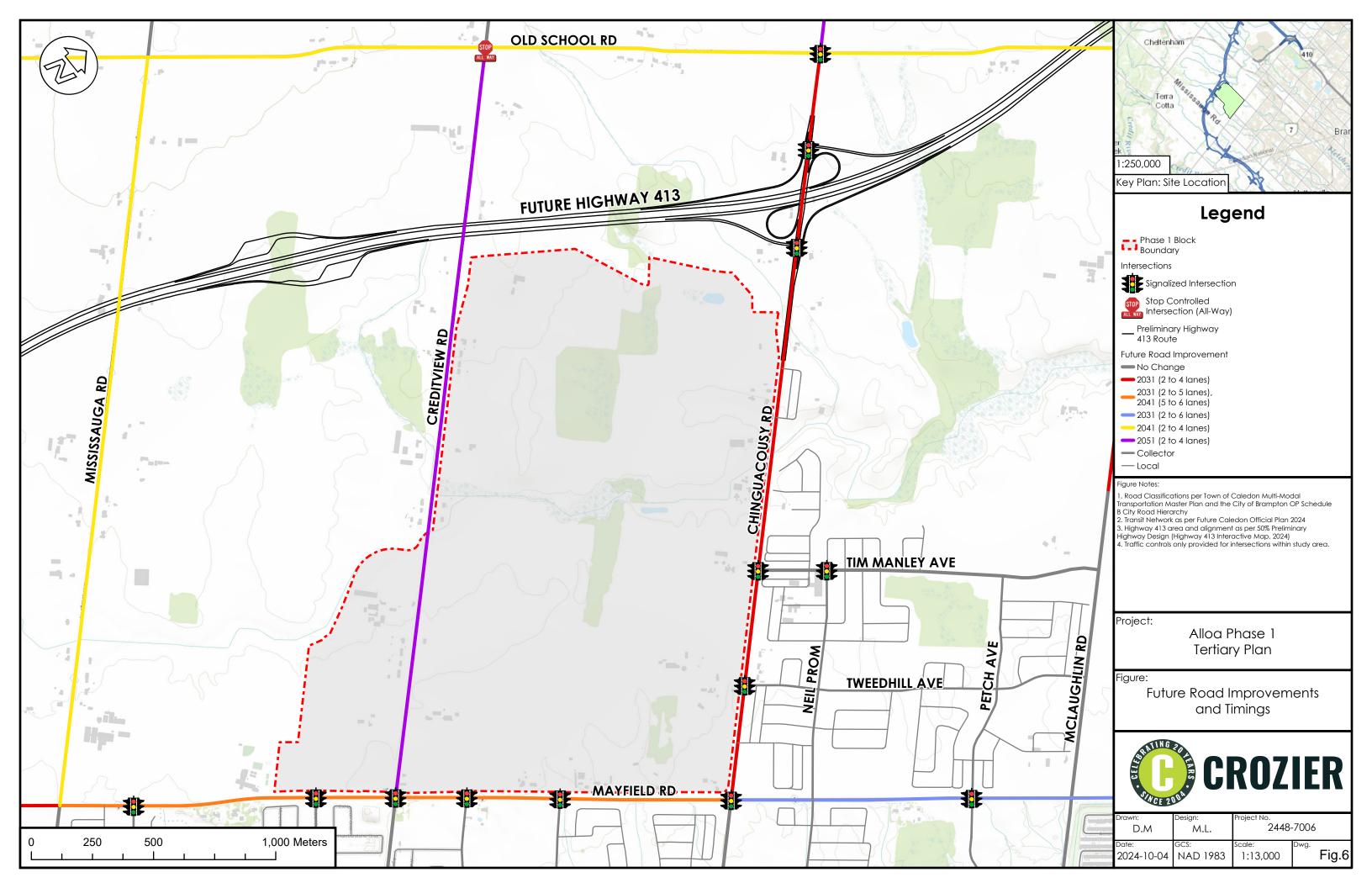
The Town of Caledon recently completed the Active Transportation Master Plan (June 2024), which supplements the Town's Multi-Modal Transportation Master Plan (Town of Caledon, June 2024) by providing more details and policies objectives concerning sidewalks, dedicated cycling facilities and trails. Notably, the plan identifies preferred design cross-sections for multi-use trails connecting neighbourhoods and as walking trails and provides a recommended active transportation network for on-road and off-road facilities. In addition, a sidewalk policy framework which identifies where sidewalks should be implemented, on one or both sides, was identified and has also been developed as part of this plan.

Appendix H outlines the relevant excerpts from the Town of Caledon Active Transportation Master Plan (June 2024).

4.2 Future Transportation Network

In the vicinity of the Alloa Phase 1 Lands, there are many planned transportation network improvements. Many of these improvements were identified in the relevant planning documents outlined in **Section 4.1**. This section herein reviews the relevant future background improvements.

Figure 6 summarizes the future road improvements and timings of these improvements within the study area.



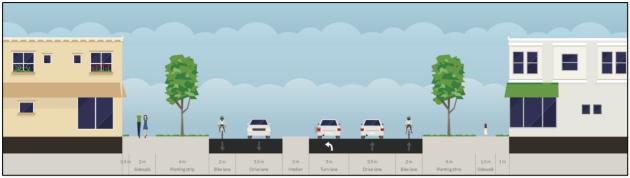


Figure 13: Tim Manley Avenue Cross-Section (29 m ROW) (Wood)

Appendix H includes the relevant Tim Manley Avenue excerpts.

4.2.6 Brampton Transit Expansion

There are transit expansion plans, as detailed in the Brampton Transit Public Information Session for the Annual Transit Service Plan (Brampton Transit, March 2024), that are of relevance to the study area. The following changes to existing transit operations in **Section 2.2** are detailed in the plan and are expected to be implemented in the near future:

- Route 25 (Edenbrook): While this proposed change does not directly impact the Subject Lands, a transit route option to service the completed elements of the adjacent Mayfield West Phase 2 community is outlined and is expected to be implemented in the future.
- NEW Route 504 (Züm Chinguacousy): Brampton Transit is planning to implement a Chinguacousy Züm service between 2024 and 2026. This new express transit route will operate Sandalwood Parkway and Steeles Avenue along Chinguacousy Road. The route is planned to continue east on Steeles Avenue, connecting at Sheridan College, Brampton Gateway, and at Bramalea GO, where the line terminates. The implementation of this service would result in several transit network changes, including the following:
 - Route 4/4A (Chinguacousy): The route will continue to operate local service, with realignment planned. Route 4 will operate along Sandalwood Parkway, Brisdale Road and Wanless Drive, and Route 4A will service Mount Pleasant GO Station via Bovaird Drive.
 - Route 104 (Chinguacousy Express): The current Route 104 will be replaced by the proposed Züm express transit route.
 - NEW Brisdale Drive Transit Route: A new transit route is planned along Brisdale Drive from and to Mount Pleasant GO Station, with the routing reaching and looping at Mayfield Road. This route will replace the current Route 4 service along Brisdale Drive.

The public information session also outlines long-term transit service concepts, including potential extensions and new transit routes into the Town of Caledon and the Alloa Community. These potential extensions and new transit routes are expected to be implemented in the future, and may be refined at a later stage.

Appendix H outlines the relevant future transit excerpts.

4.2.7 Natural Heritage System Multi-Use Trails

To support the creation of sustainable communities in the Town, the Town of Caledon's Active Transportation Master Plan (ATMP) outlines various active transportation improvements. In addition to the planned improvements outlined in **Section 4.2.1** to **Section 4.2.6**, the ATMP (Town of Caledon, June 2024) identifies multi-use trails, the Settlement Area Boundary Expansion Concept Trails, proposed along the natural heritage system near the Subject Site.

It is anticipated that these trail improvements will be completed in coordination with the Town to support surrounding developments, including the Proposed Development. As 2 of the planned multi-use trails are located within the Subject Lands, the neighbourhood connector and/or walking trail cross-sections are anticipated to be required to accommodate the natural heritage system trails.

Figure 14 outlines the neighbourhood connector and walk trail cross-section proposed in the Alloa Secondary Plan Transportation Needs Assessment (Crozier, July 2024).

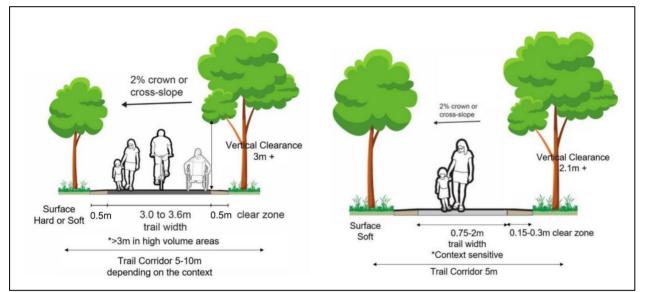


Figure 14: Natural Heritage System Trails - Cross-Section Options (Crozier)

We noted that these sections generally conform with the standard cross-section outlined in the Town of Caledon ATMP (Town of Caledon, June 2024), with the exception of the proposed 0.5 m clear zone, instead of 0.6 m.

Appendix H contains the relevant excerpts regarding the multi-use trails planned near and within the Subject Lands as highlighted in the Town of Caledon's ATMP (June 2024).

4.2.8 Summary

 Table 13 summarizes the future roadway improvements in the study area.

Roadway	Improvement	Segment	Year	Source	
	Widening to Six Lanes (Ultimate)	Chinguacousy Road to Hurontario Street	2026	Mar field De od	
Mayfield Road	Widening to Four Lanes (Ultimate)	Winston Churchill Boulevard to Mississauga Road	2028	Mayfield Road Construction Timeline (February 2024)	
	Widening to Five Lanes (Interim)	Mississauga Road to Chinguacousy Road	2028	(rebiodry 2024)	
	Widening to Six Lanes (Ultimate)	Mississauga Road to Chinguacousy Road	2041	Region of Peel LRTP	
	Widening to	Mayfield Road to Mayfield West Phase 2 North Limits	2031	Chinguacousy	
Chinguacousy Road	Four Lanes	Mayfield West Phase 2 North Limits to Old School Road	2041	Road Functional Design ¹	
	Widening to Six Lanes	Bovaird Drive to Mayfield Road	2041	City of Brampton TMP Update	
Old School Road	Widening to Four Lanes	Winston Churchill Boulevard to Gore Road	2041	Town of Caledon Draft MMTMP	
Highway 413	New Highway	New Highway Highway 401 to Highway 400		Assumed	
-	System Multi-Use ails	Varies ²	2031	Assumed	

Note 1: As confirmed with Town of Caledon staff. **Appendix B** includes the relevant correspondence.

Note 2: **Appendix H** includes the relevant Active Transportation Master Plan (Town of Caledon, June 2024) excerpts that outline the natural heritage system multi-use trail locations.

5.0 Future Background Network Review

This section reviews the future operations of the surrounding transportation network, in a similar approach that was applied to the existing conditions in **Section 3.0**. Consistent with the Existing Mobility Network Review, the automobile operations were reviewed using Synchro software and evaluated based on the Highway Capacity Manual methodology, while active transportation level of service was assigned based on criteria from the York Region Transportation Mobility Plan Guidelines (November 2016).

5.1 Pedestrian Network

The pedestrian level of service (LOS) was reviewed for future background conditions based on the York Region guidelines. **Appendix E** outlines the York Region pedestrian LOS definitions.

Table 14 and Table 15 summarizes the 2031 and 2041 future background pedestrian LOS,respectively.

6.0 Alloa Secondary Plan Mobility Context

The Alloa Secondary Plan Transportation Needs Assessment (Crozier, July 2024) outlines a recommended mobility network for the Alloa Secondary Plan area. The section herein reviews the Alloa Secondary Plan transportation network as well as the key considerations specifically for the Alloa Phase 1 Tertiary Plan area.

Appendix N outlines the relevant excerpts from the Alloa Secondary Plan Transportation Needs Assessment (Crozier, July 2024).

6.1 Mobility Framework

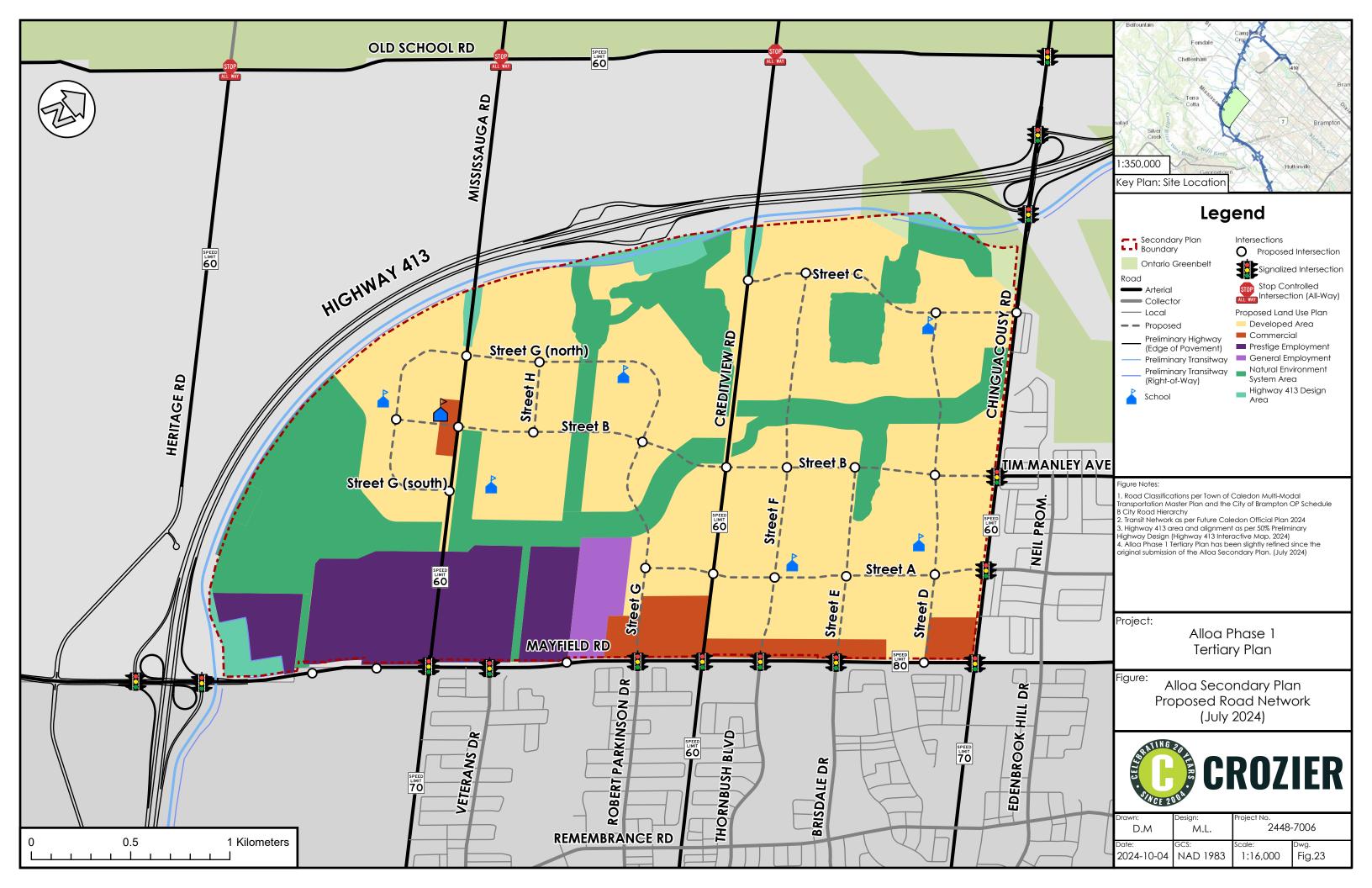
The Alloa Secondary Plan transportation network includes an internal collector road network, active transportation network, including a cycling and trail network, and transit network, comprised of potential routes and bus stop locations. This transportation network is reflected in the Alloa Phase 1 Tertiary Plan.

A preliminary transit network was recommended in Section 11.3 of the Alloa Secondary Plan Transportation Needs Assessment (Crozier, July 2024. The conceptual transit network proposed for the Alloa Secondary Plan was developed based on a review of a number of transit plans for the surrounding area and the existing transit operations, similar to those highlighted in **Section 2.2**, and a target to maximize transit stop coverage. The transit planning documents outlining future transit service patterns for the areas in proximity to the Subject Lands include:

- Brampton Transit Public Information Session for the Annual Transit Service Plan (March 2024)
- Town of Caledon Transit Feasibility Study (April 2019)
- Town of Caledon Multi-Modal Transportation Master Plan (June 2024)
- Highway 413 Transportation Corridor Public Information Session #4 (MTO, October 2023)

This transit plan continues to be recommended upon full buildout of the Secondary Plan. However, these documents were reviewed to determine an interim future transit plan for Alloa Phase 1, which is detailed in **Section 11.0**.

Figure 23, Figure 24, and Figure 25 illustrate the Alloa Secondary Plan's proposed road, active transportation and transit network, respectively.



Land Use	Statistic		A.M. Trips ¹		P.M. Trips ¹				
	Sidiistic	In	Out	Total	In	Out	Total		
Major Commercial	295,773 ft ²	95	72	167	238	245	483		
Mixed Use	263,987 ft ²	85	64	149	212	219	431		
Mixed use	1,962 units	134	504	638	362	217	579		
Low Density Residential	2,171 units	209	701	910	876	525	1,402		
Medium Density Residential	2,565 units	133	474	607	549	329	878		
Medium-High Density Residential	2,467 units	169	633	802	455	273	728		
Elementary School	150 employees	188	158	346	39	47	86		
Total	1,014	2,606	3,620	2,732	1,856	4,588			

Note 1: Rounding may cause the appearance of discrepancies.

The Alloa Phase 1 Lands are expected to generate 3,620 and 4,588 two-way external primary vehicle trips during the weekday a.m. and p.m. peak hours. As noted in **Section 7.1.3**, a total of 398 and 408 two-way internal trips are also forecast for the Alloa Phase 1 Lands in the weekday a.m. and p.m. peak hours.

7.2 Zonal Disaggregation

Given the scale of the Alloa Phase 1 lands and the intent for consistency with future Draft Plan and Site Plan applications, the Subject Lands were divided into zones to better distribute traffic volumes. The zones are generally bound by the external arterial roads, internal collector road and/or other major features, such as the natural heritage system, Highway 413 corridor or the Alloa Phase 1 limits. However, property lines were also considered in the establishment of the zones to more easily compare the Tertiary Plan study to future Draft Plan applications for consistency.

The Subject Lands were split into 32 zones, lettered A to AF. The site generated trips for each zone were determined based on the proportion of units, GFA or area of land uses in each zone relative to the overall Phase 1 Trip generation.

For the purpose of modelling, local road connections to each zone were assumed reflect a consolidation of several multiple minor local accesses in some cases. This approach was adopted for simplicity, to avoid modelling of an excessive number of accesses or local road connections.

As the property limits for future Draft Plan applications were factored into delineating the zones, in practice traffic within some zones may use a local road connection of an adjacent zone due network orientation and local street design. However, for the purpose of the analysis herein, the

trips associated with a particular zone were assigned to the local road connection within that zone. This approach allows for an easier comparison between trip assignment forecasts with the Tertiary Plan study and future reports prepared in support of Draft Plan application.

Figure 35 illustrates the zonal system and future total study intersections for the trip assignment.

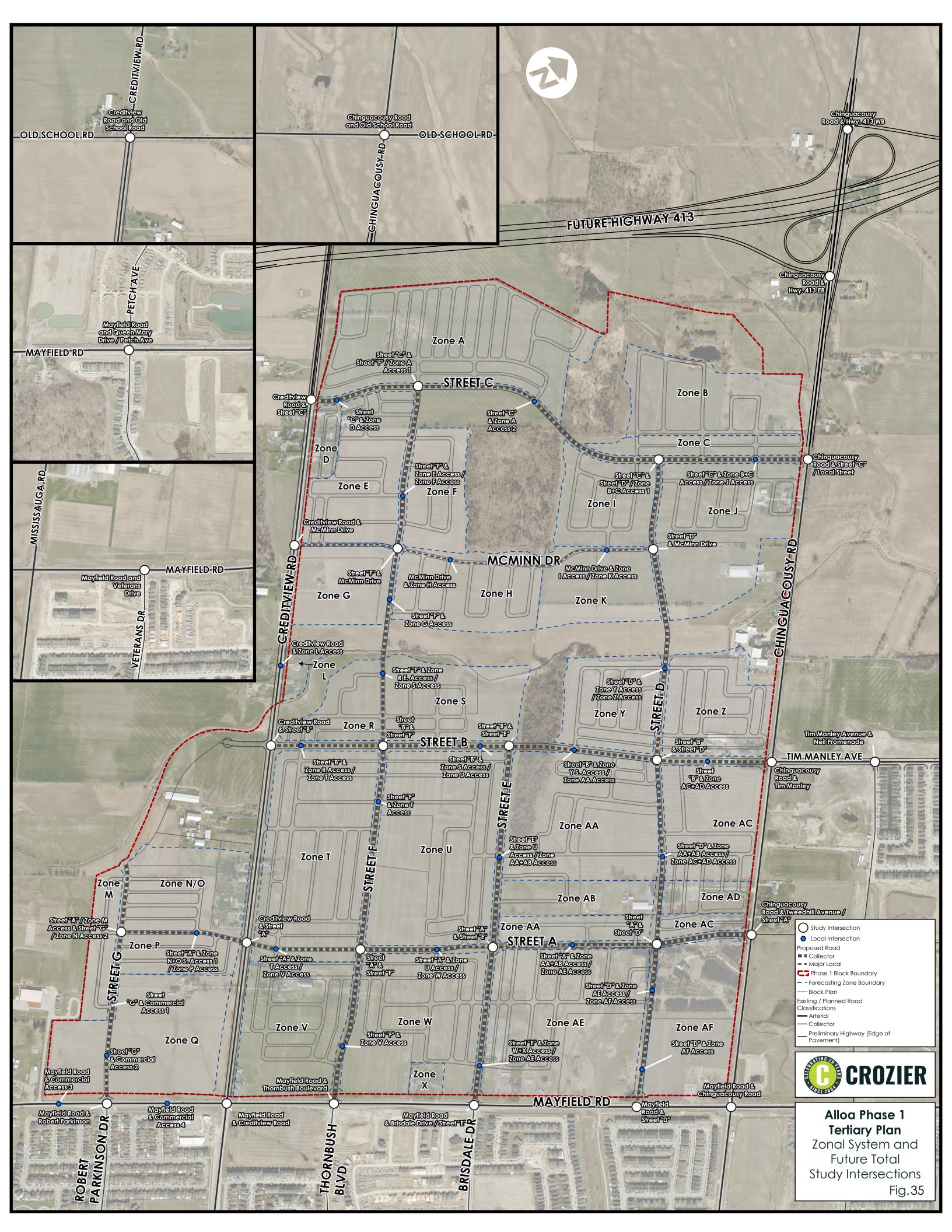


Table 42 outlines the external primary vehicle trip generation for each zone.

7		A.M. Trips ¹		P.M. Trips ¹				
Zone	In	Out	Total	In	Out	Total		
Zone A	35	120	155	148	89	236		
Zone B	44	161	205	130	78	208		
Zone C	6	20	26	24	14	38		
Zone D	3	10	13	12	7	19		
Zone E	19	66	84	78	46	124		
Zone F	11	38	49	47	28	75		
Zone G	1	3	4	4	2	6		
Zone H	18	60	78	75	45	120		
Zone I	13	45	58	56	34	90		
Zone J	18	62	80	76	46	122		
Zone K	63	55	118	16	17	33		
Zone L	10	37	47	27	16	43		
Zone M	6	21	27	25	15	40		
Zone N	8	28	36	33	20	52		
Zone O	25	95	120	68	41	109		
Zone P	8	27	34	32	19	52		
Zone Q	95	72	167	238	245	483		
Zone R	8	28	37	35	21	55		
Zone S	10	34	44	41	24	65		
Zone T	34	115	149	140	84	223		
Zone U	80	114	194	86	59	145		
Zone V	76	208	284	222	159	380		
Zone W	30	90	120	102	67	169		
Zone X	15	38	53	39	29	68		
Zone Y	15	50	64	61	37	98		
Zone Z	14	46	60	57	34	92		
Zone AA	43	82	125	81	51	132		
Zone AB	42	45	87	25	19	44		
Zone AC	52	194	247	156	94	249		
Zone AD	4	14	18	17	10	26		
Zone AE	54	162	216	176	118	295		
Zone AF	155	466	620	409	287	696		
Total	1,014	2,606	3,620	2,732	1,856	4,588		

Table 42: Zonal External Primary Vehicle Trip Generation

Note 1: Rounding may cause the appearance of discrepancies.

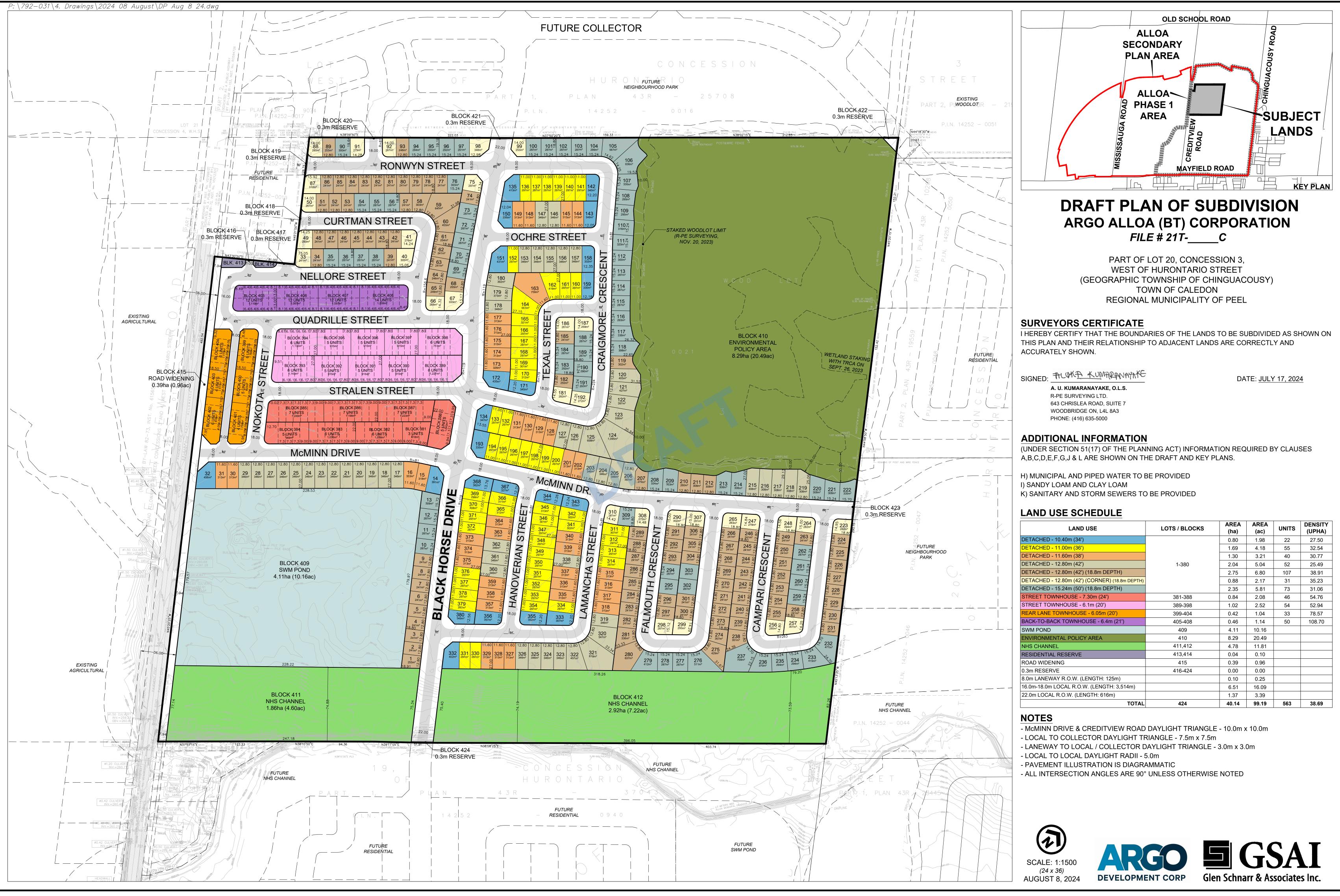
Appendix K contains details related to the zonal system as well as the calculations and assumptions used for the zonal trip generation forecast.

						Trip Generation						
Zone	Component	Land Use Name	Land Use Code	Development Yield Assumed	Units	A.M. Peak Hour P.M. Peak Hour						
						IN	OUT	TOTAL	IN	OUT	TOTAL	
	Detached Homes	Single Family Detached Housing	LUC210	2171	units	0.096	0.323	0.419	0.404	0.242	0.646	
	Townhouses	Multi-Family Housing (Low-Rise)	LUC220	2565	units	0.052	0.185	0.237	0.214	0.128	0.342	
	Residential Midrise Blocks	Multi-Family Housing (Mid-Rise)	LUC221	2467	units	0.068	0.257	0.325	0.185	0.111	0.295	
Effective	Mixed-Use Blocks (R)	Multi-Family Housing (Mid-Rise)	LUC221	1962	units	0.068	0.257	0.325	0.185	0.111	0.295	
Rates	Mixed-Use Blocks (C)	Shopping Centre	LUC820	24525	sq.m.	0.003	0.003	0.006	0.009	0.009	0.018	
	Commercial Blocks	Shopping Centre	LUC820	27478	sq.m.	0.003	0.003	0.006	0.009	0.009	0.018	
	Elementary Schools	Elementary School	LUC520	150	jobs	1.253	1.055	2.307	0.262	0.312	0.574	
	Total	N/A	N/A									
	Detached Homes	Single Family Detached Housing	LUC210	2171	units	209	701	910	876	525	1402	
	Townhouses	Multi-Family Housing (Low-Rise)	LUC220	2565	units	133	474	607	549	329	878	
	Residential Midrise Blocks	Multi-Family Housing (Mid-Rise)	LUC221	2467	units	169	633	802	455	273	728	
Alloa	Mixed-Use Blocks (R)	Multi-Family Housing (Mid-Rise)	LUC221	1962	units	134	504	638	362	217	579	
Phase 1	Mixed-Use Blocks (C)	Shopping Centre	LUC820	24525	sq.m.	85	64	149	212	219	431	
	Commercial Blocks	Shopping Centre	LUC820	27478	sq.m.	95	72	167	238	245	483	
	Elementary Schools	Elementary School	LUC520	150	jobs	188	158	346	39	47	86	
	Total	N/A	N/A			1014	2606	3620	2732	1856	4588	
	Detached Homes	Single Family Detached Housing	LUC210	294.48	units	28	95	123	119	71	190	
	Townhouses	Multi-Family Housing (Low-Rise)	LUC220	134.55	units	7	25	32	29	17	46	
A	Residential Midrise Blocks	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0	
	Mixed-Use Blocks (R)	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0	
	Mixed-Use Blocks (C)	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0	
	Commercial Blocks	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0	
	Elementary Schools	Elementary School	LUC520	0.00	jobs	0	0	0	0	0	0	
	Total	N/A	N/A	N/A		35	120	155	148	89	236	
	Detached Homes	Single Family Detached Housing	LUC210	56.78	units	5	18	24	23	14	37	
	Townhouses	Multi-Family Housing (Low-Rise)	LUC220	58.37	units	3	11	14	12	7	20	
	Residential Midrise Blocks	Multi-Family Housing (Mid-Rise)	LUC221	514.14	units	35	132	167	95	57	152	
	Mixed-Use Blocks (R)	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0	
В	Mixed-Use Blocks (C)	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0	
	Commercial Blocks	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0	
	Elementary Schools	Elementary School	LUC520	0.00	jobs	0	0	0	0	0	0	
	Total	N/A	N/A	N/A		44	161	205	130	78	208	
С	Detached Homes	Single Family Detached Housing	LUC210	3.21	units	0	1	1	1	1	2	
	Townhouses	Multi-Family Housing (Low-Rise)	LUC220	104.37	units	5	19	25	22	13	36	
	Residential Midrise Blocks	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0	
	Mixed-Use Blocks (R)	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0	
	Mixed-Use Blocks (C)	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0	
	Commercial Blocks	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0	
	Elementary Schools	Elementary School	LUC520	0.00	jobs	0	0	0	0	0	0	
	Total	N/A	N/A	N/A		6	20	26	24	14	38	
	Detached Homes	Single Family Detached Housing	LUC210	0.00	units	0	0	0	0	0	0	
	Townhouses	Multi-Family Housing (Low-Rise)	LUC220	54.07	units	3	10	13	12	7	19	
	Residential Midrise Blocks	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0	
		Multi-Family Housing (Mid-Rise)	LUC221	0.00		0	0	0	0	0	0	

	Mixed-Use Blocks (C)	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0
	Commercial Blocks	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0
	Elementary Schools	Elementary School	LUC520	0.00	jobs	0	0	0	0	0	0
	Total	N/A	N/A	N/A	1002	3	10	13	12	7	19
	Detached Homes	Single Family Detached Housing	LUC210	51.53	units	5	17	22	21	12	33
		<u> </u>				-					
	Townhouses	Multi-Family Housing (Low-Rise)	LUC220	264.89	units	14	49	63	57	34	91
	Residential Midrise Blocks	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0
E	Mixed-Use Blocks (R)	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0
	Mixed-Use Blocks (C)	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0
	Commercial Blocks	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0
	Elementary Schools	Elementary School	LUC520	0.00	jobs	0	0	0	0	0	0
	Total	N/A	N/A	N/A		19	66	84	78	46	124
	Detached Homes	Single Family Detached Housing	LUC210	116.27	units	11	38	49	47	28	75
	Townhouses	Multi-Family Housing (Low-Rise)	LUC220	0.00	units	0	0	0	0	0	0
	Residential Midrise Blocks	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0
F	Mixed-Use Blocks (R)	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0
'	Mixed-Use Blocks (C)	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0
[Commercial Blocks	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0
	Elementary Schools	Elementary School	LUC520	0.00	jobs	0	0	0	0	0	0
	Total	N/A	N/A	N/A		11	38	49	47	28	75
	Detached Homes	Single Family Detached Housing	LUC210	9.11	units	1	3	4	4	2	6
	Townhouses	Multi-Family Housing (Low-Rise)	LUC220	0.00	units	0	0	0	0	0	0
	Residential Midrise Blocks	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0
	Mixed-Use Blocks (R)	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0
G	Mixed-Use Blocks (C)	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0
	Commercial Blocks	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0
	Elementary Schools	Elementary School	LUC520	0.00	jobs	0	0	0	0	0	0
	Total	N/A	N/A	N/A		1	3	4	4	2	6
	Detached Homes	Single Family Detached Housing	LUC210	186.25	units	18	60	78	75	45	120
	Townhouses	Multi-Family Housing (Low-Rise)	LUC220	0.00	units	0	0	0	0	0	0
	Residential Midrise Blocks	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0
	Mixed-Use Blocks (R)	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0
н	Mixed-Use Blocks (C)	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0
	Commercial Blocks	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0
	Elementary Schools	Elementary School	LUC520	0.00	jobs	0	0	0	0	0	0
	Total	N/A	N/A	N/A	1003	18	60	78	75	45	120
	Detached Homes	Single Family Detached Housing	LUC210	139.32	units	13	45	58	56	34	90
	Townhouses	Multi-Family Housing (Low-Rise)	LUC220	0.00	units	0	45	0	0	0	0
	Residential Midrise Blocks	, , ,	LUC220	0.00		0	0	0	0	0	0
	Mixed-Use Blocks (R)	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0
		Multi-Family Housing (Mid-Rise)	LUC221 LUC820	0.00	units	0	0	0	0	0	0
	Mixed-Use Blocks (C)	Shopping Centre			sq.m.	-					-
	Commercial Blocks	Shopping Centre	LUC820	0.00	sq.m.	0	0	0	0	0	0
	Elementary Schools	Elementary School	LUC520	0.00	jobs	0	0	0	0	0	0
┝────┤	Total	N/A	N/A	N/A		13	45	58	56	34	90
	Detached Homes	Single Family Detached Housing	LUC210	164.14	units	16	53	69	66	40	106
	Townhouses	Multi-Family Housing (Low-Rise)	LUC220	46.87	units 	2	9	11	10	6	16
	Residential Midrise Blocks	Multi-Family Housing (Mid-Rise)	LUC221	0.00	units	0	0	0	0	0	0

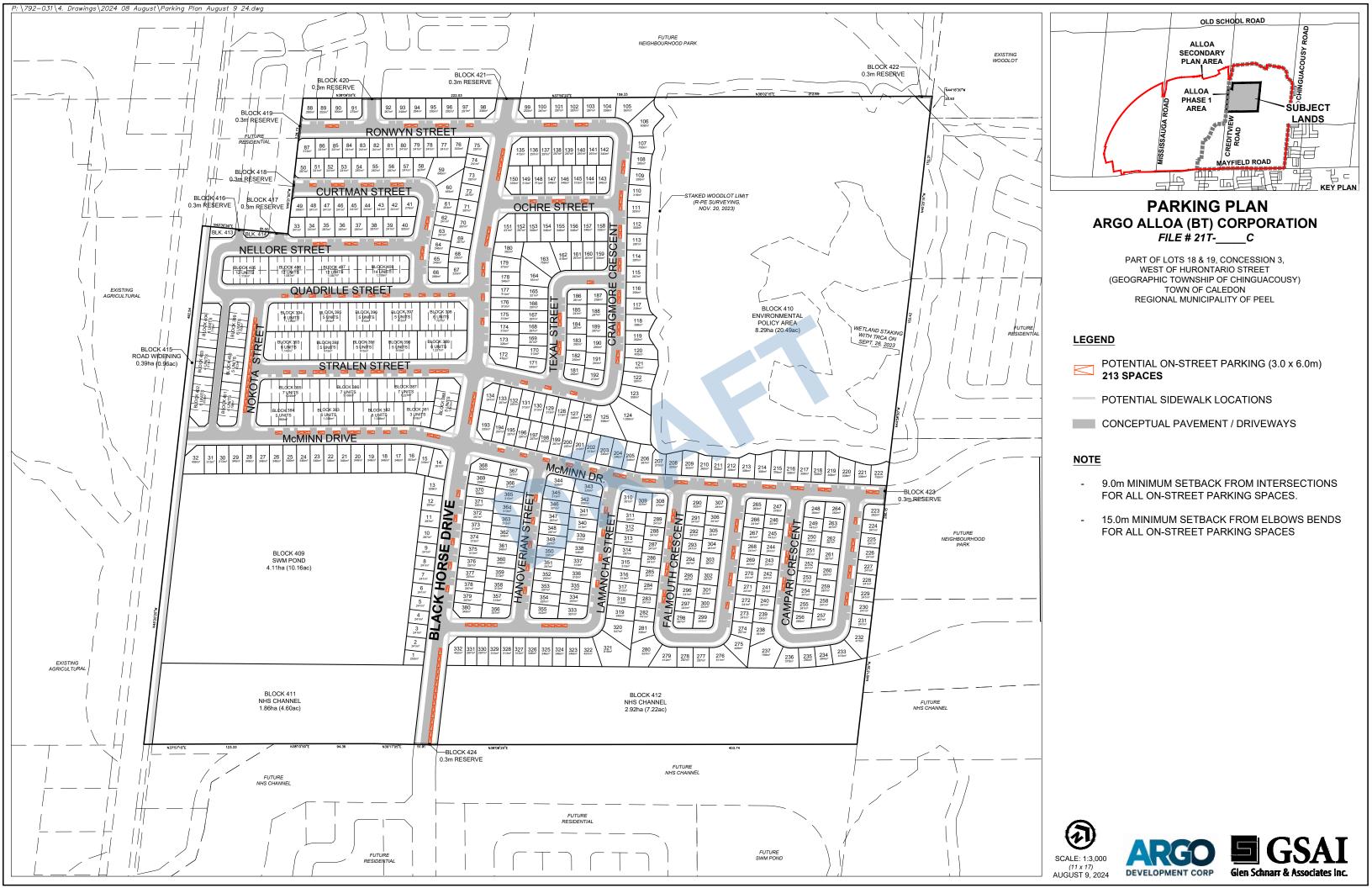
Attachment 2:

Draft Plan



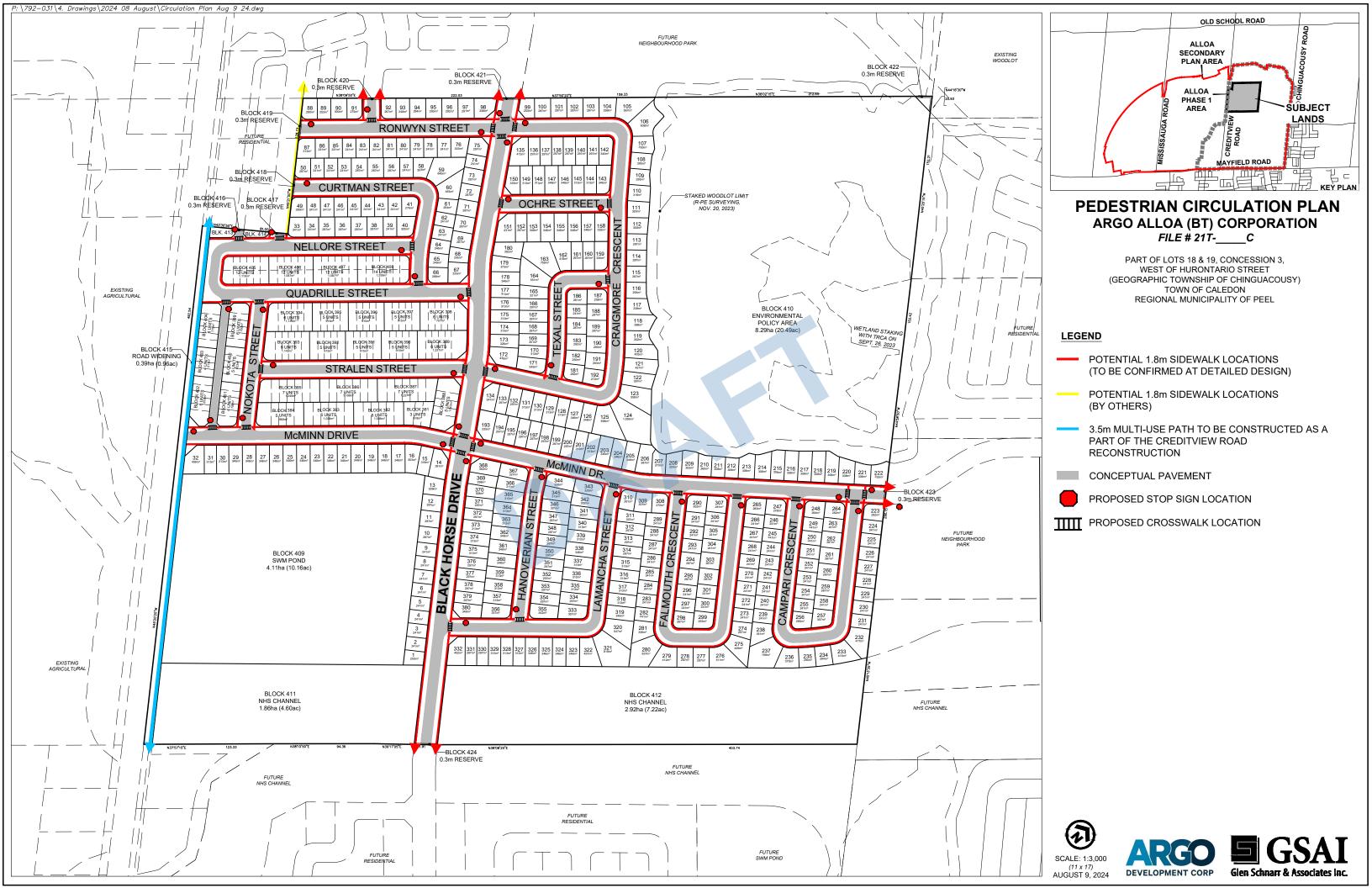
Attachment 3:

Parking Plan



Attachment 4:

Circulation Plan



Attachment 5:

Proposed Transit Network

