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## 1.0 Introduction

The Town of Strathmore (Strathmore) retained ISL Engineering and Land Services Ltd. (ISL) to update the previous 2006 Transportation Master Plan (TMP).

For this TMP Update, Strathmore's first Travel Demand Model was developed. The model provides a more comprehensive tool for evaluation and assessment of the road network, now and in the future. The ultimate goal of the TMP is to provide a framework for Council and Administration to assess the capability of the road network to accommodate new development in the short and long term. This information is also useful for carrying out short- and long-term planning and budgeting, including development of off-site levies.

### 1.1 Background

The Town of Strathmore is located along the Trans-Canada Highway (TCH) in Southern Alberta within Wheatland County, approximately 50 kilometres east of the City of Calgary. Strathmore had a population of 13,528 according to its 2018 Town Census. By 2049, Strathmore's population is expected to more than double, according to Strathmore's 2017 Master Servicing Study Update. Additionally, the Town has gone through two annexations that incorporated 390 hectares and 890 hectares of land into the Town boundaries, in 2000 and 2006, respectively. Alberta Transportation (AT) also finalized plans for the Highway 1 bypass project in the vicinity of Strathmore in 2010. The bypass project will ultimately re-route Highway 1 to the south side of Strathmore as an access-controlled freeway, fulfilling AT's vision for the development of a provincial freeway network along key National Highway System corridors.

### 1.2 Purpose of Study

The primary objectives of the TMP update were to:

- Assess the validity of the prior TMP based on the updated population and traffic growth;
- Extend the planning horizon from the current 2037 horizon to 2049;
- Extend the study boundaries to include the annexed lands;
- Update the prior TMP to include a concept plan for the north portion of the proposed ring road including George Freeman Trail, Township Road 244 and Wildflower Road;
- Review and / or update the Town's typical roadway design cross sections;
- Assess the required transportation network at the new planning horizon of 2049;
- Provide updated Class 5 cost estimates for existing road upgrades and future road construction for the purposes of updating the Town's transportation off-site levies;



## 2.0 Land Use and Modelling

Long-term forecasting for the TMP Update was completed with a Travel Demand Model that ties intimately to existing and future land use for Strathmore and provides a rational basis on which to assess and evaluate future requirements. The Travel Demand Models developed for the TMP will also provide an effective foundation for Strathmore's ongoing use for future land use, infrastructure planning and design purposes. The following sections provide a summary of the land use assumptions that form the basis for recommendations in this report.

### 2.1 Existing Land Use and Modelling

In Strathmore, the majority of the developed area is located along the Trans-Canada Highway with the core downtown area established east of Highway 817. The majority of commercial land uses are found in downtown or along the TCH, and industrial land use is mostly located south of the TCH. In terms of residential development, most of the mature neighborhoods are located north of the TCH between Highway 817 and George Freeman Trail, and newer communities are being developed west of Highway 817 and east of George Freeman Trail.

#### 2.1.1 Existing Zone Setup

For modelling purposes, Strathmore and the surrounding area were subdivided into zones. The zoning scheme was derived from the same zones used for Strathmore's 2018 Census, but were further sub-divided into smaller zones where needed for modelling purposes, as shown in Exhibit 2.1. The zone boundaries generally reflect natural and / or man-made divisions such as major roads, irrigation canals, section lines, and differing land uses. Overall, the zone system provides a good breakout of the areas within Strathmore's boundary, and provides a reasonably fine definition of land uses and zone connections to the road network for transportation modelling. The existing model for Strathmore consists of 60 internal zones with 54 zones in Strathmore and 6 zones in Wheatland County surrounding Strathmore.

Located within Wheatland County and along the TCH, Strathmore services many external trips (external-to-internal, internal-to-external, and external-to-external). Therefore, the interaction between residential and employment zones within Strathmore and external links is a key consideration. To provide a reasonable assessment of connection requirements and their impact on roadways within Strathmore, the Travel Demand Model was developed with eight external zones to account for the major external connection points. External zones are used in the model to represent traffic passing into and out of Strathmore's transportation system from regional destinations, as shown in Table 2.1.

Table 2.1: External Zone Links

External Zone	Roadway	Direction
10001	Trans-Canada Highway	West
10002	Township Road 244	West
10003	Range Road 253	North
10004	Highway 817	North
10005	George Freeman Trail	North
10006	Township Road 244	East
10007	Trans-Canada Highway	East
10008	Highway 817	South

### 2.1.2 Existing Population and Employment

Existing population data was extracted from the 2018 Census report and was further sub-divided into smaller zones per the Travel Demand Model. As the Town does not have detailed employment data (total employment or employment per zone), hence the employment data were estimated based on typical modelling practices in the Calgary region. The values for employment were reviewed and accepted by the Town prior to importing to the model. There are four employment categories:

- Retail Employment – employment at retail / higher-turnover businesses
- Non-Retail Employment – employment at non-retail / lower-turnover businesses including offices
- School Employment – employment at elementary / junior high / high schools
- Industrial Employment – employment at auto shops / industrial sites

In 2018, the Town has approximately 13,500 population, 5,600 households, and 2,800 jobs. The population and employment data used for the TMP update is summarized in Appendix A and shown in Exhibits 2.2 and 2.3, respectively.

### 2.1.3 Existing Roadway Classification

The existing road classifications and related roadway capacity were based on the 2006 TMP and revised as necessary for modelling purposes. The road classifications for Strathmore's transportation network was confirmed with the Town prior to importing to the model, as shown in Exhibit 2.4. More details can be found in Section 3.2.

## 2.2 Future Land Use and Modelling

For the TMP update, one future horizon in 2049 was modelled. The future land use was based on the available ASPs in the Town and future annexation area. Five ASPs were included in the future model:

- Lakewood Meadows: Zone 20;
- Wildflower Ranch: Zones 22 and 100;
- Westcreek: Zones 100 and 101;
- Edgefield: Zones 158 and 159; and
- Coldwell Ranch: Zone 141



### 2.2.1 Future Population and Employment

The future population and household information was extracted from the available ASPs. For the Coldwell Ranch ASP, where the land use data is not available, the population and household data was assumed using the land area, a target density of 20 units per hectare (uph), and an average household population of 2.6 persons per household. Following similar methodologies for the existing employment estimation, employment was estimated for future ASPs where retail, non-retail, school, and industrial land uses were identified.

The future population and employment data is summarized in Appendix B and shown in Exhibits 2.5 and 2.6, respectively. Based on the future population, household and employment data, it is expected that, in 30 years, the Town will approximately increase population by 14,400 to 28,000, households by 5,300 to 10,900, and jobs by 1,200 to 4,000.

### 2.2.2 Future Roadway Classification

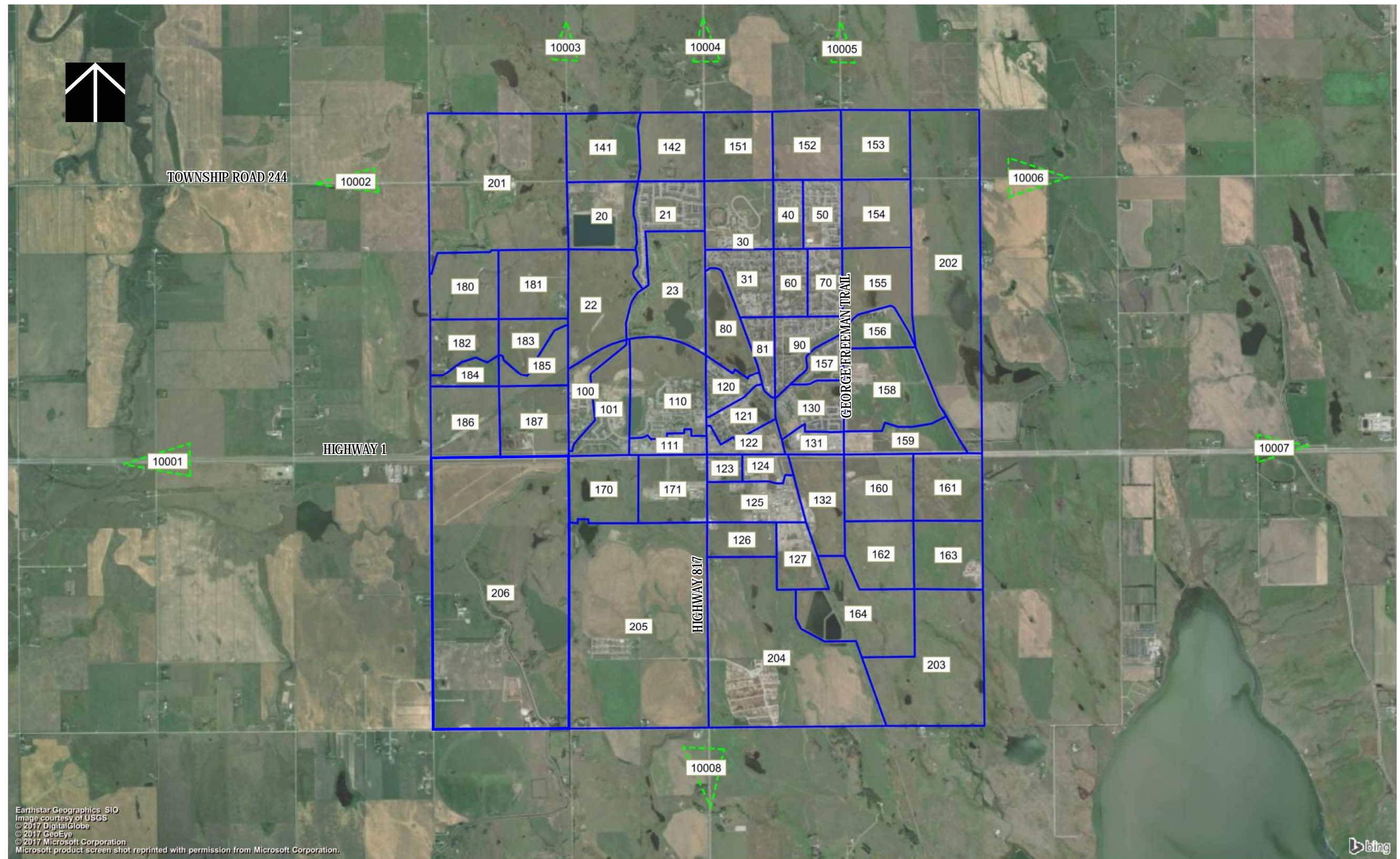
For the 2049 horizon Travel Demand Model, the future road classifications and capacities were based on the road function proposed in the ASPs. Where road classifications were unclear and/or where existing road classifications would not serve the intended growth, road classifications were assumed and/or adjusted considering the Town's local context. The road classifications used in the future Travel Demand Model are shown in Exhibit 2.7.

### 2.2.3 Future Background Traffic Growth

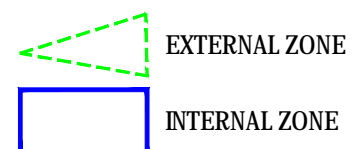
At the 2049 horizon, traffic to/from the external gates will also change. The background traffic growth pattern was based on historic highway growth patterns. Using Average Annual Daily Traffic (AADT) data from AT (2008-2017), it is calculated that, near Strathmore, Highway 1 has a linear annual growth rate of 0.90%, and Highway 817 has a linear annual growth rate of 0.91%. It is noted that to be conservative, a minimum of 1% of linear annual growth rate was assumed for the study.



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Legend:



STRATHMORE TMP

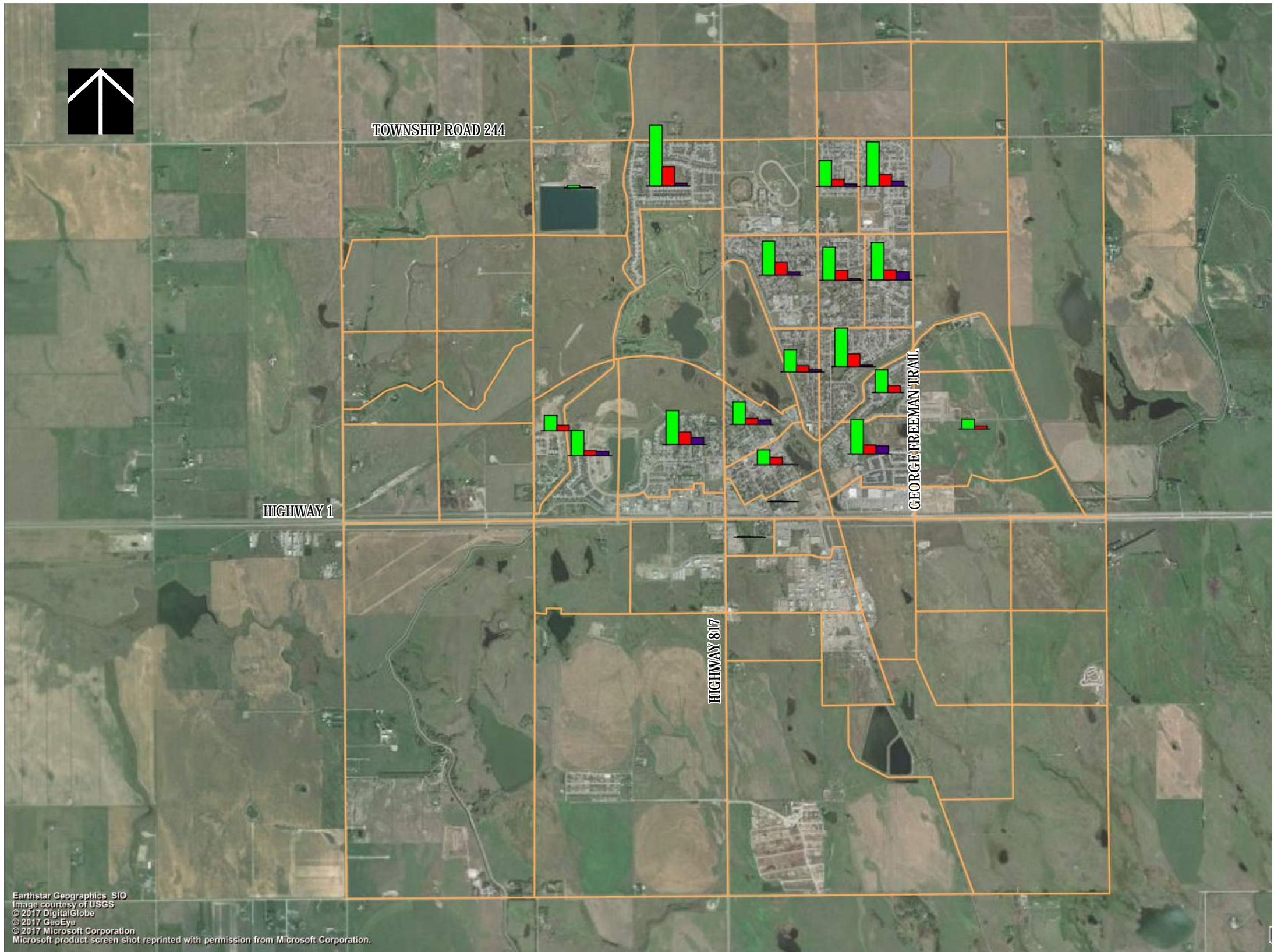
TRANSPORTATION ZONES

EXHIBIT 2.1  
SEPTEMBER 2020





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Population and Household

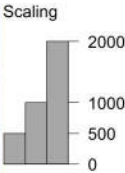
Existing

Zone Boundary



Chart

- POPULATION
- HOUSEHOLD SINGLE-FAMILY
- HOUSEHOLD MULTI-FAMILY



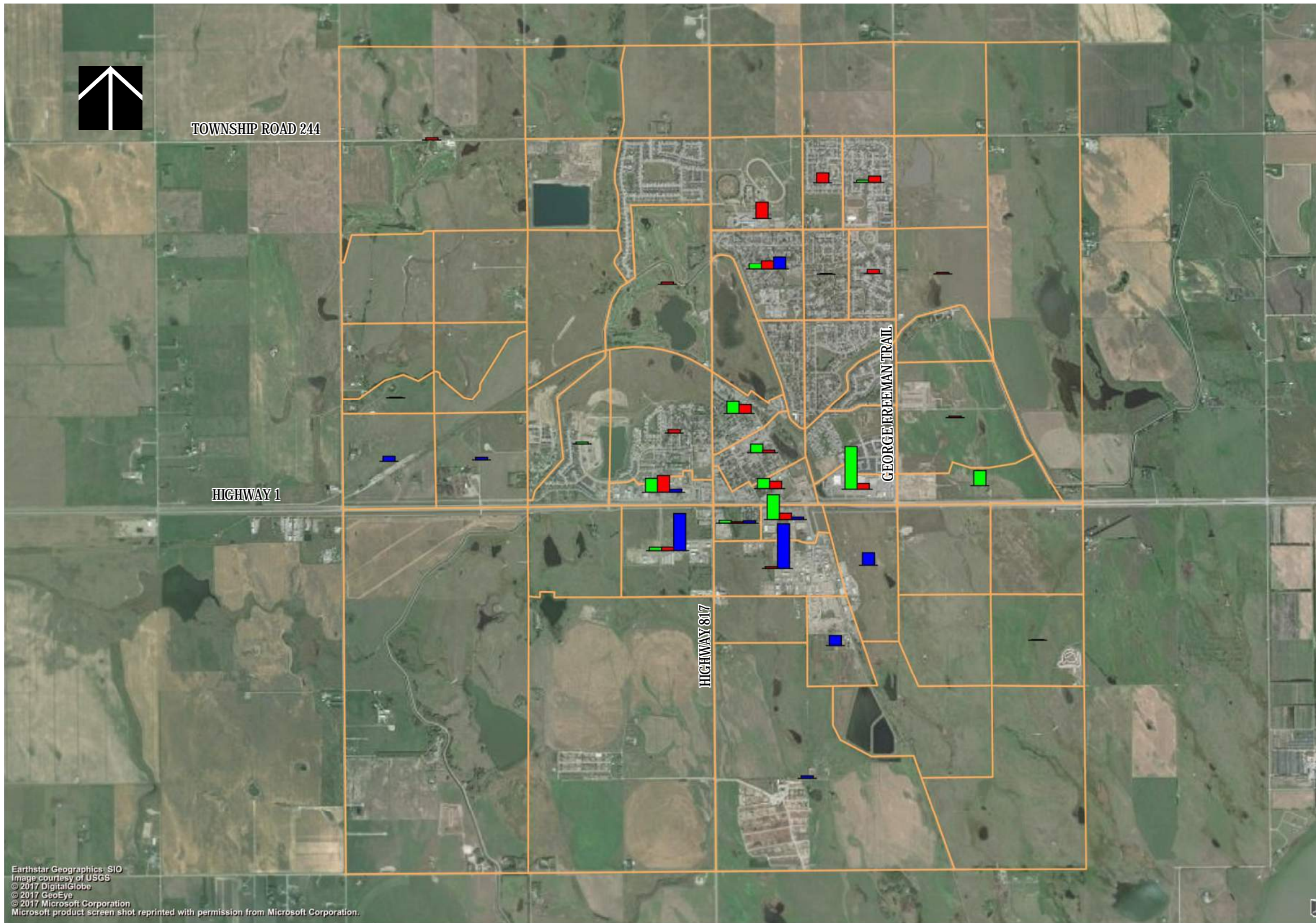
STRATHMORE TMP

EXISTING POPULATION

EXHIBIT 2.2  
SEPTEMBER 2020



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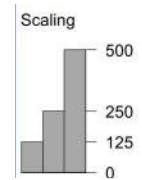


Employment  
Existing  
Zone Boundary



Chart

- RETAIL
- NON-RETAIL
- INDUSTRIAL



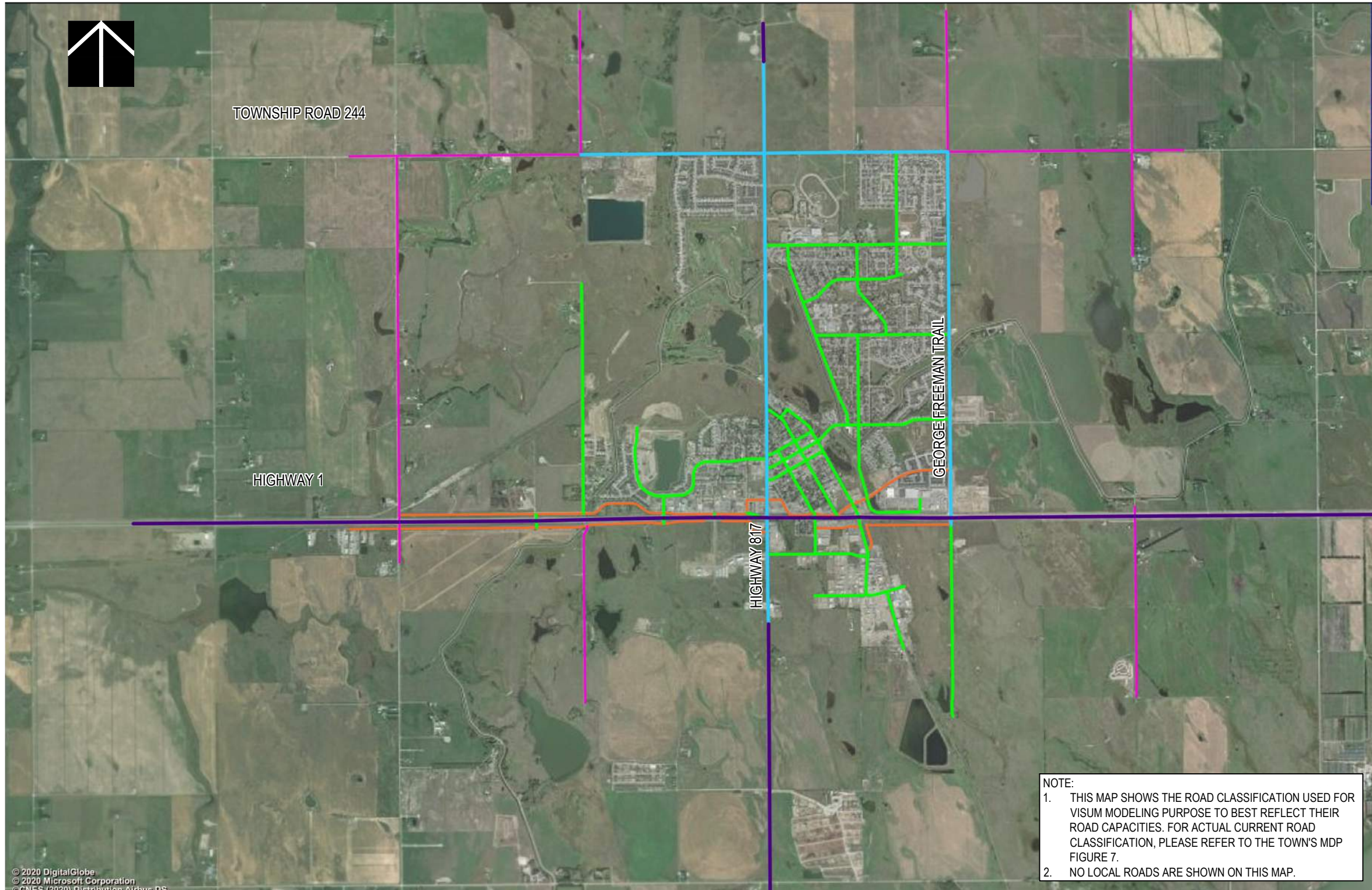
STRATHMORE TMP

EXISTING EMPLOYMENT

EXHIBIT 2.3  
SEPTEMBER 2020



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#### Road Classification

Type number

- Highway
- Arterial
- Collector
- Rural
- Service Road

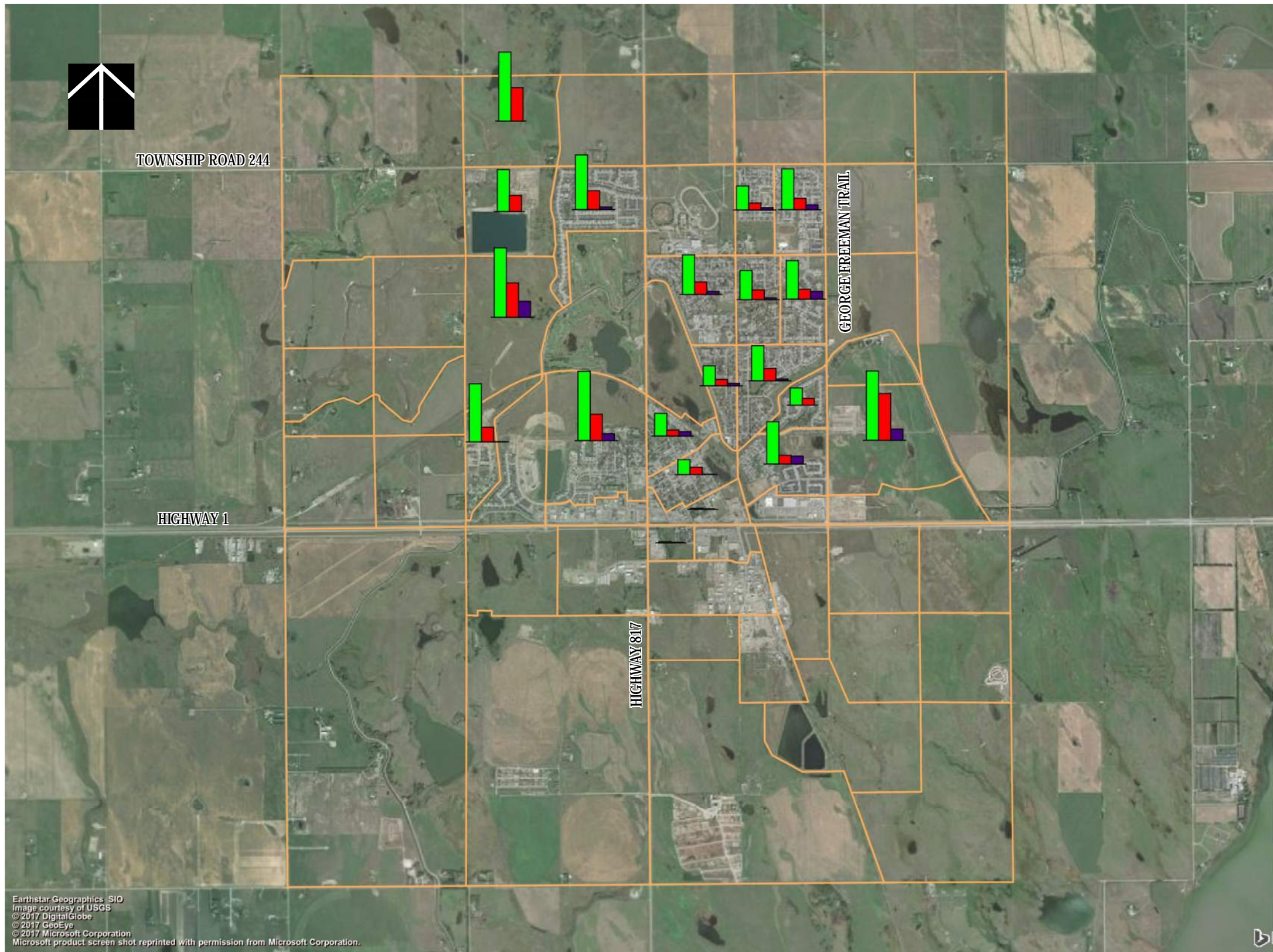
#### STRATHMORE TMP

EXISTING VISUM MODEL  
ROAD CLASS

EXHIBIT 2.4  
SEPTEMBER 2020



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Veronica Klassen / Sep. 16, 19 /



Population and Household

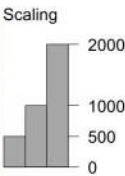
Future

Zone Boundary



Chart

- POPULATION
- HOUSEHOLD SINGLE-FAMILY
- HOUSEHOLD MULTI-FAMILY



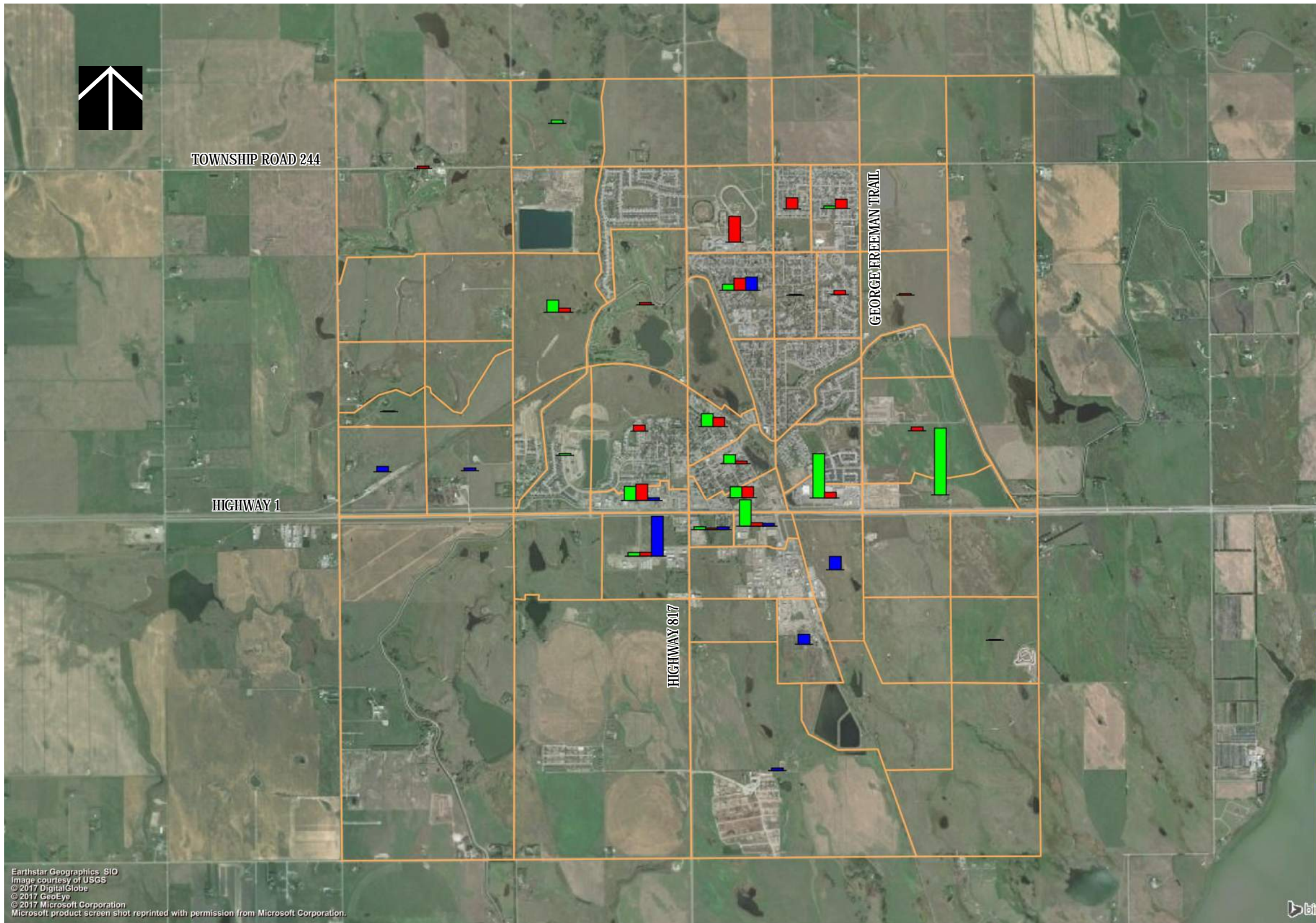
STRATHMORE TMP

FUTURE POPULATION

EXHIBIT 2.5  
SEPTEMBER 2020



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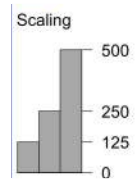


Employment  
Future  
Zone Boundary



Chart

- RETAIL
- NON-RETAIL
- INDUSTRIAL



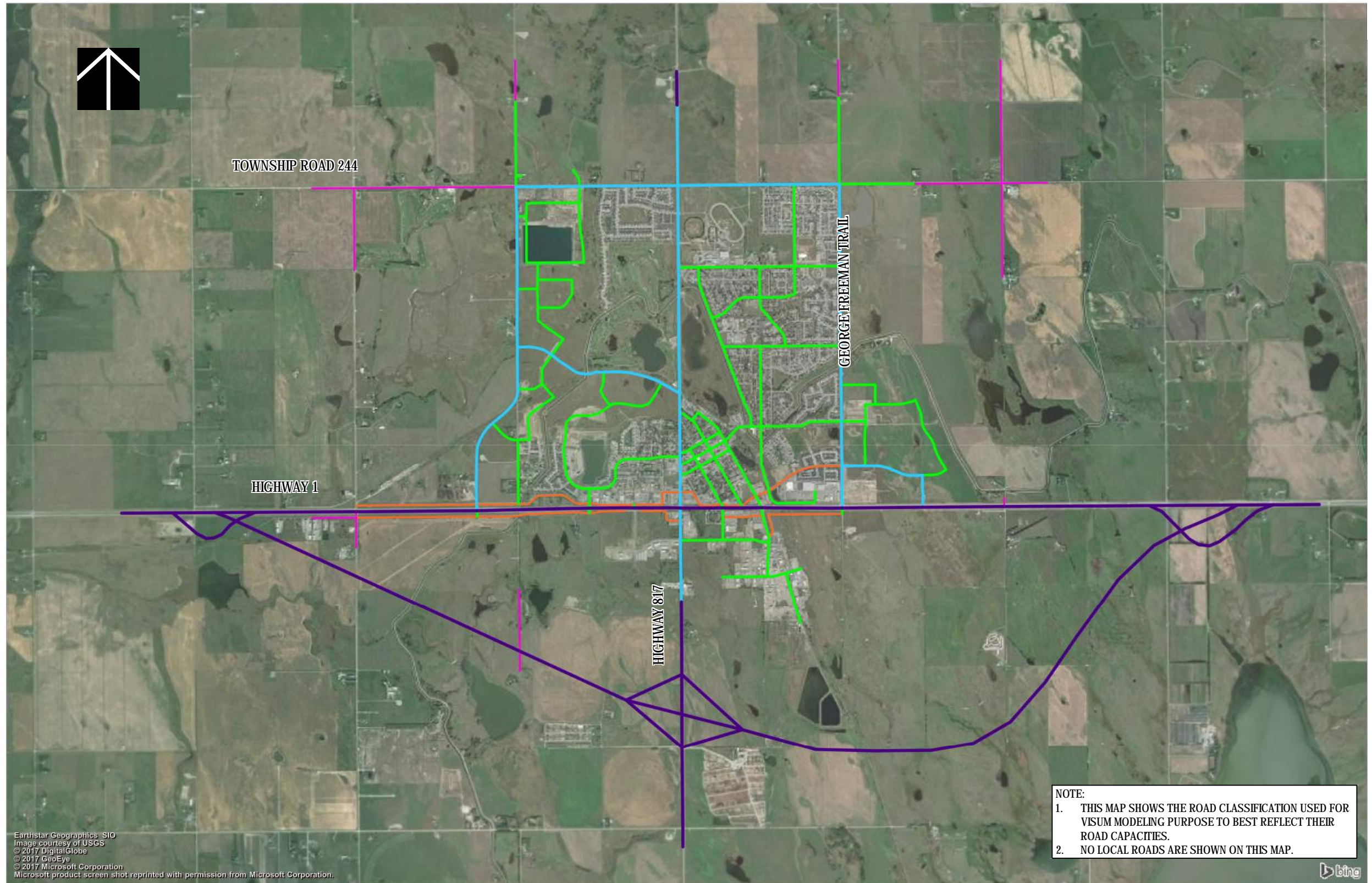
STRATHMORE TMP

FUTURE EMPLOYMENT

EXHIBIT 2.6  
SEPTEMBER 2020



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#### Road Classification

Type number

- Highway
- Arterial
- Collector
- Rural
- Service Road

STRATHMORE TMP

FUTURE VISSUM MODEL  
ROAD CLASS

EXHIBIT 2.7  
SEPTEMBER 2020

## 3.0 Travel Demand Model and Calibration

The construction of Travel Demand Model for a Transportation Master Plan provides significant benefits as it evaluates travel pattern changes as land use and regional or local transportation networks change. This is vital to Strathmore as the Highway 1 bypass could significantly alter traffic patterns within Strathmore, and also helps the Town to understand what transportation infrastructure is required to serve the future proposed development areas.

### 3.1 Travel Demand Modelling Process

The travel demand model development and the analysis undertaken in this study used the VISUM 18 transportation planning software suite developed by PTV Group. This GIS-based travel forecasting model is a state-of-the-art transportation planning tool that can efficiently estimate changes in travel patterns and utilization of transportation systems in response to changes in land use, population, employment, and transportation infrastructure. It integrates mapping, land use planning, development projections, future traffic demand, and transportation networks to produce reliable traffic forecasts that can be interpreted easily and presented in effective visual format. It is also the most commonly used software for other Calgary-area municipalities including City of Airdrie, Town of Okotoks, Town of High River, Foothills County and Rocky View County.

The traditional four-step travel demand modelling process was used for this study, as shown in Figure 3.1 and summarized as follows:

- **Trip Generation** – residential, commercial, and industrial land uses are used to determine the number of peak hour trips being generated for the study area;
- **Trip Distribution** – zone-to-zone trip distribution is based on the road network impedance (i.e., travel time) and determines a zone-to-zone origin-destination (OD) trip matrix;
- **Mode Split** – the OD trip matrix is split into various travel modes, such as driving, walking, and transit. For this study, 100% of trips were assumed to be by passenger vehicle, with no additional mode split analysis;
- **Trip Assignment** – the estimated OD trip matrix is assigned onto the established road network to get link volumes for the existing and future traffic scenarios;

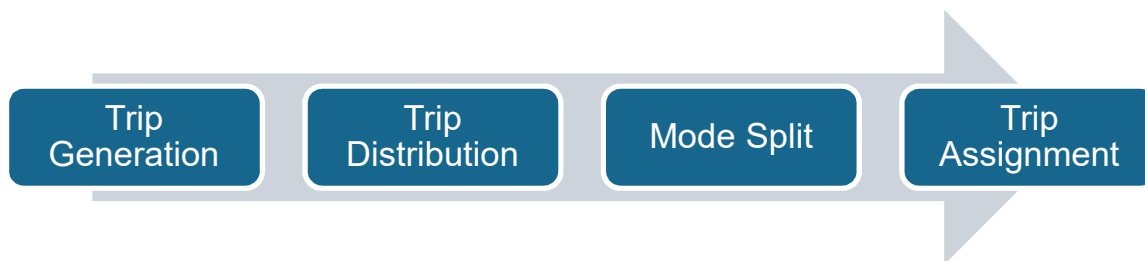


Figure 3.1: Traditional Four-Step Travel Demand Modelling Process



The existing travel demand model captures the existing travel patterns, including trip generation, trip distribution, trip assignment, and pass-by traffic through Strathmore. With a model calibrated to existing conditions, these characteristics can then be applied to the growth areas of Strathmore to forecast the future traffic volumes. The future transportation demand model provides Strathmore with a scalable, flexible platform that can be readily adapted over time to include additional scenarios or transportation complexity as Strathmore grows. The flow chart in Figure 3.2 is a general representation of the four-step travel demand modelling process implemented for this study.

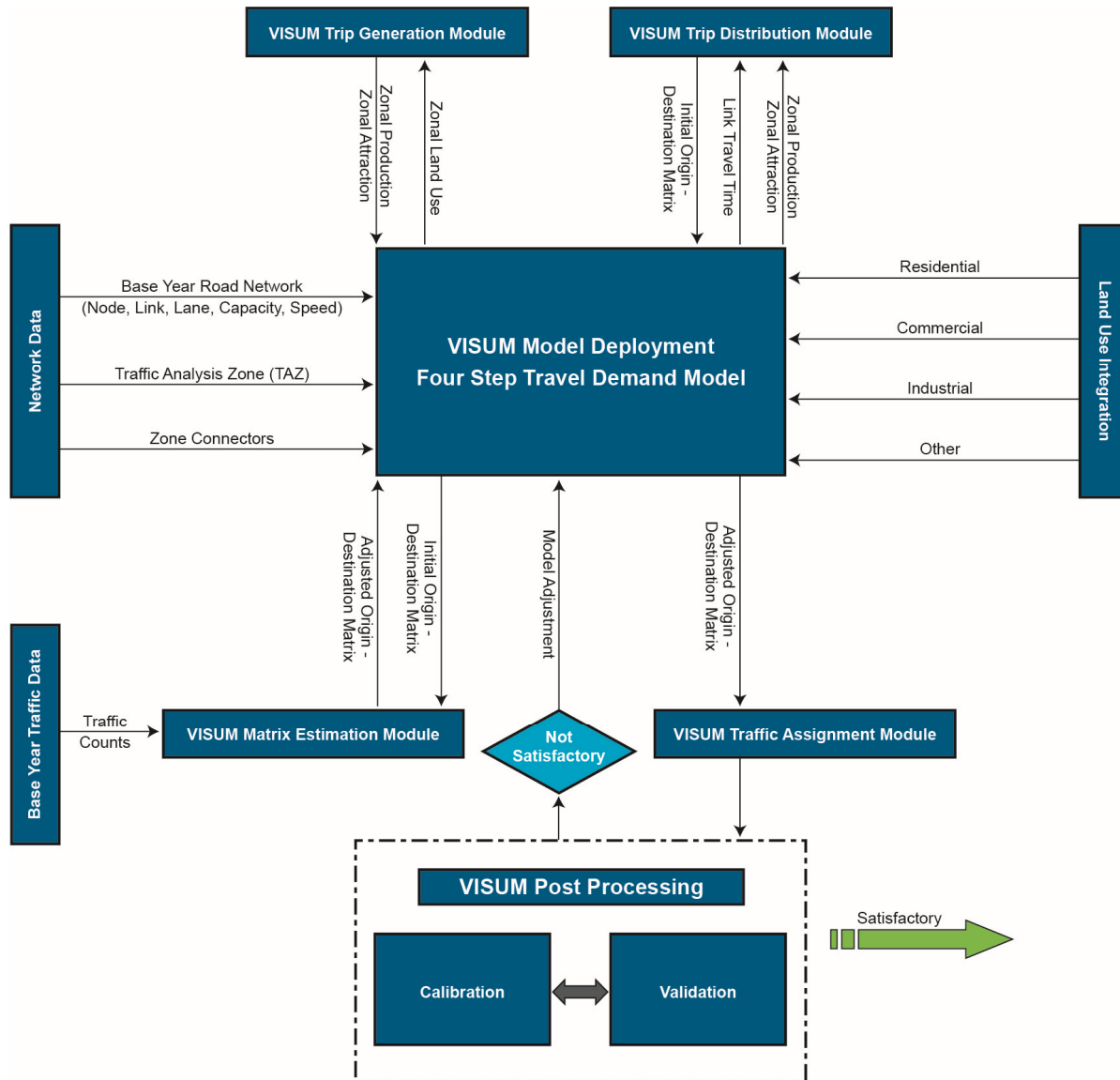


Figure 3.2: General Representation of Base Year Model Development

## 3.2 Roadway Capacity

Road capacities within the VISUM model are based on their functional classification. Link capacities used in the TMP model are summarized in Table 3.1. The link capacities are generally conservative, in that they are based on the capacity of a single traffic lane, multiplied out to the total number of lanes on the road in a given scenario. There were additional variations in the model not noted here, such as reduced speed and capacity in roadways with lower speed limits to allow for an appropriate travel time penalty on such routes.

Table 3.1: Link Capacities

Road Classification	Capacity, veh/hr/lane	Speed, km/h
Freeway (Free Flow)	2,100	100-110
Highway	1000-1200	60-80
Arterial	900-1200	50-80
Collector	700-800	50-60
Local	350-400	30-50

Model outputs for scenario planning are based on the volume-to-capacity (v/c) ratio of each roadway, with ranges defined in Table 3.2. Given the conservative ranges for the link capacities, the macro-level planning works up to a capacity band ranging from 95% to 105% of link capacity. For example, the link capacities do not provide for channelized turn bays at intersections, which in practice will increase total capacity through a traffic signal on an arterial. The acceptance of certain higher-volume links in some cases has either been proven via more detailed micro-level analysis or is considered to be an acceptable level of congestion given the existing constraints and limitations of certain roadways.

Table 3.2: Volume-to-Capacity Ratio Ranges

Colour	v/c Ratio	Notes
Dark Green	<0.60	Effective operations
Light Green	0.60 – 0.80	Effective operations
Yellow	0.80 – 0.95	Normal operations, urban traffic conditions
Orange	0.95 – 1.05	At or near capacity
Red	>1.05	Above capacity

## 3.3 Existing Horizon Calibration

A 2018 baseline model was developed for the transportation network, using existing land use and traffic counts within Strathmore to develop and calibrate the network model. Traffic count data was sourced from AT data, Town of Strathmore count data including counts data extracted from Traffic Impact Assessments reports prepared for Strathmore, and 23 additional traffic counts conducted by ISL from October to December 2018. During the scheduled traffic counts, there was a local road closure due to bridge construction activity on George Freeman Trail south of Centennial Drive at the canal, which impacted the traffic patterns in the area. Therefore, additional traffic counts were conducted at locations with existing traffic counts (Highway 1 / Highway 817, Highway 1 / Lakeside Boulevard, George Freeman Trail / Park Lane Drive) to capture the “before and after” change in traffic



patterns. From the before and after counts, adjustments were made to traffic patterns at Highway 1 / Lakeside Blvd and George Freeman Trail / Park Lane Drive to revert the traffic volumes back to a “no bridge closure” condition. The existing AM and PM peak turning volumes are shown in Appendix C.

Calibration plots of the existing network model for AM and PM peaks are provided in Appendix D. Regression values ( $R^2$ ) of 0.89 were obtained for the network in both AM and PM peaks. These values represent strong convergence with the existing traffic data; the typical  $R^2$  value for acceptance of a calibration model is 0.75 for a small to medium size municipality.

Volume-to-capacity (v/c) ratio plots for Strathmore’s existing network in the AM and PM peaks are provided in Exhibits 3.1 and 3.2. The v/c ratio plots indicate all existing roadways within Strathmore show good operations with moderate volumes at both AM and PM peak times, and they do not indicate any major network congestion locations or bottlenecks.

### 3.4 Existing Detailed Intersection Analysis

Detailed traffic operation analysis was also completed at all intersections with available traffic count data in Synchro. The purpose of the detailed analysis was to verify the findings of the macro-level analysis in VISUM.

Synchro 9.0 was used to analyze the traffic operations at the intersections. The Level of Operating Service (LOS) A represents the highest LOS or generally free flowing conditions, while LOS F generally represents a breakdown or gridlock condition in vehicular flow. There are varying degrees of delay and LOS at the intermediate LOS B, C, D and E levels. LOS D is representative of normal peak hour congestion, while LOS E is representative of an intersection nearing its capacity. Typically, LOS D or better is the accepted standard for peak hour operations. LOS criteria for intersections are based on average delay per vehicle and are summarized in Table 3.3. Synchro also calculates each movement’s volume-to-capacity ratio (v/c ratio). A v/c ratio of 1.0 represents an intersection or movement at full capacity. Typically, a v/c ratio of 0.90 or lower for all intersection movements is the accepted standard for peak hour operations. The Synchro analyses show that all analyzed intersections operated at an acceptable level (LOS D or better and v/c <0.90) with existing traffic controls and lane configurations.

Table 3.3: Level of Service Criteria

LOS		A	B	C	D	E	F
Signalized	Average Delay per Vehicle (s/veh)	< 10	10 – 20	20 – 35	35 – 55	55 – 80	> 80
Unsignalized		< 10	10 – 15	15 – 25	25 – 35	35 – 50	> 50

#### 3.4.1 Specific Intersection Discussions

Through the public open house, online survey and consultation with internal Town staff and the Town’s transportation engineering consultant, we noted the following locations for further discussions even though they are not identified through the technical analysis:

- Spruce Park Drive / Pine Road: The northbound queue of the Highway 1 / Spruce Park Drive intersection extends beyond the Pine Road intersection, which creates a queue spillover issue for the commercial traffic on Pine Road. Therefore, in the short-term, it is recommended to adjust the signal timing to increase green time for the Spruce Park Drive northbound traffic at Highway 1 /

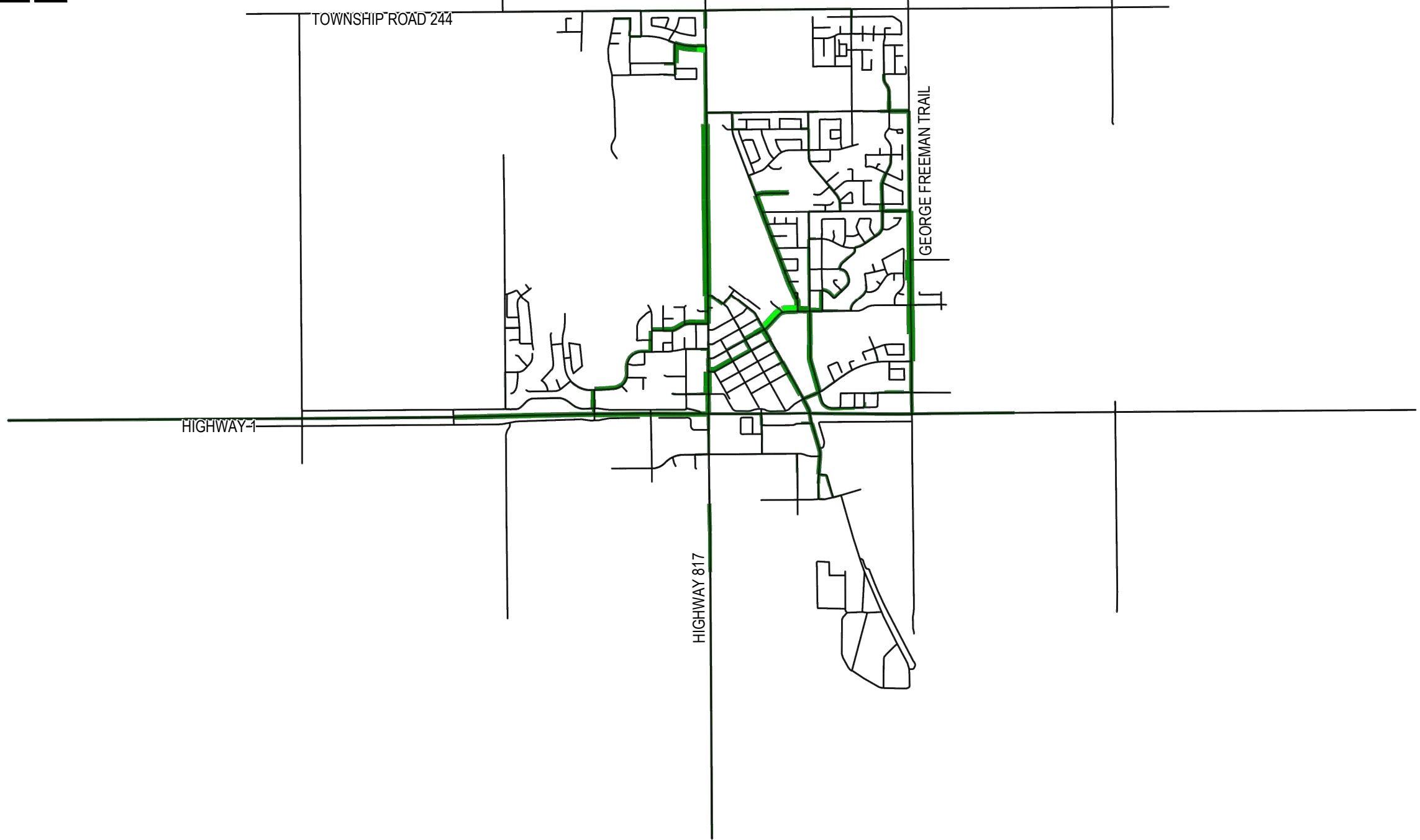
Spruce Park Drive to minimize the queue spillover. It is understood that there is an active land development application at the southeast corner of the Highway 1 / Spruce Park Drive intersection. Therefore, it is recommended to conduct a comprehensive functional planning study for the Spruce Park Drive corridor in consultation with the business community, local residents as well as the land developer to ensure an optimal design that meets the needs of all stakeholders. Improvements may include: right-in right-out at Spruce Park Drive / Pine Road, right-in right-out at the Canadian Tire access, roundabout at Spruce Park Drive / East Pine Road, etc.

- **Lakeside Boulevard / Archie Klaiber Trail:** It is understood that the four-way stop traffic operation can be confusing to road users, therefore it is recommended to review and evaluate alternative options, including lane marking or signage improvement, roundabout and traffic signal.
- **Park Lane Drive / Thomas Drive:** It is recommended to conduct a detailed study to review the site visibility issue and remove objects that block the visibility triangle. Potential solutions may include turning the intersection to an all-way stop, prohibiting parking on the north side of Park Lane Drive between Thomas Drive and Centre Street, trimming foliage, and relocating obstructive objects in the corner residential lot.
- **George Freeman Trail / Edgefield Place Access:** It is reported that the intersection lane configuration can be confusing to road users. Therefore, it is recommended to conduct a detailed traffic operation and safety review to develop detailed short- and long-term recommendations. Upon preliminary review, the short-term recommendations could include additional signage and pavement marking, signal timing optimization, and/or laning configuration changes. The long-term recommendations should take into consideration the future widening needs at the intersection and along the George Freeman Trail corridor.
- **George Freeman Trail (north of Archie Klaiber Trail) and Township Road 244:** These roads are currently built to rural standards with no shoulders. It is recommended that the Town engineering staff consult with Protective Services to determine the need to add shoulders and increase road widths on these roads to allow non-emergency vehicles to pull over onto the shoulders and emergency vehicles to pass safely. The widening should take into consideration the future 4-lane cross-section of the two roads.
- **Highway 817 / Canal Boulevard:** It is reported that the intersection lane configuration can be confusing to road users (e.g. southbound inside lane turns into a left turn lane). In the short term, it is recommended to provide better signage and pavement marking to help drivers understand the lane configurations. In the long term, it is recommended to include this intersection as part of the functional planning study at Highway 1 / Highway 817 to confirm the optimal design for the Highway 817 corridor.
- **Highway 1 / Westmount Road:** Per the existing analysis, Westmount Road is operating at near capacity at LOS D and improvements to the intersection would be required in the near future. By paving Westridge Road between Wildflower Road and the Strathmore Stockyard (and possibly adding a signal to the Highway 1 intersection near the Stockyard), an additional desired (paved) route to Highway 1 is added. This could relieve pressure at Highway 1 / Westmount Road. The preceding could also be achieved by realigning Wildflower Road west to its future alignment, at the existing Highway 1 intersection adjacent to the Stockyard.



- Westridge Road / Westmount Road: The intersection is in close proximity to the Highway 1 / Westmount Road intersection, which increases traffic conflicts between the two intersections. Potential short-term recommendations could include:
  - Signal timing optimization at Highway 1 / Westmount Road so that more green time is given to Westmount Road. This would reduce the queue on Westmount Road, would in-turn would create less congestion at Westridge Road / Westmount Road;
  - Turning restriction at Westridge Road / Westmount Road using signage and/or raised median.

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AM Peak Hour Congestion Existing

Link bars

Volume capacity ratio PrT (AP)

- 0-60%
- 60-80%
- 80-95%
- 95-105%
- >105%



STRATHMORE TMP

EXISTING AM  
V/C RATIO

EXHIBIT 3.1  
SEPTEMBER 2020



TOWNSHIP ROAD 244

HIGHWAY 1

HIGHWAY 817

GEORGE FREEMAN TRAIL

### PM Peak Hour Congestion Existing Link bars

Volume capacity ratio PrT (AP)



STRATHMORE TMP

EXISTING PM  
V/C RATIO

EXHIBIT 3.2  
SEPTEMBER 2020



## 4.0 Future Scenario Road Network and Analysis

In the development of the VISUM model for the future horizon in 2049, land use and trip generation was added for the growth areas, along with background traffic growth for Highway 1 and Highway 817, as outlined in Section 2.2.

### 4.1 Future Scenarios

For the TMP update, two road network scenarios were considered:

- **Scenario 1:** without the Highway 1 bypass at Strathmore;
- **Scenario 2:** with the Highway 1 bypass at Strathmore;

For Scenario 1 (without the bypass), the v/c ratio plots for the AM and PM peaks are shown in Exhibits 4.1 and 4.2, respectively. The results indicate that there will be capacity constraints on short segments of Highway 817 and George Freeman Trail; to improve operations, twinning is required.

For Scenario 2, the v/c ratio plots for the AM and PM peaks are shown in Exhibits 4.3 and 4.4, respectively. The results indicate that there will be capacity constraints on the same segments of Highway 817 and George Freeman Trail and twinning is required.

### 4.2 Future Detailed Intersection Analysis

Detailed traffic operation analysis was completed at major intersections for both scenarios in Synchro and results indicated that several intersections operated below criteria and intersection improvements are needed, as summarized in Table 4.1.

It is cautioned that intersection turning volumes from a travel demand model cannot exactly predict the future volumes at a high level of accuracy, but can provide good basis for proposing future transportation network improvements. Local-level forecasting and analysis via Traffic Impact Assessments (TIAs) should continue to be used as part of the development approval process as new growth areas come online, to determine local-scale recommendations.

Table 4.1: Future Intersection Traffic Operation Summary

Intersection	Operates beyond Criteria?	
	Scenario 1	Scenario 2
Township Road 244 / Lakewood Circle	Yes	Yes
Township Road 244 / Highway 817	Yes	Yes
Highway 1 / New North-South Arterial	Yes	Yes
Highway 1 / Highway 817	Yes	Yes
Highway 817 / Westcreek ASP Access	Yes	Yes
Highway 1 / George Freeman Trail	Yes	No
George Freeman Trail / Edgefield Place Access	Yes	Yes
George Freeman Trail / Archie Klaiber Trail	Yes	Yes
George Freeman Trail / Park Lane Drive	Yes	Yes
Park Lane Drive / Thomas Drive	Yes	Yes



The analysis confirmed that the same intersections operate beyond criteria in Scenario 1 and Scenario 2 except for Highway 1 / George Freeman Trail where it only operates beyond criteria in Scenario 1. Therefore, the future scenario network recommendation focuses on Scenario 1, without the Highway 1 Strathmore Bypass (which is most conservative for traffic operations analysis).

### 4.3 Future Road Improvement Recommendations

The future road improvement recommendations for Scenario 1 are summarized in Table 4.2.

Table 4.2: Future Road Improvement Recommendations

Road / Intersection	Improvement Description
Highway 817 (Westmount Dr - Westcreek ASP)	Twinning to 4 lanes
George Freeman Tr (Archie Klaiber Tr - Centennial Dr)	Twinning to 4 lanes
Township Road 244 / Lakewood Circle	Traffic signalization
Township Road 244 / Highway 817	4 lanes on Township Road 244 with all-way stop control
Highway 1 / New North-South Arterial	Signalization with dual eastbound left-turn lanes
Highway 1 Corridor within Town boundary	Signal timing optimization and coordination
Highway 1 / Highway 817	Reconfiguration to provide left-turn bays on Highway 817 with signal retiming to eliminate split-phase operations
Highway 817 / Westcreek ASP Access	Signalization with eastbound right-turn bay
Highway 1 / George Freeman Trail	Extend eastbound left-turn bay
Highway 1 / Edgefield Access	Traffic signalization
George Freeman Trail / Edgefield Place Access	Signal retiming
George Freeman Trail / Archie Klaiber Trail	Signalization with an additional westbound right-turn bay
George Freeman Trail / Park Lane Drive	Traffic signalization
Park Lane Drive / Thomas Drive	Convert to all-way stop

#### 4.3.1 Timeline of Improvements

As the study findings illustrate that the improvements identified in the future network are mainly development-driven by the build-out of the ASP areas, the timeline of the improvements will primarily correlate with the progress of the build-out based on size and type of development, staging of development, and location of development.

When new developments are planned, it is recommended that a local-area TIA be undertaken to determine the timeline of specific improvements associated with the proposed development, tied to the proposed development phasing plans. Off-site levy collection for roadway improvements is a valuable tool to spread the cost of certain infrastructure improvements that benefit multiple growth areas fairly among the benefitting development cells, and to ensure the collection of money for future upgrades based on cumulative impacts to the transportation network, even if a specific development in the near future does not trigger a specific improvement.

To provide an initial basis for infrastructure staging and budgeting, two interim study horizons were identified for this TMP update: a 10-year horizon in 2029 and 20-year horizon in 2039. Through

interpolation of intersection turning volumes in the existing and 2049 horizons, intersection turning volumes for these two interim study horizons were generated and analyzed in Synchro. The improvement recommendations and the improvement horizons are summarized in Table 4.3 below.

#### 4.3.2 Opinion of Probable Cost

Class 5 (order of magnitude) opinions of probable cost were prepared to provide information on potential future transportation infrastructure costs. The Class 5 cost estimates can be used to update and incorporate with other infrastructure budgeting tools to assist in planning budgets on a Town-wide scale for future transportation studies, designs, and capital construction projects. Future transportation studies and designs would provide more detailed estimates required to continually review and update the off-site levy bylaw, or to budget and implement individual projects.

The assumptions used in the development of the opinion of probable cost are as follows:

- Costs in 2019 dollars;
- Includes underground storm system;
- Excludes land acquisition (assumes that land will be dedicated through the development process);
- Class 5 cost estimate with an accuracy of +75% to -40%;
- The suggested improvement horizon is estimated and will be subject to changes due to development pattern changes;
- Unit costs used were taken from recent tender close bids from Calgary area projects:
  - New green field 4-lane arterial: \$5.8 Million per km;
  - New Traffic Signal (Municipal Intersection): \$500,000;
  - New Traffic Signal (AT Highway Intersection): \$750,000;
- For signal timing coordination and optimization, it is assumed that signal infrastructure upgrades are not required;
- The cost of the internal roads of lower classification within the ASP areas were assumed to be the responsibility of the developer as part of the subdivision development agreement; and
- Highway 1 bypass and interchanges are assumed to be fully funded by Alberta Transportation.

#### 4.3.3 Future Improvements Summary

The recommended improvements with timeline and cost estimate are summarized in Table 4.3 and Exhibit 4.5. Additional notes are provided for the following corridors and intersections:

- Highway 1 / Highway 817 Intersection: It is recommended to have 4 through lanes on Highway 817 with opposing left-turn lanes at Highway 1. However, it is recognized that land acquisition is likely required. In the interim horizon, it is recommended to reconfigure the intersection to remove split phasing signal operation and allow for simultaneous northbound and southbound movements. Detailed design along with truck turning templates should be undertaken to confirm feasibility and exact intersection configuration.
- Lakeside Boulevard / Archie Klaiber Trail Intersection: Although the intersection will operate within criteria by 2049, there is desire from the Town and local residents to consider converting the 4-way stop intersection to a roundabout. On a high level, the conversion to a single-lane roundabout will



cost about \$1,000,000 (excluding land acquisition cost), comparable to the cost of a traffic signal. Roundabout construction or signalization is not included in the road improvement recommendation in Table 4.3 due to its acceptable traffic operation performance. However, if the Town wishes to pursue further, it is recommended that the Town conduct a functional planning study for option evaluation and costing.

- **Highway 1 Bypass:** The study illustrates that the Highway 1 Bypass will likely not be required by 2049. However, it is noted that decision will also be driven by regional and provincial considerations beyond the local scale. Per AT's Functional Planning Study, the Bypass will provide three accesses to Strathmore, with directional interchanges at the west end and east end, and a service interchange at Highway 817. When Highway 1 Bypass is open, it may present an opportunity for the Town to create a vibrant urban transportation corridor or main street along the former Highway 1 corridor in the Town with mixed and densified land uses.
- **South Ring Road:** The study only identified the northern portion of the Ring Road north of Highway 1 per the scope of work. However, as future commercial and industrial land develops south of Highway 1, there could be a need for the southern portion of the Ring Road south of Highway 1. The exact alignment will require further study in conjunction with future land development proposals, but a preliminary concept of the South Ring Road could include: the extension of the realigned Wildflower Road on the west, an east-west arterial south of Canal Boulevard, and the extension of George Freeman Trail on the east. The development of the South Ring Road alignment should also take into consideration the provision of adequate intersection spacing on Highway 817 north of the future Highway 1 bypass / Highway 817 interchange, the removal / realignment of the service roads, and intersection improvements that might be required at Highway 1 / Wildflower Road, Highway 817 / Canal Boulevard and Highway 1 / George Freeman Trail.
- **Strathmore Northwest Area:** It is understood that the Town currently has transportation connectivity issues in the Wildflower and Lakewood Meadows areas, especially for the Protective Services. Currently, there is one access in both Wildflower and Lakewood Meadows areas. As the Town is planning future growth in the Wildflower area through an Area Structure Plan and potential future annexation of the Oxbow area from Wheatland County, it is important to consider the arterial road network connectivity in the area, particularly to Range Road 254 and Wildflower Road to the west, Highway 817 to the east, Highway 1 to the south, and Township Road 244 to the north. These key transportation connections will provide adequate road capacity for the proposed development, as well as resolving the transportation connectivity issues for the Protective Services. From the perspective of a development approval process, it is recommended that the Town invite Protective Services as a key internal stakeholder so that any concerns and feedback of emergency services can be addressed proactively prior to development approval, especially for a greenfield development area.

Table 4.3: Recommended Improvements Staging, Horizon and Cost

Corridor / Intersection	Improvement Description	Class 5 Cost Estimate
<b>Improvements by 2021</b>		
Highway 1 & Spruce Park Drive	Signal retiming	\$15,000
Park Lane Drive & Thomas Drive	Visibility study and improvement	\$10,000
<b>Total (Rounded)</b>		<b>\$25,000</b>
<b>Improvements by 2029</b>		
New Westerly North-South Arterial	2 lane arterial	\$10,000,000
Highway 1 & Highway 817	Intersection reconfiguration	\$120,000
Highway 1 & Edgefield Access	New 2-way stop control intersection	\$580,000
Highway 817 & Westcreek Access	New 2-way stop control intersection	\$580,000
George Freeman Tr & Archie Klaiber Tr	Signalization with WBR turn bay	\$1,080,000
George Freeman Tr & Park Lane Dr	Signalization	\$500,000
<b>Total (Rounded)</b>		<b>\$12,900,000</b>
<b>Improvements by 2039</b>		
Highway 817	Twinning (Willow Dr - Westcreek)	\$2,030,000
George Freeman Trail	Twinning (Archie Klaiber Tr - Park Lane Dr)	\$1,305,000
Highway 1 & New North-South Arterial	Signalization	\$750,000
Highway 817 & Westcreek Access	Signalization with NBL and EBR turn bays	\$1,000,000
George Freeman Trail & Edgefield Place	Signal retiming	\$10,000
Township Road 244 & Lakewood Circle	Signalization	\$500,000
Township Road 244 & Highway 817	4-way stop control	\$5,000
<b>Total (Rounded)</b>		<b>\$5,600,000</b>
<b>Improvements by 2049</b>		
Highway 1	Signal timing optimization and coordination	\$30,000
George Freeman Trail	Twinning (Park Lane Dr - Centennial Dr)	\$2,320,000
Highway 1 & New North-South Arterial	Add an additional EBL turn bay	\$75,000
Highway 1 & George Freeman Trail	Extend EBL turn bay	\$60,000
Highway 1 & Edgefield Access	Signalization	\$750,000
Township Road 244 & Highway 817	4-lane on Township Road 244 Approach	\$240,000
Park Lane Drive & Thomas Drive	Convert to all-way stop	\$5,000
<b>Total (Rounded)</b>		<b>\$3,500,000</b>

The travel demand model was built for the Town of Strathmore using the VISUM macro-level analysis software. The travel demand model, based on the future population and land use, is appropriate for a strategic Transportation Master Plan and was a requirement per the scope of work. Additional detailed intersection-level analysis was later conducted by the Town's transportation consultant, Traffic Solutions Consulting Ltd. Traffic Solutions' analysis was undertaken using the traditional traffic growth method, where a percentage of growth (25%, 50%, 75%) between the existing and the 2049 forecast volume, was used for the analysis. It is noted the core conclusions (i.e. number of lanes,



road classification, signals, etc.) of the ISL and Traffic Solution analysis is the same, the only difference are the detailed intersection requirements (e.g. adding turn bay vs no turn bay, two-way stop vs four-way stop, optional upgrades, etc.) at build-out and at each growth stage. Please contact the Town of Strathmore for more details and a copy of Traffic Solutions' report.

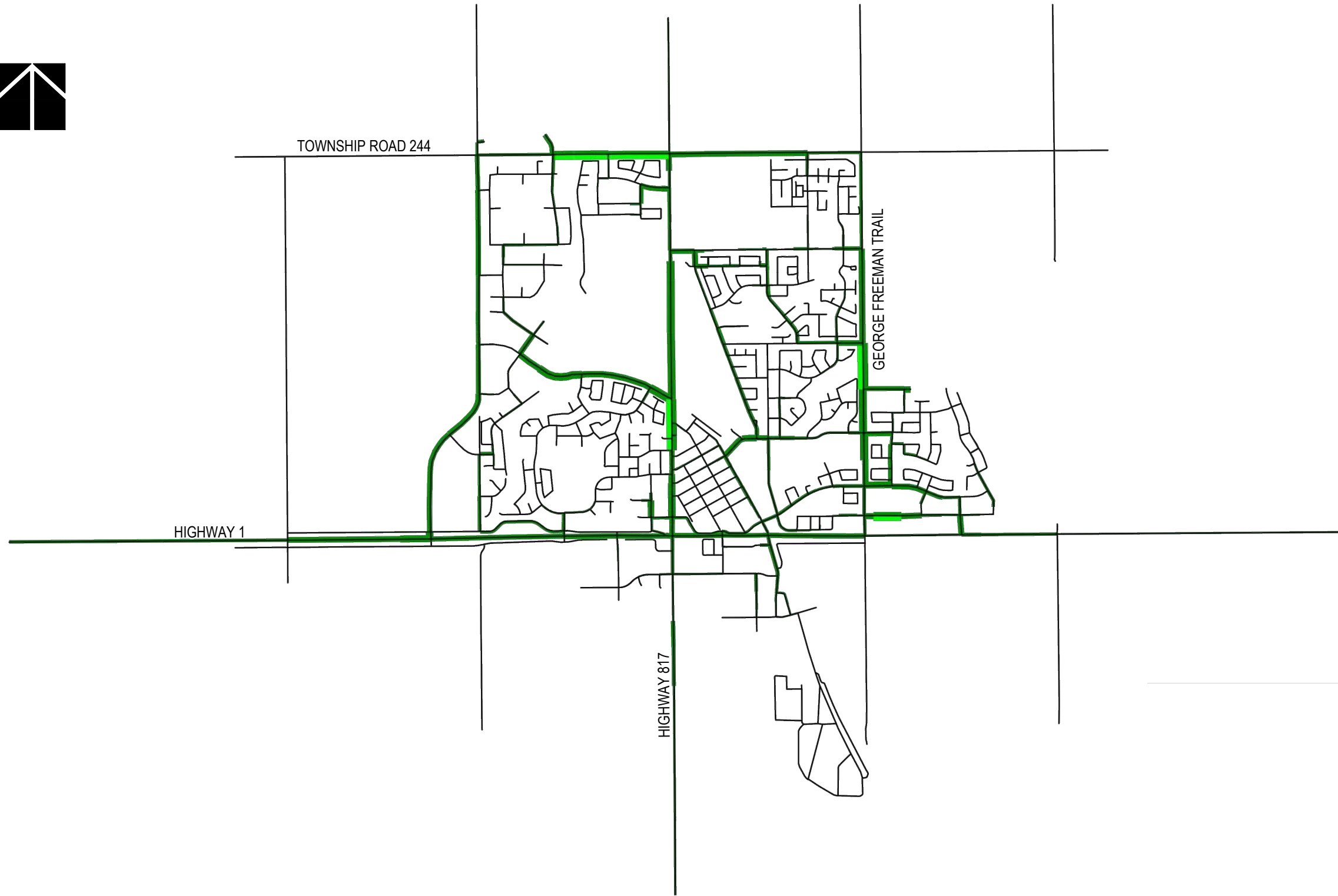
#### 4.4 Incorporation of Trail Master Plan

The Trail Master Plan developed by the Town of Strathmore was also incorporated into the TMP, shown in Exhibit 4.6. Upon review of the plan, the following recommendations are made:

- The Town should undertake a detailed Parks, Open Space, Trail and / or Active Transportation Master Plan;
- Use the irrigation canal as the backbone of the trail system and provide a connected trail network that qualifies as All Ages and Abilities (AAA) cycling facilities;
- Provide trail connections from Strathmore Lake across Highway 817 to downtown and further east;
- Consider upgrading the former Highway 1 within Strathmore to a complete street with sidewalks, cycling and transit infrastructure, once the Highway 1 Bypass is constructed;
- Provide high-quality trails on all sections of the proposed ring road to promote alternative modes of transportation in the Town;
- Prioritize high-quality trail networks surrounding schools with safe crossings to encourage active transportation to school;

#### 4.5 Sidewalks

In new communities, providing sidewalks or pathways on both sides of the road is considered an essential component of creating a high level of permeability and access within and between neighbourhoods. From the public open house and stakeholder meeting, several segments of disconnected sidewalks were identified (i.e. 2 Ave east of Lakeside Boulevard). It is recommended that the Town identify the missing sidewalk connections and develop a construction plan to build these sidewalks, which could be a separate study or included as part of the Active Transportation Master Plan.



### AM Peak Hour Congestion Future

Link bars

Volume capacity ratio PrT (AP)

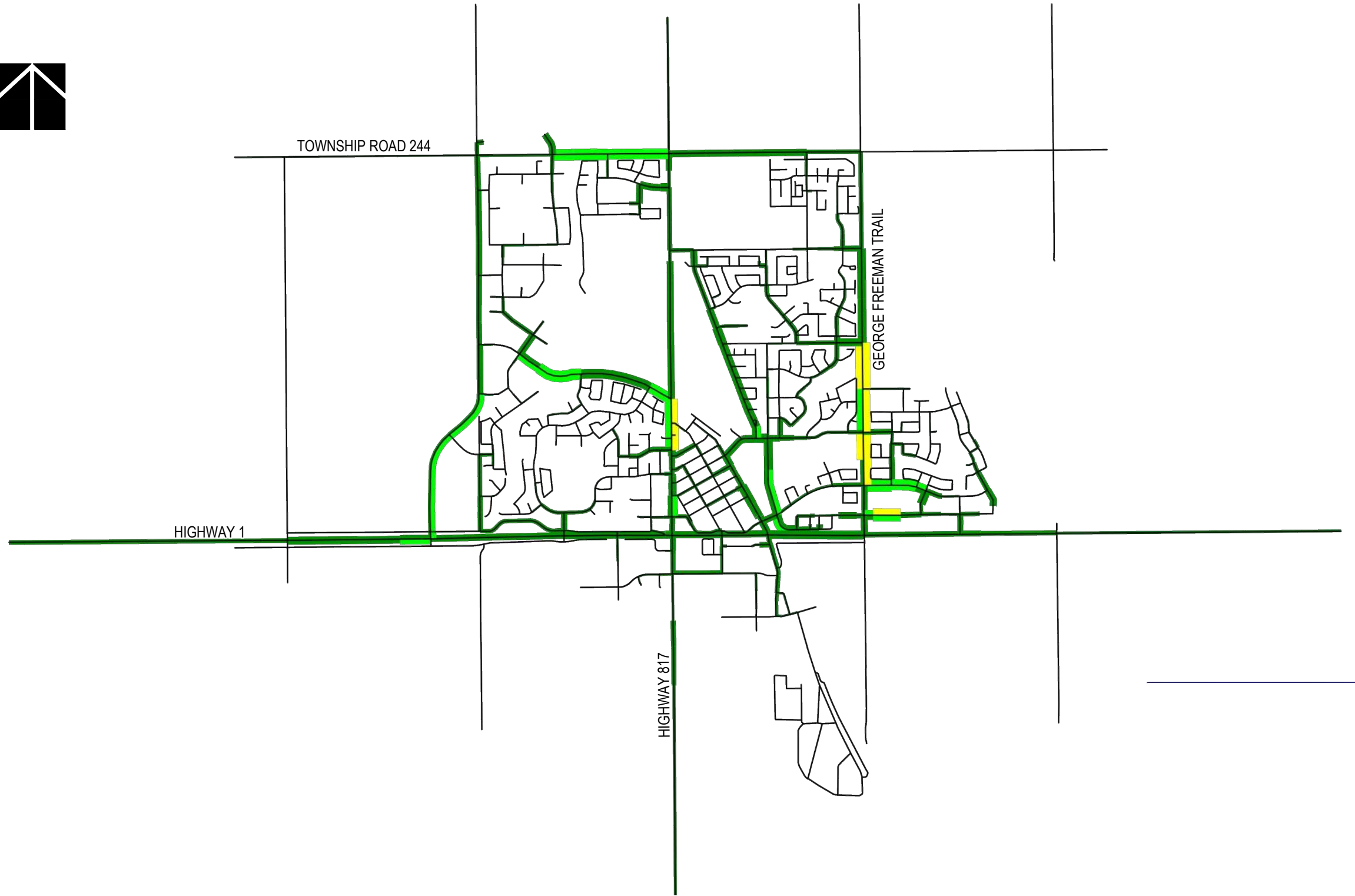


**STRATHMORE TMP**

**FUTURE AM SCENARIO 1  
V/C RATIO**

**EXHIBIT 4.1  
SEPTEMBER 2020**





### PM Peak Hour Congestion Future

Link bars

Volume capacity ratio PrT (AP)

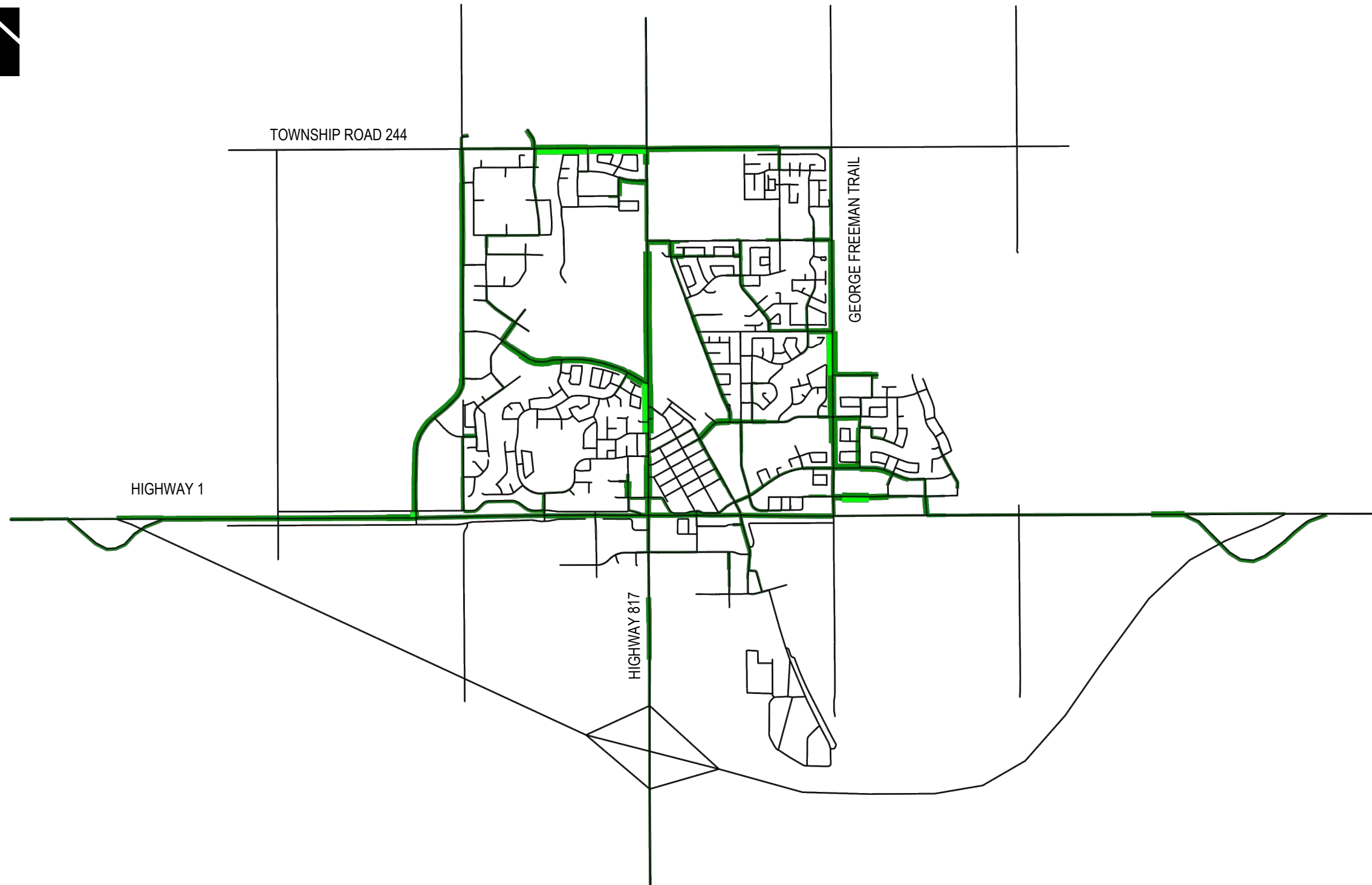


**STRATHMORE TMP**

**FUTURE PM SCENARIO 1  
V/C RATIO**

**EXHIBIT 4.2  
SEPTEMBER 2020**





### AM Peak Hour Congestion Future

Link bars

Volume capacity ratio PrT (AP)

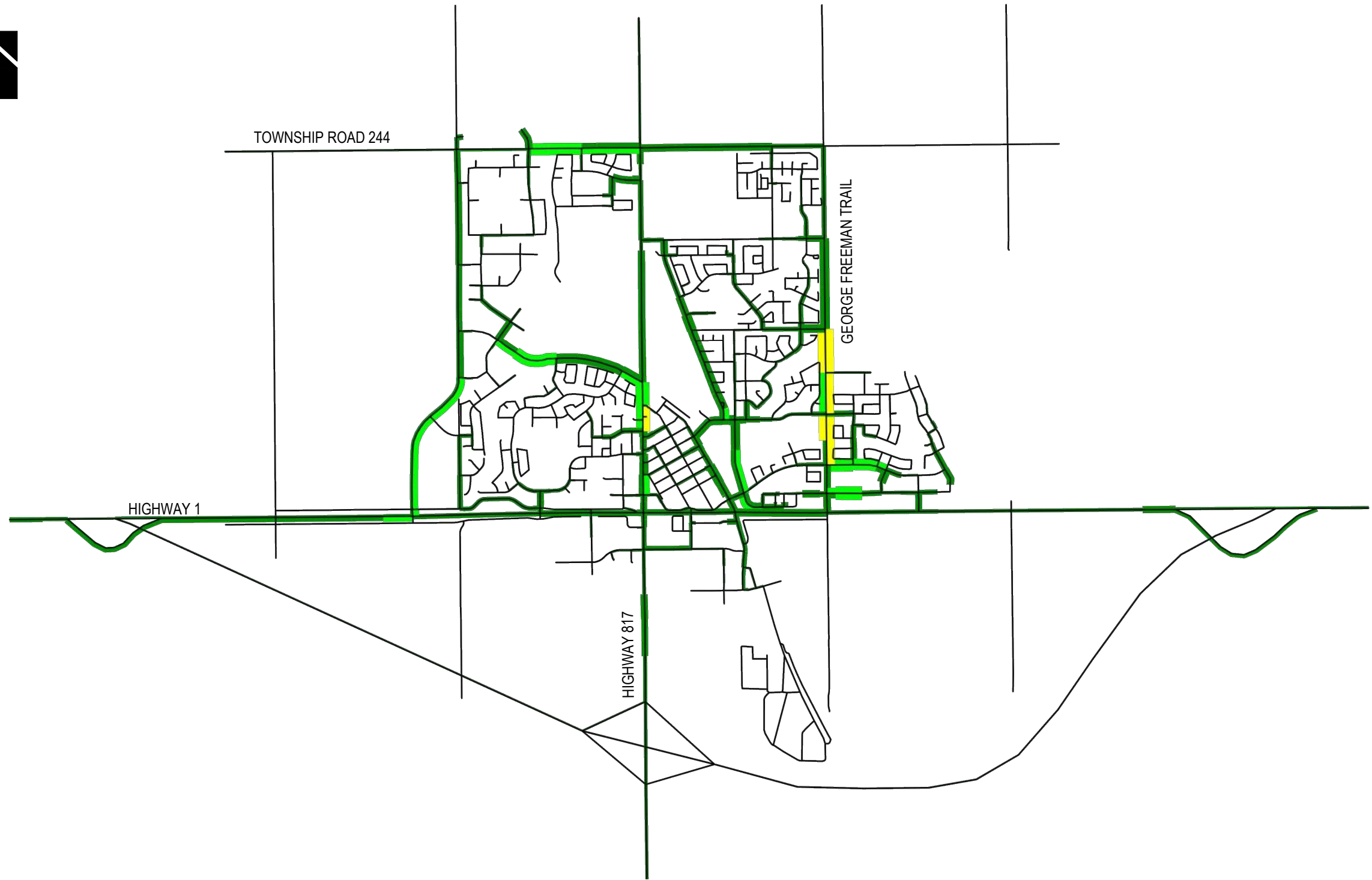
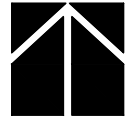


**STRATHMORE TMP**

**FUTURE AM SCENARIO 2  
V/C RATIO**

**EXHIBIT 4.3  
SEPTEMBER 2020**





### PM Peak Hour Congestion Future

Link bars

Volume capacity ratio PrT (AP)



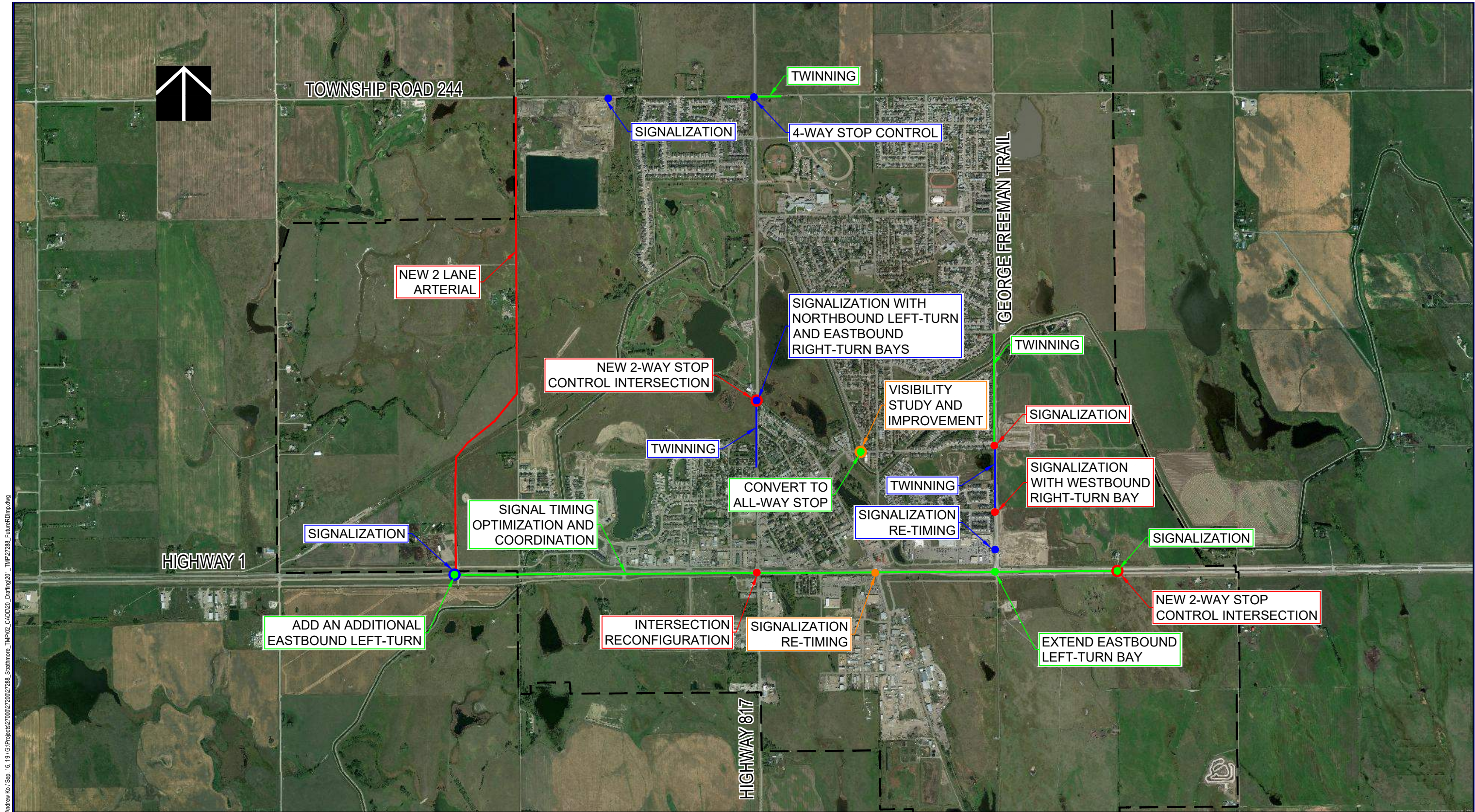
**STRATHMORE TMP**

**FUTURE PM SCENARIO 2  
V/C RATIO**

**EXHIBIT 4.4  
SEPTEMBER 2020**







Andrew Ko / Sep. 16, 19 / G:\Projects\27000\270027288 - Strathmore\_TMP\02\_CADD\00\_Drafting\201\_TMP\27288\_FutureRdImp.dwg

Legend:

- 2021
- 2029
- 2039
- 2049
- TOWN BOUNDARY



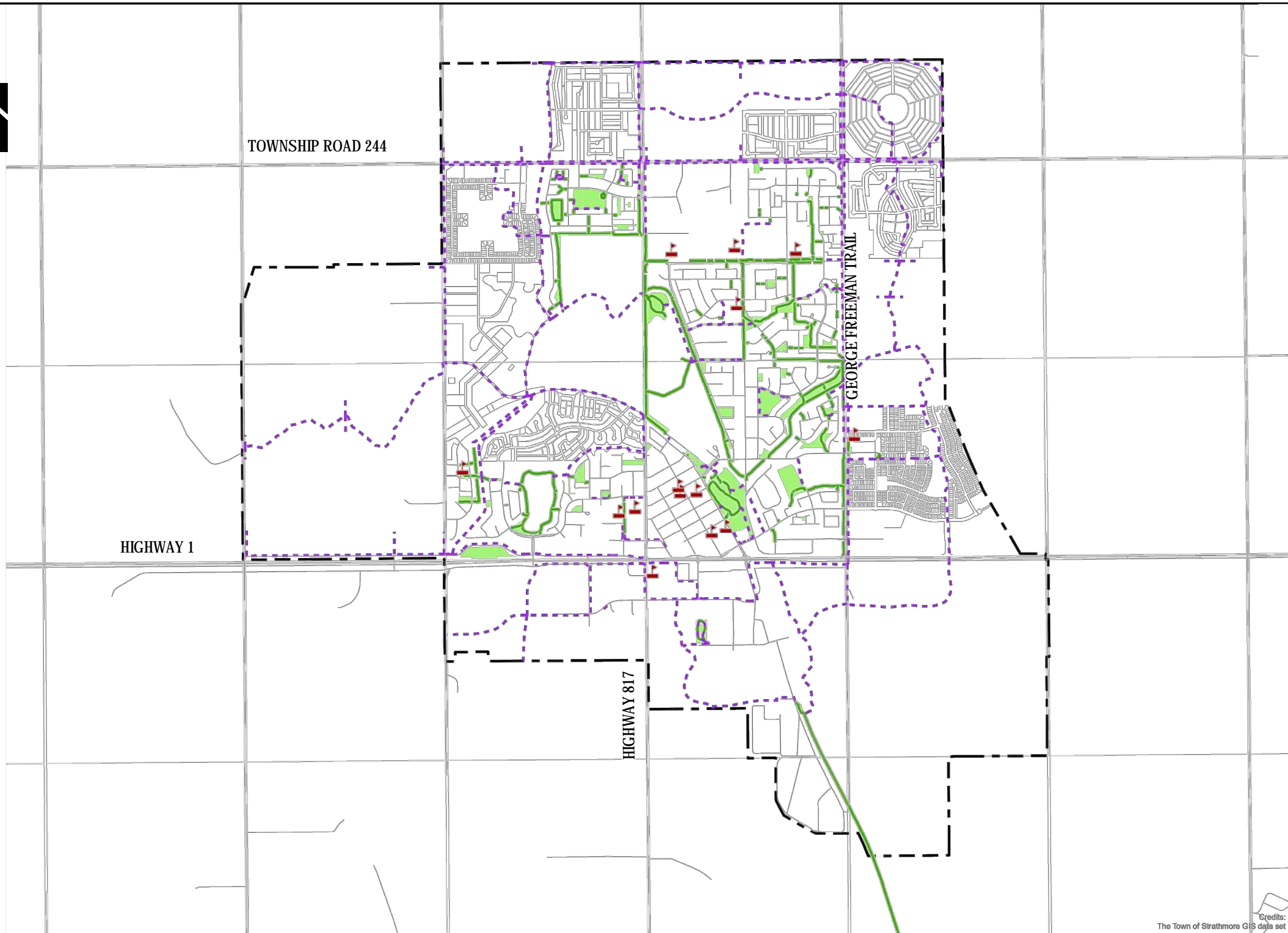
STRATHMORE TMP

FUTURE ROAD IMPROVEMENT

EXHIBIT 4.5  
SEPTEMBER 2020





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Credits:  
The Town of Strathmore GIS data set

#### Legend

-  Schools
-  Future Pathway
-  Existing Pathway
-  Park
-  Town Boundary



**STRATHMORE TMP**

**TRAIL MASTER PLAN**

**EXHIBIT 4.6**  
**SEPTEMBER 2020**

## 5.0 Roadway Classifications and Typical Cross Sections

The existing roadway cross sections from the *Town of Strathmore Design Standards & Procedures for Development & Subdivision Infrastructure Policy (Strathmore Design Standards)* were reviewed and used as the basis for the proposed road cross sections.

### 5.1 Existing Classifications and Cross Sections

The existing road classifications, pavement widths and Right-Of-Way (ROW) widths per the *Strathmore Design Standards* are shown in Table 5.1.

Table 5.1: Strathmore Existing Roadway Cross Section

Existing Classification	ROW / Pavement Width
Residential Local, Sidewalk One Side	15.0 m / 10.0 m
Residential Local, Sidewalk Two Sides	15.5 m / 10.0 m
Industrial Local, 2 Lanes No Parking	17.0 m / 10.5 m
Major Collector, Undivided & Parking	22.0 m / 12.0 m
Primary Collector, Divided & No Parking	22.0 m / 13.0 m
Industrial Collector, 4 Lanes No Parking	22.0 m / 14.0 m
Major Arterial, 4 Lane No Parking	30.0 m / 14.0 m
Primary Arterial, Divided 4 Lanes	36.0 m / 15.0 m

### 5.2 Future Classifications and Typical Cross Sections

The review of the existing roadway classifications and cross sections found some inconsistency, especially regarding collector and primary collector streets. Therefore, this TMP proposed updated roadway cross sections (Table 5.2), which referenced the *2014 City of Calgary Complete Streets Guide*, which are widely referenced in the Calgary region. The typical road cross section drawings are shown in Exhibits 5.1. It is noted that road cross sections may vary from the typical road cross sections based on local context through the local development approval process; these can be verified during the Outline Planning process.

The following key principles were followed for the future cross sections:

- Maintain the same ROWs where practical for compatibility with existing road ROWs;
- Simplify road classification naming and match road ROW with road classification (wider road ROW for higher classification roads);
- Identify key arterial routes and protect the road ROW for future expansion and growth;
- For lower classification roadways (local and collector streets), differentiate residential and industrial roads as vehicle characteristics and road user needs are different;
- Promote walkability by removing the local residential road with sidewalk on one side only standard and providing pedestrian facilities (sidewalks/pathways) on both sides of all roadways; and
- Include the active modes in the road ROW using multi-use pathway as the Town moves towards multi-modal transportation network.

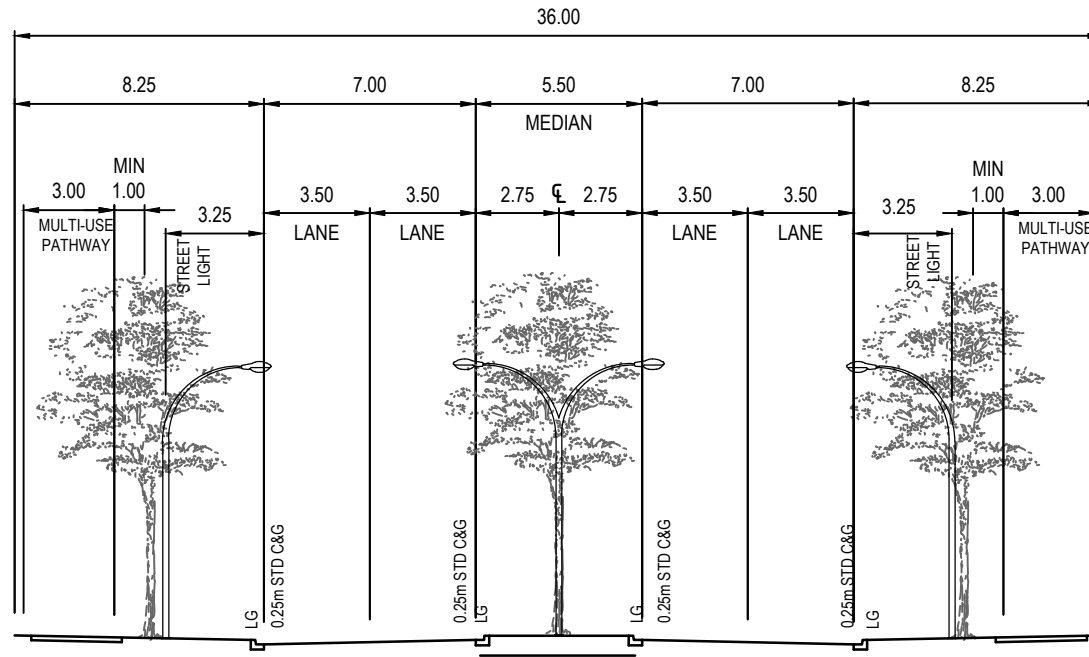
Table 5.2: Strathmore Proposed Roadway Cross Sections

Proposed Classification	ROW / Pavement Width
Residential Local, Sidewalk Two Sides	15.5 m / 9.0 m
Industrial Local, 2 Lanes No Parking	17.0 m / 9.0 m
Residential Collector, Undivided & Parking	22.0 m / 11.2 m
Industrial Collector, 2 Lanes Parking One Side	22.0 m / 12.0 m
Primary Collector, 4 Lanes No Parking	30.0 m / 14.0 m
Primary Collector, 2 Lanes Parking	30.0 m / 11.2 m
Arterial, Divided 4 Lanes	36.0 m / 14.0 m

The future road classification recommendations are summarized below and shown in Exhibit 5.2:

- Highway:
  - Highway 1: Highway 1 runs through the Town and is currently under the jurisdiction of AT. It is classified as a highway as it provides higher capacity with limited access;
  - Future Highway 1 Bypass: the Highway 1 Bypass was planned by AT in 2010 and will be built when Highway 1 within the Town limits operates beyond criteria. The Highway 1 bypass will be a high-speed, limited access freeway with no direct access allowed except at the three identified interchange locations;
- Arterial:
  - Highway 817: Highway 817 runs through the Town and is currently under the jurisdiction of AT. It is classified as an arterial due to its role in connecting the primary collector networks of surrounding development, and in providing access to some adjacent land uses;
  - Northern portion of the Ring Road: The Ring Road includes George Freeman Trail, Township Road 244, and the new Westerly Arterial road. They are part of the major road network that favors movement over access; ideally, access should be limited to defined intersection locations for the collector street network or major commercial access points (as opposed to individual site driveways);
- Primary Collector: Primary Collectors balance the needs of movement and access, and provide road network connectivity to arterial roads as entrance roads to major commercial and residential developments;
- Collector: Collector roads are a lower road class and primarily provide access to adjacent land uses while connecting to higher class roads, and they form the primary road network within neighborhoods;
  - Service Road: Service roads function as collector roads and are generally found parallel to or adjacent to highways. AT recommends closure and realignment of service roads as redevelopment progresses due to the intersection spacing challenges between a service road and a highway;
- Local: Local roads are the lowest road class and primarily provides access to adjacent land uses. It is noted that local roads are not shown in the road classification map.

To accommodate the projected future growth of Strathmore, George Freeman Trail and Township Road 244 are proposed to be fully upgraded to arterial roads and a new westerly arterial road is proposed to connect Highway 1 and Township Road 244. A single-line alignment and ROW of the northern half of the ring road is shown in Exhibit 5.3.



Note :

1. WHERE DUAL LEFT-TURN LANES ARE REQUIRED, ADDITIONAL RIGHT-OF-WAY OF 9.0M IS REQUIRED IF THE RAISED MEDIAN IS PLACED BETWEEN OPPOSING TRAVEL DIRECTIONS; IF THE RAISED MEDIANS ARE PLACED ALSO BETWEEN THE LEFT-TURN AND THROUGH LANES, THEN AN ADDITIONAL RIGHT-OF-WAY OF 1.5M IS NEEDED.

2. EXISTING ARTERIAL ROADS MAY BE UNDIVIDED BY ELIMINATING 5.5m MEDIAN



PRELIMINARY  
FOR DISCUSSION ONLY  
SUBJECT TO REVISION

1:250 0 2.5 5.0 7.5m

STRATHMORE TMP  
TYPICAL CROSS SECTION  
ARTERIAL - 4 LANES


EXHIBIT 5.1.1  
SEPTEMBER 2020



***ISL***

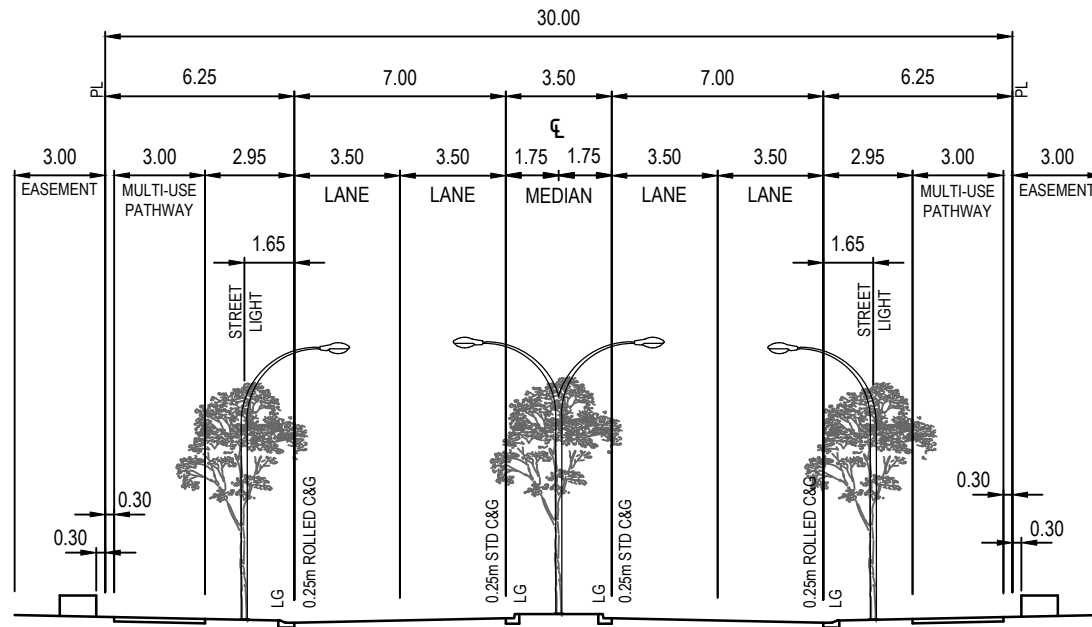


1:250



0 2.5 5.0 7.5m

**EXHIBIT 5.1.2**  
**SEPTEMBER 2020**



EXISTING PRIMARY COLLECTOR MAY BE UNDIVIDED BY ELIMINATING 3.5m MEDIAN



PRELIMINARY  
FOR DISCUSSION ONLY  
SUBJECT TO REVISION

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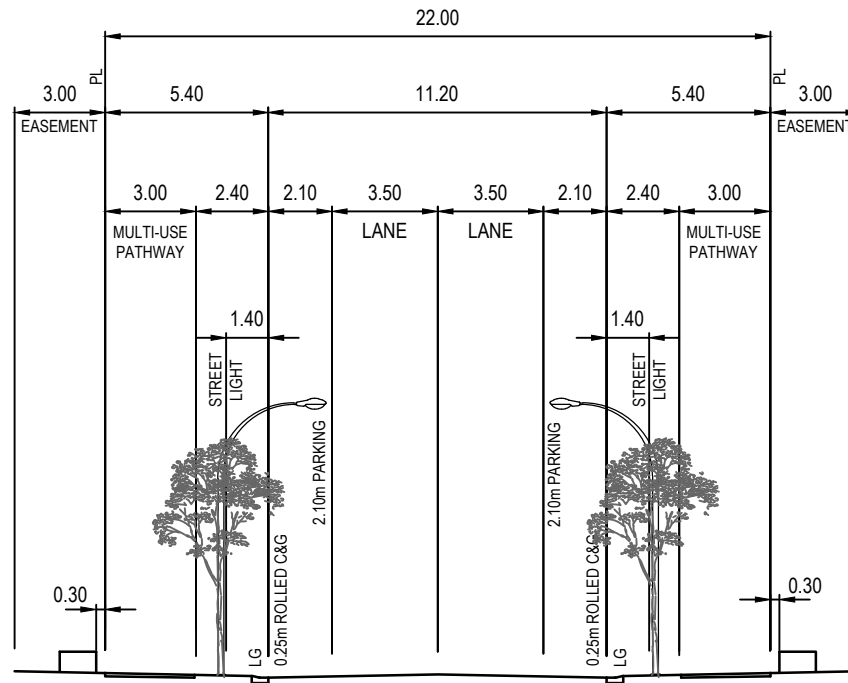
0 2.5 5.0 7.5m

STRATHMORE TMP  
TYPICAL CROSS SECTION  
PRIMARY COLLECTOR - 4 LANES

EXHIBIT 5.1.3  
SEPTEMBER 2020



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PRELIMINARY  
FOR DISCUSSION ONLY  
SUBJECT TO REVISION

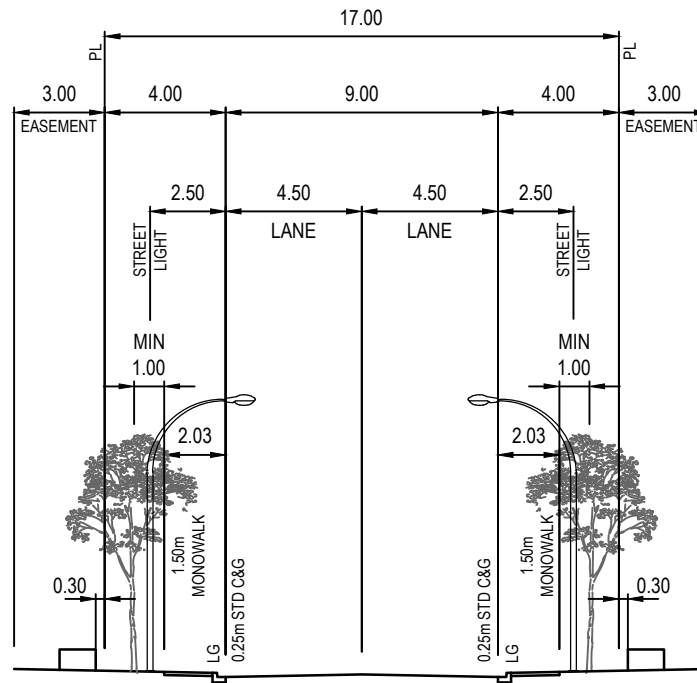
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STRATHMORE TMP  
TYPICAL CROSS SECTION  
COLLECTOR STREET

EXHIBIT 5.1.4  
SEPTEMBER 2020



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FOR DISCUSSION ONLY  
SUBJECT TO REVISION

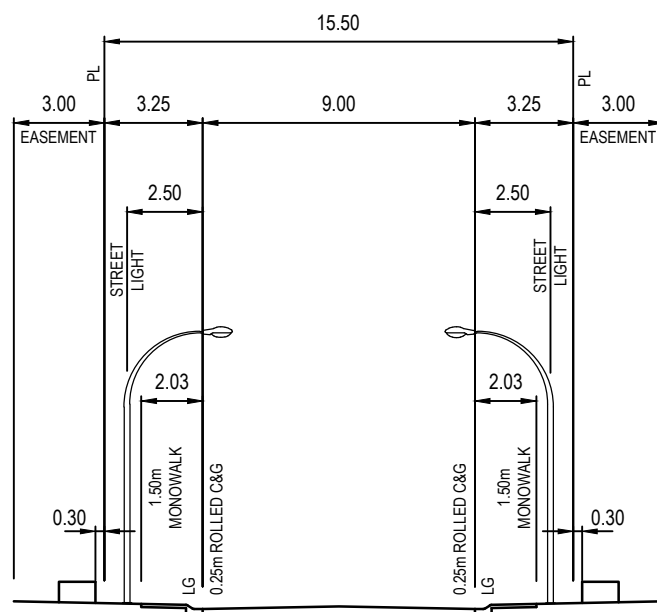
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STRATHMORE TMP  
TYPICAL CROSS SECTION  
INDUSTRIAL STREET

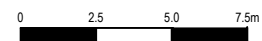
EXHIBIT 5.1.6  
SEPTEMBER 2020



**PRELIMINARY**  
FOR DISCUSSION ONLY  
SUBJECT TO REVISION



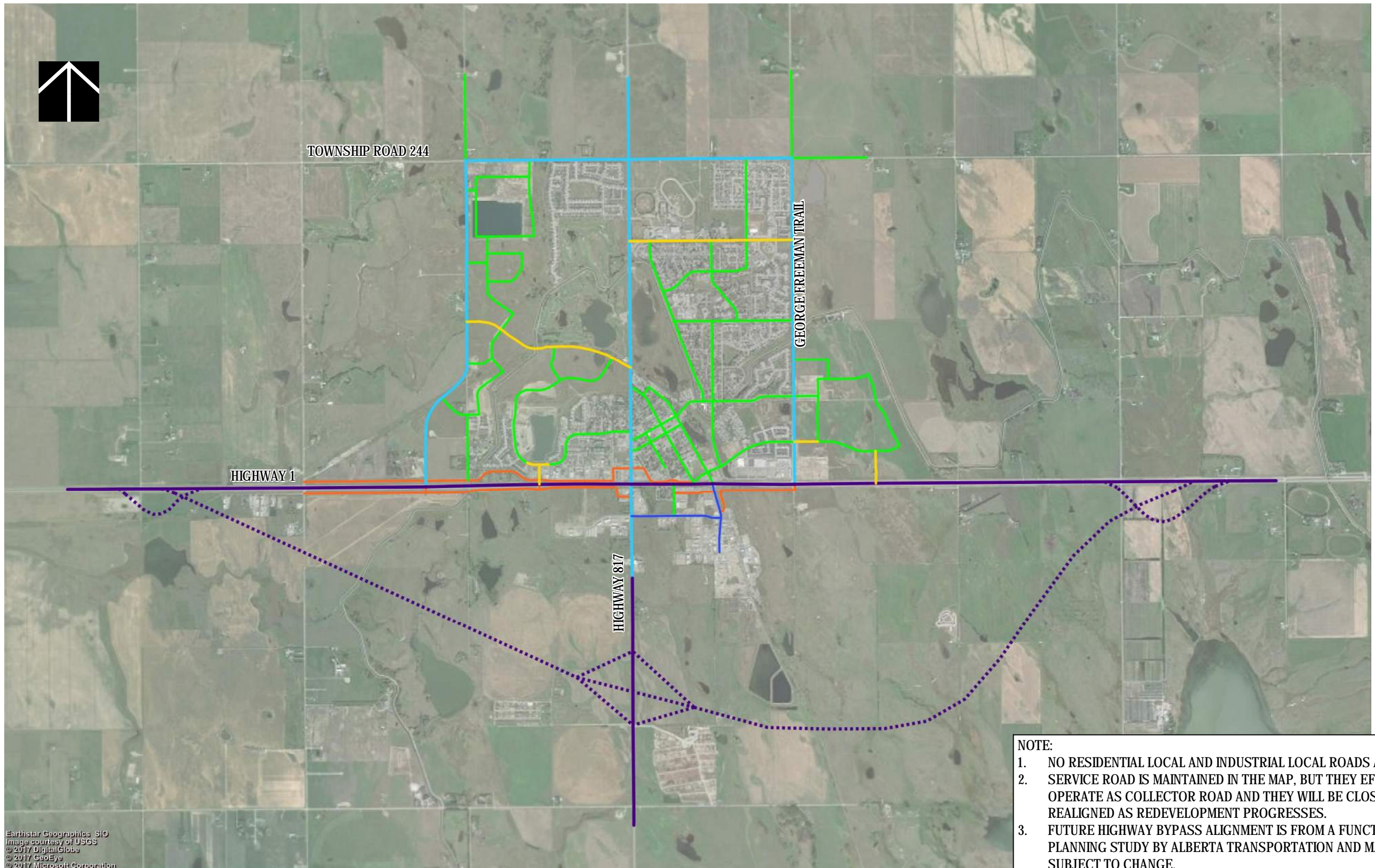
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**STRATHMORE TMP**  
**TYPICAL CROSS SECTION**  
**RESIDENTIAL STREET**

**EXHIBIT 5.1.7**  
**SEPTEMBER 2020**

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#### Road Classification

Type number

— Highway	— Collector
... Future Highway Bypass	— Industrial Collector
— Arterial	— Service Road
— Primary Collector	

#### STRATHMORE TMP

PROPOSED  
ROAD CLASS

EXHIBIT 5.2  
SEPTEMBER 2020



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Vernika Klassen / Sep. 16, 19 /



Legend:

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PRELIMINARY  
FOR DISCUSSION ONLY  
SUBJECT TO REVISION

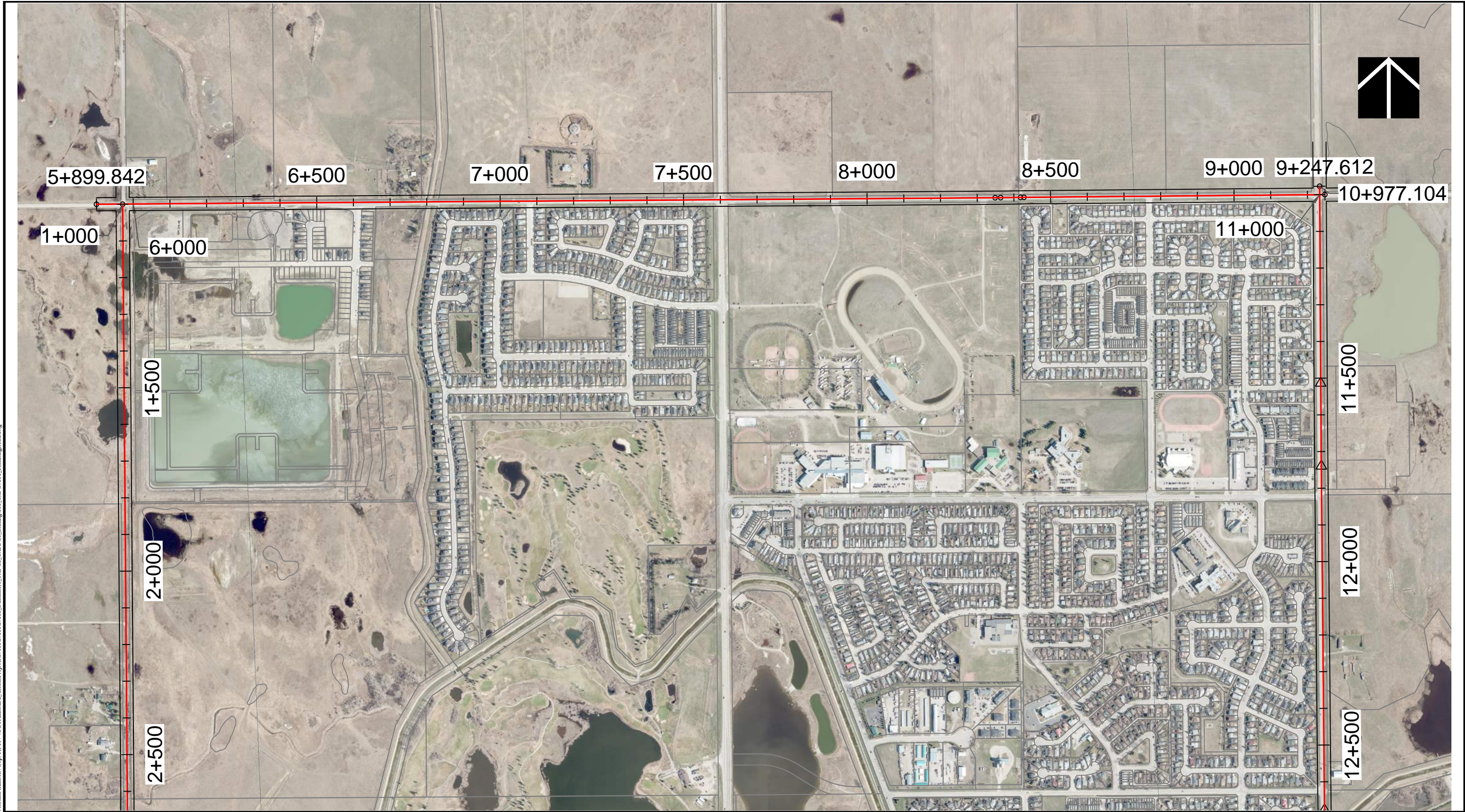
STRATHMORE TMP

RING ROAD ALIGNMENT  
WEST SECTION

EXHIBIT 5.3.1  
SEPTEMBER 2020



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Legend:

1:10 000 0 100 200 300m



PRELIMINARY  
FOR DISCUSSION ONLY  
SUBJECT TO REVISION

STRATHMORE TMP

RING ROAD ALIGNMENT  
NORTH SECTION

EXHIBIT 5.3.2  
SEPTEMBER 2020



\\C:\CYBER\SLI\_Global\Projects\7000\7200\7288\_Strathmore\_TMP\02\_CADD\20\_Drawing\201\_TMP\27288\_FinalRingRoad.dwg  
Veronica Klassen / Sep. 16, 19 /



Legend:

1:10 000 0 100 200 300m



PRELIMINARY  
FOR DISCUSSION ONLY  
SUBJECT TO REVISION

STRATHMORE TMP

RING ROAD ALIGNMENT  
EAST SECTION

EXHIBIT 5.3.3  
SEPTEMBER 2020



## 6.0 Public and Stakeholder Engagement

As part of the TMP update, public and stakeholder engagement activities were conducted. At the outset of the study, public engagement was held through an open house and online survey to gather feedback on existing transportation network issues and opportunities. Additionally, a stakeholder engagement session was held with key stakeholders in Strathmore to gather their particular feedback. Near the completion of the study, an information session was held to present the findings and recommendations of the Transportation Master Plan.

### 6.1 Initial Public Engagement

The Initial Public Open House was held on December 6, 2018 from 4:30 – 7:00 pm at Town Hall. An online survey also ran from December 6, 2018 to January 6, 2019 to solicit feedback. The objective was to provide an opportunity for Strathmore residents to review the project process and timeline, learn more about what a TMP is and how it impacts residents, and share feedback on existing issues and opportunities related to safety, pedestrian / cyclist connectivity, traffic movement and signalization, and the current road network.

Eleven interested members of the public attended in-person and 59 responses were received from the online survey with 140 locations identified in the feedback. Participants identified their top three transportation issues for The Town of Strathmore as follows:

- Pedestrian and Cyclist Safety;
- Traffic Movement and Signalization;
- Road Surface Conditions;

Below is a summary of what we heard at the open house and online. The verbatim summary of feedback is included in Appendix E.

- Traffic Safety:
  - Pedestrian safety around schools and across major roadways;
  - Need for more accessible sidewalks for people who walk, bike and have mobility issues;
  - Visibility at intersections due to street parking or tall hedges;
  - Speeding issues;
- Traffic Movement and Signalization:
  - Better signage and repainted lines on the road in some areas;
  - Traffic circles or lights to resolve traffic backups at peak times at some intersections;
  - Some lane configurations are confusing which make intersections less safe;
  - Traffic lights to replace some four-way stops, specifically at Archie Klaiber Trail / Lakeside Blvd;





- Missing Pedestrian or Cycling Connections and Network System:
  - Better pedestrian and cyclist access to businesses with additional sidewalks and crosswalks;
  - Missing connections to the pathways and businesses, especially around Strathmore Lake to downtown;
  - More consistent and connected sidewalks to increase pedestrian and cyclist safety and reduce road crossing;
- Missing Road Connections:
  - Improved and additional connections to / from newer communities, specifically Wildflower;
  - Future community developments to be considered in the TMP update;
- Other:
  - Transit services within Strathmore and to and from the surrounding municipalities;
  - Parking along 2 Avenue;

## 6.2 Stakeholder Engagement

Identified key stakeholders were invited to attend a stakeholder meeting held on January 15, 2019. The identified key stakeholders were:

- Alberta Transportation
- Downtown Revitalization Committee
- Traffic Safety Committee
- Wheatland County

Stakeholders were provided information about the project, open house materials and the public feedback summary and were asked to provide feedback on the transportation issues and opportunities. The summary of stakeholder feedback is listed below. The complete list of feedback was included in Appendix E.

- Traffic Safety:
  - Pedestrian safety concern at Wheatland Trail / Brent Boulevard due to limited visibility of crossing pedestrian, and suggestion to move the crosswalk more to the middle of intersection;
  - Concern about the varied speed limits around the town, e.g., school zones, etc.;
  - Poor sightlines along the service road that runs parallel to Trans-Canada Highway;
  - Difficult 4-way stop intersections on Archie Klaiber Trail at Centre Avenue and Lakeside Blvd;
- Traffic Movement and Signalization:
  - Busy intersection for east-west turning movements at Wheatland Trail / Westlake Road;
  - Consider roundabout on Lakeside Boulevard at 2 Avenue and Archie Klaiber Trail;
  - Consider scramble crosswalk at Brent Blvd / Thomas Drive;
- Missing Pedestrian or Cycling Connections and Network System:
  - Pathways along George Freeman Trail are disconnected along the west side;

- Future Highway Classification:
  - Highway 1 Bypass: Freeway with access restricted to the single interchange at Highway 817;
  - Existing Highway 1 (Range Road 255 – Range Road 245): Urban Expressway with access spaced at least 800 meters apart. Interchanges near Range Road 255 and Range Road 245 are directional interchanges without local land access;
  - Highway 817: protected as an urban arterial divided highway between Highway 1 Bypass and the existing Highway 1, and protected as an urban arterial undivided highway further north; and
  - Service roads in proximity to a highway: must be adequately set back from the highway intersection and should be located at least 400 metres away as the desired spacing.
- Other:
  - Question if the investment in the realignment of the east and west sides of the ring road makes sense since the ring road will not be free flow;

### 6.3 Final Public Engagement

The final public information session was held on October 23, 2019 from 4:30 – 7:00 pm at Town Hall. The objective was to present the Updated Transportation Master Plan (TMP) to Strathmore residents and provide them with an opportunity to discuss the plan with the project team. 17 interested members of the public attended the information session. There was no online survey in this final round of engagement.



## ■ 7.0 Closing

The Town of Strathmore Transportation Master Plan Update provides a framework for Council and Administration to assess the capability of the road network to accommodate new development in the short and long term, and to carry out short- and long-term planning and budgeting.

This study proposes various road improvement recommendations totaling to approximately \$22 Million for the next 30 years. It is recommended that the Town undertake a Parks, Open Space, Trail, and / or Active Transportation Master Plan to develop a comprehensive trail network with an implementation strategy. It is expected that the Town will update its off-site levy bylaw to reflect the proposed transportation improvement projects. Additionally, the Town may need to update its Design Standards & Procedures for Development & Subdivision Infrastructure Policy to reflect the proposed typical road cross sections.

It is recognized that some transportation issues and opportunities identified through public and stakeholder engagement might not be addressed in the TMP, hence they have been shared with the Town and may be addressed through its annual operational budget, such as pavement marking and signage improvement, accessible crosswalks, parking changes, and filling in short gaps in the sidewalk and pathway networks.

Finally, it is recommended that the Transportation Master Plan be updated every five to ten years to reflect the land use changes and/or policy directions, preferably in concurrent with Municipal Development Plan to ensure integrated land use and transportation planning. Timing for the updates can be based on the pace of development and growth, with more frequent updates warranted if growth accelerates.





**APPENDIX**  
Existing Population and Employment

A



Existing Population and Employment

Zone ID	Population	Residential			Employment				
		Total	Single Family	Multi Family	Total	Retail	Non-Retail	School	Industrial
20	76	30	30	0	0	0	0	0	0
21	1,573	618	544	74	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0
23	0	0	0	0	16	0	16	0	0
30	0	0	0	0	147	0	72	75	0
31	1,137	447	357	90	195	41	38	25	90
40	689	271	201	70	111	0	111	0	0
50	1,173	466	325	141	62	17	20	25	0
60	842	331	280	51	5	0	5	0	0
70	1,107	511	284	227	29	0	29	0	0
80	0	0	0	0	0	0	0	0	0
81	592	250	180	70	0	0	0	0	0
90	1,026	403	355	48	0	0	0	0	0
100	387	152	152	0	0	0	0	0	0
101	632	272	146	126	14	14	0	0	0
110	1,209	543	343	200	24	0	0	24	0
111	0	0	0	0	182	100	60	0	22
120	653	296	171	125	121	87	34	0	0
121	428	214	208	6	82	62	19	0	0
122	28	11	0	11	156	83	48	25	0
123	36	14	14	0	39	10	11	0	18
124	0	0	0	0	220	179	23	0	18
125	0	0	0	0	338	0	13	0	325
126	0	0	0	0	0	0	0	0	0
127	0	0	0	0	72	0	0	0	72
130	1,221	480	251	229	0	0	0	0	0
131	0	0	0	0	259	228	31	0	0
132	0	0	0	0	90	0	0	0	90
141	0	0	0	0	0	0	0	0	0
142	0	0	0	0	0	0	0	0	0

Zone ID	Population	Residential			Employment				
		Total	Single Family	Multi Family	Total	Retail	Non-Retail	School	Industrial
151	0	0	0	0	0	0	0	0	0
152	0	0	0	0	0	0	0	0	0
153	0	0	0	0	0	0	0	0	0
154	5	2	2	0	0	0	0	0	0
155	0	0	0	0	11	0	11	0	0
156	0	0	0	0	0	0	0	0	0
157	494	194	194	0	0	0	0	0	0
158	214	84	84	0	21	0	0	21	0
159	0	0	0	0	189	189	0	0	0
160	0	0	0	0	0	0	0	0	0
161	0	0	0	0	0	0	0	0	0
162	0	0	0	0	0	0	0	0	0
163	0	0	0	0	4	0	4	0	0
164	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0
171	0	0	0	0	321	24	25	0	271
180	0	0	0	0	0	0	0	0	0
181	0	0	0	0	0	0	0	0	0
182	3	1	1	0	0	0	0	0	0
183	0	0	0	0	0	0	0	0	0
184	3	1	1	0	4	0	4	0	0
185	0	0	0	0	0	0	0	0	0
186	0	0	0	0	36	0	0	0	36
187	0	0	0	0	18	0	0	0	18
201	0	0	0	0	16	0	16	0	0
202	0	0	0	0	0	0	0	0	0
203	0	0	0	0	0	0	0	0	0
204	0	0	0	0	18	0	0	0	18
205	0	0	0	0	0	0	0	0	0
206	0	0	0	0	0	0	0	0	0
Total	13,528	5,591	4,123	1,468	2,800	1,036	590	194	980





**APPENDIX**  
Future Population and Employment

**B**



Future Population and Employment

Zone ID	Population	Residential			Employment				
		Total	Single Family	Multi Family	Total	Retail	Non-Retail	School	Industrial
20	1,206	464	464	0	0	0	0	0	0
21	1,573	618	544	74	0	0	0	0	0
22	3,920	1,447	987	460	120	90	0	30	0
23	0	0	0	0	17	0	17	0	0
30	0	0	0	0	222	0	80	143	0
31	1,137	447	357	90	235	46	42	48	99
40	689	271	201	70	122	0	122	0	0
50	1,173	466	325	141	88	19	22	48	0
60	842	331	280	51	6	0	6	0	0
70	1,107	511	284	227	32	0	32	0	0
80	0	0	0	0	0	0	0	0	0
81	592	250	180	70	0	0	0	0	0
90	1,026	403	355	48	0	0	0	0	0
100	1,680	433	423	10	0	0	0	0	0
101	936	446	320	126	14	14	0	0	0
110	2,339	960	760	200	45	0	0	45	0
111	0	0	0	0	200	110	66	0	24
120	653	296	171	125	133	96	38	0	0
121	428	214	208	6	90	68	21	0	0
122	28	11	0	11	192	91	53	48	0
123	36	14	14	0	42	11	12	0	20
124	0	0	0	0	242	197	25	0	20
125	0	0	0	0	372	0	14	0	358
126	0	0	0	0	0	0	0	0	0
127	0	0	0	0	80	0	0	0	80
130	1,221	480	251	229	0	0	0	0	0
131	0	0	0	0	285	251	34	0	0
132	0	0	0	0	99	0	0	0	99
141	2,505	963	963	0	25	25	0	0	0
142	0	0	0	0	0	0	0	0	0

Zone ID	Population	Residential			Employment				
		Total	Single Family	Multi Family	Total	Retail	Non-Retail	School	Industrial
151	0	0	0	0	0	0	0	0	0
152	0	0	0	0	0	0	0	0	0
153	0	0	0	0	0	0	0	0	0
154	5	2	2	0	0	0	0	0	0
155	0	0	0	0	12	0	12	0	0
156	0	0	0	0	0	0	0	0	0
157	494	194	194	0	0	0	0	0	0
158	4,362	1,677	1,350	327	39	0	0	39	0
159	0	0	0	0	872	872	0	0	0
160	0	0	0	0	0	0	0	0	0
161	0	0	0	0	0	0	0	0	0
162	0	0	0	0	0	0	0	0	0
163	0	0	0	0	5	0	5	0	0
164	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0
171	0	0	0	0	353	27	28	0	298
180	0	0	0	0	0	0	0	0	0
181	0	0	0	0	0	0	0	0	0
182	3	1	1	0	0	0	0	0	0
183	0	0	0	0	0	0	0	0	0
184	3	1	1	0	5	0	5	0	0
185	0	0	0	0	0	0	0	0	0
186	0	0	0	0	40	0	0	0	40
187	0	0	0	0	20	0	0	0	20
201	0	0	0	0	17	0	17	0	0
202	0	0	0	0	0	0	0	0	0
203	0	0	0	0	0	0	0	0	0
204	0	0	0	0	20	0	0	0	20
205	0	0	0	0	0	0	0	0	0
206	0	0	0	0	0	0	0	0	0
Total	27,958	10,900	8,635	2,265	4,043	1,917	649	399	1,078

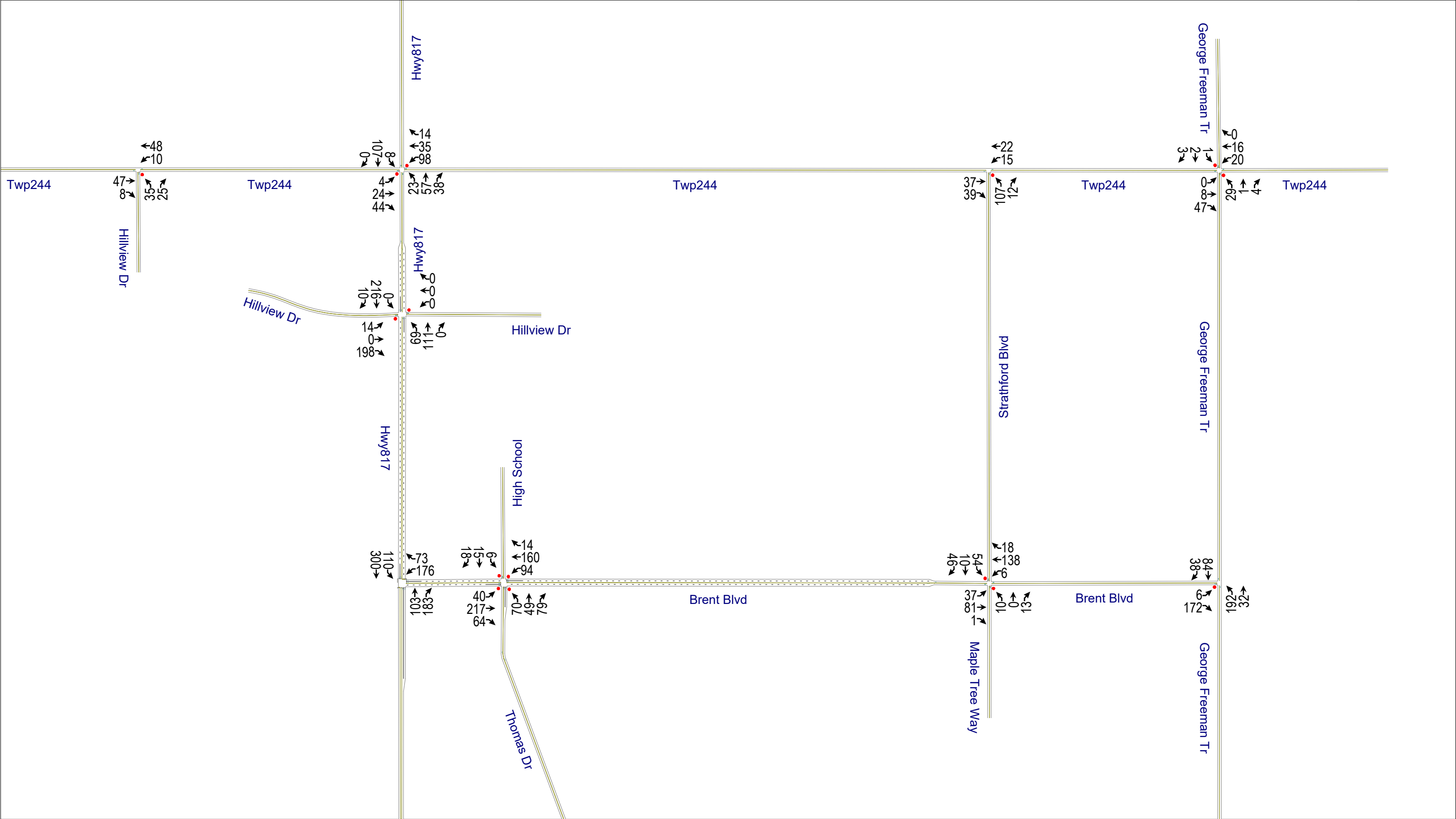


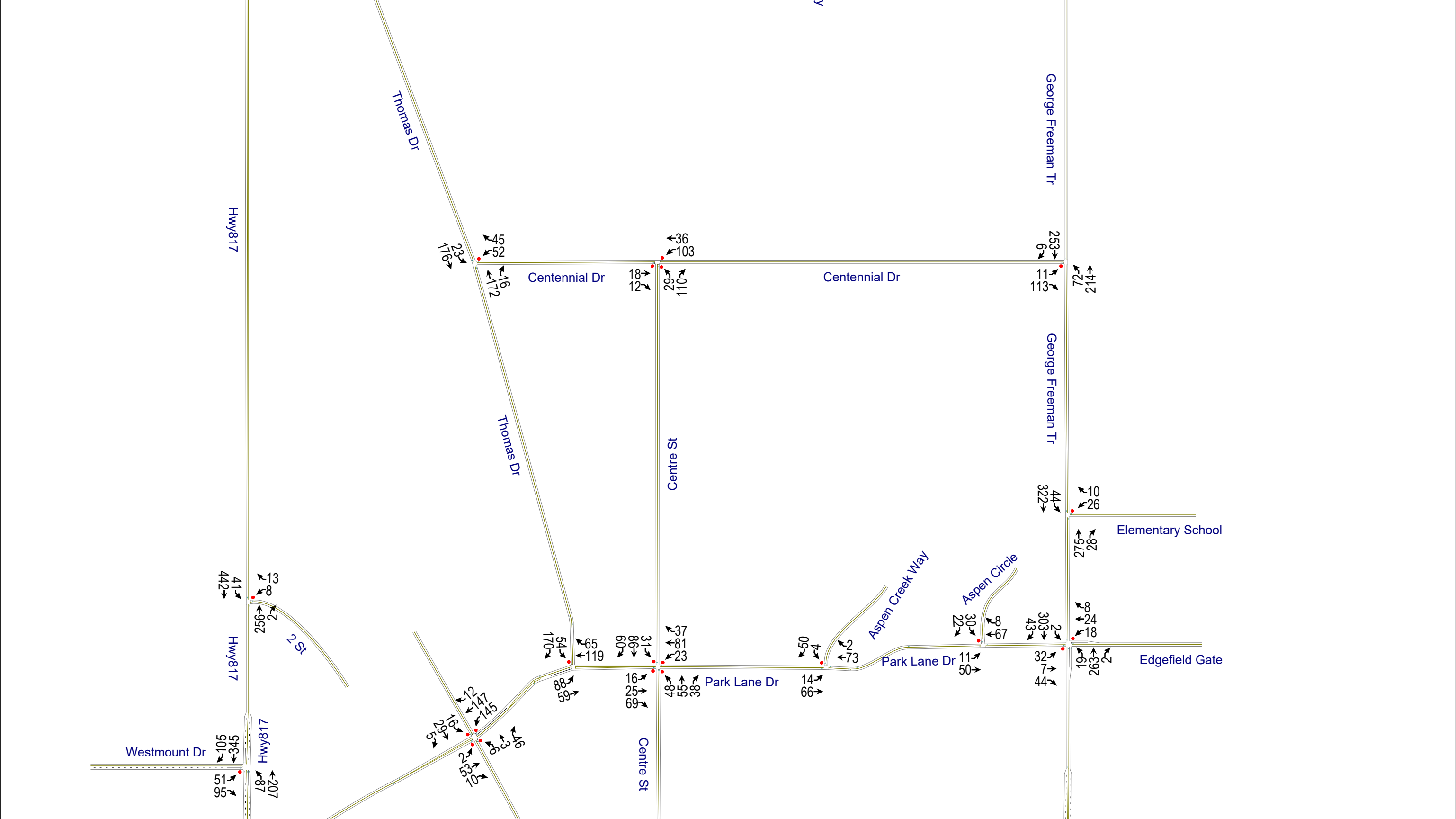


## APPENDIX Existing Intersection Turning Volumes

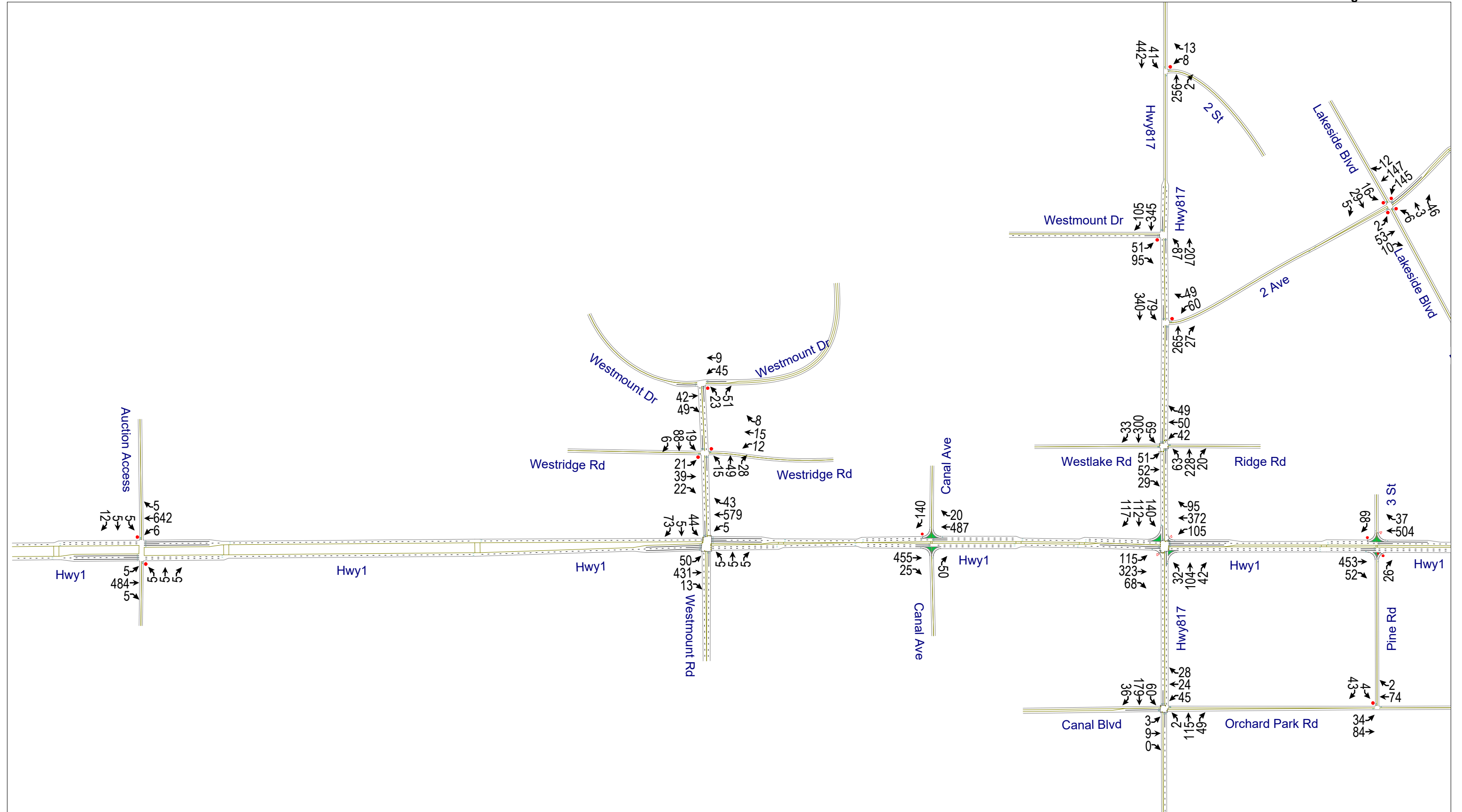
# C

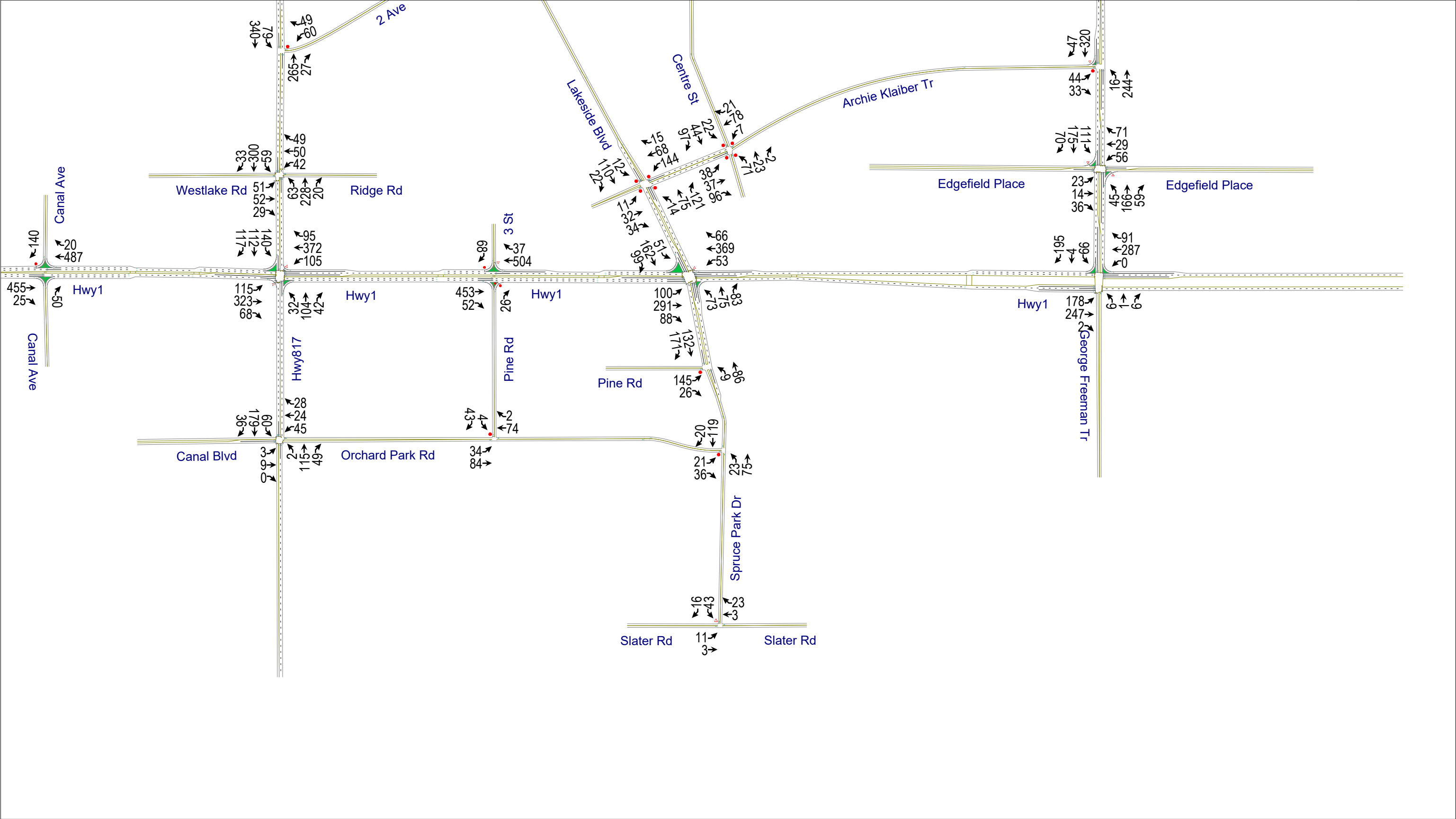


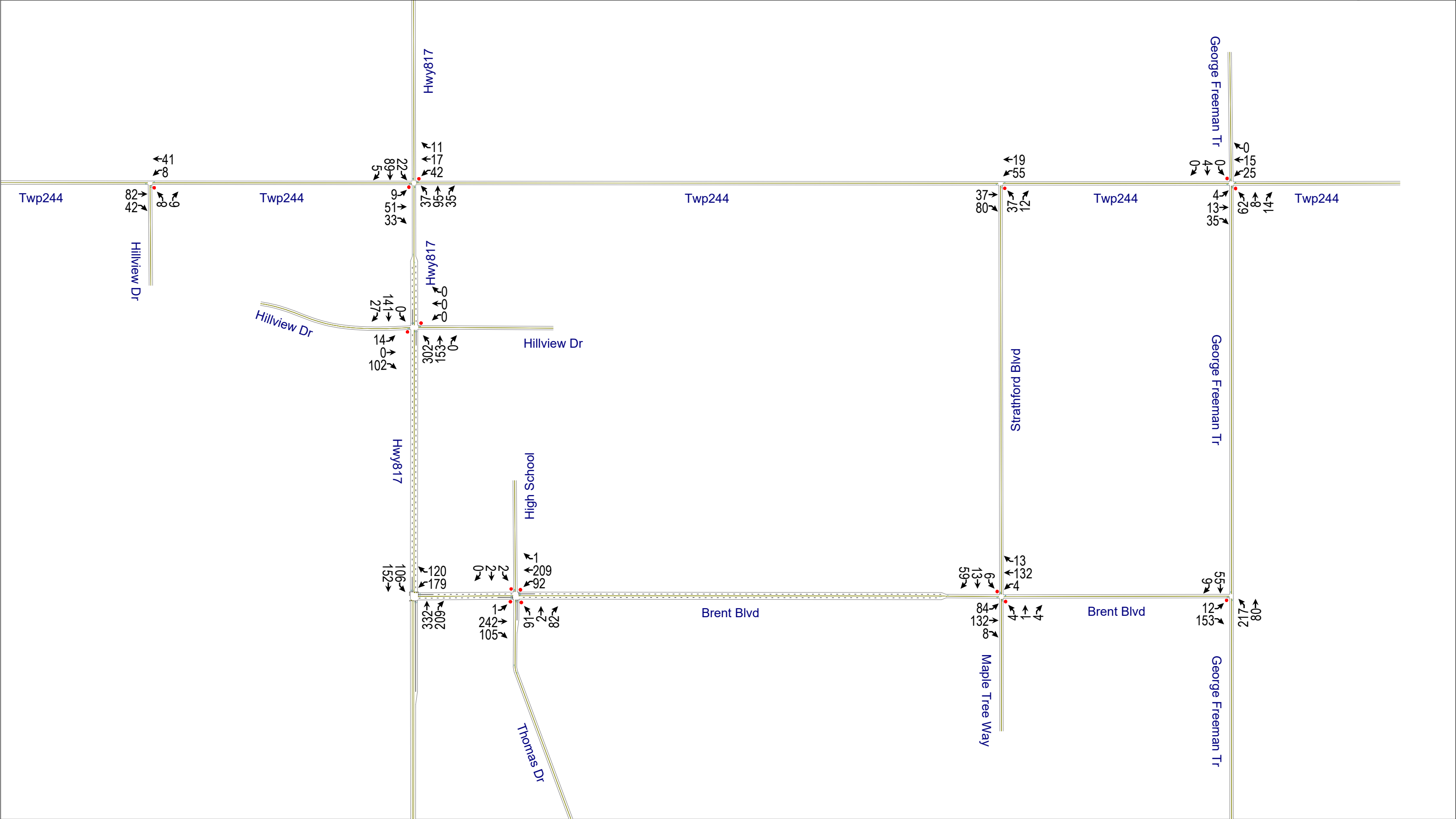


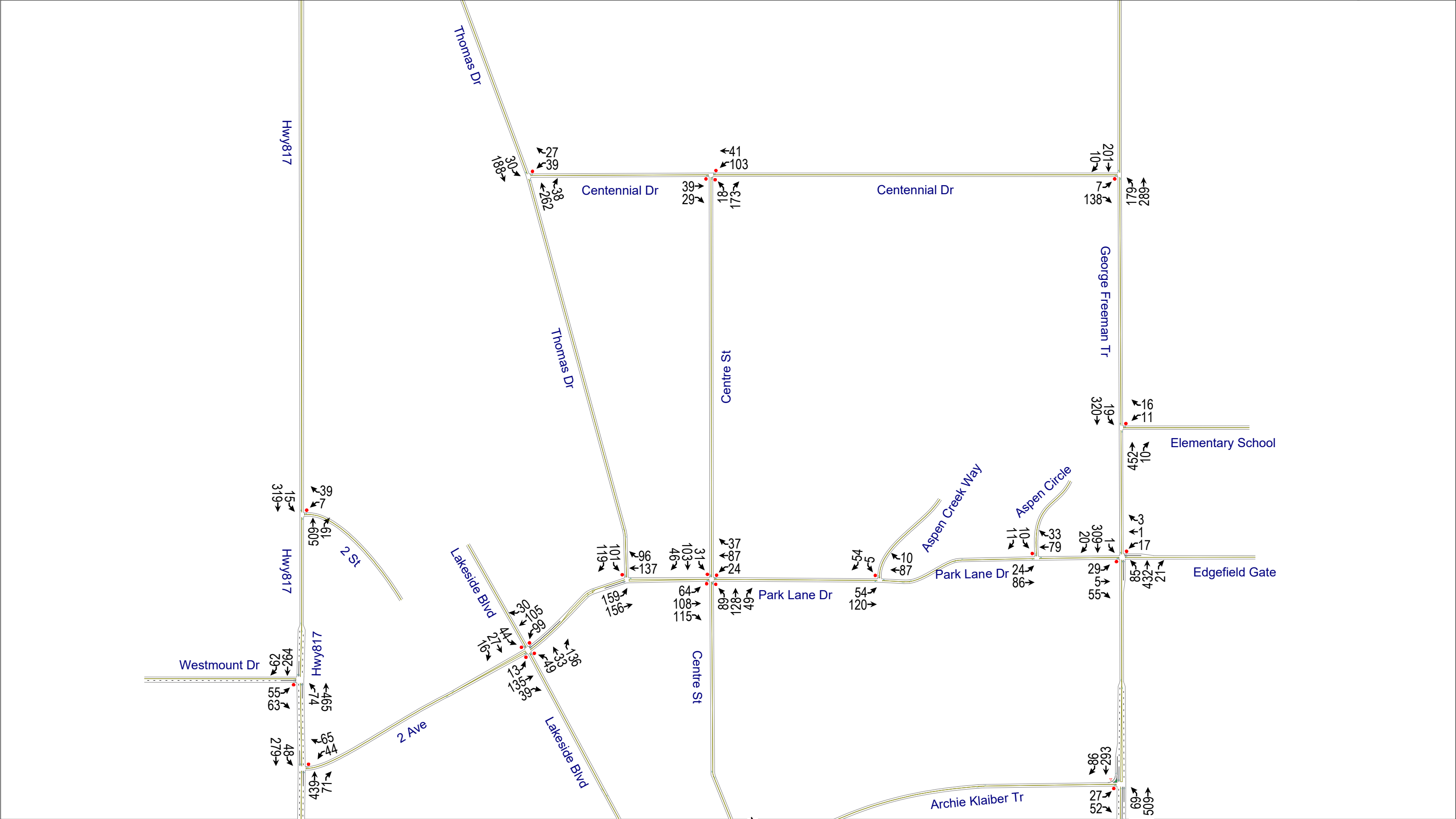




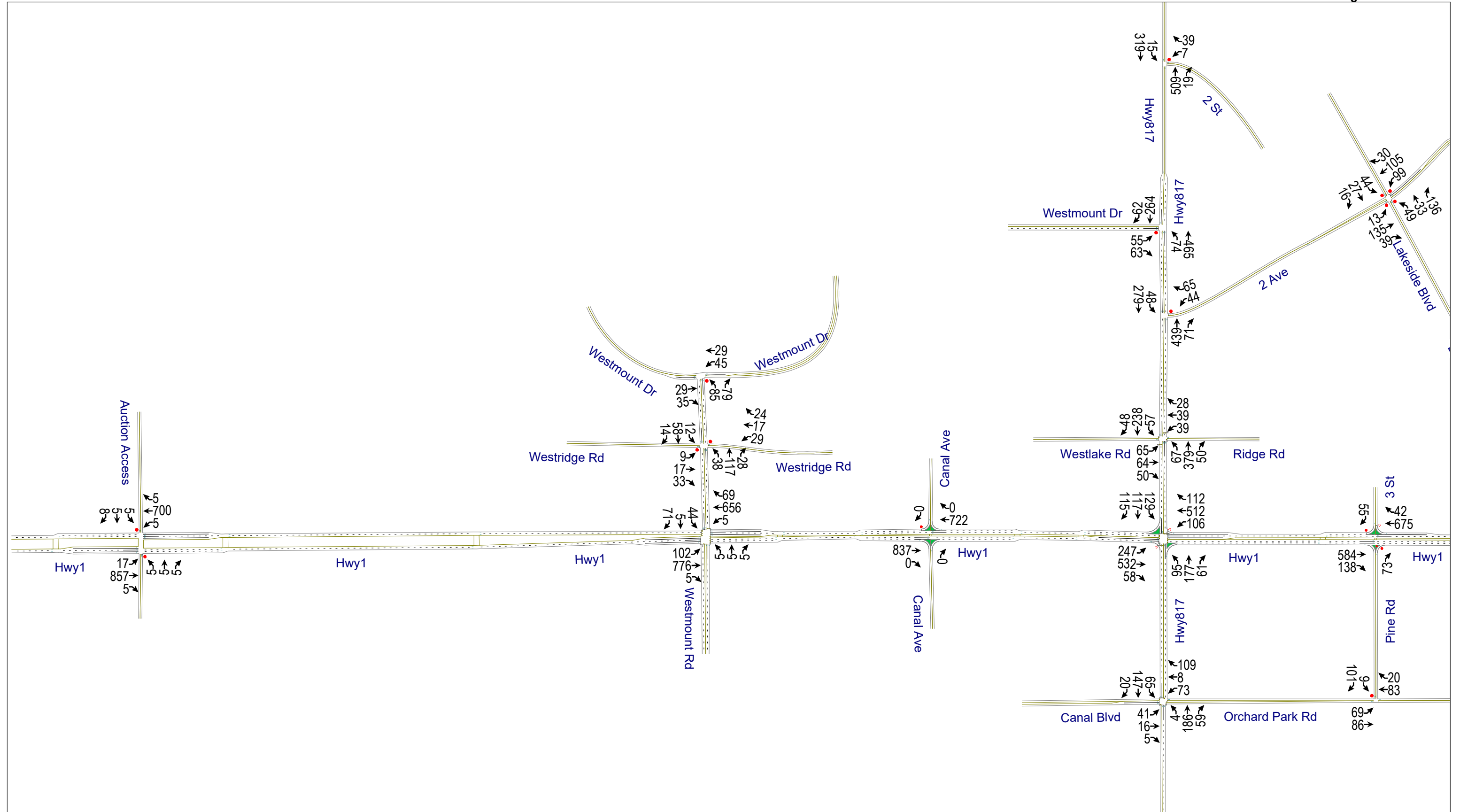


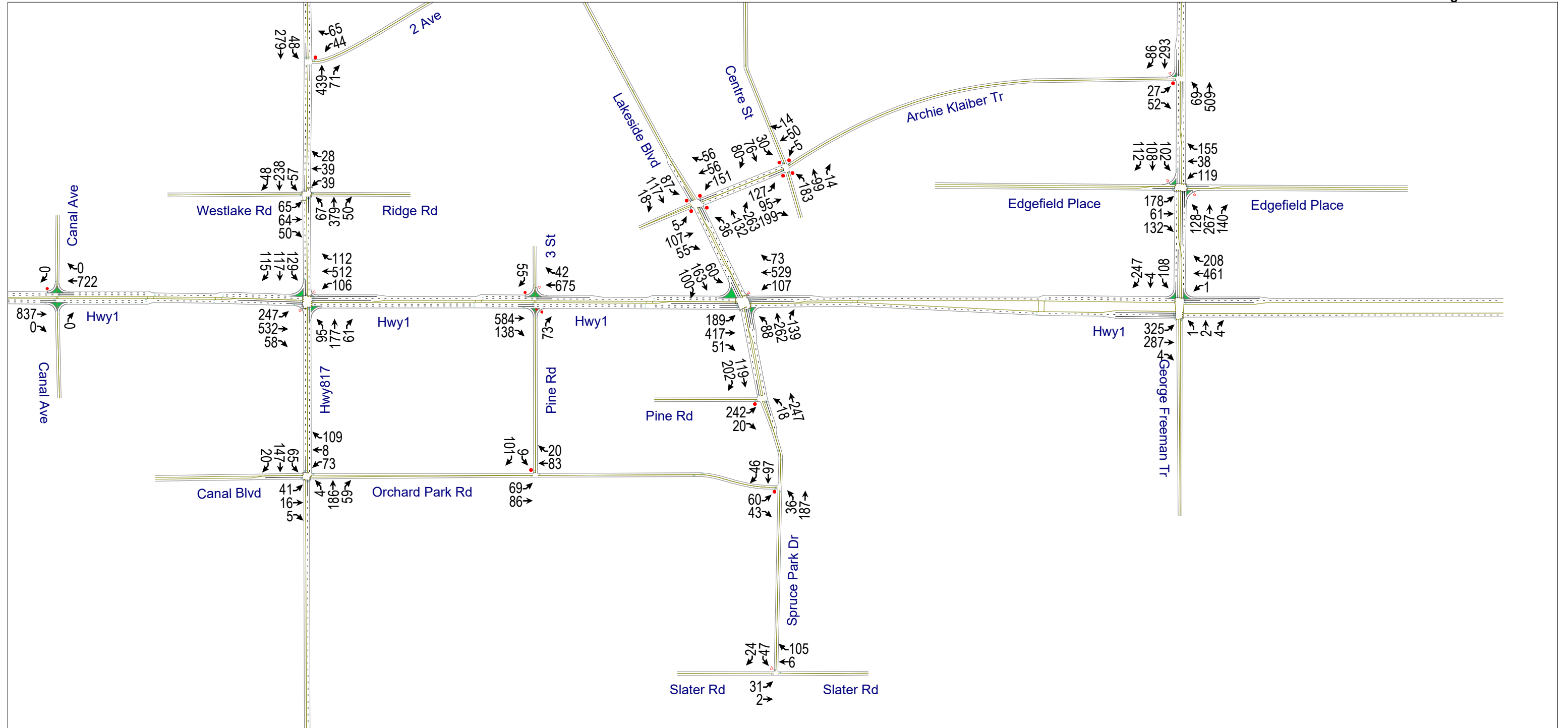












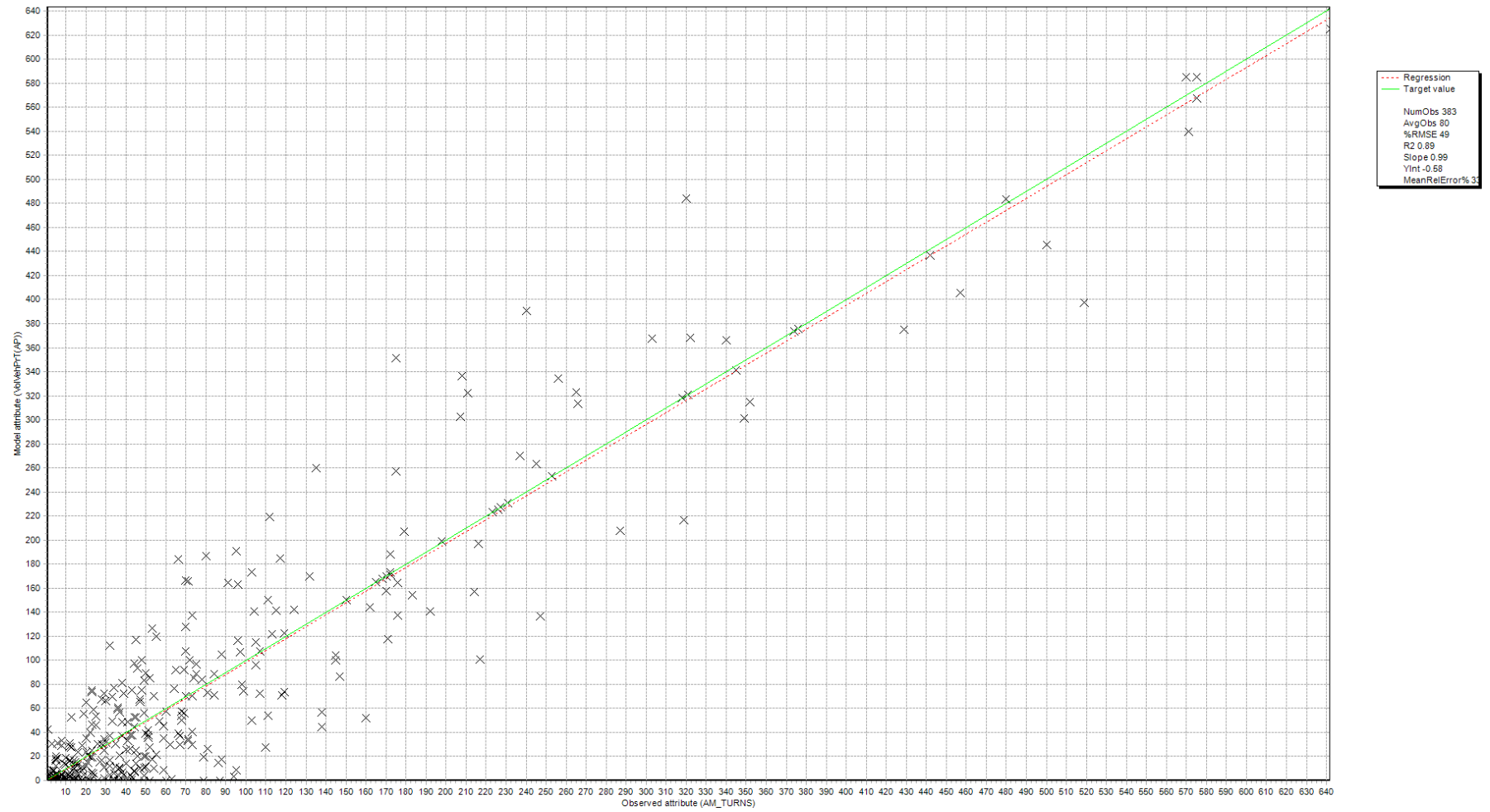


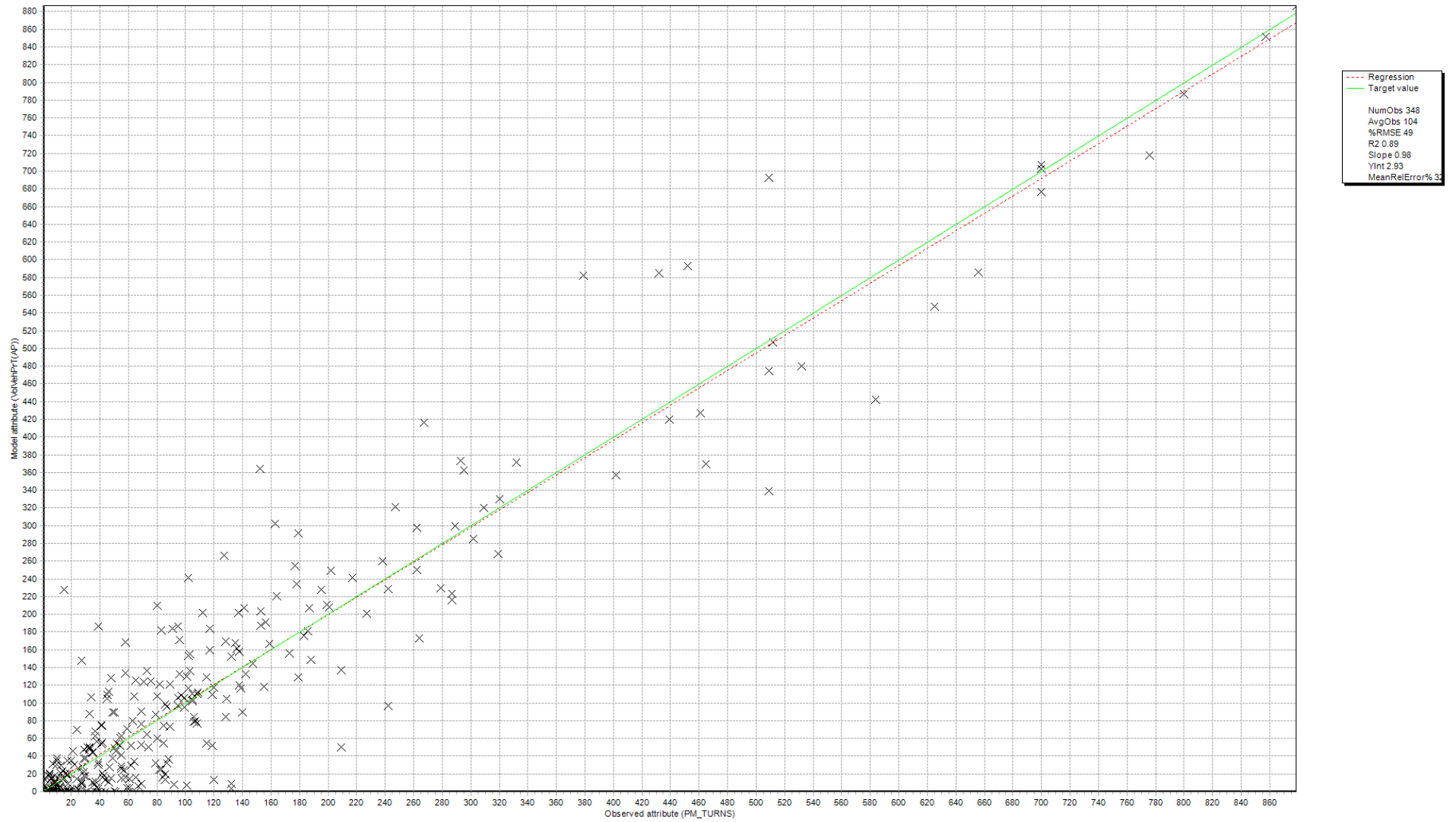
## **APPENDIX** Existing Model Calibration Plots

# D











**APPENDIX**  
Public Engagement Feedback

E







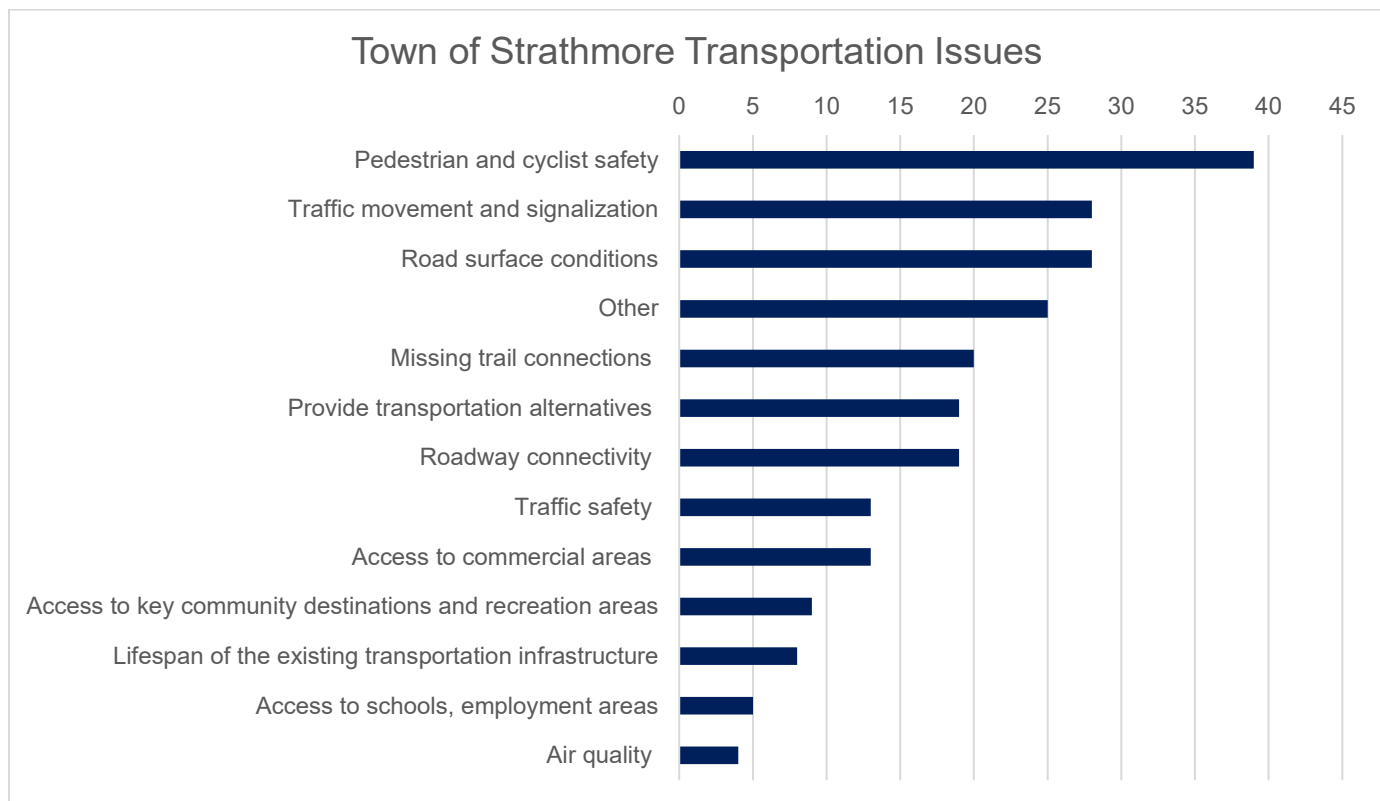
## Town of Strathmore Transportation Master Plan Update Feedback Summary

The Town of Strathmore held a Public Open House on December 6, 2018 from 4:30 – 7pm at Town Hall to discuss the Transportation Master Plan update project. Eleven interested members of the public attended in-person and we received 59 responses to the online survey. There were approximately 150 locations throughout the Town of Strathmore identified in the feedback.

We asked participants to help move the Town of Strathmore in the right direction as we plan our transportation future by identifying the most important transportation issues. Feedback will be considered in the TMP update and will help to guide planning the future transportation network for all modes of transportation including driving, walking and cycling.

The following is the summary of feedback collected at the public open house on December 6, 2018 and from the online survey that was live from December 6, 2018 to January 6, 2019.

Participants identified their top three transportation issues for The Town of Strathmore and added their own in the “other” space (“other” issues are available in the verbatim comments). The figure below shows the priorities of transportation issues.





## Town of Strathmore Transportation Master Plan Update Feedback Summary

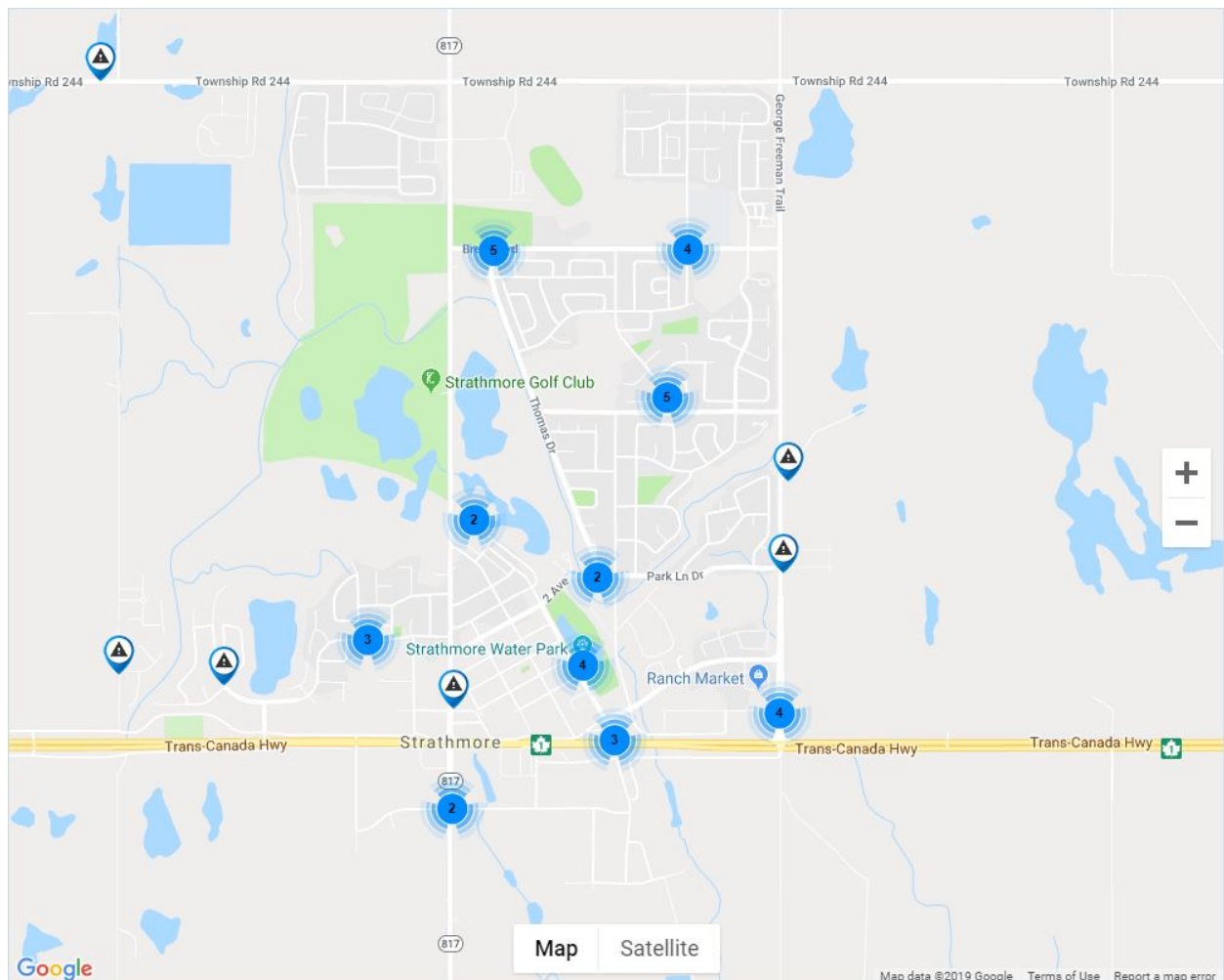
Participants were also asked to provide their feedback regarding traffic safety, traffic movement and signalization, pedestrian / cycling connections and network, road connections and any other transportation-related issues in the Town. Below is a summary of what we heard at the open house and online along with a map showing the locations of the comments received for each topic.

### Traffic safety

Participants were asked if they have any traffic safety concerns and to identify where they are.



- Some participants were concerned about pedestrian safety along roads around schools and across major roadways and indicated that better systems to cross roads in these areas, such as diagonal crosswalks, better signage and overpasses may help to improve pedestrian safety.
- Participants indicated the need for more accessible sidewalks for people who walk, bike and have mobility issues.
- Some participants raised concern about visibility at intersections due to street parking or tall hedges.
- Participants also felt that speeding is a problem in their communities.





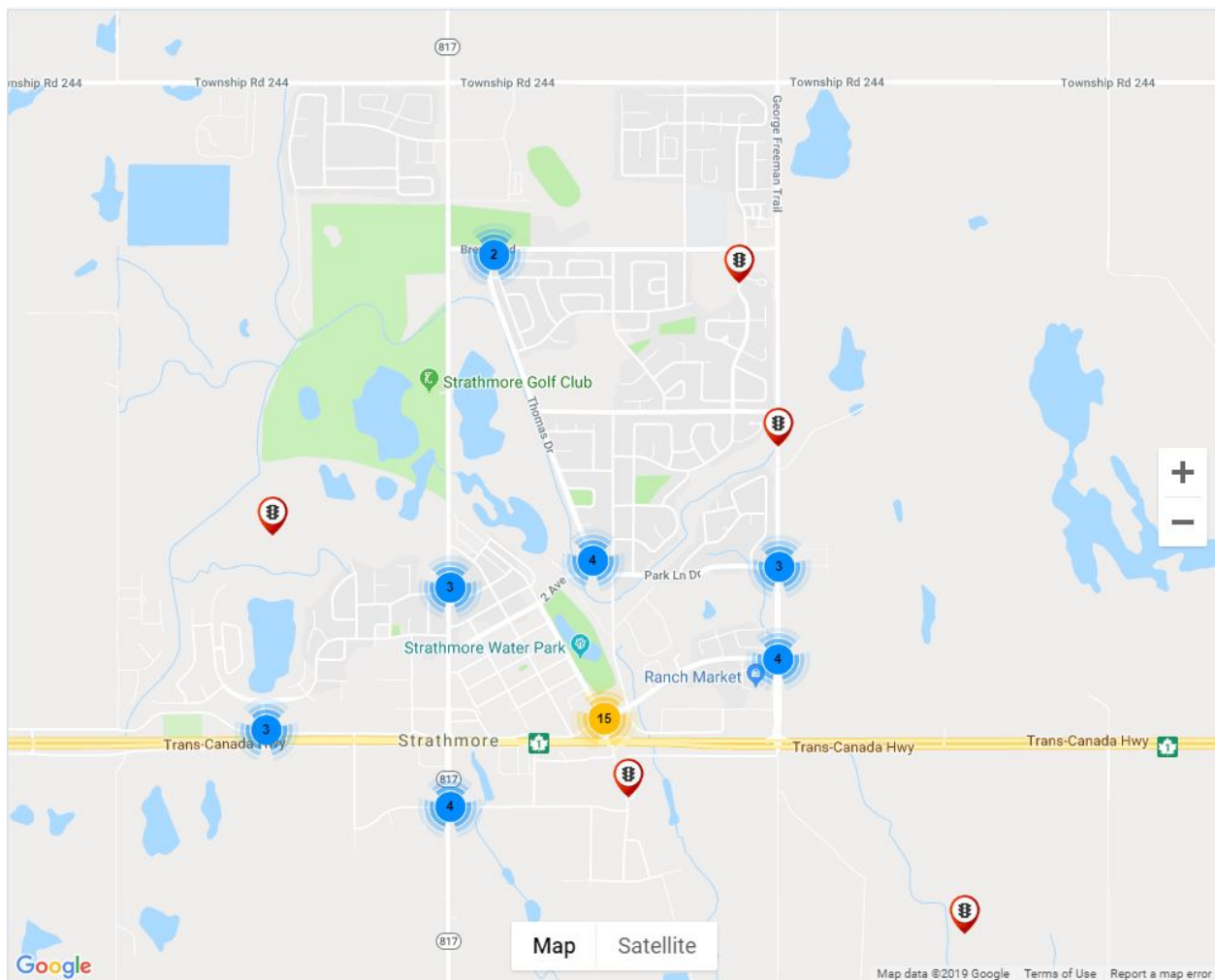
## Town of Strathmore Transportation Master Plan Update Feedback Summary

### Traffic movement and signalization

Participants were asked if they have any concerns with traffic congestion and to indicate the location, the direction and the time of the day specific to their concern.



- Some participants indicated several areas throughout the town require better signage and repainted lines on the road.
- Participants indicated many intersections cause traffic flow issues during peak hours and some suggested traffic circles or lights may help to resolve some of the back up at these times.
- Some participants felt new lane configurations are confusing which has made intersections less safe.
- Some participants suggested that lights replace some four-way stops throughout the town, specifically at the intersection of Archie Klaiber Trail and Lakeside Blvd.







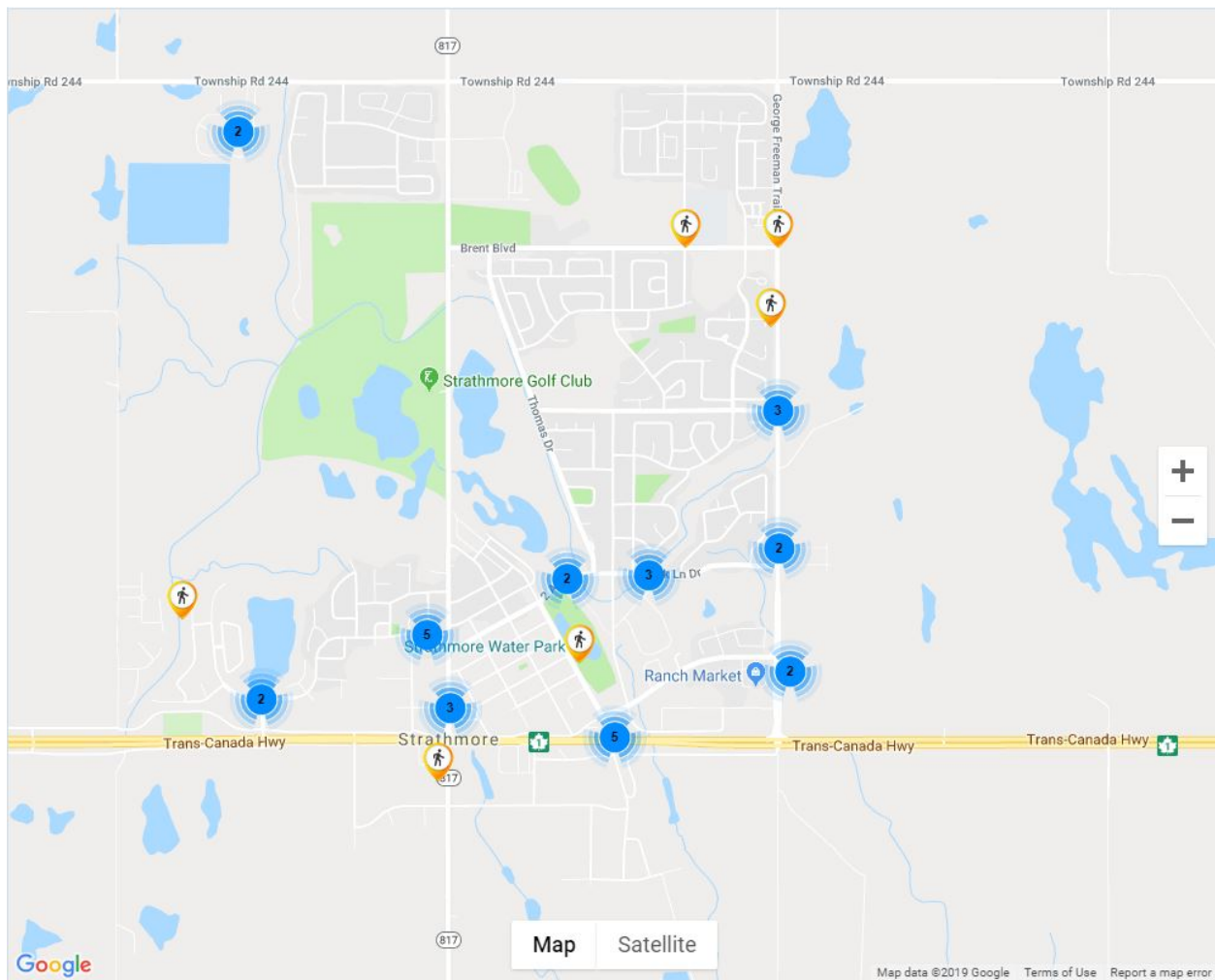
## Town of Strathmore Transportation Master Plan Update Feedback Summary

### Missing pedestrian or cycling connections and network system

Participants were asked if they felt there are missing links in the pedestrian or cycling network system and to indicate where.



- Some participants indicated that they would like better pedestrian and cyclist access to businesses with the addition of sidewalks and crosswalks.
- Participants felt that there are missing connections to the regional pathways and to the businesses throughout the Town of Strathmore, in particular around Strathmore Lake to Downtown.
- Participants suggested that more consistent and connected sidewalks could increase pedestrian and cyclist safety by reducing the number of times they have to cross the road to remain on existing pathways.





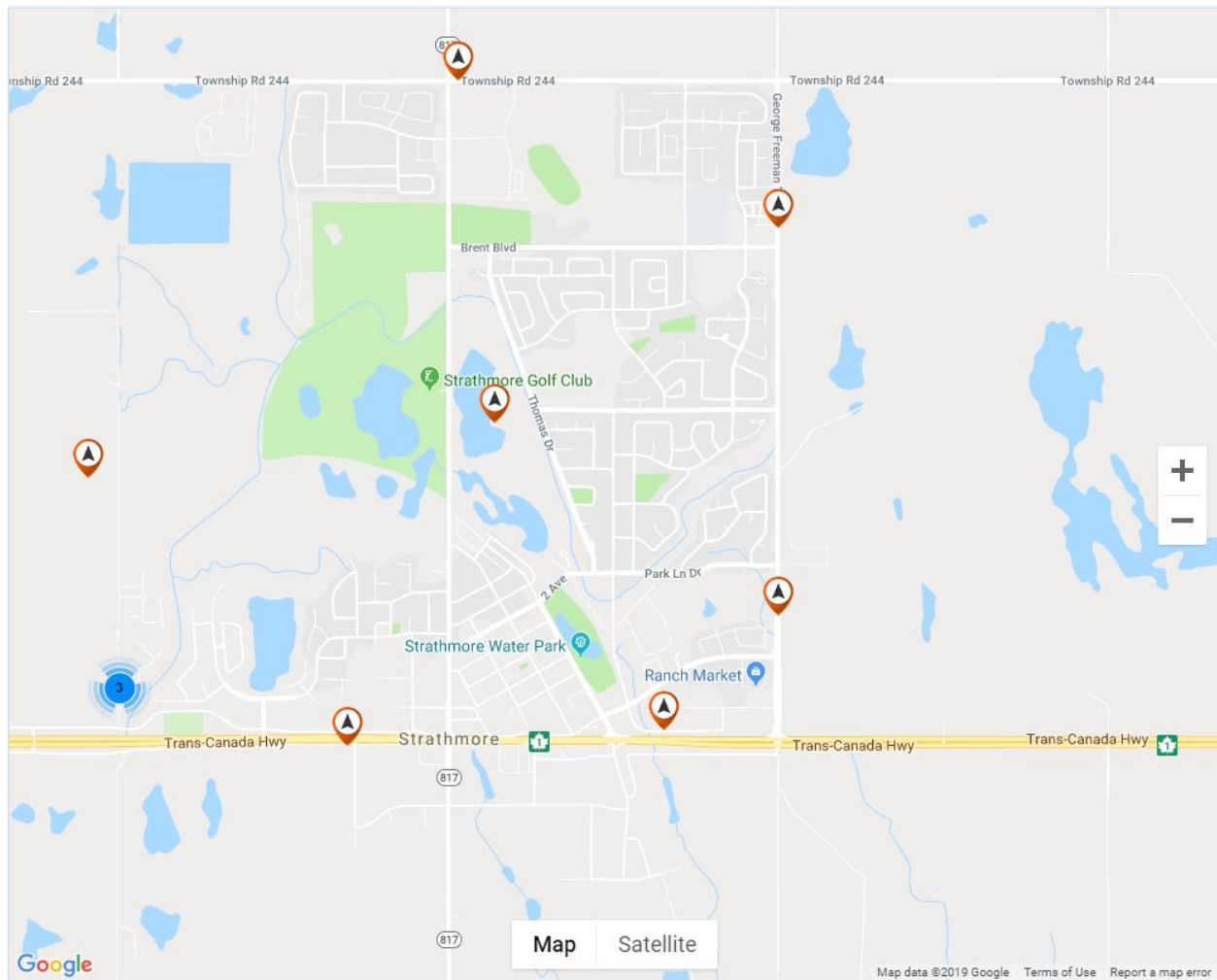
## Town of Strathmore Transportation Master Plan Update Feedback Summary

### Missing road connections

Participants were asked if they felt there are missing road connections and to indicate where.



- Some participants indicated that there is a need for improved and additional connections to / from newer communities and more specifically, Wildflower.
- Some participants would like to see future ASPs and future community development to be considered in the update to the Town's TMP.





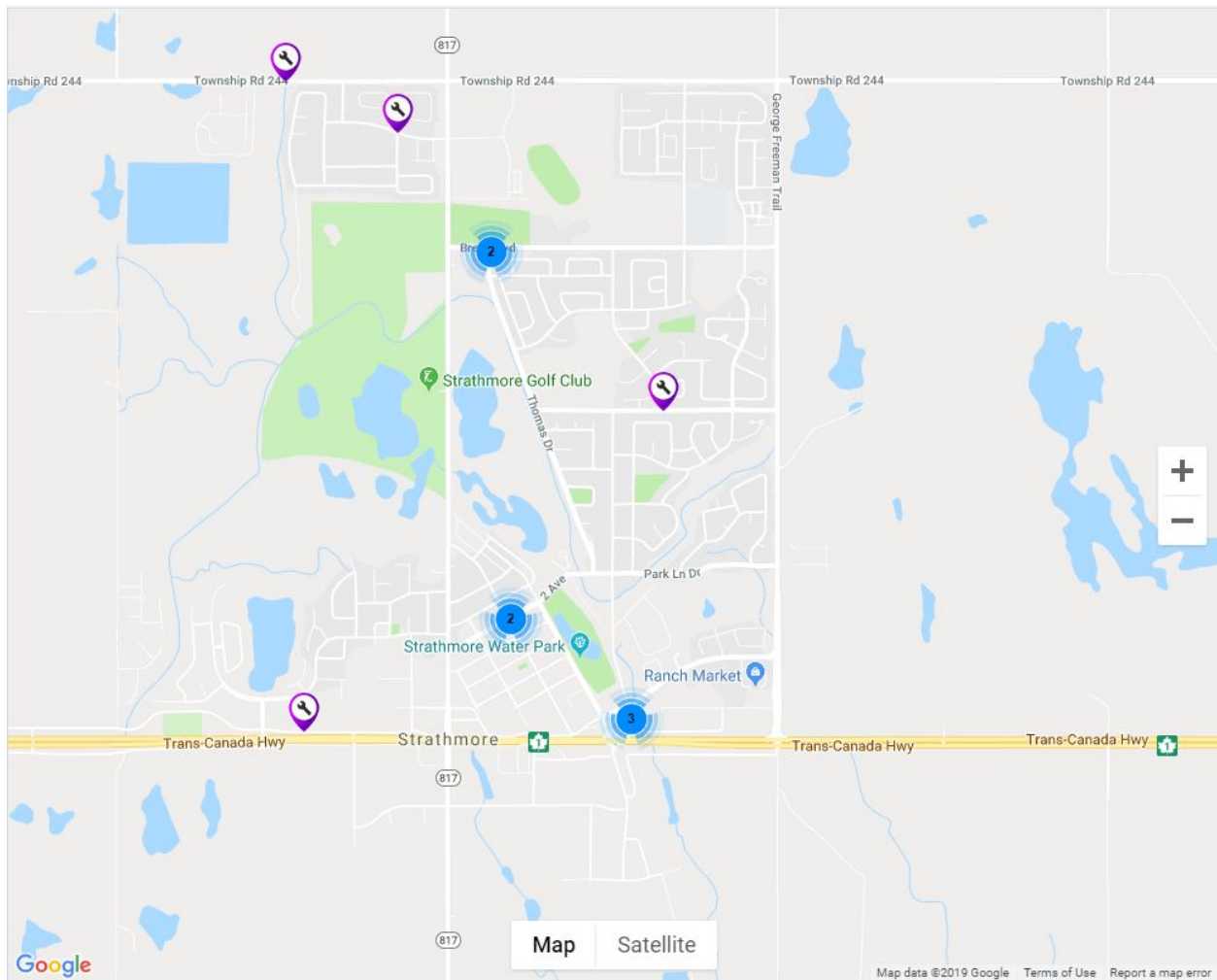
## Town of Strathmore Transportation Master Plan Update Feedback Summary

### Other issues with the Town of Strathmore's transportation system

Participants were asked if there any other issues with the Town of Strathmore's transportation system and to identify where, keeping in mind daily commuting, accessing destinations, etc.



- Some participants indicated that they would like to have transit services within the Town of Strathmore and to and from the surrounding counties and municipalities.
- Some participants indicated that parking along 2 Avenue is a concern.





## Town of Strathmore Transportation Master Plan Update Feedback Summary

### About the session

Participants were asked to provide their thoughts about the open house session. Below are the verbatim comments received about the session.

Was the time and location convenient?

Yes (x1)

Somewhat

No

No opinion

How did you hear about today's session?

- Social Media

What did you like about today's session?

- Personal approach
- Questions answered

Was there anything you did not like about today's session?

- Cold weather on this day made travelling uneasy

Do you have any further comments about the session format, the information and content that was provided or the staff in attendance at this event?

- Well done!





## Town of Strathmore Transportation Master Plan Update December 2018 Open House and Online Verbatim Feedback

The Town of Strathmore held a Public Open House on December 6, 2018 from 4:30 – 7pm at Town Hall and hosted online engagement from December 6, 2018 to January 6, 2019 to discuss the Transportation Master Plan update project. 11 interested members of the public attended in-person and we received 59 responses to the online survey.

We asked participants to help move the Town of Strathmore in the right direction as we plan our transportation future by identifying the most important transportation issues. Feedback will be considered in the TMP update and will help to guide planning the future transportation network for all modes of transportation including driving, walking and cycling.

The following is the verbatim feedback collected at the public open house on December 6, 2018 and online survey from December 6, 2018 – January 6, 2019. **Please note:** All of the comments below are verbatim as received. The only exception is where there is profanity or personally identifying information, which has been replaced with [omitted].

Participants identified their top three transportation issues for The Town of Strathmore are and added their own in the “other” space.

- Traffic movement and signalization (x28)
- Access to schools, employment areas (x5)
- Access to key community destinations and recreation areas (x9)  
(e.g. parks, arenas, community centres, libraries, churches)
- Access to commercial areas (x13)  
(e.g. downtown areas, highway commercial)
- Provide transportation alternatives (x19)  
(e.g. carpooling, carshare, cycling, walking, transit)
- Lifespan of the existing transportation infrastructure (x8)
- Roadway connectivity (x19)
- Road surface conditions (x28)  
(e.g. cracks, potholes)
- Air quality (x4)
- Traffic safety (x13)
- Pedestrian and cyclist safety\* (x39)
- Missing trail connections (x20)
- Other (x25):
  - Wheelchair accessibility
  - Knowing plans for road widening and construction
  - No overpass to South-side of Highway 1 (pedestrian or vehicle)
  - \*Pedestrian and Cyclist Safety: 3-way stop at high school on Brent Boulevard
  - Overpass on HWY1 connecting north and south – pedestrian and/or vehicle
  - Transit / bus service for seniors at peak hours



## **Town of Strathmore Transportation Master Plan Update December 2018 Open House and Online Verbatim Feedback**

- Taxi service was down a few days ago due to an accident; wait times shot up significantly and it's really cold outside right now
- Transit
- Driveways have cars backing into intersections
- More attention paid to motorists who don't stop at stop signs and don't signal turns. cyclists riding on the wrong side of the road and not paying attention to traffic rules
- New roadway in and out of wildflower
- Overpass across hwy 1, pedestrian and/or vehicle
- Sanding is sometimes inadequate on roadways
- Sidewalks
- Sidewalks missing on roads. crosswalks missing when trying to reach other side that has sidewalk
- The new lights on 817. It is useless to have on a turning lane only, when there is a lane going straight through. It would make more sense that this lane is both a turning lane, and straight through lane. poor planning on the towns part
- Too many 4 way stops and safety at them

### **Traffic safety concerns**

- Crossing Highway 1 (North/South): the more that the South-side develops, the more traffic will increase (foot and vehicle)
- 3-way stop at Brent Boulevard and Thomas Drive: students cross street and DO NOT use crosswalk
- 3<sup>rd</sup> Avenue and Lakeside Boulevard: Planters along 3<sup>rd</sup> Avenue parallel to parking: seniors are slipping and tripping trying to get out of car
- George Freeman Trail at Ranch Market: no wheelchair ramp on East side of Ranch; no access to shopping centre
- George Freeman Trail at Ranch Market: Ramp is dangerous on the corner of Western Financial
- Lakeside Boulevard Downtown: pedestrian crossing is too narrow; many after-school pedestrians; enhance crossing signals and road markings
- 4 way stop congested- near accidents everyday
- 4 way stops by the high school, cars drive through with kids crossing
- Always cars driving to fast
- Can't see who is coming down the road without pulling out
- Can't see who is coming down the road without pulling out
- Having the right lane only as a straight through forced a lane change right before and after this intersection increasing the risk of collision. Should be changed
- Kids crossing don't cross properly. And I think it should have a diagonal cross walk. (As they do that anyways)
- Larger signage need in this intersection to indicate 1 lane left turn only, 1 lane straight through only. Lighted signage is my suggestion, find too many ignoring present signage



## **Town of Strathmore Transportation Master Plan Update December 2018 Open House and Online Verbatim Feedback**

- Lights needed!
- Merge lane from 817 south to hwy 1 west is too short - I have seen a large number of near misses, including both cars and semi's who just assume they have the right of way when merging
- Needs a big light sign like the high school has.
- Needs to have a better system for kids crossing
- No sidewalk
- No sidewalk
- Nobody knows how to use this 4 way stop so it is terrible all the time
- People overpass across the road.
- People speed at this corner and it's extremely dangerous. The addition to the foliage on the fence from the town staff now you can't see through the chain link fence and it makes it very dangerous.
- People speed through the school zones, I have almost been hit walking with my children about 3x a week, especially taxis. People say because there is just no police presence and they won't get caught.
- People use this stop sign like it's a race track. People are always sometimes stopping and then speeding down the road past the highschool. We hear it happen every night multiple times
- Poor visibility exiting 103 Strathaven drive due to street parking on Strathaven drive.
- Road needs re-paving and widening. The shoulders are slowly crumbling away and the existing pothole patches are not going to survive the thaw. City needs to realize this is now a major access route
- Strathmore should have over passes for people to go over the road as drivers don't wait for people to cross roads.
- The 4 way stops are congested and near accidents everyday
- The connecting path from Wheatland trail to the library doesn't have lights till you hit the street and is a very dark corridor for pedestrians
- the playground zone here gets ignored and cars do not look for pedestrians
- the wheelchair ramp on the corner is very unsafe, there is a large bump which could cause a wheelchair/walker to tip over, this should be one large curb cut with no hump between the two cuts.
- There should be two distinct turning lanes at this intersection. The first for the Crystal Ridge Parking Lot and then after the entrance for the parking lot a turning lane for the lights at Brent Blvd
- This is a very dangerous area to cross at any part of this 4 way stop. There are some students who have to cross this every day and multiple people who have been hit at this 4 way stop.
- This road needs street lights there are people walking along it but you can't see them at night.
- This turn is terrible! You have to pull past the crosswalk to see and even then parked vehicles obstruct your view. I've seen so many close calls here and have had a few myself.
- Too short of lane from Lakeside south to hwy 1 west
- turn signal is needed east bound from the west side of mall



## **Town of Strathmore Transportation Master Plan Update December 2018 Open House and Online Verbatim Feedback**

- Westmount Drive often finds only way to get safely, without sidewalks on both sides of street, is to walk on road and deal with vehicles. Danger for elderly and children
- Why do the east/west lights between M&M and Co-op not have left-turn signals? 90% of traffic turns north or south at those lights. The 10% crossing straight makes it dangerous!
- Wildflower road is a shared road with cars, bikes and pedestrian traffic. There is a lot of speeding since the growth of the new houses. Not construction traffic
- With the speeding trucks, it is very dangerous to even walk on the sidewalk.
- you can't see from thomas drive to parklane unless creep way out due to the cars parked yo the east and bushes and tree to west.

### **Traffic movement and signalization concerns**

- Thomas and Parklane Drive intersection needs better signage and visibility is constricted (turning off Thomas onto Parklane)
- George Freeman Trail: traffic circles would help flow of traffic
- 8 way stop, visibility issues, terrible junction, dangerous
- AN ESPECIALLY DANGEROUS 4 WAY STOP, POOR SIGNAGE, FADED LINES AND 8 LANES OF TRAFFIC ALWAYS CAUSES CONFUSION, SUGGEST TRAFFIC LIGHTS
- Congestion at this four way stop
- Due to this turn traffic can sometimes get really backed up because it can be scary having to turn left here when you can't see a vehicle coming
- During rush hour periods, morning, noon and early evening this intersection is a nightmare. The lights on the highway cause part of the problem because they are not equipped with smart technology.
- Eastbound to Northbound at this location is sometimes an issue
- Every other set of lights the left lane is the through lane and I see people ignore the signage all the time
- Intersection backs up from Southbound to Eastbound. East/West Crossing is dangerous when southbound traffic is backed up at the light
- lights here r set up dumb if heading south u have to go into lane that ends soon as your through the lights: straight through should b were turning lane is and right lane just a right turning lane
- NEED BETTER SIGNAGE AND LINES PAINTED ON ROAD.
- Needs to be a light not a 4 way
- No one can figure out the 4 way stops in town.
- People are constantly in the wrong lanes when going east or west at this intersection. Very dangerous, maybe we could make it more clear some way.
- People can figure out this 4 way stop either
- People can't figure out the 4 way stop.
- People drive straight across in the turn lanes.
- People just don't know how to properly handle the four-way stops in town.





## **Town of Strathmore Transportation Master Plan Update December 2018 Open House and Online Verbatim Feedback**

- Real mess of a road setup from Pine Rd to Spruce Park Dr. and in fact very dangerous, I will go around to Orchard Park Road to come out of business off Pine Rd
- Same issue as safety - merge lane way too short
- School times are uncontrollable. Lights active during school zone time would assist.
- Some of the traffic do not follow the 50 km speed limit. The cattle liners, WM, grain trucks, tow trucks, dump trucks even some of the town vehicles and the kids with their noisy trucks.
- Speed limit/signage on the bridge upgrade is ridiculous. There is no appropriate signage to end the 30 limit? And it's pretty much pointless to put '30 ahead' 6 feet from the 'limit 30' sign.
- The lane changes at the new lights are not productive nor do they assist with traffic movement. The through -lane, that was changed to a turning lane only. should be both a turning lane/throughway
- There are lots of speeding cars on this road. Adding a traffic circle or lights at the intersection with Archie klaiber would slow the people down.
- There should be a road here connecting the rapidly expanding wildflower area to Wheatland Trail... or a connection north of here linking wildflower to a more northern connection.
- This area is just a mess most day
- this intersection is a gong show, it has so many issues
- This intersection is busy during rush hour. It is difficult to turn north onto George Freeman from Archie klaiber. Traffic lights or a roundabout would alleviate this problem.
- THIS JUNCTION IS RIDICULOUS AND I AM AMAZED THERE ARE NOT MORE ACCIDENTS HERE. TRAFFIC FROM DINERS CAUSES CONGESTION, THOSE CAR PARKS ARE TOO SMALL. SUGGEST TRAFFIC LIGHTS HERE
- Three way stop is totally unnecessary. Stop should be placed leaving the business access (Sagewood). Stop sign barricades impeded proper snow removal.
- Tim's, McDonald's and CT bottlenecked all the time.
- Traffic light needed. Dangerous turning when left onto Wheatland Trail when busy.
- Traffic needs lights
- Traffic traveling south towards Canadian Tire and which should turn right from the curb lane often continues traveling straight through this intersection
- very difficult at times to turn left from westmount drive onto wheatland trail. All depends on traffic, so certainly around school times, around 5 and even later in the evening when people are out a
- Visibility is limited
- Visibility is limited at this very busy intersection

### **Missing pedestrian or cycling connections and network system concerns**

- South-side of Highway 1 has limited pathways
- Near Wildflower Ranch: maybe pave or add gravel
- Wheatland Trail near Strathmore Golf Club: User education on pathways; shared uses



## **Town of Strathmore Transportation Master Plan Update December 2018 Open House and Online Verbatim Feedback**

- Wheatland Trail near West Park Village: Missing space/pathways for cyclists; transition from 4 lanes to 2 lanes
- Strathmore Lakes: missing connectivity for pathways from Strathmore Lake to Downtown
- Westlake Road at Town Hall: paved sidewalks; dead end at RCMP driveway
- 3rd Avenue at Lakeside Boulevard: no wheelchair access from Kinsman Park parking lot into the park
- 2nd Avenue at Lakeside Boulevard: sidewalk stops by “Hi-Ho” on the way to Kinsman Park; no wheelchair access
- George Freeman Trail: make pedestrians connections more readable
- a sidewalk here would be very nice
- Crosswalk needed. Cannot reach convenience store or small businesses on foot without j-walking or walking on grass.
- Danger crossing three times on this road due to ice on road and edge of road for elderly and children as well as having to cross three times to get to school and crosswalk on wheatland
- Even with traffic lights people still turn when the walk light is on. I’ve been almost hit crossing cause people are in a hurry to get on the highway
- Need path/cycle way from top to bottom connect all paths that are in random spots
- Needs crosswalk lights for the school
- NO FOOTPATH EXCEPT ON THE OPPOSITE SIDE OF THE ROAD, CAN WALK THROUGH CAR WASH EXIT BUT NOT IDEAL. TO USE OPPOSITE FOOTPATH, IT REQUIRES CROSSING THE ROAD 4 TIMES INSTEAD OF 2, MORE DANGEROUS
- NO FOOTPATH FOR PEDESTRIANS EITHER SIDE OF THE ROAD. OPTIONS ARE TO WALK IN THE ROAD OR THROUGH THE CARDLOCK OR CO-OP GAS STATION
- NO FOOTPATH TO WALK ALONG FROM THE TRAFFIC LIGHTS ALL ALONG THE ROAD
- No lights or sidewalk along this road making it extremely dangerous especially at night. Lighting would solve half the problem. Same issue on Wildflower road.
- No sidewalks either side of the road.
- No sidewalks for those who live in that area who do not drive to work safely
- People in vehicle don't wait for people to cross street with walk sign activated be almost hit 3 time crossing at this intersection.
- Requires a sidewalk on both sides of Centre Street, to allow for easier walking without having to continually cross the road
- so we have a bridge and a path that leads to nowhere it would be nice if the pathway connected to the path around Strathmore lakes
- the sidewalk ends here which is a problem for wheelchair users, you have to travel on the road, could we get the sidewalk extended?
- there are no wheelchair curb cuts on the east end of the sidewalks when walking from the Ranch shopping centre to the Co-op shopping centre, you have to wheel on the roadway which is not safe.
- there is a sidewalk on the south side of the street that extends about 20' and then ends, if you have a wheelchair you have to cross the street and travel on the north sidewalk to the corner.



## **Town of Strathmore Transportation Master Plan Update December 2018 Open House and Online Verbatim Feedback**

- There is no clear pedestrian path to the shopping area
- There is no consistent sidewalk or path on Westmount Dr to reach Wheatland Trail.
- there needs to b sidewalks here. it's very dangerous as pedestrians have to walk on side of road to get to canal gardens, with shelter here there's going be more pedestrians let's make it safe.
- There should be a pedestrian overpass here for access to the school.
- There should be a pedestrian walkway here as well. Or this area should be converted into an overpass.
- There should be an overpass here or a pedestrian overpass here. There's quite a bit of foot traffic at this intersection, particularly young students.
- They need proper ways for pedestrians to travel down this road, it's getting better but now with the school the kids are dangerously walking on the road.
- This loop to get to the ranch market area is not safe for pedestrians. I am aware that there are signs saying no pedestrians but it is really inconvenient to travel around it.
- Us seniors at Lampart Village and Park Lane Place now have a safe crosswalk but once we are on the south side of 2 ave the sidewalk just quits ?? long before the parking lot or path ways
- Would be great if we could put in the signal lights for people crossing here

### **Missing road connections**

- Wildflower and the newer communities have limited access
- North East near Westmount: huge disconnect
- Range Road 253: proposed ASP to be submitted December 2018
- 4 lanes on George Freeman Tr. from Hwy 1 to North Boundary.
- Completing another roadway in and out of Wildflower to make it a more accessible community
- Connection of West Pine Road to Canal Ave, in some form, would be nice. Crossing TCH at Westmount Road (North to South) is relatively pointless in the current configuration.
- Is a crossing through here viable?
- Lakewood to Wildflower.
- Real disconnect from town for wildflower
- Secondary Access to this community is needed, especially before any school development or large expansion beyond the current population
- The Ranch Market road is in very poor condition. It's also very visible and one of the first things people see. This area should look a lot nicer than it does.

### **Other issues with the Town of Strathmore's transportation system**

- Thomas Drive: very fast vehicles; used as a "race-way"
- Bus service/system at peak hours
- Transit for seniors
- Bus network within town to/from county
- Backing into Intersection



## **Town of Strathmore Transportation Master Plan Update December 2018 Open House and Online Verbatim Feedback**

- Difficult seeing around corner with the high fence on one side and the tree and sign on the other
- Finding parking near businesses is terrible in the downtown areas of Strathmore. Most of the time your better off parking at kinsmen and walking where you need to go
- Future Road Widening to accommodate commercial traffic?
- In the winter so many vehicles and wrong tires spinning and cant make it through the light.
- Parking
- the ODR is not accessible to wheelchairs, my friends and I would like to use the rink in the summer months to practice ball hockey, there is a 8" drop on both sides of the boards.
- THIS ROAD ALWAYS REQUIRES MAINTENANCE. IT WAS BADLY PATCHED IN 2018 AND IS STILL NOT IDEAL FOR SMALL CARS. SOME POT-HOLES WERE MISSED ALTOGETHER. CONFUSION TOO WITH WHO OWNS THE ROAD BETWEEN STORES
- Transit to downtown.

### **About the session**

Please take a moment and provide your thoughts on today's session.

Was the time and location convenient for you?

Yes (x1)

Somewhat

No

No opinion

How did you hear about today's session?

- Social Media

What did you like about today's session?

- Personal approach
- Questions answered

Was there anything you did not like about today's session?

- Cold weather on this day made travelling uneasy

Do you have any further comments about the session format, the information and content that was provided or the staff in attendance at this event?

- Well done!





## **Town of Strathmore Transportation Master Plan Update External Stakeholder Feedback Summary**

**The Town of Strathmore held External Stakeholder meetings on January 15, 2019 at Town Hall to discuss the Transportation Master Plan update project. The following stakeholders were invited to attend the in-person meetings or submit feedback via email:**

- Town of Strathmore Traffic Advisory Committee
- Town of Strathmore Downtown Vitalization Committee
- Wheatland County
- Alberta Transportation
- Christ the Redeemer Catholic School
- Golden Hills Public School

We asked stakeholders to help move the Town of Strathmore in the right direction as we plan our transportation future by identifying the most important transportation issues. Feedback will be considered in the TMP update and will help to guide planning the future transportation network for all modes of transportation including driving, walking and cycling.

The following is the summary of feedback collected at the stakeholder meeting on January 15, 2019 and from the email submissions.

### **Archie Klaiber Trail / Centre Avenue & Archie Klaiber Trail / Lakeside Blvd**

- Difficult intersection with the 4-way stop
- Lane confusion (inconsistent lane configuration) about 100m away from intersection
- Is a roundabout possible at Archie Klaiber Trail / Lakeside Blvd?
  - Continuous flow is important in this area
  - Make useable for buses & large vehicles
  - Traffic light would be too close to existing light
  - Driver education for roundabouts

### **2<sup>nd</sup> Avenue / Lakeside Boulevard**

- Is a roundabout an option for this intersection?

### **Brent Blvd / Thomas Drive**

- 4-way stop – is a scattered crosswalk possible? All driving stops (all directions) while all pedestrians cross all directions

### **Wheatland Trail / Brent Boulevard**

- Pedestrian crossing (crosswalk) safety is a concern
- Visibility issues at pedestrian crossing (a pillar blocks view of driver at intersection)
- Garbage cans and signals
- Can the crosswalk be moved to the middle of the intersection?

### **Wheatland Trail / Westlake Road**

- Very busy and no turning capability when someone is stopped
- Congested
- Worst East-West road



## Town of Strathmore Transportation Master Plan Update External Stakeholder Feedback Summary

### General Comments

- Concern about the varied speed limits around the town (school zones, etc.)
- Since the ring road will not be free flow, does investing in the realignment of the east and west sides of the network make sense?
- New ASP ¼ section NW Strathmore – Presented to Council in approximately two months
  - 1700 residents proposed
- Poor sightlines along the service road that runs parallel to Trans-Canada Hwy
- Pathways along George Freeman Trail are disconnected along the west side
- There are no planned growth areas around the Town within Wheatland County.
- There is a 25 lot subdivision to the SW corner of the Town.
- Wheatland County is interested in participation in the next open house session and also willing to post the event ads for the open house on their website and social media. They want to know more about what happens with Hwy 1 and the future by-pass.
- Wheatland County to share their 10 year road management plan with the Town.
- The future roadway classification map identifies several existing and future provincial highways. The classifications of these highways are as follows (in all cases, these are the *minimum* classifications being protected. Information provided from the TMP update may result in changes and a more rigorous standard may be protected if required):
  - Future Highway 1 alignment: Freeway, access is restricted to the single interchange at Highway 817, as shown in the Highway 1 & Highway 22X Functional Planning Study (2013).
  - Existing Highway 1 alignment between Range Road 255 and Range Road 245: Urban Expressway. Access is limited to 800m spacing or greater. Interchanges in the vicinity of Range Road 255 and Range Road 245 are directional interchanges and will not provide local land access. (It should be noted that detailed interchange configurations were not provided as a result of the previously completed Functional Planning Study, and additional study may be necessary to determine the appropriate access locations on the existing Highway 1 alignment.)
  - Highway 817 between the future Highway 1 alignment and the existing Highway 1 alignment will be protected as an urban arterial divided (UAD) roadway.
  - Highway 817 north of existing Highway 1 is being protected as an urban arterial undivided (UAU) highway.
- Existing / future intersection locations should be clearly marked on the roadway classification map.

Service roads provided in proximity to a Highway must be adequately set back from the highway intersection to prevent operational and safety issues resulting from close proximity of two intersections. Intersections should be located 400 metres from the highway as the desired spacing.



## **Town of Strathmore Transportation Master Plan Update Feedback Summary**

**The Town of Strathmore held a Public Open House on October 23, 2019 from 4:30 – 7pm at Town Hall to present the updated Transportation Master Plan project. Seventeen interested members of the public attended the session and there was no online survey for this round of engagement.**

The objective of the session was to present to the public the Transportation Master Plan (TMP) which reflected input provided by the public in the first round of engagement. The updated TMP provided a framework for Council and Administration to assess the capability of the road network, to accommodate new development and will be useful in short and long-term planning and budgeting.

**At the public open house, the project team was engaged with the public who attended and had discussions on the following topics:**

- Highway 1 bypass: it was iterated that Highway 1 bypass functional planning study was completed by Alberta Transportation in 2009 and the Transportation Master Plan evaluated its impact on traffic patterns within the Town of Strathmore and determined that it would be beyond 2049 horizon, using the assumed growth in Strathmore.
- Roadway cross-section: some participants were pleased that the 6-lane cross section recommendations for the Ring Road was reserved back to 4-lane cross section. The analysis confirmed that 4 lanes were sufficient on arterial roads.
- Wildflower Ranch community: the fire department staff shared their concerns regarding the emergency service response time for the Wildflower Ranch community due to limited access points from the Fire Hall with its continuous build-out.
- Coldwell Ranch: staff indicated that the Coldwell Ranch development application was no longer moving forward.
- Lakewood Meadows: development and road network in the Lakewood Meadows community have been slightly altered.
- Highway 817 and Brent Blvd: staff indicated that traffic detectors at the Highway 817 and Brent Blvd intersection sometimes don't work in winter, causing long queue for Brent Blvd. The Town has contacted Alberta Transportation to report and address this operational issue.
- Archie Klaiber Trail & Lakeside Blvd: participants raised concerns regarding this intersection and recommended traffic signal or roundabout. The analysis confirmed that traffic signal or roundabout was not warranted from traffic operation perspective; however, recommendation was made in the report for the Town to evaluate these options.
- Spruce Park Drive & Pine Road: staff shared that this intersection also has queue backup from Highway 1 on the weekends as residents drop off recyclables, buy farming supplies, do shopping, and have breakfast in the area.
- Westmount Road & Westridge Road: participants raised concern that traffic sometimes backs up from Highway 1 at this intersection. It was recommended in the TMP that optimizing traffic signal timing could help reduce queuing at this location.
- Cycling facilities: staff stated that all on-street cycling facilities should be converted to off-street multi-use pathways.



## Town of Strathmore Transportation Master Plan Update Feedback Summary

### About the session

Participants were asked to provide their thoughts about the open house session. Below are the verbatim comments received about the session.

Was the time and location convenient?

Yes (x1)

Somewhat

No

No opinion

How did you hear about today's session?

- Facebook post

What did you like about today's session?

- Information provided on future growth and how to deal

Was there anything you did not like about today's session?

- Nope

Do you have any further comments about the session format, the information and content that was provided or the staff in attendance at this event?

- Nope