

River Road West Schedule 'C' Municipal Class Environmental Assessment

Addendum Report

Prepared For:
Town of Wasaga Beach

November 2022

CREATING QUALITY SOLUTIONS TOGETHER



RIVER ROAD WEST SCHEDULE 'C' MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT ADDENDUM REPORT

PROJECT NO. 221007

Prepared For:

TOWN OF WASAGA BEACH

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1 Introduction and Municipal Class EA Process

The Municipal Class Environmental Assessment document (amended 2015) as published by the Municipal Engineers Association outlines a planning process for municipalities to follow to complete infrastructure projects in an environmentally responsible manner and in accordance with the Environmental Assessment Act (EAA).

In April 2009, the Town retained the Ainley Group to complete a Schedule C, Municipal Class Environmental Assessment (Class EA) to determine the Preferred Solution to address traffic congestion in the area of River Road West from Brillinger Drive to the eastern Town limits. As the Town's main east/west transportation corridor, River Road West plays an important role in servicing commuter, recreational and tourist traffic in the area.

The Notice of Completion for the River Road West Schedule 'C' Municipal Class EA was first published on September 29, 2010 advising of the completion of the Environmental Study Report (ESR). Within the Class EA, suggested potential timelines for phasing and implementation of the Preferred Design were included, subject to funding restrictions and other necessary approvals. Since the filing of the Notice of Completion, the Town has proceeded with Phase 5 (Implementation) of the Class EA process. The design, tendering, and construction for the section of road between Brillinger Drive and Veteran's Way (approx. 1.3 km) has been completed. Further, the design for the next section of road between Veteran's Way and Blueberry Trail (approx. 2.5km), is almost complete and is anticipated to proceed to construction in 2025-2027. The design for the remaining section of road between Blueberry Trail and the east Town limit (approx. 4 km) has not yet commenced.

The completion and filing of an addendum to a previously completed Municipal Class EA may be required for two reasons:

1. Change in project or environment – If there are any significant modifications to the project or changes in the environmental setting for the project which occur after the filing of the ESR, this is to be reviewed by the proponent and an addendum to the ESR completed. The addendum must describe the circumstances necessitating the change, the environmental implications of the change, and what, if anything can and will be done to mitigate any negative environmental impacts.
2. Lapse of time – If there is a period of 10 years between filing of the Notice of Completion or the Ministry of Environment, Conservation and Parks' (MECP) denial of a Part II Order request (if one is received), to the proposed commencement of construction for the project, the proposed project and the environmental mitigation measures proposed may no longer be valid. The proponent is to review the planning and design process and the current environmental setting to ensure that the project and the mitigation measures are still valid given the current planning context.

There have been some changes with respect to development in the Town over the last ten years with potential impacts to the River Road West corridor, including but not limited to planned area growth as well as the new twin pad arena and library that is being constructed at the intersection of Theme Park Drive. Therefore, given the lapse in time since the original filing of the Notice of Completion as well as the changes in the area environment with respect to development, an Addendum to the Class EA is being completed to review the traffic volumes and assumptions in the original Class EA and reassess the intersections located along the

remaining stretch of roadway, between Blueberry Trail and the east Town limit to ensure they remain valid prior to proceeding with design.

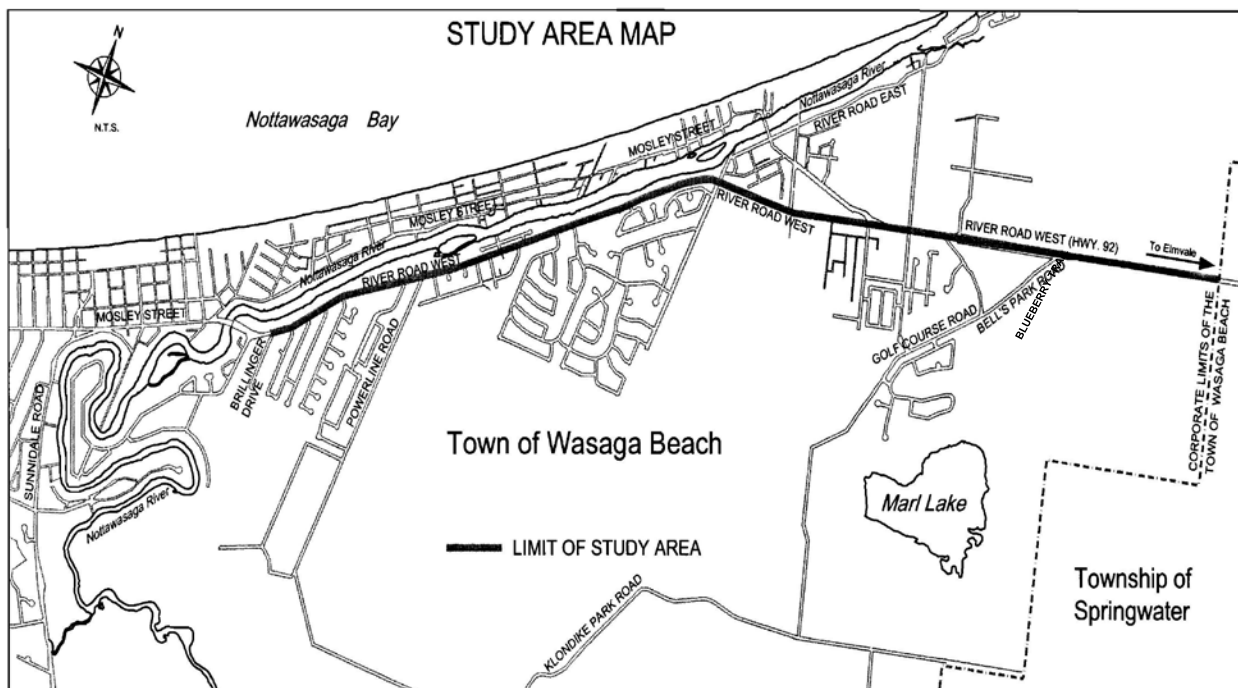
It is noted that the Town completes a Transportation Study Update on a five-year basis, with the next update scheduled for this year. It is through this mechanism that the timing of any needed cross-section expansion will be reviewed; therefore, the three-lane cross-section component of the original EA will not be subject to review as part of this Addendum.

Furthermore, recent changes to the Environmental Assessment Act have revised the requirements for public consultation, including changes to the Part II Order request, now referred to as a Section 16(6) Order request. A request can only be made for concerns the project may have a potential adverse impact on constitutionally protected Aboriginal and treaty rights. In addition, the minister now has the right to make a Section 16(6) Order on their own initiative within 30 days from the end of the comment period set out in the Notice of Completion. If the Ministry needs additional information to determine whether to make a Section 16(6) Order on their own initiative, they may issue a Notice of Proposed Order with the request for information and a deadline for submitting it to the Ministry.

2 Project Study Area

The original study area is the corridor of River Road West located in the Town of Wasaga Beach. The western limit of the study area is the intersection of Brillinger and River Road West, and the eastern limit is the Town boundary where River Road West becomes Highway 92. The study area is shown in Figure 1. This Class EA Addendum will only apply to the section of road that has yet to be designed, from Blueberry Trail to the east Town limit.

Figure 1: Study Area of 2010 Class EA



3 Planning Policy

The 2010 Class EA demonstrated how the proposed works would be planned, designed and approved under the following Provincial Regulations, Acts and Guidelines current at that time:

- Ontario Environmental Assessment Act as administered by the Ministry of the Environment (MEA Class EA planning process)
- Ontario Water Resources Act as administered by the Ministry of the Environment
- Endangered Species Act as administered by the Ministry of Natural Resources
- Fish and Wildlife Conservation Act as administered by the Ministry of Natural Resources
- Ontario Heritage Act as established by the Ontario Ministry of Culture
- Nottawasaga Valley Conservation Authority as established by the Conservation Authority Act as administered by the Ministry of Natural Resources
- Highway Traffic Act (Ontario)

Since 2010 there have been legislative updates, additional areas of interests to consider as part of the Class EA process, as well as updated municipal studies. This section provides a brief discussion of additional and/or updated land use planning policies and principles to illustrate the consistency of this project in relation to provincial, regional and municipal planning goals.

3.1 Provincial Policy Statement (2020)

The *Provincial Policy Statement (2020)* provides policy direction relating to land use planning and development in Ontario. Section 3 of the *Planning Act* stipulates that all decisions affecting planning matters are to be consistent with the *Provincial Policy Statement (PPS)*. Policies applicable to this project include the following:

1.1.1c) Healthy, liveable and safe communities are sustained by avoiding development and land use patterns which may cause environmental or public health and safety concerns;

1.1.1e) Healthy, liveable and safe communities are sustained by promoting the integration of land use planning, growth management, transit-supportive development, intensification and infrastructure planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs;

1.5.1a) Healthy, active communities should be promoted by planning public streets, spaces and facilities to be safe, meet the needs of pedestrians, foster social interaction and facilitate active transportation and community connectivity;

1.5.1d) Healthy, active communities should be promoted by recognizing provincial parks, conservation reserves, and other protected areas, and minimizing negative impacts on these areas;

1.6.7.2 Efficient use should be made of existing and planned infrastructure, including through the use of transportation demand management strategies, where feasible;

1.8.1b) Planning authorities shall support energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and preparing for the impacts of a changing climate through land use and development patterns which promote the use of active transportation and transit in and between residential, employment (including commercial and industrial) and institutional uses and other areas;

2.1.1 Natural features and areas shall be protected for the long term

2.6.1 Significant built heritage resources and significant cultural heritage landscapes shall be conserved.

3.2.3 Planning authorities should support, where feasible, on-site and local re-use of excess soil through planning and development approvals while protecting human health and the environment.

3.2 Growth Plan for the Greater Golden Horseshoe (2020)

The *Places to Grow Act, 2005* enables the development of regional growth plans that guide government investments and land use planning policies. A *Place to Grow – Growth Plan for the Greater Golden Horseshoe (2020)* is the Ontario government’s initiative to plan for growth and development in a way that supports economic prosperity, protects the environment, and helps communities achieve a high quality of life. This Plan applies to the area designated by Ontario Regulation 416/05 as the Greater Golden Horseshoe growth plan area, to which the Town of Wasaga Beach is located.

3.3 Source Water Protection

The purpose of the *Clean Water Act (2006)* is to protect drinking water at the source and to safeguard human health and the environment. It aims to protect existing and future drinking water sources. It ensures that municipal drinking water supplies are protected through prevention by the development of a watershed-based source protection plan. The source protection plans identify vulnerable areas within each municipality and provide policies to address existing and future risks to municipal drinking water sources within these vulnerable areas. This project is subject to the South Georgian Bay Lake Simcoe’s Region Source Protection Plan (SGBLS – SPP) and is within the Nottawasaga Valley Source Protection Area. Further discussion is provided in Section 4.4.

3.4 Climate Change

The MECP document, *Considering Climate Change in the Environmental Assessment Process (2017)* provides guidance relating to the Ministry’s expectations for considering climate change during the environmental assessment process. The Guide is now a part of the Environmental Assessment Program’s Guides and Codes of Practice. The environmental assessment of proposed undertakings is to consider how a project might impact climate change and how climate change may impact a project. Climate Change was considered during the course of this Class EA Addendum and is discussed further in Section 7.3 of this document.

3.5 Town of Wasaga Beach Transportation Study Update (2017)

The Town has implemented the completion of a Transportation Study Update on a five-year basis with the next update scheduled for this year (i.e. 2022). The purpose of the study update is to compile and review current traffic; compare previous traffic projections to the current traffic data; review and estimate future development impacts; estimate future traffic for 5 and 10-year time horizons; determine transportation deficiencies and recommend improvements; and provide long-term transportation network planning recommendations.

3.6 Parks and Trails Master Plan (2020)

A key contributor to a healthy and active community is a well-designed, safe, connected and functional network of parks and trails. In Wasaga Beach, these assets are particularly important

for attracting new residents, tourists, volunteers and businesses. The Town of Wasaga Beach has completed a Parks & Trails Master Plan project to identify priorities and guide future investment. The Master Plan is a comprehensive and inclusive document that examines the full scope of capital assets, policies and services and provides a 10-year vision for addressing current and future needs.

Although the Ontario Parks properties are outside the scope of this Master Plan, it is important to note that residents and visitors are served by these properties and that it is vital for the Town and Province to continue to work together to provide a cohesive parks and trails system.

4 Existing Conditions

The Town of Wasaga Beach is a popular four-season tourist destination situated in Simcoe County at the southern end of Georgian Bay. The natural resources are primarily associated with the Town's location on Nottawasaga Bay and the River, which provide the principal basis for the Town's tourist economy. There is over 22,000 full-time residents and it is estimated that two million tourists visit the Town each year.

As part of the 2010 Class EA completed for River Road West, many background studies were completed that are still valid and relevant to the project area today. A brief summary is included in the subsections below. With respect to the traffic analysis, as noted previously, there have been some changes with respect to development in the Town over the last ten years with potential impacts to the River Road West corridor, including but not limited to planned area growth as well as the new twin pad arena and library that is being constructed at the intersection of Theme Park Drive. Therefore, an updated traffic analysis has been completed to determine the effectiveness of the preferred design solution related to intersections from the 2010 Class EA.

4.1 Land Use and Development

Lands along River Road West from Brillinger Drive to Blueberry Trail are mainly residential lands. The Wasaga Beach Provincial Park stretches to the east from Blueberry Trail to Westbury Road along the south side of River Road West, whereas, on the north side of this section of River Road West are mainly institutional and residential lands including a public library.

Along River Road West from Westbury Road to Bell's Park Road are mainly commercial lands including tourism commercial, district commercial, recreational commercial and campground commercial lands. Along River Road West from Bell's Park Road to the eastern Town limit are mainly rural lands with the exception of a piece of recreational commercial land on the north side of the road. On the south side of the road, lands are designated as district commercial and residential. Thus, in the future, they will be developed as district commercial and residential lands. Eighteen specific developments within and adjacent to the study area have been considered by the updated traffic analysis, of which 15 of these developments represent new developments that would not have been considered during the original 2010 Class EA. The remaining 3 developments were considered initially and subsequently are still ongoing either due to extended timelines or phases.

4.2 Natural Heritage

As part of the 2010 Class EA, an Environmental Impact Assessment was completed for the study area by Azimuth Consulting Inc. A full copy of the report can be found in Appendix G of the 2010 ESR. The Environmental Impact Assessment report includes an assessment of the environmental impacts to any environmental features associated with the expansion of the road footprint. The potential impacts associated with the preferred solution were included in the ESR and appropriate mitigation measures developed. The information provided in the Environmental Impact Assessment report, including the mitigation measures developed, are valid and should be carried forward in the design of any future projects stemming from the Class EA. It is also recommended that an updated assessment be completed for any additional property that is purchased to accommodate any future projects.

4.3 Built & Cultural Heritage

As part of the 2010 Class EA, a Stage 1 Archaeological Report was prepared by Archaeological Research Associates Ltd. (ARA). The full report is available in Appendix H of the 2010 ESR. The results of the Stage 1 Assessment indicated that there were no registered archaeological sites found within the limits of study area. Although, the H.M.S Nancy (a British Schooner built at Fort Detroit in 1789) site is within one kilometer of the study area, the ship was burned to the waterline, and the remains were found and raised and stored in the Nancy Museum in 1928. The Report suggests a Stage 2 assessment and that recommendation will be carried into the design of any future projects stemming from the Class EA.

4.4 Source Water Protection

The MECP Source Protection Information Atlas was reviewed to determine if any Policies of the SGBLS-SPP apply to this project. The results of the review identified that parts of the project study area are within areas designated as follows:

- Wellhead Protection Area B – score of 6
- Wellhead Protection Area C1 – score of 4
- Wellhead Protection Area D – score is 2
- Highly Vulnerable Aquifer – score of 6

The designated areas and associated vulnerability scores indicate that no policies apply. However, it is noted that the Application of Road Salt is considered a low-level threat within a Wellhead Protection Area with a score ≥ 6 and a Highly Vulnerable Aquifer.

4.5 Traffic Analysis

An updated traffic analysis was completed in 2021 for the intersections between Blueberry Trail and the east Town limit. Within this segment of road, there are eleven (11) intersections, with five currently being signalized. The traffic analysis did not include a review of those intersections that are currently signalized.

With respect to the six stop-controlled intersections, Kimbolton Drive is not yet fully constructed or in use and Village Gate Drive has already been identified for signalization through a development Traffic Impact Study. Therefore, these two intersections were not reviewed under this update.

As a result, the analysis focused on the operations, deficiencies, and need for improvements at the remaining four intersections: Beck Street, Golf Course Road, Theme Park Drive, and Bells Park Road.

Traffic projections were based on historic data from the 2017 Transportation Study Update coupled with the most recent intersection traffic count data taken at the four subject intersections. A review of the traffic volumes along River Road West from 2017 and 2021 (both average conditions) indicate comparable volumes along the corridor in consideration of a reasonable annual growth rate. Thus, the traffic counts are considered representative of typical conditions.

An analysis of the four intersections was conducted for the existing peak hour traffic volumes and based on the existing intersection lane configurations and control. The methodology applied was consistent with the Highway Capacity Manual method for unsignalized and signalized intersections and the Synchro Delay method for signalized intersections as employed in the software program Synchro 10.

Results of the analysis summarized level of service (LOS), estimated delays (measured in seconds) and volume to capacity (v/c) ratio provided. Level of service A, corresponding to minimal delays, is the best whereas level of service F, corresponding to high delays, is generally considered poor conditions. When volume is less than capacity, v/c ratio is less than 1. Otherwise, v/c ratio equal to or more than 1, means volume reaches capacity or is more than capacity.

4.5.1 Existing Traffic Conditions

The results of the analysis indicate that acceptable levels of service (C or better) occur at all intersections under existing conditions and, thus, no improvements related to intersection operations are required at this time on the basis of the intersection operational analysis.

4.5.2 Future Traffic Conditions

Utilizing the updated traffic data, the operations of the four intersections within the study area were investigated based upon their existing configuration and the 2026 and 2036 traffic projections developed. The intent of this was to determine if improvements are required beyond the existing intersection configurations and to gauge the appropriate timing.

The analysis reveals that levels of service deteriorate at the four intersections as traffic volumes increase. Acceptable levels of service (E or better) will be provided at the intersections in the 2026 horizon and, thus, no improvements related to intersection operations are required by 2026 on the basis of the intersection operational analysis.

However, in the 2036 horizon, a poor level of service (F) will occur at the intersection of River Road West with Theme Park Drive, during the PM peak hour. This is indicative of the need for future intersection improvements.

The remaining intersections will continue to perform with acceptable levels of service (E or better) and, thus, no improvements are required to 2036.

Complete details of the traffic analysis are included in Appendix A of this Addendum Report.

4.6 Noise

As part of the 2010 Class EA, J. E. Coulter Associates Limited completed a noise assessment for River Road West. The full report is available in Appendix I of the 2010 ESR. Coulter noted the net increase in sound levels of approximately 2dB resulting from additional traffic if the road was widened to 4 lanes. Coulter also noted that "...the potential increment in sound levels attributable to implementation of the project is insignificant, and mitigation measures are not required to satisfy MTO/MOE protocol as the implementation of the project does not increase the sound level by 5dB or more."

Given the original study was completed for the ultimate four lane cross-section, which has not yet been implemented, and this addendum is only dealing with the various intersections, an update to the noise assessment was not deemed to be required.

5 Updated Preferred Design Solution

Based on the current intersection operations analysis completed for the Theme Park Drive intersection, a poor level of service was identified in the 2036 horizon; therefore, the following improvements are recommended for the intersection after the 2026 horizon:

- Intersection Signalization, complete with left turn lanes provided on each approach, or
- Single Lane Roundabout

It is noted that the above recommendations are based on the 2021 summer traffic counts and the following assumptions:

- 0.5% annual background growth;
- 100% full build out of the developments along River Road West near Theme Park Drive by 2036; and
- no seasonal variation for the traffic volumes on River Road West.

The original preferred design solution from 2010 recommended the signalization of the River Road West and Theme Park Drive intersection and based on the updated analysis, this still remains valid and the preferred design solution.

As noted earlier, the Town is presently completing a Transportation Study Update that will confirm the cross-section expansion and timing requirements within the area of the River Road West and Theme Park Drive intersection. Considering the that this update is currently ongoing the preferred design solution is presented against existing conditions should the requirement for cross section expansion along this segment of River Road West occur beyond the timing requirements for signalization of the intersection.

Consideration was given to the implementation of a single lane roundabout at this location; however, due to the close proximity of adjacent businesses, multiple entrance ways and limited space within the existing right of way combined with the ultimate lane configuration of River Road West consisting of four lanes with an asphalt width of 13.5 metres as selected in the original Class EA, the placement of a roundabout would be problematic without creating significant impacts.

A drawing of the anticipated intersection configuration for the intersection with Theme Park Drive beyond the 2026 horizon is provided in Appendix B.

6 Consultation

In anticipation of the commencement of the Addendum to the ESR, consultation with the MECP was completed to develop an Indigenous community contact list (a copy of the email correspondence is provided in Appendix C). Following the direction of the MECP EA Coordinator, the following communities have been identified as potentially affected by the proposed project:

- The following Williams Treaties Communities (with a copy to the Williams Treaties Coordinator, Karry Sandy Mckenzie):
 - Chippewas of Georgina Island
 - Chippewas of Rama First Nation (Chippewas of Mnjikaning)
 - Beausoleil First Nation
- Saugeen Ojibway Nation Environment Office (with a copy to the Chiefs of Saugeen First Nation and Chippewas of Nawash Unceded First Nation)
- Métis Nation of Ontario Lands and Resources Dept (with a copy to Region 7 Councillor David Dusome)
- Huron-Wendat Nation (if there are likely archaeological impacts)

The consultation contact list for agencies from the 2010 Class EA has been carried over and updated to reflect the changes in agency names and/or contacts details. The contact list has also been reviewed and updated to include any additional agencies or interest groups not a part of the 2010 Class EA. A copy of the updated contact list can be found in Appendix D.

A Public Information Centre is not required for an addendum to a Class EA. Any public members that had submitted comments as part of the 2010 Class EA process have been added to the public mailing lists as part of this Class EA Addendum. Further, the Town’s Property staff have provided contact information for all adjacent property owners along the entire study area included in the 2010 Class EA.

The Notice of Filing of Addendum was published in the local newspaper on August 11 and 18, 2022 (see Appendix E). Comments were received from four (4) respondents as summarized in the table below.

Respondent	Comments	Response/Action Taken
Ministry of Tourism, Culture, & Sport (MTCS)	<ol style="list-style-type: none"> 1. Requested copy of Heritage Checklist 2. Requested comment be included that previous mitigation related to archaeological/cultural heritage is still in effect. 3. Requested comment be included regarding discovery of any potential archaeological resources during construction. 	<ol style="list-style-type: none"> 1. Heritage Checklist provided. 2. Comment included. 3. Comment included.

Respondent	Comments	Response/Action Taken
Saugeen Ojibway First Nation	Requested Notices and other communication be directed to a different email address	Comment Noted
Member of Public	Requested a hard copy of the Addendum Report	Response provided that a hard copy could be reviewed at Town's Public Works Office.
Member of Public	<ol style="list-style-type: none"> 1. Suggests River Road West should be buried so vehicles flow under ground. 2. Suggests alternative strategies be implemented to reduce the vehicle noise created by additional vehicle flows, such as sound dampening walls. 	Response provided that the overall cross-section, including the number of vehicular lanes and any resulting noise impacts, was not part of the Class EA Addendum; therefore, these comments are not applicable. Further that the Town will continue to monitor and assess the operation of River Road West and will determine the need and timing for any cross-section improvements through their regular Transportation Study Updates.

7 Updated Mitigation Measures

A vital component to this addendum is to ensure that the mitigation measures developed as part of the 2010 ESR are compatible with the updated environment and design solution. It is noted that all previous mitigation measures, including but not limited to those related to natural and archaeological/cultural heritage, remain valid and must be considered as early as possible in the detailed design phase.

A review of the background studies was completed to confirm any updates or additions of mitigation measures to be implemented. The following is provided as supplemental to that review.

7.1 Archaeological/Cultural Heritage Resources

The Ministry of Tourism, Culture and Sport Checklist for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes was completed. Based on this, it was concluded that there is low potential for this project. Notwithstanding, provisions are to be included in all construction documents specifying the possibility of archaeological material being unexpectedly encountered during construction, in spite of any prior completed archaeological assessments. Should previously undocumented archaeological resources be discovered, the Contractor must

cease alteration of the site immediately and report the finding to the contract administrator, who will engage a licensed archaeologist to carry out an archaeological assessment, in compliance with Section 48(1) of the Ontario Heritage Act.

Further, in the event that human remains are encountered during construction, the contractor shall immediately notify the contract administrator. Work shall remain suspended within the subject area until otherwise directed. The contract administrator or the municipal representative will notify the police, coroner, and the Registrar of the Bereavement Authority of Ontario.

7.2 Source Water Protection (Road Salt)

Where the application of road salt is a low drinking water threat, best management practices for the application of road salt will be implemented to protect sources of municipal drinking water.

7.3 Air Quality

The following standard mitigation measures will assist in reducing impacts to air quality:

- Best Management Practices should be used during construction to maintain air quality including:
 - No unnecessary idling of vehicles during construction.
 - Stockpiles of soil, sand and aggregate should be covered.
 - Construction sites and access road should be regularly cleaned to remove debris and dust caused by construction.
 - Non chlorinated dust suppressants should be applied to control dust generated by construction activities.

7.4 Climate Change

As per the MECP guidance document referenced previously, the project's potential impacts to climate change and how climate change may impact the project was considered. Climate change concerns generally relate to the increased concentration of greenhouse gases in the atmosphere, which can result in a rise in the global mean surface temperature. Increased temperatures worldwide are creating changes in climate that is resulting in extreme weather events.

The current undertaking is a small-scale project involving the reconstruction of an existing corridor. As it is a transportation project, the impacts to climate change relate to vehicular greenhouse gas emissions. The reconstruction will maintain an adequate level of service post construction with minimal delays and it is not expected that the emission of greenhouse gases will significantly increase over existing conditions. One tool to assist in reducing greenhouse gas levels is through carbon sequestration. Vegetation can assist in removing carbon dioxide from the atmosphere. Compensation planting will be required by the NVCA for any tree removals required for construction and additional plantings will be considered during detailed design.

Climate change has the potential to result in increased storm events that can lead to flooding. Low Impact Development measures for increased infiltration may be considered in the new design which will assist in reducing impacts. This undertaking is expected to make the area less vulnerable to climate change.

8 Permits and Approvals

Under the 2010 ESR permits and approvals were identified to be acquired during detailed design (see section 38.0 of 2010 ESR). With the changes to the project scope additional approval are not anticipated to be needed beyond what has been described in the 2010 ESR.

Appendix A

Traffic Analysis

Memorandum

To: Mike Pincivero – Town of Wasaga Beach

Copies To: Tammy Kalimootoo – Ainley and Associates
Sean Sexsmith – Ainley and Associates
Jody Marks – Ainley and Associates

From: Lilly Chen

Date: June 22, 2021

Reference: Town of Wasaga Beach – River Road West Class EA Update
Traffic Analysis
Ainley File No. 221007

This Traffic analysis is prepared in conjunction with a Schedule C Municipal Class Environmental Assessment Update for River Road West Urbanization from Blueberry Trail to the easterly Town limits.

In 2009, the Town retained Ainley and Associates Limited and completed a Schedule C Municipal Class Environmental Assessment for River Road West Urbanization from Brillinger Drive to the easterly Town limits (total length of 7.9 kilometres). Since then, the new Highway 26 was completed and the intersection of River Road West at Veterans Way had been improved / signalized. The improvements to the Main Street intersection were included in the Main Street EA completed recently. The new intersection at Village Gate Drive will be reviewed under the area development site plan applications.

Therefore, the overall purpose of the **Traffic Analysis** is to assess the transportation needs of the four unsignalized intersections on the section of River Road West at Beck Street, Golf Course Road, Theme Park Drive, and Bells Park Road under the existing conditions and future traffic projections for the horizon years of 2026, and 2036.

1. Existing Traffic Volumes

Traffic Counts conducted on Wednesday, June 28, 2017 are available from the 2017 Transportation Study Update for the following intersections:

- River Road & Georgian Glen Drive
- River Road & Veterans way
- River Road & Main Street
- River Road & Westbury Road

Recent traffic counts were undertaken by Accu-Traffic Inc. on Wednesday, June 16, 2021 at the following intersections (the count data is provided in Appendix I):

- River Road & Beck Street
- River Road & Golf Course Road
- River Road & Theme Park Drive
- River Road & Bell’s Park Road

A review of the traffic volumes along River Road West from June 2017, and June 2021 (both average conditions) indicated comparable volumes along the River Road West corridor in consideration of a reasonable annual growth rate. Thus, the traffic counts are considered representative of typical conditions. However, the AM peak hour occurs later in the day for the 2021 counts (i.e. 9:00 am to 10:00 am in 2021 vs. 7:30 am to 9:30 am in 2017). This is probably because some people may work from home or more people may have flexible schedules (i.e. people don’t need to show up in the office at 8:30 am).

The 2021 peak hour traffic volumes are shown in Figure 1 for the 4 intersections.

With respect to pedestrian traffic, crossing volumes were observed during the traffic counts. Pedestrian traffic is in the order of 0 to 5 persons crossing River Road West and the side streets at the study intersections during the peak hours.

2. Historic Traffic Growth

The Town’s *2017 Transportation Study Update* indicates that the AADT (Annual Average Daily Traffic Volume) on the section of River Road West had grown in an annual growth rate of 2.2% to 5.0% from 2012 to 2017 as specified in Table 1.

Table 1 AADT Growth on River Road West

Section of River Road West	AADT		Annual Growth Rate
	2012	2017	
Form Veterans Way to Main St.	8,950	8,650	-0.68%
From Main St to Bell’s Park Rd	11,100	10,050	-1.97%
From Bell’s Park Rd to Town Limit	7,750	8,650	2.22%

The 2021 counts were also compared with the 2017 counts. For a total of AM and PM peak hour volumes on both lanes on River Road West between Beck Street and Westbury Way, an annual growth rate of 1.39% has been calculated and provided in Table 2.

Table 2 Peak Hour Volume Growth on River Road West

Section of River Road West	Total AM & PM Peak Hour Volumes on Both Lanes		Annual Growth Rate
	2017	2021	
Between Beck St and Westbury Rd	1872	1978	1.39%

3. Projected Growth

In developing future traffic projections, consideration has been given to population and employment forecasts in addition to specific development growth information provided by the Town.

Population & Employment Trends

Traffic growth will depend largely on the population and employment growth of an area. The population and employment forecasts for the Town of Wasaga Beach are documented in the Town's *Development Charges Study* dated September 25, 2020 by Hemson. Future population and employment projections are provided in Table 3.

Table 3 Population and Employment Forecasts

Community	Population			Employment		
	2019	2031	Annual Growth	2019	2031	Annual Growth
Town of Wasaga Beach	21,718	26,442	1.65%	3,636	4,152	1.11%

Source: *Development Charges Study*. Hemson Consulting Ltd., Sept. 2020.

Growth from Specific Developments

Eighteen specific developments within and adjacent to the study area have been considered. These are illustrated in Figure 2 and are listed in Table 4.

Table 4 Development Land Use and Size and Timing

No.	Development	Land Use	Size (ft ² GFA or Unit)	Timing (year)
17	York Contracting – Royal Bank Plaza Ph 2	Townhouse and 4.5 storeys apartments with 1 st floor commercial	8 and 50 units	5
		Ex. Drive-in bank	Assumed 4300 ft ²	

No.	Development	Land Use	Size (ft ² GFA or Unit)	Timing (year)
18	Parkbridge Wasaga Meadows Phase 4 East	Single family	65	5
20	Pine Valley Townhouse Development	Townhouse	16	15
22	Hamount Residential	Single family	48	5
26	Ansley Grove Subdivision – Pine Valley Developments	Single family – townhomes Assumed 50/50 singles/towns	53	15
30	Sterling Subdivision (Mollela)	Single family - townhomes Assumed 50/50 singles/towns	60	5
37	Wasaga Beach Village Ph 3	Single family – townhomes Assumed 50/50 singles/towns	22	15
38	Esso Redevelopment – Petro Gold / Hotel	Gas station, convenience store and restaurant	8 fueling positions, 3304, 5358 ft ²	5
		Hotel	72 rooms	>15
		Ex. Gas station, coffee shop, appliances and art stores	Assumed 4 fueling positions, 1500, 1075, 1075 ft ²	
42	Fernbrook Homes	Single family	75	15
43	Iantomo Residential Development	Single family	12	15
44	Donato-Strite Subdivision	Single family	42	5
50	Elm Developments – Georgian Sands (Subdivision)	Single family – mix of separate dwellings and	1418-57-129-287=945	15

No.	Development	Land Use	Size (ft ² GFA or Unit)	Timing (year)
		towns, say 10/90 singles/towns		
51	Elm Developments – Georgian Sands Ph 2 (Subdivision)	Single family - towns Assumed 50/50 singles/towns	57+129=186	5
60	Farsight Homes	Single family (assumed, no application)	260	>15
61	Hamount Commercial Pad	condos above commercial	64	5
77	Town Twin Pad Arena and Library	Arena	Assumed 117,328 x70% = 82,130 ft ²	5
		Library	Assumed 117,328 x30% = 35,198 ft ²	
		Fire station	Assumed 14500 ft ²	>15
78	1590245 Ontario Inc. – Sunshine Village	Single family – singles and towns 20/80	146	15
83	M6 Developments Inc.	6 storey retirement home	117	15

Although a number of traffic impact studies may have been completed for some of these developments, the Town would like us to re-estimate their trips to be consistent with the assumptions and methodology used in this report. For the fire station in development #77, no size information was available. The size information was assumed based on a proposed fire station in the Township of Springwater.

Trips generated by these developments have been specifically estimated, given the size and type of developments, corresponding trip rates as per the *ITE Trip Generation Manual*. For the re-developments, trips generated by the existing land uses were estimated and deducted from the future trips. The following have been employed:

- single family units – trip rates correspond to “single family detached housing” (ITE land use code 210);
- townhouse units – trip rates correspond to “multifamily housing (low-rise)” (ITE land use code 220);

- retirement units – trip rates correspond to “congregate care facility” (ITE land use code 253);
- gas station, convenience market – trip rates correspond to “gasoline/service station with convenience market” (ITE land use code 945); 62% and 56% pass-by trips were assumed for the AM and PM peak hour respectively;
- restaurant – trip rates correspond to “coffee/donut shop without drive-through window” (ITE land use code 936); 43% pass-by trips were assumed;
- hotel rooms – trip rates correspond to “hotel” (ITE land use code 310);
- library – trip rates correspond to “library” (ITE land use code 590);
- arena – trip rates correspond to “arena” (ITE land use code 460);
- fire station – trip rates correspond to “fire and rescue station” (ITE land use code 575);
- condo or apartment units above commercial – trip rates based on the average rates from “mid-rise residential with 1st-floor commercial” (ITE land use code 231); and
- existing drive-in bank – trip rates correspond to “drive-in bank” (ITE land use code 912), 29% and 35% pass-by trips were assumed for the AM and PM peak hour respectively.

For the mix-use developments, a 10% internal capture rate was assumed. In all cases, the development specific trip estimates were assigned to River Road West and its intersecting roads based on the existing traffic patterns. The resulting traffic volumes attributed to the above noted developments are presented in Appendix II.

4. Future Traffic Volumes

Given that majority development growth has been considered specifically and that peak hour volume annual growth rate for the section of the River Road West between Beck Street and Westbury Way was 1.39% for the past four years, an annual general background growth rate of 0.5% was applied for traffic volumes on River Road West, Beck Street and Bell’s Park Road.

Estimates of future traffic volumes for the years 2026, 2036 and beyond 2036 have been determined based on the following:

- 2021 traffic volumes;
- development specific volumes (as per volumes provided in Figures II-1 to II-18; and
- consideration for the 2026 and 2036 horizon year growth rates.

The resulting future traffic projections are provided in Figures 3 to 5 for the 2026, 2036 and beyond 2036 horizon respectively. The AM and PM peak hour volumes are provided, reflective of weekday conditions.

5. Speed Limit & Existing 2021 Lane Configuration

The speed limit on River Road West from Beck Street to Bells Park Road (inclusive) is 50 km/h whereas, from east of Village Gate Drive to the eastern Town limits is 70 km/h. These speed limits are considered typical of major roads within municipal boundaries.

A single shared lane is provided on each approach at all four study intersections. Only the Theme Park Drive intersection is a 4-leg intersection. All other intersections are “T” intersections. All four intersections are stop controlled (on side streets) intersections.

6. Existing Intersection Operations

Based on the existing intersection lane configurations and control, analyses of the four intersections were conducted for the existing peak hour traffic volumes. The methodology applied was consistent with the *Highway Capacity Manual* method for unsignalized and signalized intersections and the Synchro Delay method for signalized intersections as employed in the software program Synchro 10.

Table 5 summarizes the results of the analysis with level of service (LOS), estimated delays (measured in seconds) and volume to capacity (v/c) ratio provided. Level of service A, corresponding to minimal delays, is the best whereas level of service F, corresponding to high delays, is generally considered poor conditions. When volume is less than capacity, v/c ratio is less than 1. Otherwise, v/c ratio equals to 1 or more than 1, which means volume reaches capacity or is more than capacity.

For unsignalized intersections, the level of service corresponds to the minor street lane groups given that the major street movements proceed relatively unimpeded. For signalized intersections, the results pertain to the average intersection delay and assume optimal signal timing and phasing to achieve the most efficient overall network operations through signal coordination. If the actual situations are under expectations, adjustments to the signal timing and/or phasing can be readily implemented. Level of service definitions and the corresponding detailed worksheets are included in Appendix III.

As per the analyses, acceptable levels of service (C or better) occur at all intersections under existing conditions and thus no improvements related to intersection operations are required at this time on the basis of the intersection operational analysis.

Table 5 2021 Intersection Operations

Intersection	Control	AM Peak Hour			PM Peak Hour		
		Delays(s)	LOS	v/c	Delays(s)	LOS	v/c
River Rd W & Beck St.	SB stop	12.0	B	0.10	14.8	B	0.18
River Rd W & Golf Course Rd	NB stop	12.1	B	0.13	17.9	C	0.08
	NB stop	14.1	B	0.03	22.3	C	0.04

Intersection	Control		AM Peak Hour			PM Peak Hour		
			Delays(s)	LOS	v/c	Delays(s)	LOS	v/c
River Rd W & Theme Park Dr.	SB		13.0	B	0.10	16.0	C	0.14
River Rd W & Bell's Park Rd	NB	stop	13.4	B	0.02	11.2	B	0.06

7. Future 2026 & 2036 Operations with Existing Road System

The operations of the four study area intersections were investigated based upon the existing configurations and the 2026 and 2036 traffic projections previously presented. The intent of this is to determine if improvements are required beyond the existing intersection configurations and to gauge the appropriate

timing. The results of the 2026 and 2036 analyses are presented in Tables 6 and 7 respectively whereas the corresponding worksheets are provided in Appendix III.

Table 6 2026 Intersection Operations

Intersection	Control		AM Peak Hour			PM Peak Hour		
			Delays(s)	LOS	v/c	Delays(s)	LOS	v/c
River Rd W & Beck St.	SB	stop	13.0	B	0.12	17.1	C	0.21
River Rd W & Golf Course Rd	NB	stop	13.1	B	0.15	22.5	C	0.13
River Rd W & Theme Park Dr.	NB	stop	16.6	C	0.03	48.0	E	0.08
	SB		15.5	C	0.21	47.3	E	0.73
River Rd W & Bell's Park Rd	NB	stop	13.8	B	0.03	12.3	B	0.08

Levels of service deteriorate at the four area intersections as traffic volumes increase. Acceptable levels of service (E or better) will be provided at the intersections in the 2026 horizon and thus no improvements related to intersection operations are required by 2026 on the basis of the intersection operational analysis.

Table 7 2036 Intersection Operations

Intersection	Control	AM Peak Hour			PM Peak Hour			
		Delays(s)	LOS	v/c	Delays(s)	LOS	v/c	
River Rd W & Beck St.	SB	stop	15.4	C	0.15	21.5	C	0.28
River Rd W & Golf Course Rd	NB	stop	17.3	C	0.27	35.4	E	0.29
River Rd W & Theme Park Dr.	NB	stop	20.6	C	0.05	78.8	F	0.13
	SB		19.4	C	0.27	122.3	F	1.03
River Rd W & Bell's Park Rd	NB	stop	16.0	C	0.05	14.4	B	0.11

In the 2036 horizon, a poor level of service (F) will occur at the intersection of River Road West with Theme Park Drive, during the PM peak hour. This is indicative of the need for future intersection improvements.

8. Intersection Improvements – Signals

The need for a traffic signal at the intersection of River Road West with Theme Park Drive was reviewed based on MTO traffic signal warrants and the projected peak hour traffic volumes for the 2036 planning horizon. A traffic signal is not warranted at the intersection. The completed signal warrants are provided in Appendix IV. However, it should be considered given the long delay.

9. Intersection Improvements – Operations

As identified in Section 7, intersection improvements are required in the 2036 horizon at the Theme Park Drive intersection. Summaries of the operational assessments are provided below whereas detailed worksheets are provided in Appendix V.

Intersection Operations with a Traffic Signal

The traffic signal option was applied to the intersection at Theme Park Drive in the 2036 and beyond 2036 horizons. Under signal control, a left turn lane on each approach was assumed. The results of the operational analyses are summarized in Tables 8 and 9 for the 2036 and beyond 2036 horizons respectively.

As Tables 8 and 9 indicate, an acceptable level of service (B) will be provided at the intersection in the 2036 and beyond 2036 horizons. Thus, a traffic signal along with a left turn lane on each approach is sufficient for the intersection through the 2036 horizon and beyond.

Table 8 2036 Intersection Operations – With a Traffic Signal and a Left Turn Lane on Each Approach

Intersection		Control	AM Peak Hour			PM Peak Hour		
			Delays(s)	LOS	v/c	Delays(s)	LOS	v/c
River Rd W & Theme Park Dr.	all	signal	9.6	A		10.6	B	
	EBL		12.6	B	0.08	16.0	B	0.35
	EBT-R		9.2	A	0.63	8.2	A	0.60
	WBL		11.8	B	0.01	11.0	B	0.01
	WBT-R		9.4	A	0.65	9.7	A	0.69
	NBL		12.5	B	0.01	18.7	B	0.02
	NBT-R		11.5	B	0.01	15.4	B	0.00
	SBL		11.8	B	0.05	16.3	B	0.14
	SBT-R		12.2	B	0.17	17.8	B	0.43

Table 9 Intersection Operations – With a Traffic Signal and a Left Turn Lane on Each Approach

Intersection		Control	AM Peak Hour			PM Peak Hour		
			Delays(s)	LOS	v/c	Delays(s)	LOS	v/c
River Rd W & Theme Park Dr.	all	signal	9.7	A		10.8	B	
	EBL		12.9	B	0.08	16.4	B	0.36
	EBT-R		8.9	A	0.62	8.4	A	0.62
	WBL		11.6	B	0.01	11.5	B	0.01
	WBT-R		9.6	A	0.67	9.8	A	0.70
	NBL		13.3	B	0.01	19.5	B	0.02

Intersection	Control	AM Peak Hour			PM Peak Hour		
		Delays(s)	LOS	v/c	Delays(s)	LOS	v/c
	NBT-R	12.2	B	0.01	16.1	B	0.00
	SBL	12.6	B	0.06	17.0	B	0.14
	SBT-R	12.9	B	0.17	18.6	B	0.45

The 95th percentile queue lengths were reviewed for the beyond 2036 conditions. The 95th percentile queues averaged from five SimTraffic runs are presented in Table 10. Each SimTraffic run was for duration of 60 minute with 15 minutes of seeding time.

Table 10 Beyond 2036 Percentile Queue Lengths & Storage Lengths

Intersection		95 th Percentile Queue (m)		Storage Lane Length (m)	
		AM	PM	Avail. Space	Recommended
River Rd W & Theme Park Dr.	EBL	15.0	40.2	40	40
	WBL	4.7	14.8	60	15
	NBL	5.3	7.5	15	15
	SBL	13.3	23.3	100	25

It is assumed that the east entrance of the Cutting Edge Salon and Spa at 563 River Road West will be closed; and the east entrance of the Pioneer Energy at 535 River Road west will be a right-in/right-out entrance.

As indicated in Table 10, all existing/proposed turn lane storage lengths can accommodate future beyond 2036 queue lengths 95 percent of the time.

Roundabout Consideration

A single lane roundabout was also considered for the 2036 and beyond 2036 horizons. HCM 6th Edition was used in the analysis as in Synchro 10. The results are presented in Tables 11 and 12.

Table 11 2036 Intersection Operations – With a Single Lane Roundabout

Intersection	Control	AM Peak Hour			PM Peak Hour			
		Delays(s)	LOS	v/c	Delays(s)	LOS	v/c	
River Rd W & Theme Park Dr.	all	one lane roundabout	7.0	A		9.7	A	
	EB		7.0	A	0.43	9.5	A	0.57
	WB		7.2	A	0.42	10.2	B	0.59
	NB		4.6	A	0.01	5.7	A	0.01
	SB		5.8	A	0.12	8.7	A	0.29

Table 12 Beyond 2036 Intersection Operations – With a Single Lane Roundabout

Intersection	Control	AM Peak Hour			M Peak Hour			
		Delays(s)	LOS	v/c	Delays(s)	LOS	v/c	
River Rd W & Theme Park Dr.	all	one lane roundabout	7.3	A		10.3	B	
	EB		7.2	A	0.44	10.3	B	0.61
	WB		7.6	A	0.45	10.7	B	0.61
	NB		4.7	A	0.01	6.0	A	0.01
	SB		6.1	A	0.12	9.1	A	0.30

As indicated above, under the one lane roundabout alternative, the intersection of Theme Park Drive would operate acceptably at a level of service B in the 2036 horizon and beyond.

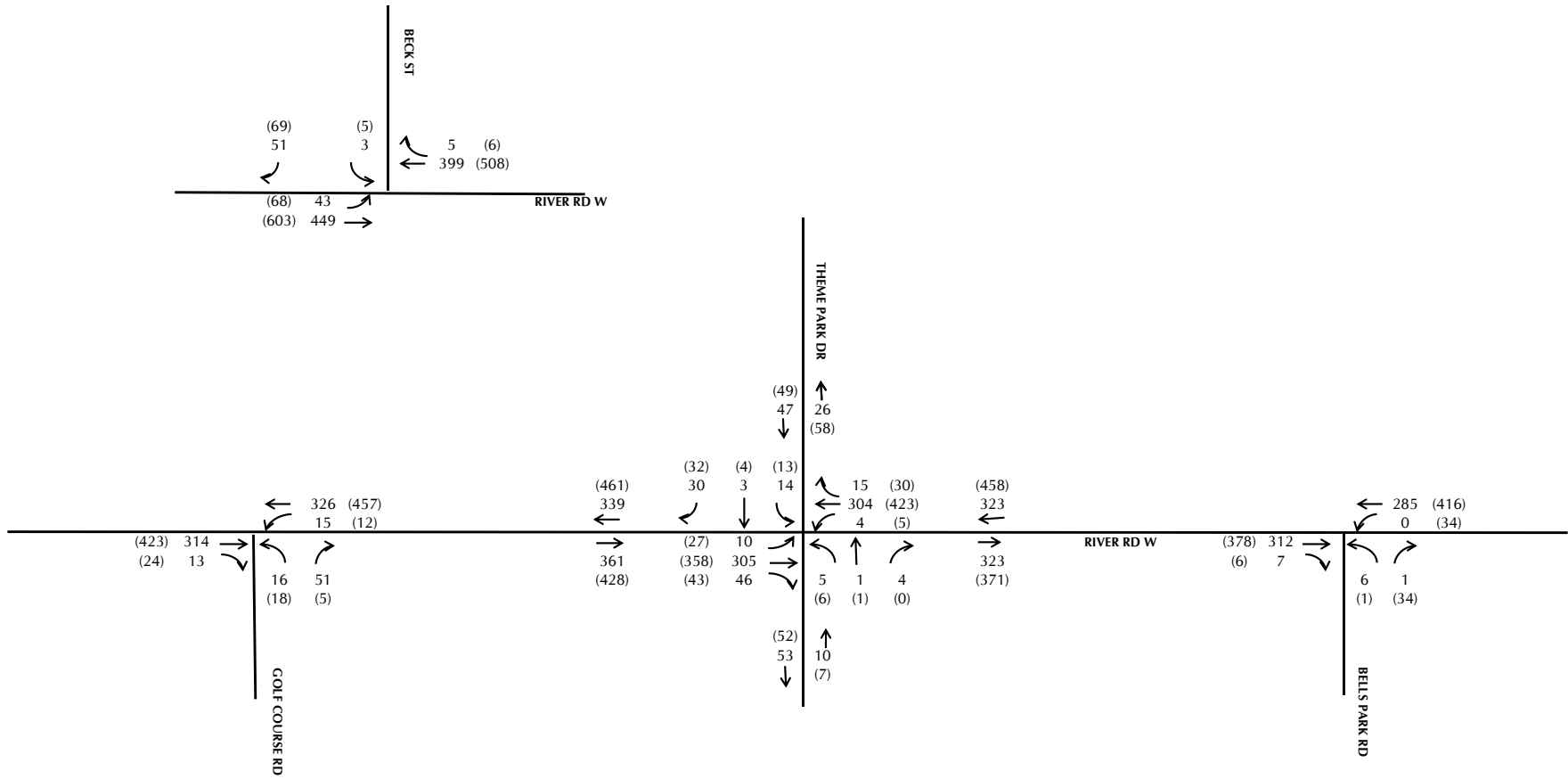
10. Recommendations

Based on the above intersection operations analyses at the four intersections on River Road West at Beck Street, Golf Course Road, Theme Park Drive and Bells Park Road, it was found that an acceptable level of service E or better will be provided at the three intersections of Beck Street, Golf Course Road, and Bells Park Road in the 2036 horizon. The following improvements are recommended for the intersection of Theme Park Drive:

After 2026 horizon

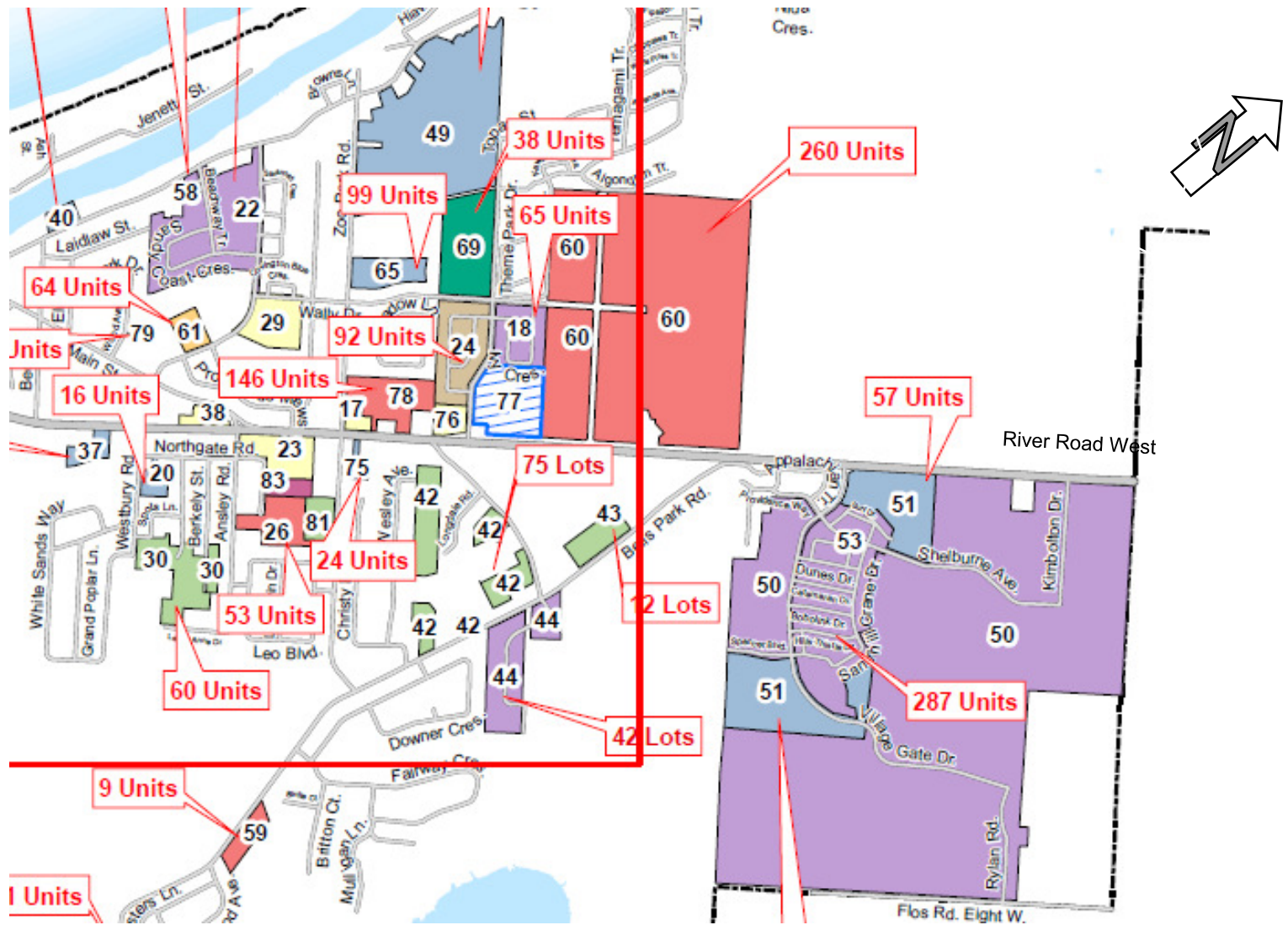
- a traffic signal or a single lane roundabout should be added at the intersection of Theme Park Drive / River Road West;
- for the traffic signal option, a left turn lane should be provided on each approach with a 40 m eastbound left turn lane storage length, a 15 m westbound and northbound left turn lane storage length and a 25 m southbound left turn lane storage length:

It is noted that the above recommendations are based on the 2021 summer traffic counts and the assumptions of 0.5% annual background growth, 100% full build out of the developments along River Road West near Theme Park Drive by 2036 and no seasonal variation for the traffic volumes on River Road West.

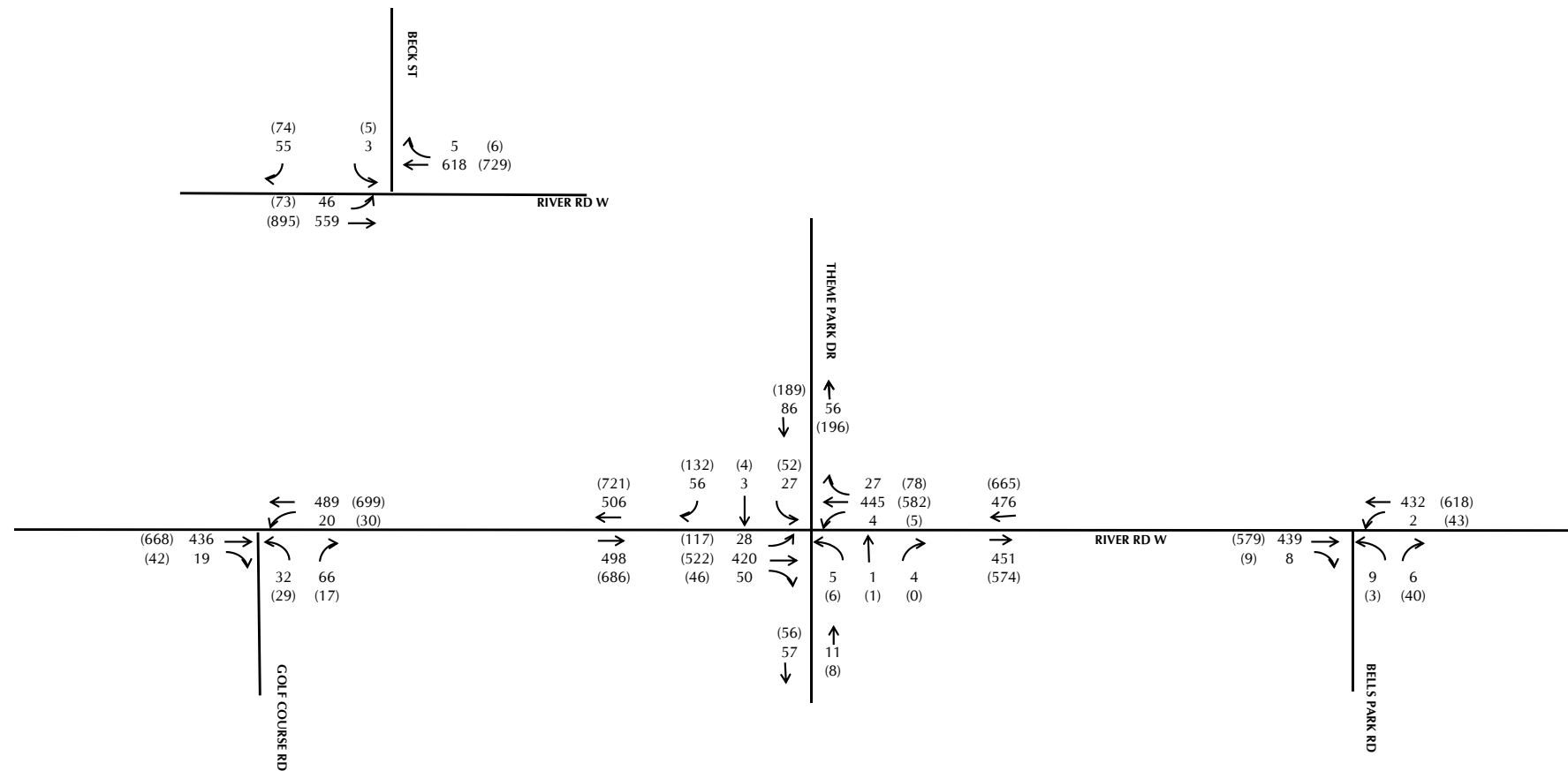


100 (100) AM (PM) Peak Hour

Figure 1
 2021 Traffic Volumes
 River Road West Traffic Analysis
 Town of Wasaga Beach

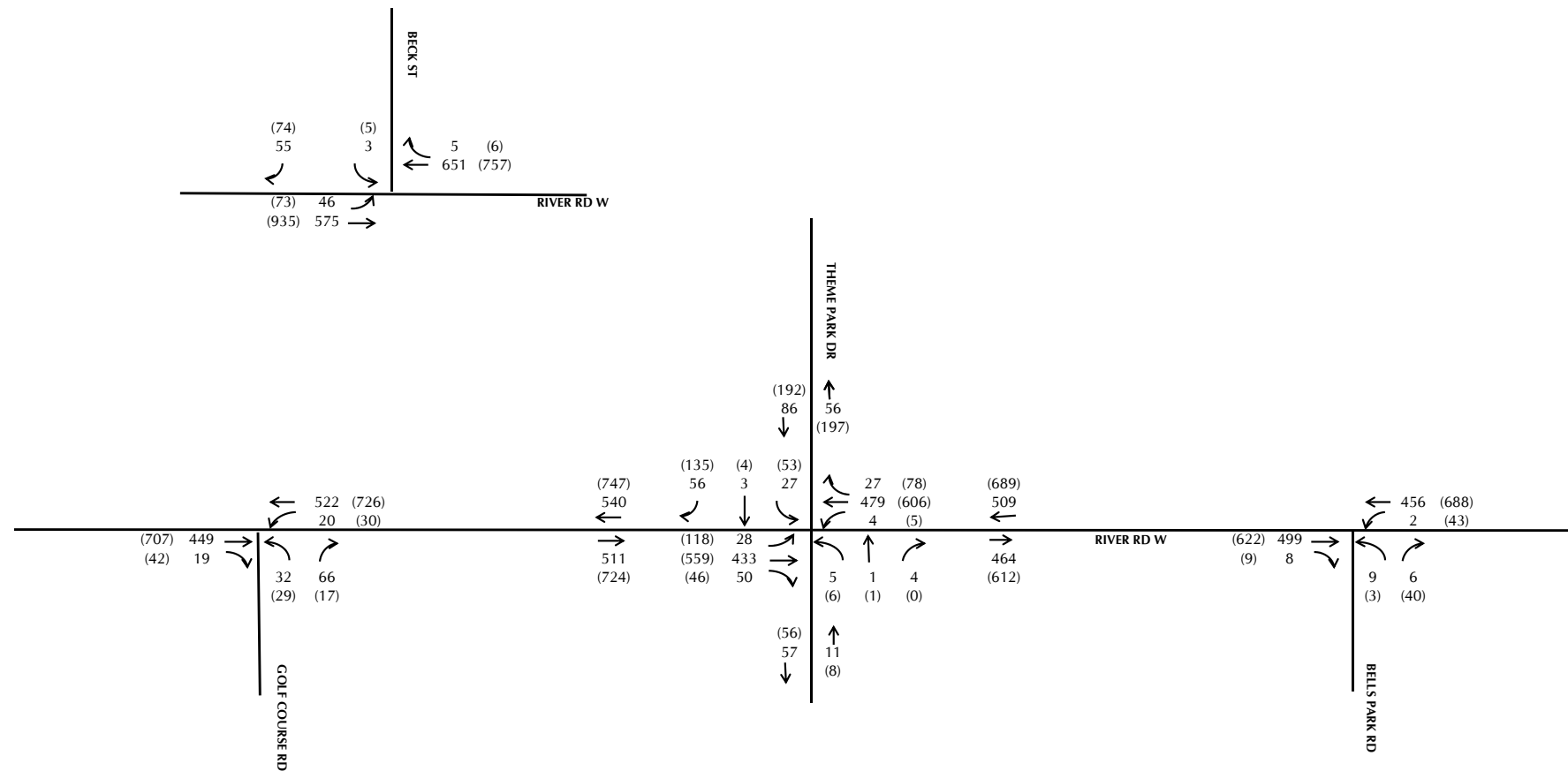


TOWN OF WASAGA BEACH
 RIVER ROAD WEST EA UPDATE TRAFFIC ANALYSIS
 FIGURE 2 – SPECIFIC DEVELOPMENTS



100 (100) AM (PM) Peak Hour

Figure 4
 2036 Future Traffic Volumes
 River Road West Traffic Analysis
 Town of Wasaga Beach



100 (100) AM (PM) Peak Hour

Figure 5
 Beyond 2036 Future Traffic Volumes
 River Road West Traffic Analysis
 Town of Wasaga Beach

Appendix I


2021 Traffic Counts

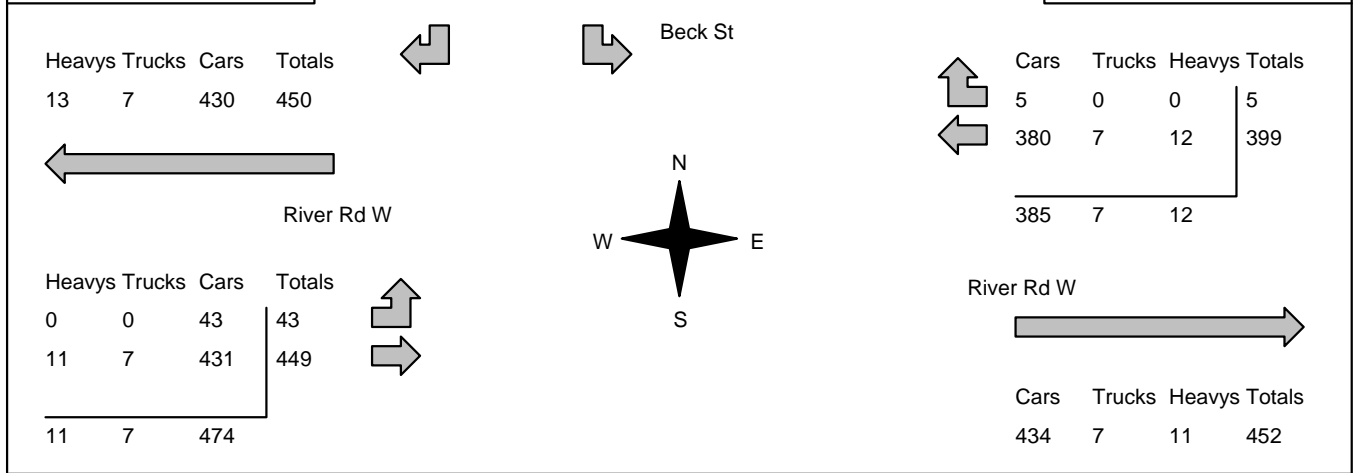
Accu-Traffic Inc.

Morning Peak Diagram	Specified Period From: 7:00:00 To: 10:00:00	One Hour Peak From: 9:00:00 To: 10:00:00
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Municipality: Wasaga Beach Site #: 2104800001 Intersection: River Rd W & Beck St TFR File #: 1 Count date: 16-Jun-21	Weather conditions: Person counted: Person prepared: Person checked:
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** Non-Signalized Intersection **	Major Road: River Rd W runs W/E
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North Leg Total: 102 North Entering: 54 North Peds: 0 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>1</td><td>0</td><td>1</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Cars</td><td>50</td><td>3</td><td>53</td></tr> <tr><td>Totals</td><td>51</td><td>3</td><td></td></tr> </table>	Heavys	1	0	1	Trucks	0	0	0	Cars	50	3	53	Totals	51	3		 <table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>48</td></tr> <tr><td>Totals</td><td>48</td></tr> </table>	Heavys	0	Trucks	0	Cars	48	Totals	48	East Leg Total: 856 East Entering: 404 East Peds: 0 Peds Cross: ☒
Heavys	1	0	1																								
Trucks	0	0	0																								
Cars	50	3	53																								
Totals	51	3																									
Heavys	0																										
Trucks	0																										
Cars	48																										
Totals	48																										



Peds Cross: ☒ West Peds: 0 West Entering: 492 West Leg Total: 942
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
Comments

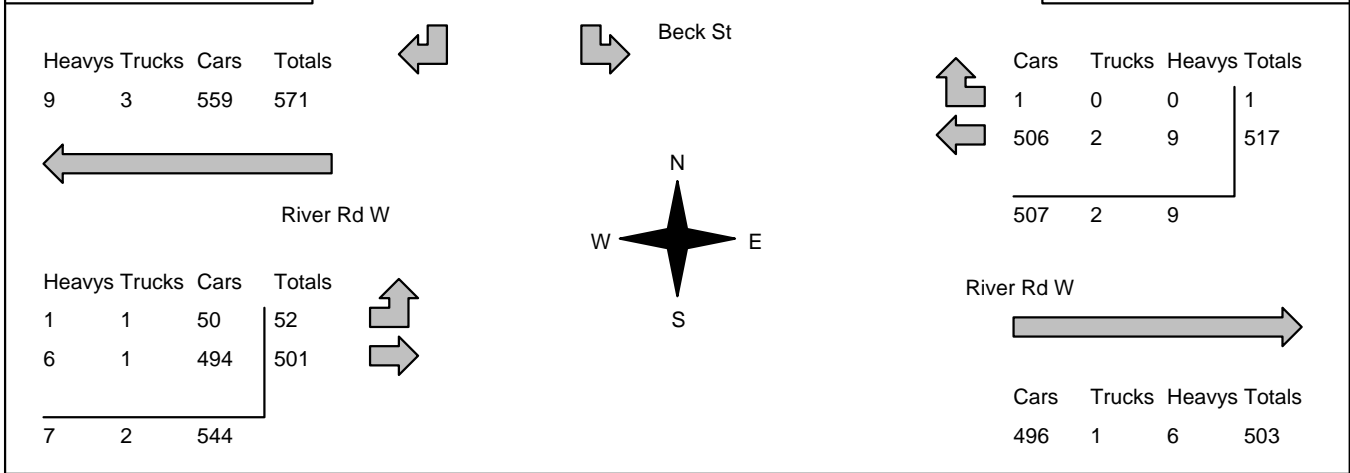
Accu-Traffic Inc.

Mid-day Peak Diagram	Specified Period From: 12:00:00 To: 14:00:00	One Hour Peak From: 13:00:00 To: 14:00:00
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Municipality: Wasaga Beach Site #: 2104800001 Intersection: River Rd W & Beck St TFR File #: 1 Count date: 16-Jun-21	Weather conditions: Person counted: Person prepared: Person checked:
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** Non-Signalized Intersection **	Major Road: River Rd W runs W/E
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North Leg Total: 109 North Entering: 56 North Peds: 1 Peds Cross: ☒	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>1</td><td>0</td><td>1</td></tr> <tr><td>Cars</td><td>53</td><td>2</td><td>55</td></tr> <tr><td>Totals</td><td>54</td><td>2</td><td></td></tr> </table>	Heavys	0	0	0	Trucks	1	0	1	Cars	53	2	55	Totals	54	2		 <table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Trucks</td><td>1</td></tr> <tr><td>Cars</td><td>51</td></tr> <tr><td>Totals</td><td>53</td></tr> </table>	Heavys	1	Trucks	1	Cars	51	Totals	53	East Leg Total: 1021 East Entering: 518 East Peds: 0 Peds Cross: ☒
Heavys	0	0	0																								
Trucks	1	0	1																								
Cars	53	2	55																								
Totals	54	2																									
Heavys	1																										
Trucks	1																										
Cars	51																										
Totals	53																										



Peds Cross: ☒ West Peds: 0 West Entering: 553 West Leg Total: 1124	
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Comments

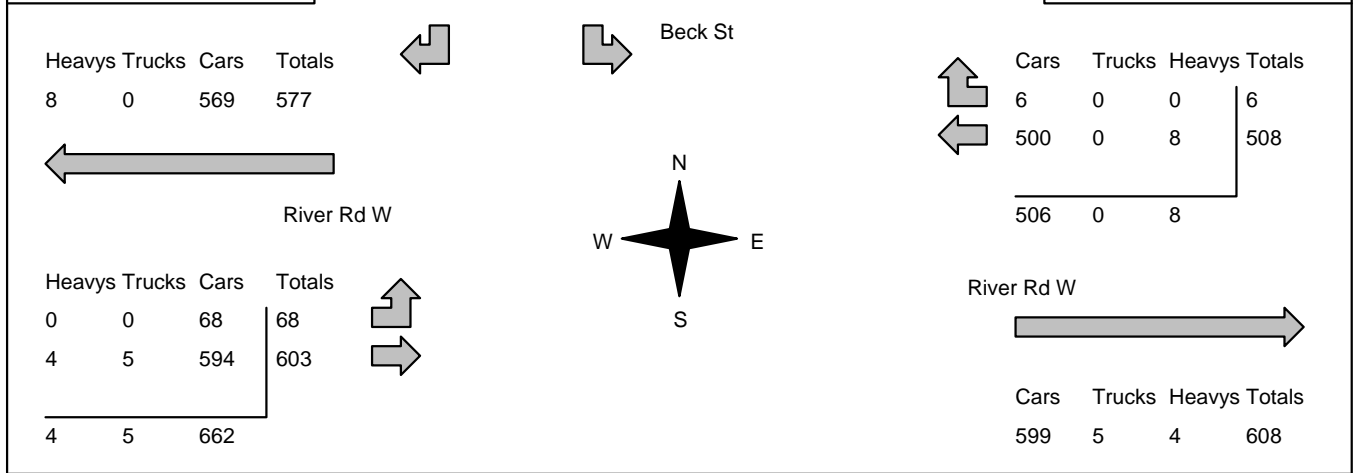
Accu-Traffic Inc.

Afternoon Peak Diagram	Specified Period From: 15:00:00 To: 18:00:00	One Hour Peak From: 16:30:00 To: 17:30:00
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Municipality: Wasaga Beach Site #: 2104800001 Intersection: River Rd W & Beck St TFR File #: 1 Count date: 16-Jun-21	Weather conditions: Person counted: Person prepared: Person checked:
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** Non-Signalized Intersection **	Major Road: River Rd W runs W/E
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North Leg Total: 148 North Entering: 74 North Peds: 3 Peds Cross: \times	<table style="margin: auto;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Cars</td><td>69</td><td>5</td><td>74</td></tr> <tr><td>Totals</td><td>69</td><td>5</td><td></td></tr> </table>	Heavys	0	0	0	Trucks	0	0	0	Cars	69	5	74	Totals	69	5		<table style="margin: auto;"> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>74</td></tr> <tr><td>Totals</td><td>74</td></tr> </table>	Heavys	0	Trucks	0	Cars	74	Totals	74	East Leg Total: 1122 East Entering: 514 East Peds: 2 Peds Cross: \times
Heavys	0	0	0																								
Trucks	0	0	0																								
Cars	69	5	74																								
Totals	69	5																									
Heavys	0																										
Trucks	0																										
Cars	74																										
Totals	74																										



Peds Cross: \times West Peds: 0 West Entering: 671 West Leg Total: 1248	
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Comments

Accu-Traffic Inc.

Total Count Diagram

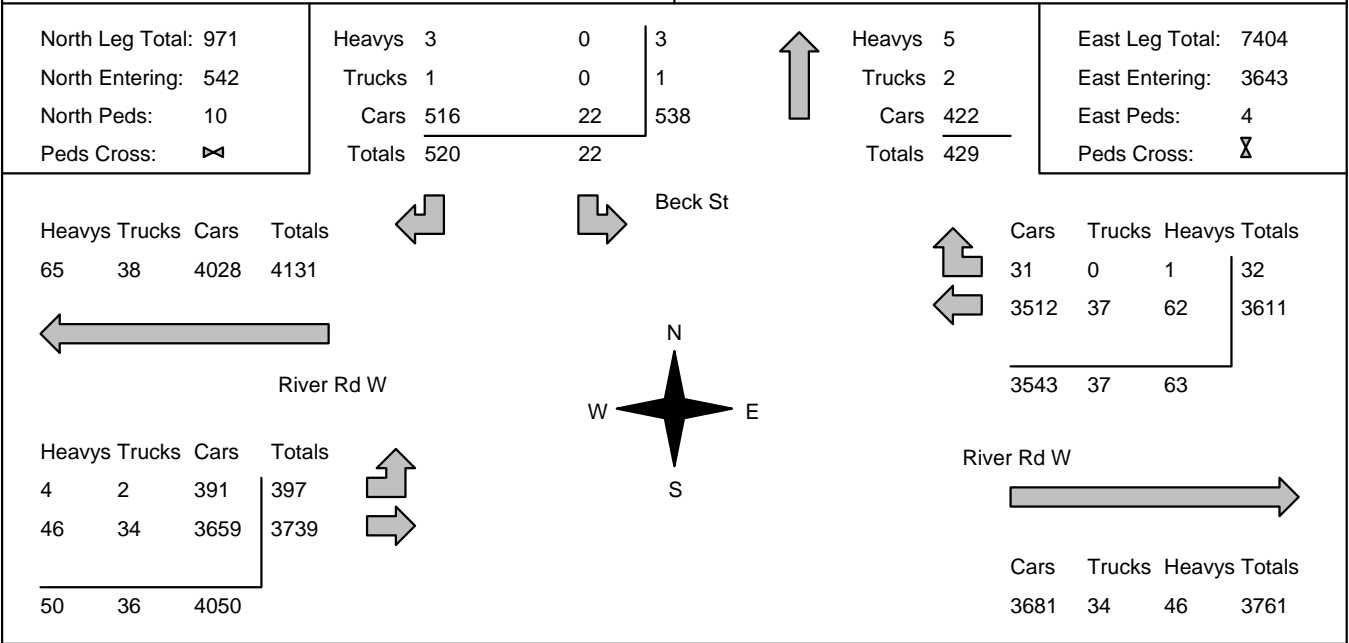
Municipality: Wasaga Beach
Site #: 2104800001
Intersection: River Rd W & Beck St
TFR File #: 1
Count date: 16-Jun-21

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: River Rd W runs W/E



Peds Cross: ☒
 West Peds: 6
 West Entering: 4136
 West Leg Total: 8267

Comments



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: River Rd W & Beck St Count Date: 16-Jun-21 Municipality: Wasaga Beach

North Approach Totals						North/South Total Approaches	South Approach Totals						
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total		
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0	
8:00:00	0	0	69	69	1	69	8:00:00	0	0	0	0	0	
9:00:00	3	0	51	54	2	54	9:00:00	0	0	0	0	0	
10:00:00	3	0	51	54	0	54	10:00:00	0	0	0	0	0	
12:00:00	0	0	0	0	0	0	12:00:00	0	0	0	0	0	
13:00:00	2	0	61	63	0	63	13:00:00	0	0	0	0	0	
14:00:00	2	0	54	56	1	56	14:00:00	0	0	0	0	0	
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0	
16:00:00	2	0	90	92	0	92	16:00:00	0	0	0	0	0	
17:00:00	2	0	65	67	2	67	17:00:00	0	0	0	0	0	
18:00:00	8	0	79	87	4	87	18:00:00	0	0	0	0	0	
Totals:						542	S Totals:						0

East Approach Totals						East/West Total Approaches	West Approach Totals						
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total		
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0	
8:00:00	0	328	4	332	0	632	8:00:00	27	273	0	300	0	
9:00:00	0	342	7	349	0	712	9:00:00	28	335	0	363	0	
10:00:00	0	399	5	404	0	896	10:00:00	43	449	0	492	0	
12:00:00	0	0	0	0	0	0	12:00:00	0	0	0	0	0	
13:00:00	0	486	3	489	0	1021	13:00:00	45	487	0	532	0	
14:00:00	0	517	1	518	0	1071	14:00:00	52	501	0	553	0	
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0	
16:00:00	0	518	1	519	0	1114	16:00:00	70	525	0	595	5	
17:00:00	0	531	6	537	0	1170	17:00:00	68	565	0	633	0	
18:00:00	0	490	5	495	4	1163	18:00:00	64	604	0	668	1	
Totals:						7779	W Totals:						6

Calculated Values for Traffic Crossing Major Street										
Hours Ending:	7:00	9:00	10:00	13:00	14:00	16:00	17:00	18:00		
Crossing Values:	0	3	3	2	2	7	2	13		



Accu-Traffic Inc.

Count Date: 16-Jun-21 Site #: 2104800001

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	33	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	54	21	0	0	0	0	0	0	0	0	0	0	0	0	1	1
8:00:00	0	0	0	0	69	15	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:15:00	0	0	0	0	78	9	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:30:00	1	1	0	0	91	13	0	0	0	0	0	0	0	0	0	0	0	0	2	1
8:45:00	1	0	0	0	106	15	0	0	0	0	0	0	0	0	0	0	0	0	3	1
9:00:00	3	2	0	0	120	14	0	0	0	0	0	0	0	0	0	0	0	0	3	0
9:15:00	3	0	0	0	130	10	0	0	0	0	0	0	0	0	0	0	0	0	3	0
9:30:00	4	1	0	0	140	10	0	0	0	0	0	0	0	0	0	0	0	0	3	0
9:45:00	5	1	0	0	157	17	0	0	0	0	0	0	0	0	0	0	0	0	3	0
10:00:00	6	1	0	0	170	13	0	0	0	0	0	0	0	0	0	0	1	1	3	0
10:15:00	6	0	0	0	170	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0
12:00:00	6	0	0	0	170	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0
12:15:00	7	1	0	0	184	14	0	0	0	0	0	0	0	0	0	0	1	0	3	0
12:30:00	7	0	0	0	201	17	0	0	0	0	0	0	0	0	0	0	1	0	3	0
12:45:00	7	0	0	0	215	14	0	0	0	0	0	0	0	0	0	0	1	0	3	0
13:00:00	8	1	0	0	231	16	0	0	0	0	0	0	0	0	0	0	1	0	3	0
13:15:00	8	0	0	0	249	18	0	0	0	0	1	1	0	0	0	0	1	0	3	0
13:30:00	9	1	0	0	261	12	0	0	0	0	1	0	0	0	0	0	1	0	3	0
13:45:00	9	0	0	0	274	13	0	0	0	0	1	0	0	0	0	0	1	0	3	0
14:00:00	10	1	0	0	284	10	0	0	0	0	1	0	0	0	0	0	1	0	4	1
14:15:00	10	0	0	0	284	0	0	0	0	0	1	0	0	0	0	0	1	0	4	0
15:00:00	10	0	0	0	284	0	0	0	0	0	1	0	0	0	0	0	1	0	4	0
15:15:00	10	0	0	0	315	31	0	0	0	0	1	0	0	0	0	0	1	0	4	0
15:30:00	11	1	0	0	330	15	0	0	0	0	1	0	0	0	0	0	2	1	4	0
15:45:00	12	1	0	0	357	27	0	0	0	0	1	0	0	0	0	0	2	0	4	0
16:00:00	12	0	0	0	373	16	0	0	0	0	1	0	0	0	0	0	2	0	4	0
16:15:00	12	0	0	0	396	23	0	0	0	0	1	0	0	0	0	0	2	0	4	0
16:30:00	13	1	0	0	412	16	0	0	0	0	1	0	0	0	0	0	3	1	5	1
16:45:00	14	1	0	0	423	11	0	0	0	0	1	0	0	0	0	0	3	0	6	1
17:00:00	14	0	0	0	437	14	0	0	0	0	1	0	0	0	0	0	3	0	6	0
17:15:00	16	2	0	0	459	22	0	0	0	0	1	0	0	0	0	0	3	0	8	2
17:30:00	18	2	0	0	481	22	0	0	0	0	1	0	0	0	0	0	3	0	8	0
17:45:00	18	0	0	0	497	16	0	0	0	0	1	0	0	0	0	0	3	0	8	0
18:00:00	22	4	0	0	516	19	0	0	0	0	1	0	0	0	0	0	3	0	10	2
18:15:00	22	0	0	0	516	0	0	0	0	0	1	0	0	0	0	0	3	0	10	0
18:15:15	22	0	0	0	516	0	0	0	0	0	1	0	0	0	0	0	3	0	10	0



Accu-Traffic Inc.

Count Date: 16-Jun-21 Site #: 2104800001

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	64	64	1	1	0	0	1	1	0	0	0	0	5	5	0	0	0	0
7:30:00	0	0	137	73	2	1	0	0	3	2	0	0	0	0	7	2	0	0	0	0
7:45:00	0	0	208	71	3	1	0	0	4	1	0	0	0	0	9	2	0	0	0	0
8:00:00	0	0	311	103	4	1	0	0	6	2	0	0	0	0	11	2	0	0	0	0
8:15:00	0	0	397	86	5	1	0	0	6	0	0	0	0	0	12	1	1	1	0	0
8:30:00	0	0	472	75	6	1	0	0	6	0	0	0	0	0	14	2	1	0	0	0
8:45:00	0	0	557	85	8	2	0	0	9	3	0	0	0	0	17	3	1	0	0	0
9:00:00	0	0	638	81	10	2	0	0	13	4	0	0	0	0	19	2	1	0	0	0
9:15:00	0	0	725	87	13	3	0	0	14	1	0	0	0	0	21	2	1	0	0	0
9:30:00	0	0	814	89	13	0	0	0	17	3	0	0	0	0	25	4	1	0	0	0
9:45:00	0	0	919	105	14	1	0	0	19	2	0	0	0	0	26	1	1	0	0	0
10:00:00	0	0	1018	99	15	1	0	0	20	1	0	0	0	0	31	5	1	0	0	0
10:15:00	0	0	1018	0	15	0	0	0	20	0	0	0	0	0	31	0	1	0	0	0
12:00:00	0	0	1018	0	15	0	0	0	20	0	0	0	0	0	31	0	1	0	0	0
12:15:00	0	0	1139	121	16	1	0	0	23	3	0	0	0	0	32	1	1	0	0	0
12:30:00	0	0	1259	120	17	1	0	0	25	2	0	0	0	0	34	2	1	0	0	0
12:45:00	0	0	1376	117	18	1	0	0	26	1	0	0	0	0	36	2	1	0	0	0
13:00:00	0	0	1491	115	18	0	0	0	26	0	0	0	0	0	38	2	1	0	0	0
13:15:00	0	0	1612	121	18	0	0	0	26	0	0	0	0	0	42	4	1	0	0	0
13:30:00	0	0	1728	116	19	1	0	0	26	0	0	0	0	0	44	2	1	0	0	0
13:45:00	0	0	1860	132	19	0	0	0	27	1	0	0	0	0	46	2	1	0	0	0
14:00:00	0	0	1997	137	19	0	0	0	28	1	0	0	0	0	47	1	1	0	0	0
14:15:00	0	0	1997	0	19	0	0	0	28	0	0	0	0	0	47	0	1	0	0	0
15:00:00	0	0	1997	0	19	0	0	0	28	0	0	0	0	0	47	0	1	0	0	0
15:15:00	0	0	2122	125	19	0	0	0	28	0	0	0	0	0	49	2	1	0	0	0
15:30:00	0	0	2250	128	19	0	0	0	31	3	0	0	0	0	51	2	1	0	0	0
15:45:00	0	0	2368	118	19	0	0	0	32	1	0	0	0	0	51	0	1	0	0	0
16:00:00	0	0	2505	137	20	1	0	0	34	2	0	0	0	0	51	0	1	0	0	0
16:15:00	0	0	2655	150	22	2	0	0	35	1	0	0	0	0	52	1	1	0	0	0
16:30:00	0	0	2787	132	22	0	0	0	36	1	0	0	0	0	53	1	1	0	0	0
16:45:00	0	0	2910	123	23	1	0	0	36	0	0	0	0	0	54	1	1	0	0	0
17:00:00	0	0	3030	120	26	3	0	0	36	0	0	0	0	0	55	1	1	0	0	0
17:15:00	0	0	3167	137	27	1	0	0	36	0	0	0	0	0	57	2	1	0	2	2
17:30:00	0	0	3287	120	28	1	0	0	36	0	0	0	0	0	61	4	1	0	2	0
17:45:00	0	0	3406	119	29	1	0	0	36	0	0	0	0	0	62	1	1	0	2	0
18:00:00	0	0	3512	106	31	2	0	0	37	1	0	0	0	0	62	0	1	0	4	2
18:15:00	0	0	3512	0	31	0	0	0	37	0	0	0	0	0	62	0	1	0	4	0
18:15:15	0	0	3512	0	31	0	0	0	37	0	0	0	0	0	62	0	1	0	4	0



Accu-Traffic Inc.

Count Date: 16-Jun-21 Site #: 2104800001


Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	8	8	55	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	13	5	115	60	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
7:45:00	21	8	192	77	0	0	0	0	0	0	0	1	0	2	2	0	0	0	0	0
8:00:00	26	5	268	76	0	0	0	0	1	1	0	0	1	0	4	2	0	0	0	0
8:15:00	29	3	354	86	0	0	0	0	1	0	0	0	1	0	4	0	0	0	0	0
8:30:00	38	9	411	57	0	0	0	0	1	0	0	0	1	0	7	3	0	0	0	0
8:45:00	42	4	496	85	0	0	0	0	2	1	0	0	1	0	7	0	0	0	0	0
9:00:00	54	12	594	98	0	0	0	0	4	2	0	0	1	0	10	3	0	0	0	0
9:15:00	61	7	678	84	0	0	0	0	7	3	0	0	1	0	13	3	0	0	0	0
9:30:00	65	4	781	103	0	0	0	0	7	0	0	0	1	0	16	3	0	0	0	0
9:45:00	82	17	906	125	0	0	0	0	10	3	0	0	1	0	18	2	0	0	0	0
10:00:00	97	15	1025	119	0	0	0	0	11	1	0	0	1	0	21	3	0	0	0	0
10:15:00	97	0	1025	0	0	0	0	0	11	0	0	0	1	0	21	0	0	0	0	0
12:00:00	97	0	1025	0	0	0	0	0	11	0	0	0	1	0	21	0	0	0	0	0
12:15:00	105	8	1137	112	0	0	1	1	14	3	0	0	1	0	23	2	0	0	0	0
12:30:00	116	11	1259	122	0	0	1	0	15	1	0	0	1	0	26	3	0	0	0	0
12:45:00	129	13	1375	116	0	0	1	0	17	2	0	0	1	0	27	1	0	0	0	0
13:00:00	141	12	1497	122	0	0	1	0	18	1	0	0	1	0	29	2	0	0	0	0
13:15:00	149	8	1621	124	0	0	1	0	19	1	0	0	1	0	30	1	0	0	0	0
13:30:00	160	11	1751	130	0	0	1	0	19	0	0	0	1	0	32	2	0	0	0	0
13:45:00	178	18	1857	106	0	0	1	0	19	0	0	0	2	1	33	1	0	0	0	0
14:00:00	191	13	1991	134	0	0	2	1	19	0	0	0	2	0	35	2	0	0	0	0
14:15:00	191	0	1991	0	0	0	2	0	19	0	0	0	2	0	35	0	0	0	0	0
15:00:00	191	0	1991	0	0	0	2	0	19	0	0	0	2	0	35	0	0	0	0	0
15:15:00	206	15	2106	115	0	0	2	0	22	3	0	0	4	2	37	2	0	0	5	5
15:30:00	221	15	2244	138	0	0	2	0	24	2	0	0	4	0	37	0	0	0	5	0
15:45:00	245	24	2378	134	0	0	2	0	25	1	0	0	4	0	38	1	0	0	5	0
16:00:00	259	14	2503	125	0	0	2	0	26	1	0	0	4	0	41	3	0	0	5	0
16:15:00	274	15	2635	132	0	0	2	0	26	0	0	0	4	0	41	0	0	0	5	0
16:30:00	292	18	2775	140	0	0	2	0	26	0	0	0	4	0	41	0	0	0	5	0
16:45:00	309	17	2920	145	0	0	2	0	26	0	0	0	4	0	41	0	0	0	5	0
17:00:00	327	18	3064	144	0	0	2	0	29	3	0	0	4	0	42	1	0	0	5	0
17:15:00	341	14	3207	143	0	0	2	0	30	1	0	0	4	0	45	3	0	0	5	0
17:30:00	360	19	3369	162	0	0	2	0	31	1	0	0	4	0	45	0	0	0	5	0
17:45:00	380	20	3506	137	0	0	2	0	32	1	0	0	4	0	45	0	0	0	5	0
18:00:00	391	11	3659	153	0	0	2	0	34	2	0	0	4	0	46	1	0	0	6	1
18:15:00	391	0	3659	0	0	0	2	0	34	0	0	0	4	0	46	0	0	0	6	0
18:15:15	391	0	3659	0	0	0	2	0	34	0	0	0	4	0	46	0	0	0	6	0

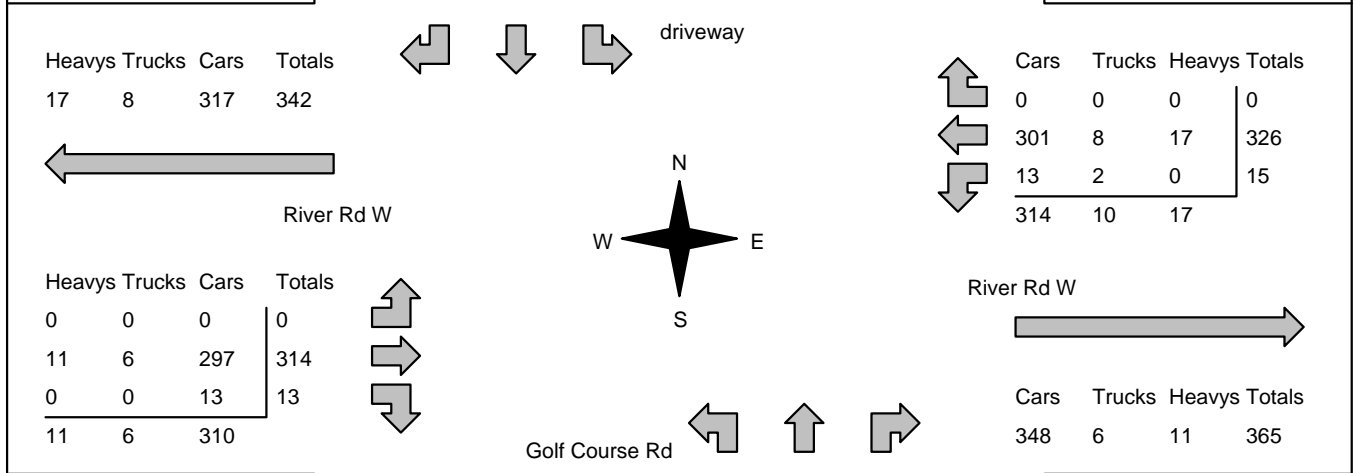
Accu-Traffic Inc.


Morning Peak Diagram	Specified Period From: 7:00:00 To: 10:00:00	One Hour Peak From: 9:00:00 To: 10:00:00
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Municipality: Wasaga Beach Site #: 2104800002 Intersection: River Rd W & Golf Course Rd TFR File #: 1 Count date: 16-Jun-21	Weather conditions: Person counted: Person prepared: Person checked:
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** Non-Signalized Intersection **	Major Road: River Rd W runs W/E
--	--

North Leg Total: 0 North Entering: 0 North Peds: 5 Peds Cross: \boxtimes	<table style="margin: auto;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Cars</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Totals</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	Heavys	0	0	0	0	Trucks	0	0	0	0	Cars	0	0	0	0	Totals	0	0	0	0		Heavys 0 Trucks 0 Cars 0 Totals 0	East Leg Total: 706 East Entering: 341 East Peds: 0 Peds Cross: \boxtimes
Heavys	0	0	0	0																				
Trucks	0	0	0	0																				
Cars	0	0	0	0																				
Totals	0	0	0	0																				



Peds Cross: \boxtimes West Peds: 2 West Entering: 327 West Leg Total: 669	<table style="margin: auto;"> <tr><td>Cars</td><td>26</td><td>67</td></tr> <tr><td>Trucks</td><td>2</td><td>0</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td></tr> <tr><td>Totals</td><td>28</td><td>67</td></tr> </table>	Cars	26	67	Trucks	2	0	Heavys	0	0	Totals	28	67		Cars 16 0 51 67 Trucks 0 0 0 0 Heavys 0 0 0 0 Totals 16 0 51 67	Peds Cross: \boxtimes South Peds: 2 South Entering: 67 South Leg Total: 95
Cars	26	67														
Trucks	2	0														
Heavys	0	0														
Totals	28	67														

Comments

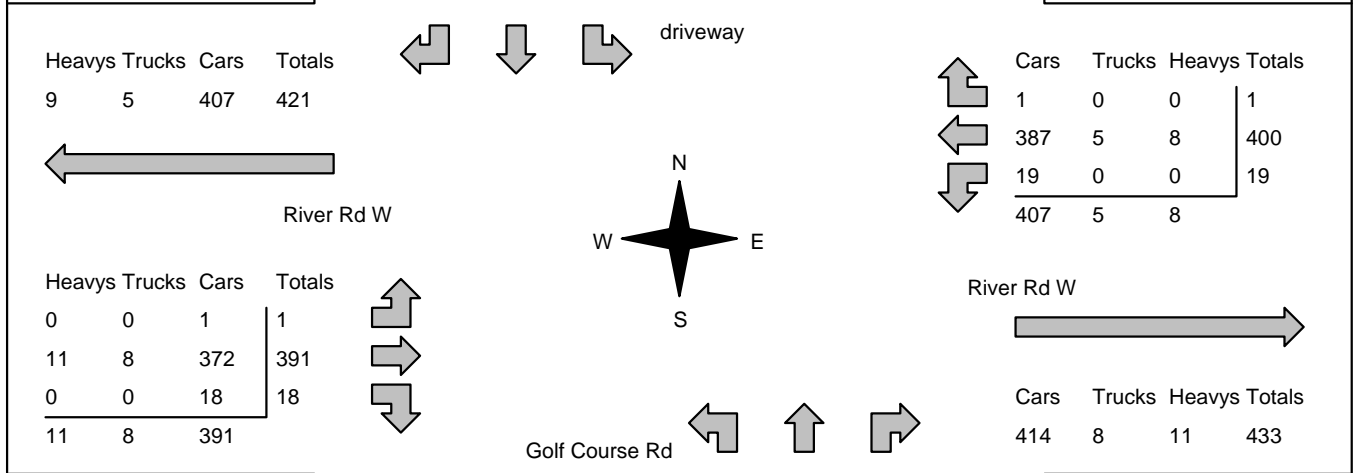
Accu-Traffic Inc.

Mid-day Peak Diagram	Specified Period From: 12:00:00 To: 14:00:00	One Hour Peak From: 12:00:00 To: 13:00:00
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Municipality: Wasaga Beach Site #: 2104800002 Intersection: River Rd W & Golf Course Rd TFR File #: 1 Count date: 16-Jun-21	Weather conditions: Person counted: Person prepared: Person checked:
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** Non-Signalized Intersection **	Major Road: River Rd W runs W/E
--	--

North Leg Total: 3 North Entering: 0 North Peds: 4 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Cars</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Totals</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	Heavys	0	0	0	0	Trucks	0	0	0	0	Cars	0	0	0	0	Totals	0	0	0	0	↑	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>3</td></tr> <tr><td>Totals</td><td>3</td></tr> </table>	Heavys	0	Trucks	0	Cars	3	Totals	3	East Leg Total: 853 East Entering: 420 East Peds: 0 Peds Cross: ☒
Heavys	0	0	0	0																												
Trucks	0	0	0	0																												
Cars	0	0	0	0																												
Totals	0	0	0	0																												
Heavys	0																															
Trucks	0																															
Cars	3																															
Totals	3																															



Peds Cross: ☒ West Peds: 1 West Entering: 410 West Leg Total: 831	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>37</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Totals</td><td>37</td></tr> </table>	Cars	37	Trucks	0	Heavys	0	Totals	37	↓	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>20</td><td>1</td><td>42</td><td>63</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Heavys</td><td>1</td><td>0</td><td>0</td><td>1</td></tr> <tr><td>Totals</td><td>21</td><td>1</td><td>42</td><td></td></tr> </table>	Cars	20	1	42	63	Trucks	0	0	0	0	Heavys	1	0	0	1	Totals	21	1	42		Peds Cross: ☒ South Peds: 0 South Entering: 64 South Leg Total: 101
Cars	37																															
Trucks	0																															
Heavys	0																															
Totals	37																															
Cars	20	1	42	63																												
Trucks	0	0	0	0																												
Heavys	1	0	0	1																												
Totals	21	1	42																													

Comments

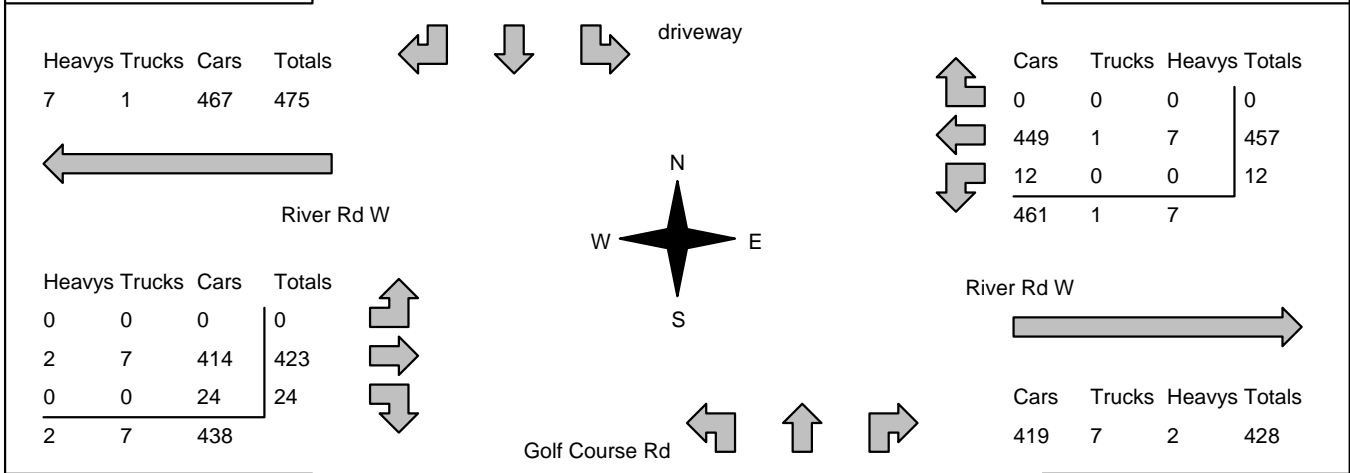
Accu-Traffic Inc.

Afternoon Peak Diagram	Specified Period From: 15:00:00 To: 18:00:00	One Hour Peak From: 16:45:00 To: 17:45:00
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Municipality: Wasaga Beach Site #: 2104800002 Intersection: River Rd W & Golf Course Rd TFR File #: 1 Count date: 16-Jun-21	Weather conditions: Person counted: Person prepared: Person checked:
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** Non-Signalized Intersection **	Major Road: River Rd W runs W/E
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North Leg Total: 0 North Entering: 0 North Peds: 2 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Cars</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr style="border-top: 1px solid black;"><td>Totals</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>	Heavys	0	0	0	0	Trucks	0	0	0	0	Cars	0	0	0	0	Totals	0	0	0	0	↑	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>0</td></tr> <tr style="border-top: 1px solid black;"><td>Totals</td><td>0</td></tr> </table>	Heavys	0	Trucks	0	Cars	0	Totals	0	East Leg Total: 897 East Entering: 469 East Peds: 0 Peds Cross: ☒
Heavys	0	0	0	0																												
Trucks	0	0	0	0																												
Cars	0	0	0	0																												
Totals	0	0	0	0																												
Heavys	0																															
Trucks	0																															
Cars	0																															
Totals	0																															



Peds Cross: ☒ West Peds: 0 West Entering: 447 West Leg Total: 922	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>36</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Heavys</td><td>0</td></tr> <tr style="border-top: 1px solid black;"><td>Totals</td><td>36</td></tr> </table>	Cars	36	Trucks	0	Heavys	0	Totals	36	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>18</td><td>0</td><td>5</td><td>23</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr style="border-top: 1px solid black;"><td>Totals</td><td>18</td><td>0</td><td>5</td><td></td></tr> </table>	Cars	18	0	5	23	Trucks	0	0	0	0	Heavys	0	0	0	0	Totals	18	0	5		Peds Cross: ☒ South Peds: 3 South Entering: 23 South Leg Total: 59
Cars	36																														
Trucks	0																														
Heavys	0																														
Totals	36																														
Cars	18	0	5	23																											
Trucks	0	0	0	0																											
Heavys	0	0	0	0																											
Totals	18	0	5																												

Comments

Accu-Traffic Inc.

Total Count Diagram

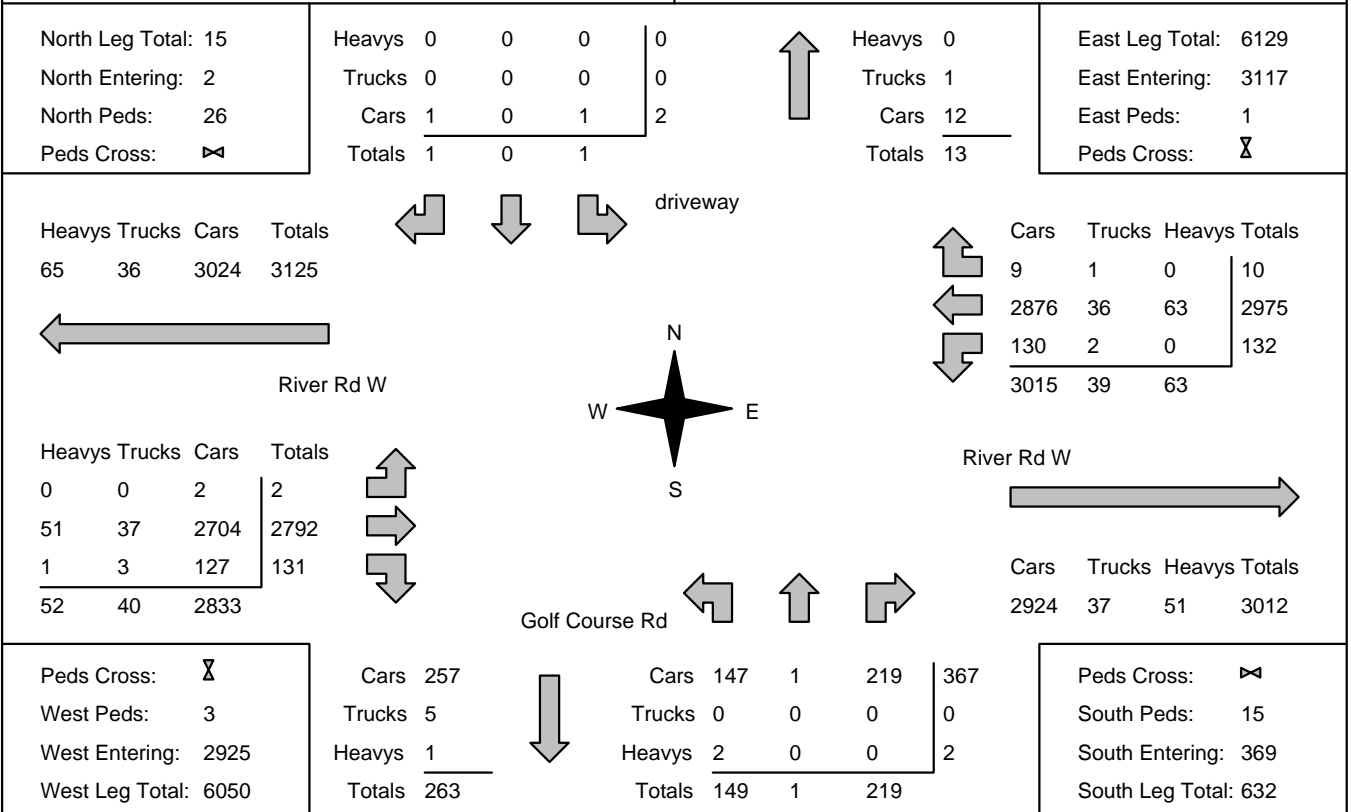
Municipality: Wasaga Beach
Site #: 2104800002
Intersection: River Rd W & Golf Course Rd
TFR File #: 1
Count date: 16-Jun-21

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: River Rd W runs W/E



Comments



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: River Rd W & Golf Course Rd Count Date: 16-Jun-21 Municipality: Wasaga Beach

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	0	0	0	2	34	8:00:00	11	0	23	34	0
9:00:00	1	0	0	1	4	49	9:00:00	15	0	33	48	0
10:00:00	0	0	0	0	5	67	10:00:00	16	0	51	67	2
12:00:00	0	0	0	0	0	0	12:00:00	0	0	0	0	0
13:00:00	0	0	0	0	4	64	13:00:00	21	1	42	64	0
14:00:00	0	0	0	0	3	69	14:00:00	26	0	43	69	4
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0
16:00:00	0	0	1	1	3	31	16:00:00	14	0	16	30	0
17:00:00	0	0	0	0	3	32	17:00:00	28	0	4	32	5
18:00:00	0	0	0	0	2	25	18:00:00	18	0	7	25	4
Totals:	1	0	1	2	26	371	S Totals:	149	1	219	369	15
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	11	258	3	272	0	536	8:00:00	0	245	19	264	0
9:00:00	12	271	2	285	0	564	9:00:00	1	263	15	279	0
10:00:00	15	326	0	341	0	668	10:00:00	0	314	13	327	2
12:00:00	0	0	0	0	0	0	12:00:00	0	0	0	0	0
13:00:00	19	400	1	420	0	830	13:00:00	1	391	18	410	1
14:00:00	33	391	2	426	0	805	14:00:00	0	361	18	379	0
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0
16:00:00	17	445	2	464	0	886	16:00:00	0	406	16	422	0
17:00:00	11	439	0	450	1	848	17:00:00	0	389	9	398	0
18:00:00	14	445	0	459	0	905	18:00:00	0	423	23	446	0
Totals:	132	2975	10	3117	1	6042	W Totals:	2	2792	131	2925	3
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	8:00	9:00	10:00	13:00			14:00	16:00	17:00	18:00		
Crossing Values:	11	16	18	23			26	14	29	18		



Accu-Traffic Inc.

Count Date: 16-Jun-21 Site #: 2104800002

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	7	7	48	48	1	1	0	0	1	1	0	0	0	0	4	4	0	0	0	0
7:30:00	8	1	97	49	1	0	0	0	2	1	0	0	0	0	5	1	0	0	0	0
7:45:00	10	2	165	68	2	1	0	0	4	2	1	1	0	0	7	2	0	0	0	0
8:00:00	11	1	243	78	2	0	0	0	6	2	1	0	0	0	9	2	0	0	0	0
8:15:00	15	4	302	59	3	1	0	0	6	0	1	0	0	0	13	4	0	0	0	0
8:30:00	20	5	367	65	3	0	0	0	6	0	1	0	0	0	13	0	0	0	0	0
8:45:00	20	0	428	61	4	1	0	0	10	4	1	0	0	0	16	3	0	0	0	0
9:00:00	23	3	499	71	4	0	0	0	13	3	1	0	0	0	17	1	0	0	0	0
9:15:00	24	1	573	74	4	0	1	1	14	1	1	0	0	0	23	6	0	0	0	0
9:30:00	29	5	635	62	4	0	1	0	17	3	1	0	0	0	26	3	0	0	0	0
9:45:00	31	2	715	80	4	0	2	1	19	2	1	0	0	0	29	3	0	0	0	0
10:00:00	36	5	800	85	4	0	2	0	21	2	1	0	0	0	34	5	0	0	0	0
10:15:00	36	0	800	0	4	0	2	0	21	0	1	0	0	0	34	0	0	0	0	0
12:00:00	36	0	800	0	4	0	2	0	21	0	1	0	0	0	34	0	0	0	0	0
12:15:00	39	3	904	104	5	1	2	0	24	3	1	0	0	0	37	3	0	0	0	0
12:30:00	45	6	1001	97	5	0	2	0	25	1	1	0	0	0	39	2	0	0	0	0
12:45:00	49	4	1090	89	5	0	2	0	26	1	1	0	0	0	41	2	0	0	0	0
13:00:00	55	6	1187	97	5	0	2	0	26	0	1	0	0	0	42	1	0	0	0	0
13:15:00	66	11	1271	84	5	0	2	0	26	0	1	0	0	0	45	3	0	0	0	0
13:30:00	79	13	1353	82	5	0	2	0	26	0	1	0	0	0	45	0	0	0	0	0
13:45:00	82	3	1455	102	6	1	2	0	27	1	1	0	0	0	48	3	0	0	0	0
14:00:00	88	6	1569	114	7	1	2	0	28	1	1	0	0	0	49	1	0	0	0	0
14:15:00	88	0	1569	0	7	0	2	0	28	0	1	0	0	0	49	0	0	0	0	0
15:00:00	88	0	1569	0	7	0	2	0	28	0	1	0	0	0	49	0	0	0	0	0
15:15:00	93	5	1692	123	7	0	2	0	28	0	1	0	0	0	52	3	0	0	0	0
15:30:00	97	4	1791	99	9	2	2	0	31	3	1	0	0	0	52	0	0	0	0	0
15:45:00	102	5	1902	111	9	0	2	0	31	0	1	0	0	0	52	0	0	0	0	0
16:00:00	105	3	2006	104	9	0	2	0	33	2	1	0	0	0	52	0	0	0	0	0
16:15:00	110	5	2123	117	9	0	2	0	34	1	1	0	0	0	55	3	0	0	0	0
16:30:00	113	3	2229	106	9	0	2	0	35	1	1	0	0	0	56	1	0	0	0	0
16:45:00	115	2	2330	101	9	0	2	0	35	0	1	0	0	0	56	0	0	0	1	1
17:00:00	116	1	2437	107	9	0	2	0	36	1	1	0	0	0	57	1	0	0	1	0
17:15:00	120	4	2548	111	9	0	2	0	36	0	1	0	0	0	59	2	0	0	1	0
17:30:00	121	1	2661	113	9	0	2	0	36	0	1	0	0	0	62	3	0	0	1	0
17:45:00	127	6	2779	118	9	0	2	0	36	0	1	0	0	0	63	1	0	0	1	0
18:00:00	130	3	2876	97	9	0	2	0	36	0	1	0	0	0	63	0	0	0	1	0
18:15:00	130	0	2876	0	9	0	2	0	36	0	1	0	0	0	63	0	0	0	1	0
18:15:15	130	0	2876	0	9	0	2	0	36	0	1	0	0	0	63	0	0	0	1	0



Accu-Traffic Inc.

Count Date: 16-Jun-21 Site #: 2104800002

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	1	1	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	4	3	0	0	11	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	7	3	0	0	17	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	11	4	0	0	23	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	14	3	0	0	33	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	17	3	0	0	40	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	22	5	0	0	45	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	26	4	0	0	56	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00	28	2	0	0	68	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30:00	30	2	0	0	78	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45:00	37	7	0	0	92	14	0	0	0	0	0	0	0	0	0	0	0	0	2	2
10:00:00	42	5	0	0	107	15	0	0	0	0	0	0	0	0	0	0	0	0	2	0
10:15:00	42	0	0	0	107	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
12:00:00	42	0	0	0	107	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
12:15:00	46	4	1	1	119	12	0	0	0	0	0	0	1	1	0	0	0	0	2	0
12:30:00	52	6	1	0	133	14	0	0	0	0	0	0	1	0	0	0	0	0	2	0
12:45:00	60	8	1	0	139	6	0	0	0	0	0	0	1	0	0	0	0	0	2	0
13:00:00	62	2	1	0	149	10	0	0	0	0	0	0	1	0	0	0	0	0	2	0
13:15:00	72	10	1	0	154	5	0	0	0	0	0	0	1	0	0	0	0	0	2	0
13:30:00	79	7	1	0	167	13	0	0	0	0	0	0	1	0	0	0	0	0	2	0
13:45:00	83	4	1	0	179	12	0	0	0	0	0	0	2	1	0	0	0	0	5	3
14:00:00	87	4	1	0	192	13	0	0	0	0	0	0	2	0	0	0	0	0	6	1
14:15:00	87	0	1	0	192	0	0	0	0	0	0	0	2	0	0	0	0	0	6	0
15:00:00	87	0	1	0	192	0	0	0	0	0	0	0	2	0	0	0	0	0	6	0
15:15:00	89	2	1	0	201	9	0	0	0	0	0	0	2	0	0	0	0	0	6	0
15:30:00	94	5	1	0	203	2	0	0	0	0	0	0	2	0	0	0	0	0	6	0
15:45:00	98	4	1	0	205	2	0	0	0	0	0	0	2	0	0	0	0	0	6	0
16:00:00	101	3	1	0	208	3	0	0	0	0	0	0	2	0	0	0	0	0	6	0
16:15:00	107	6	1	0	209	1	0	0	0	0	0	0	2	0	0	0	0	0	6	0
16:30:00	118	11	1	0	211	2	0	0	0	0	0	0	2	0	0	0	0	0	6	0
16:45:00	126	8	1	0	212	1	0	0	0	0	0	0	2	0	0	0	0	0	10	4
17:00:00	129	3	1	0	212	0	0	0	0	0	0	0	2	0	0	0	0	0	11	1
17:15:00	135	6	1	0	214	2	0	0	0	0	0	0	2	0	0	0	0	0	12	1
17:30:00	140	5	1	0	215	1	0	0	0	0	0	0	2	0	0	0	0	0	13	1
17:45:00	144	4	1	0	217	2	0	0	0	0	0	0	2	0	0	0	0	0	13	0
18:00:00	147	3	1	0	219	2	0	0	0	0	0	0	2	0	0	0	0	0	15	2
18:15:00	147	0	1	0	219	0	0	0	0	0	0	0	2	0	0	0	0	0	15	0
18:15:15	147	0	1	0	219	0	0	0	0	0	0	0	2	0	0	0	0	0	15	0



Accu-Traffic Inc.

Count Date: 16-Jun-21 Site #: 2104800002

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	52	52	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	111	59	7	3	0	0	0	0	1	1	0	0	0	0	0	0	0	0
7:45:00	0	0	170	59	12	5	0	0	0	0	1	0	0	0	2	2	0	0	0	0
8:00:00	0	0	239	69	18	6	0	0	1	1	1	0	0	0	5	3	0	0	0	0
8:15:00	1	1	304	65	24	6	0	0	1	0	1	0	0	0	5	0	0	0	0	0
8:30:00	1	0	359	55	26	2	0	0	1	0	1	0	0	0	7	2	0	0	0	0
8:45:00	1	0	429	70	28	2	0	0	1	0	1	0	0	0	9	2	0	0	0	0
9:00:00	1	0	493	64	33	5	0	0	3	2	1	0	0	0	12	3	0	0	0	0
9:15:00	1	0	555	62	34	1	0	0	6	3	1	0	0	0	15	3	0	0	0	0
9:30:00	1	0	626	71	37	3	0	0	6	0	1	0	0	0	19	4	0	0	0	0
9:45:00	1	0	698	72	41	4	0	0	8	2	1	0	0	0	21	2	0	0	2	2
10:00:00	1	0	790	92	46	5	0	0	9	1	1	0	0	0	23	2	0	0	2	0
10:15:00	1	0	790	0	46	0	0	0	9	0	1	0	0	0	23	0	0	0	2	0
12:00:00	1	0	790	0	46	0	0	0	9	0	1	0	0	0	23	0	0	0	2	0
12:15:00	2	1	884	94	48	2	0	0	13	4	1	0	0	0	25	2	0	0	2	0
12:30:00	2	0	983	99	52	4	0	0	15	2	1	0	0	0	28	3	0	0	3	1
12:45:00	2	0	1086	103	59	7	0	0	16	1	1	0	0	0	30	2	0	0	3	0
13:00:00	2	0	1162	76	64	5	0	0	17	1	1	0	0	0	34	4	0	0	3	0
13:15:00	2	0	1243	81	66	2	0	0	17	0	1	0	0	0	35	1	0	0	3	0
13:30:00	2	0	1331	88	75	9	0	0	20	3	1	0	0	0	37	2	0	0	3	0
13:45:00	2	0	1420	89	79	4	0	0	20	0	1	0	0	0	38	1	0	0	3	0
14:00:00	2	0	1514	94	81	2	0	0	20	0	1	0	0	0	40	2	1	1	3	0
14:15:00	2	0	1514	0	81	0	0	0	20	0	1	0	0	0	40	0	1	0	3	0
15:00:00	2	0	1514	0	81	0	0	0	20	0	1	0	0	0	40	0	1	0	3	0
15:15:00	2	0	1615	101	86	5	0	0	22	2	2	1	0	0	42	2	1	0	3	0
15:30:00	2	0	1719	104	88	2	0	0	23	1	3	1	0	0	42	0	1	0	3	0
15:45:00	2	0	1811	92	93	5	0	0	24	1	3	0	0	0	44	2	1	0	3	0
16:00:00	2	0	1910	99	95	2	0	0	25	1	3	0	0	0	45	1	1	0	3	0
16:15:00	2	0	1994	84	96	1	0	0	25	0	3	0	0	0	48	3	1	0	3	0
16:30:00	2	0	2089	95	98	2	0	0	26	1	3	0	0	0	48	0	1	0	3	0
16:45:00	2	0	2195	106	98	0	0	0	28	2	3	0	0	0	48	0	1	0	3	0
17:00:00	2	0	2289	94	104	6	0	0	31	3	3	0	0	0	49	1	1	0	3	0
17:15:00	2	0	2386	97	111	7	0	0	32	1	3	0	0	0	50	1	1	0	3	0
17:30:00	2	0	2500	114	115	4	0	0	34	2	3	0	0	0	50	0	1	0	3	0
17:45:00	2	0	2609	109	122	7	0	0	35	1	3	0	0	0	50	0	1	0	3	0
18:00:00	2	0	2704	95	127	5	0	0	37	2	3	0	0	0	51	1	1	0	3	0
18:15:00	2	0	2704	0	127	0	0	0	37	0	3	0	0	0	51	0	1	0	3	0
18:15:15	2	0	2704	0	127	0	0	0	37	0	3	0	0	0	51	0	1	0	3	0

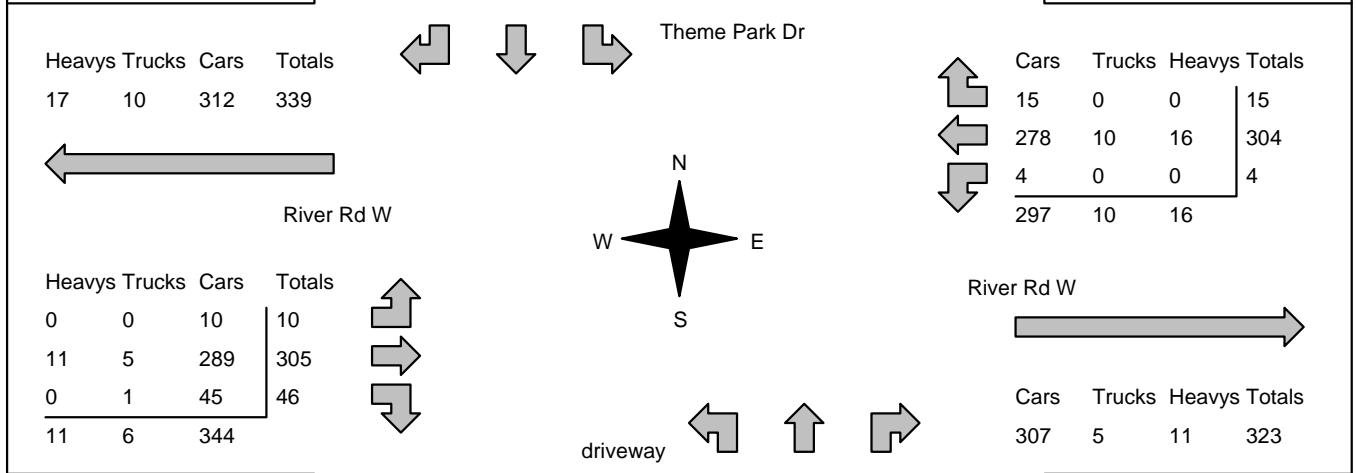
Accu-Traffic Inc.

Morning Peak Diagram	Specified Period From: 7:00:00 To: 10:00:00	One Hour Peak From: 9:00:00 To: 10:00:00
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Municipality: Wasaga Beach Site #: 2104800003 Intersection: River Rd W & Theme Park Dr TFR File #: 1 Count date: 16-Jun-21	Weather conditions: Person counted: Person prepared: Person checked:
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** Non-Signalized Intersection **	Major Road: River Rd W runs W/E
--	--

North Leg Total: 73 North Entering: 47 North Peds: 1 Peds Cross: \bowtie	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>1</td><td>0</td><td>0</td><td>1</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Cars</td><td>29</td><td>3</td><td>14</td><td>46</td></tr> <tr><td>Totals</td><td>30</td><td>3</td><td>14</td><td></td></tr> </table>	Heavys	1	0	0	1	Trucks	0	0	0	0	Cars	29	3	14	46	Totals	30	3	14		<table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>26</td></tr> <tr><td>Totals</td><td>26</td></tr> </table>	Heavys	0	Trucks	0	Cars	26	Totals	26	East Leg Total: 646 East Entering: 323 East Peds: 0 Peds Cross: \bowtie
Heavys	1	0	0	1																											
Trucks	0	0	0	0																											
Cars	29	3	14	46																											
Totals	30	3	14																												
Heavys	0																														
Trucks	0																														
Cars	26																														
Totals	26																														



Peds Cross: \bowtie West Peds: 0 West Entering: 361 West Leg Total: 700	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Cars</td><td>52</td></tr> <tr><td>Trucks</td><td>1</td></tr> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Totals</td><td>53</td></tr> </table>	Cars	52	Trucks	1	Heavys	0	Totals	53	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Cars</td><td>5</td><td>1</td><td>4</td><td>10</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Totals</td><td>5</td><td>1</td><td>4</td><td></td></tr> </table>	Cars	5	1	4	10	Trucks	0	0	0	0	Heavys	0	0	0	0	Totals	5	1	4		Peds Cross: \bowtie South Peds: 0 South Entering: 10 South Leg Total: 63
Cars	52																														
Trucks	1																														
Heavys	0																														
Totals	53																														
Cars	5	1	4	10																											
Trucks	0	0	0	0																											
Heavys	0	0	0	0																											
Totals	5	1	4																												

Comments

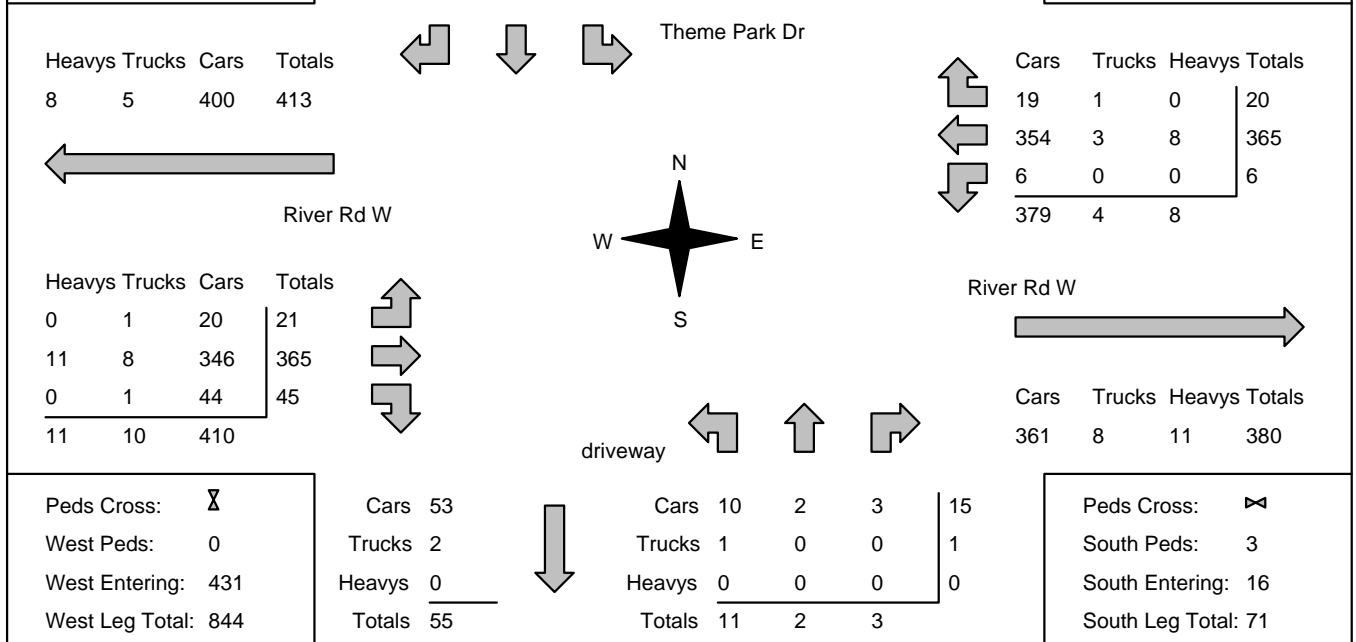
Accu-Traffic Inc.

Mid-day Peak Diagram	Specified Period From: 12:00:00 To: 14:00:00	One Hour Peak From: 12:00:00 To: 13:00:00
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Municipality: Wasaga Beach Site #: 2104800003 Intersection: River Rd W & Theme Park Dr TFR File #: 1 Count date: 16-Jun-21	Weather conditions: Person counted: Person prepared: Person checked:
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** Non-Signalized Intersection **	Major Road: River Rd W runs W/E
--	--

North Leg Total: 96 North Entering: 53 North Peds: 0 Peds Cross: ∇	<table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>1</td><td>1</td><td>0</td><td>2</td></tr> <tr><td>Cars</td><td>36</td><td>3</td><td>12</td><td>51</td></tr> <tr><td>Totals</td><td>37</td><td>4</td><td>12</td><td></td></tr> </table>	Heavys	0	0	0	0	Trucks	1	1	0	2	Cars	36	3	12	51	Totals	37	4	12		<table style="border-collapse: collapse; margin: auto;"> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Trucks</td><td>2</td></tr> <tr><td>Cars</td><td>41</td></tr> <tr><td>Totals</td><td>43</td></tr> </table>	Heavys	0	Trucks	2	Cars	41	Totals	43	East Leg Total: 771 East Entering: 391 East Peds: 0 Peds Cross: ∇
Heavys	0	0	0	0																											
Trucks	1	1	0	2																											
Cars	36	3	12	51																											
Totals	37	4	12																												
Heavys	0																														
Trucks	2																														
Cars	41																														
Totals	43																														




Comments

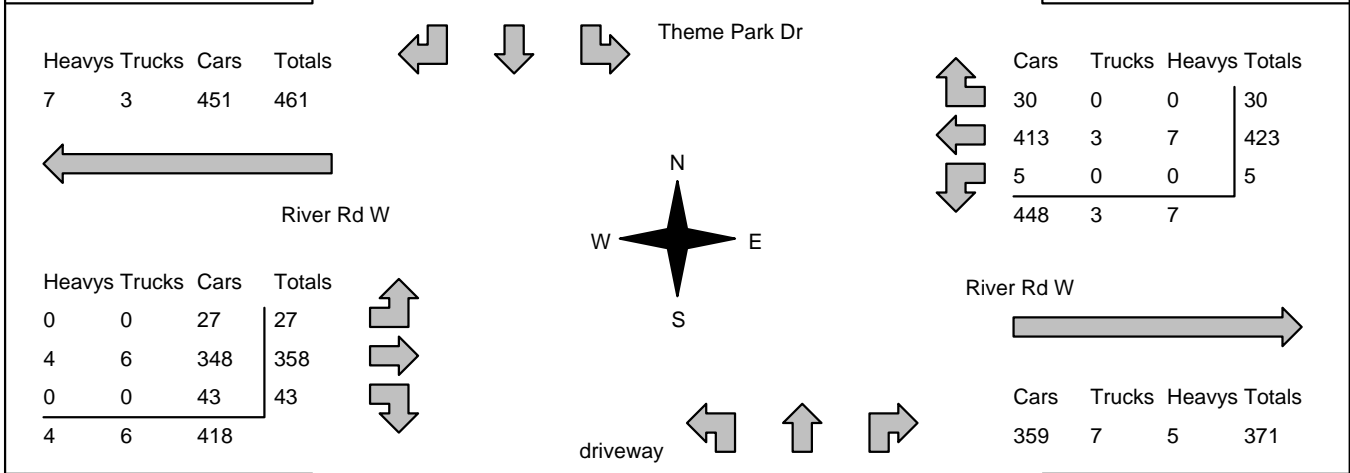
Accu-Traffic Inc.


Afternoon Peak Diagram	Specified Period From: 15:00:00 To: 18:00:00	One Hour Peak From: 16:45:00 To: 17:45:00
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Municipality: Wasaga Beach Site #: 2104800003 Intersection: River Rd W & Theme Park Dr TFR File #: 1 Count date: 16-Jun-21	Weather conditions: Person counted: Person prepared: Person checked:
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** Non-Signalized Intersection **	Major Road: River Rd W runs W/E
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North Leg Total: 107 North Entering: 49 North Peds: 2 Peds Cross: \times	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>1</td><td>1</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>1</td><td>1</td></tr> <tr><td>Cars</td><td>32</td><td>4</td><td>11</td><td>47</td></tr> <tr><td>Totals</td><td>32</td><td>4</td><td>13</td><td></td></tr> </table>	Heavys	0	0	1	1	Trucks	0	0	1	1	Cars	32	4	11	47	Totals	32	4	13			<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>58</td></tr> <tr><td>Totals</td><td>58</td></tr> </table>	Heavys	0	Trucks	0	Cars	58	Totals	58	East Leg Total: 829 East Entering: 458 East Peds: 0 Peds Cross: \times
Heavys	0	0	1	1																												
Trucks	0	0	1	1																												
Cars	32	4	11	47																												
Totals	32	4	13																													
Heavys	0																															
Trucks	0																															
Cars	58																															
Totals	58																															



Peds Cross: \times West Peds: 0 West Entering: 428 West Leg Total: 889	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>52</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Totals</td><td>52</td></tr> </table>	Cars	52	Trucks	0	Heavys	0	Totals	52		<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>6</td><td>1</td><td>0</td><td>7</td></tr> <tr><td>Trucks</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Totals</td><td>6</td><td>1</td><td>0</td><td></td></tr> </table>	Cars	6	1	0	7	Trucks	0	0	0	0	Heavys	0	0	0	0	Totals	6	1	0		Peds Cross: \times South Peds: 2 South Entering: 7 South Leg Total: 59
Cars	52																															
Trucks	0																															
Heavys	0																															
Totals	52																															
Cars	6	1	0	7																												
Trucks	0	0	0	0																												
Heavys	0	0	0	0																												
Totals	6	1	0																													

Comments

Accu-Traffic Inc.

Total Count Diagram

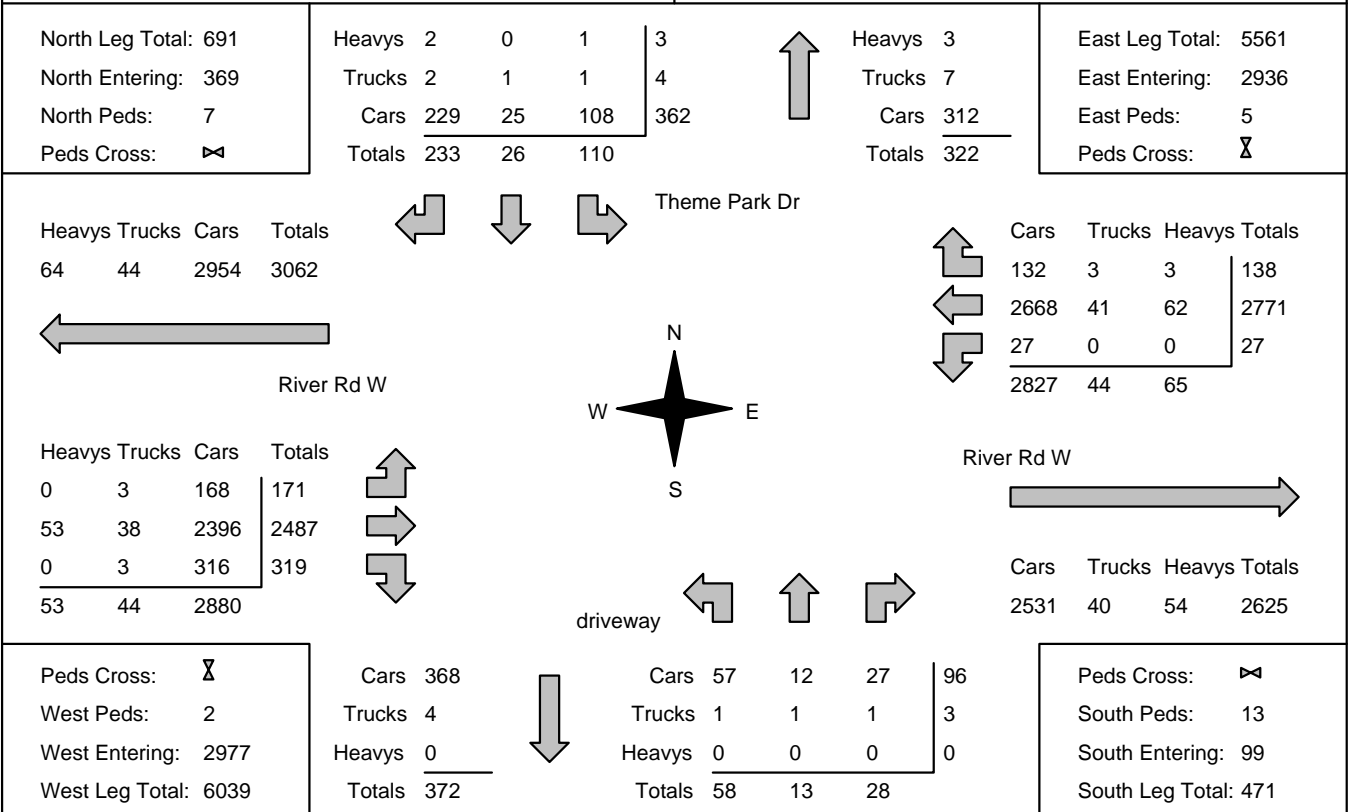
Municipality: Wasaga Beach
Site #: 2104800003
Intersection: River Rd W & Theme Park Dr
TFR File #: 1
Count date: 16-Jun-21

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: River Rd W runs W/E



Comments



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

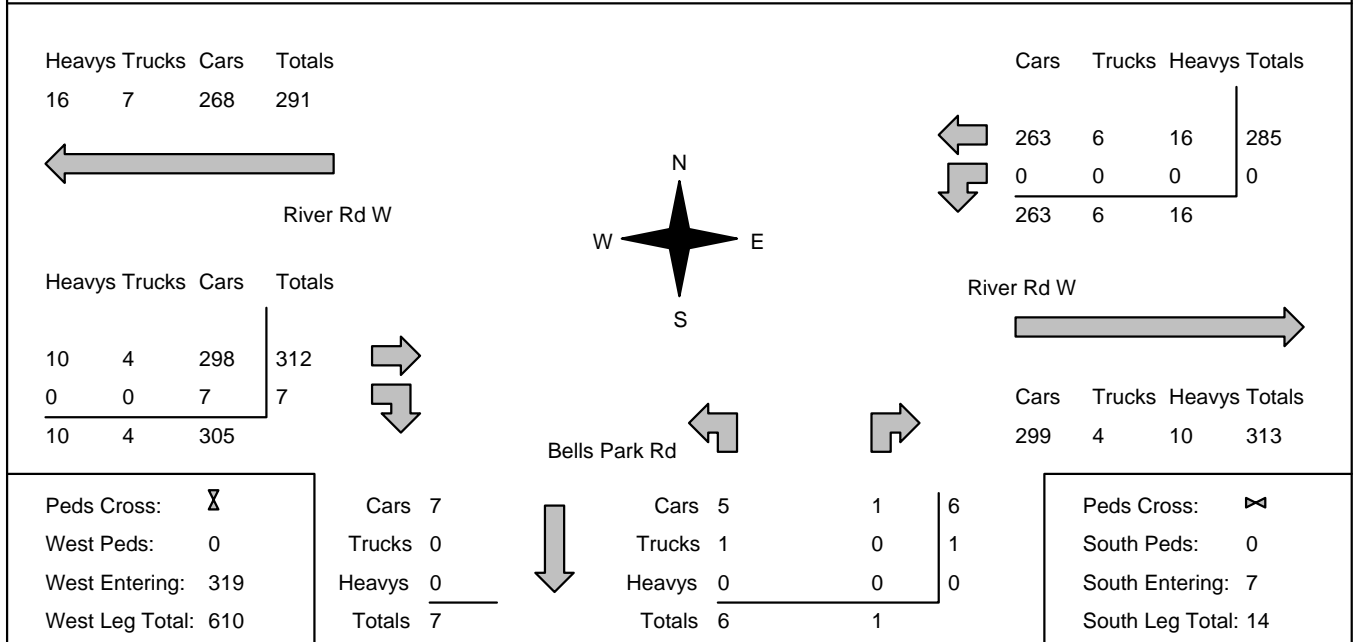
Intersection: River Rd W & Theme Park Dr Count Date: 16-Jun-21 Municipality: Wasaga Beach

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	14	3	15	32	1	45	8:00:00	5	1	7	13	0
9:00:00	12	4	23	39	1	47	9:00:00	3	1	4	8	0
10:00:00	14	3	30	47	1	57	10:00:00	5	1	4	10	0
12:00:00	0	0	0	0	0	0	12:00:00	0	0	0	0	0
13:00:00	12	4	37	53	0	69	13:00:00	11	2	3	16	3
14:00:00	19	1	44	64	2	88	14:00:00	14	4	6	24	3
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0
16:00:00	16	4	24	44	0	55	16:00:00	8	2	1	11	0
17:00:00	15	3	30	48	0	58	17:00:00	6	1	3	10	5
18:00:00	8	4	30	42	2	49	18:00:00	6	1	0	7	2
Totals:	110	26	233	369	7	468	S Totals:	58	13	28	99	13
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	2	250	5	257	0	522	8:00:00	14	225	26	265	0
9:00:00	3	259	10	272	1	566	9:00:00	8	260	26	294	0
10:00:00	4	304	15	323	0	684	10:00:00	10	305	46	361	0
12:00:00	0	0	0	0	0	0	12:00:00	0	0	0	0	0
13:00:00	6	365	20	391	0	822	13:00:00	21	365	45	431	0
14:00:00	2	355	16	373	1	767	14:00:00	35	305	54	394	0
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0
16:00:00	1	419	22	442	1	856	16:00:00	35	341	38	414	0
17:00:00	5	401	21	427	2	812	17:00:00	20	326	39	385	2
18:00:00	4	418	29	451	0	884	18:00:00	28	360	45	433	0
Totals:	27	2771	138	2936	5	5913	W Totals:	171	2487	319	2977	2
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	8:00	9:00	10:00	13:00		14:00	16:00	17:00	18:00			
Crossing Values:	22	20	22	27		38	29	28	18			

Accu-Traffic Inc.

Morning Peak Diagram	Specified Period From: 7:00:00 To: 10:00:00	One Hour Peak From: 9:00:00 To: 10:00:00
Municipality: Wasaga Beach Site #: 2104800004 Intersection: River Rd W & Bells Park Rd TFR File #: 1 Count date: 16-Jun-21	Weather conditions: Person counted: Person prepared: Person checked:	
** Non-Signalized Intersection **	Major Road: River Rd W runs W/E	

	East Leg Total: 598 East Entering: 285 East Peds: 0 Peds Cross: 8
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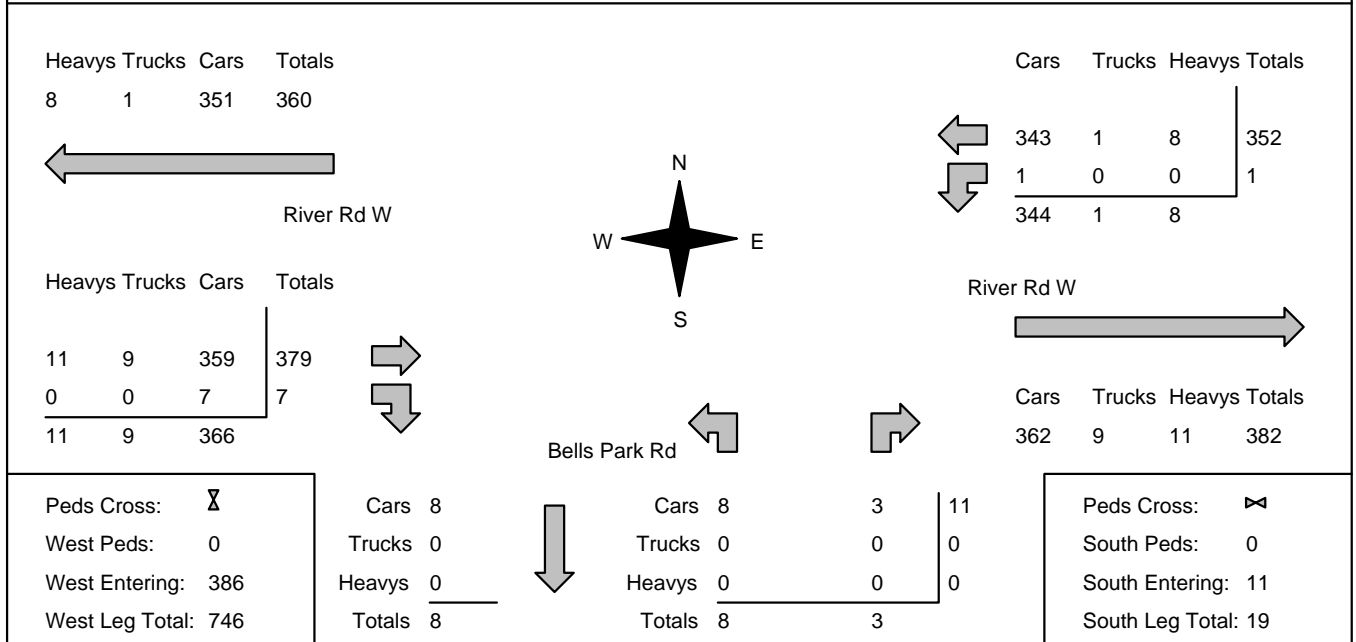


Comments

Accu-Traffic Inc.

Mid-day Peak Diagram	Specified Period From: 12:00:00 To: 14:00:00	One Hour Peak From: 12:00:00 To: 13:00:00
Municipality: Wasaga Beach Site #: 2104800004 Intersection: River Rd W & Bells Park Rd TFR File #: 1 Count date: 16-Jun-21	Weather conditions: Person counted: Person prepared: Person checked:	
** Non-Signalized Intersection **	Major Road: River Rd W runs W/E	

	East Leg Total: 735 East Entering: 353 East Peds: 0 Peds Cross: 8
--	--

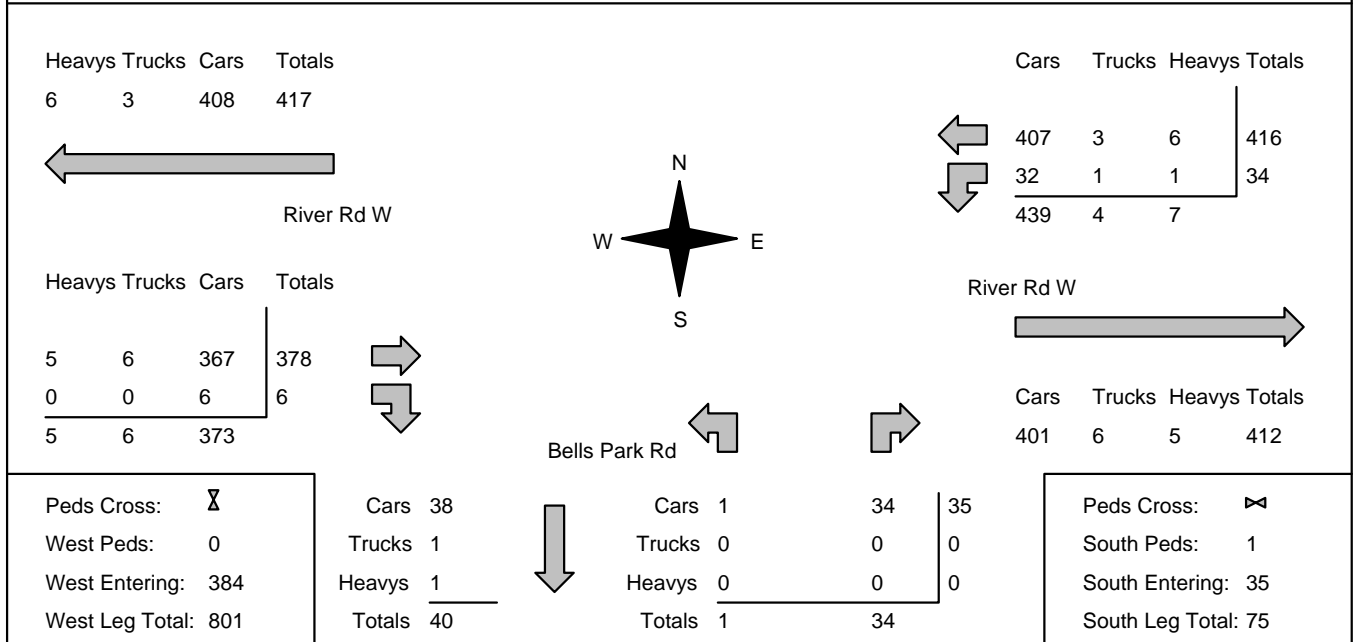


Comments

Accu-Traffic Inc.

Afternoon Peak Diagram	Specified Period From: 15:00:00 To: 18:00:00	One Hour Peak From: 16:45:00 To: 17:45:00
Municipality: Wasaga Beach Site #: 2104800004 Intersection: River Rd W & Bells Park Rd TFR File #: 1 Count date: 16-Jun-21	Weather conditions: Person counted: Person prepared: Person checked:	
** Non-Signalized Intersection **	Major Road: River Rd W runs W/E	

	East Leg Total: 862 East Entering: 450 East Peds: 0 Peds Cross: 8
--	--



Comments

Accu-Traffic Inc.

Total Count Diagram

Municipality: Wasaga Beach
Site #: 2104800004
Intersection: River Rd W & Bells Park Rd
TFR File #: 1
Count date: 16-Jun-21

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: River Rd W runs W/E

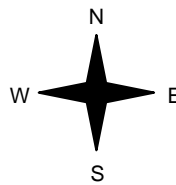
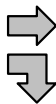
East Leg Total: 5537
 East Entering: 2798
 East Peds: 0
 Peds Cross: 8

Heavys	Trucks	Cars	Totals
63	37	2630	2730



River Rd W

Heavys	Trucks	Cars	Totals
50	42	2536	2628
0	0	40	40
50	42	2576	



Bells Park Rd

Cars	Trucks	Heavys	Totals
2593	35	63	2691
105	1	1	107
2698	36	64	



River Rd W



Cars	Trucks	Heavys	Totals
2647	42	50	2739

Peds Cross: 8
 West Peds: 1
 West Entering: 2668
 West Leg Total: 5398

Cars	145
Trucks	1
Heavys	1
Totals	147



Cars	37	111	148
Trucks	2	0	2
Heavys	0	0	0
Totals	39	111	

Peds Cross: 2
 South Peds: 2
 South Entering: 150
 South Leg Total: 297

Comments



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: River Rd W & Bells Park Rd Count Date: 16-Jun-21 Municipality: Wasaga Beach

North Approach Totals						North/South Total Approaches	South Approach Totals						
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total		
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0	
8:00:00	0	0	0	0	0	4	8:00:00	3	0	1	4	0	
9:00:00	0	0	0	0	0	6	9:00:00	4	0	2	6	0	
10:00:00	0	0	0	0	0	7	10:00:00	6	0	1	7	0	
12:00:00	0	0	0	0	0	0	12:00:00	0	0	0	0	0	
13:00:00	0	0	0	0	0	11	13:00:00	8	0	3	11	0	
14:00:00	0	0	0	0	0	10	14:00:00	7	0	3	10	0	
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0	
16:00:00	0	0	0	0	0	43	16:00:00	7	0	36	43	0	
17:00:00	0	0	0	0	0	30	17:00:00	3	0	27	30	1	
18:00:00	0	0	0	0	0	39	18:00:00	1	0	38	39	1	
Totals:						150	S Totals:						2
East Approach Totals						East/West Total Approaches	West Approach Totals						
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total		
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0	
8:00:00	3	244	0	247	0	501	8:00:00	0	250	4	254	1	
9:00:00	2	263	0	265	0	547	9:00:00	0	280	2	282	0	
10:00:00	0	285	0	285	0	604	10:00:00	0	312	7	319	0	
12:00:00	0	0	0	0	0	0	12:00:00	0	0	0	0	0	
13:00:00	1	352	0	353	0	739	13:00:00	0	379	7	386	0	
14:00:00	5	329	0	334	0	663	14:00:00	0	327	2	329	0	
15:00:00	0	0	0	0	0	0	15:00:00	0	0	0	0	0	
16:00:00	33	409	0	442	0	806	16:00:00	0	355	9	364	0	
17:00:00	34	399	0	433	0	783	17:00:00	0	347	3	350	0	
18:00:00	29	410	0	439	0	823	18:00:00	0	378	6	384	0	
Totals:						5466	W Totals:						1
Calculated Values for Traffic Crossing Major Street													
Hours Ending:	8:00	9:00	10:00	13:00		14:00	16:00	17:00	18:00				
Crossing Values:	4	4	6	8		7	7	3	1				



Accu-Traffic Inc.

Count Date: 16-Jun-21 Site #: 2104800004

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	1	1	48	48	0	0	0	0	2	2	0	0	0	0	2	2	0	0	0	0
7:30:00	3	2	92	44	0	0	0	0	3	1	0	0	0	0	4	2	0	0	0	0
7:45:00	3	0	157	65	0	0	0	0	5	2	0	0	0	0	8	4	0	0	0	0
8:00:00	3	0	227	70	0	0	0	0	6	1	0	0	0	0	11	3	0	0	0	0
8:15:00	4	1	284	57	0	0	0	0	7	1	0	0	0	0	14	3	0	0	0	0
8:30:00	4	0	349	65	0	0	0	0	7	0	0	0	0	0	14	0	0	0	0	0
8:45:00	5	1	406	57	0	0	0	0	11	4	0	0	0	0	18	4	0	0	0	0
9:00:00	5	0	473	67	0	0	0	0	14	3	0	0	0	0	20	2	0	0	0	0
9:15:00	5	0	532	59	0	0	0	0	16	2	0	0	0	0	25	5	0	0	0	0
9:30:00	5	0	593	61	0	0	0	0	17	1	0	0	0	0	30	5	0	0	0	0
9:45:00	5	0	663	70	0	0	0	0	18	1	0	0	0	0	33	3	0	0	0	0
10:00:00	5	0	736	73	0	0	0	0	20	2	0	0	0	0	36	3	0	0	0	0
10:15:00	5	0	736	0	0	0	0	0	20	0	0	0	0	0	36	0	0	0	0	0
12:00:00	5	0	736	0	0	0	0	0	20	0	0	0	0	0	36	0	0	0	0	0
12:15:00	5	0	827	91	0	0	0	0	20	0	0	0	0	0	39	3	0	0	0	0
12:30:00	6	1	916	89	0	0	0	0	20	0	0	0	0	0	41	2	0	0	0	0
12:45:00	6	0	994	78	0	0	0	0	21	1	0	0	0	0	43	2	0	0	0	0
13:00:00	6	0	1079	85	0	0	0	0	21	0	0	0	0	0	44	1	0	0	0	0
13:15:00	6	0	1151	72	0	0	0	0	21	0	0	0	0	0	46	2	0	0	0	0
13:30:00	7	1	1230	79	0	0	0	0	21	0	0	0	0	0	46	0	0	0	0	0
13:45:00	11	4	1306	76	0	0	0	0	23	2	0	0	0	0	49	3	0	0	0	0
14:00:00	11	0	1400	94	0	0	0	0	23	0	0	0	0	0	50	1	0	0	0	0
14:15:00	11	0	1400	0	0	0	0	0	23	0	0	0	0	0	50	0	0	0	0	0
15:00:00	11	0	1400	0	0	0	0	0	23	0	0	0	0	0	50	0	0	0	0	0
15:15:00	19	8	1507	107	0	0	0	0	24	1	0	0	0	0	52	2	0	0	0	0
15:30:00	28	9	1591	84	0	0	0	0	26	2	0	0	0	0	53	1	0	0	0	0
15:45:00	40	12	1698	107	0	0	0	0	27	1	0	0	0	0	53	0	0	0	0	0
16:00:00	44	4	1800	102	0	0	0	0	29	2	0	0	0	0	53	0	0	0	0	0
16:15:00	51	7	1907	107	0	0	0	0	30	1	0	0	0	0	56	3	0	0	0	0
16:30:00	57	6	1996	89	0	0	0	0	32	2	0	0	0	0	57	1	0	0	0	0
16:45:00	68	11	2101	105	0	0	0	0	32	0	0	0	0	0	57	0	0	0	0	0
17:00:00	76	8	2190	89	0	0	1	1	33	1	0	0	1	1	58	1	0	0	0	0
17:15:00	87	11	2288	98	0	0	1	0	35	2	0	0	1	0	60	2	0	0	0	0
17:30:00	96	9	2401	113	0	0	1	0	35	0	0	0	1	0	62	2	0	0	0	0
17:45:00	100	4	2508	107	0	0	1	0	35	0	0	0	1	0	63	1	0	0	0	0
18:00:00	105	5	2593	85	0	0	1	0	35	0	0	0	1	0	63	0	0	0	0	0
18:15:00	105	0	2593	0	0	0	1	0	35	0	0	0	1	0	63	0	0	0	0	0
18:15:15	105	0	2593	0	0	0	1	0	35	0	0	0	1	0	63	0	0	0	0	0



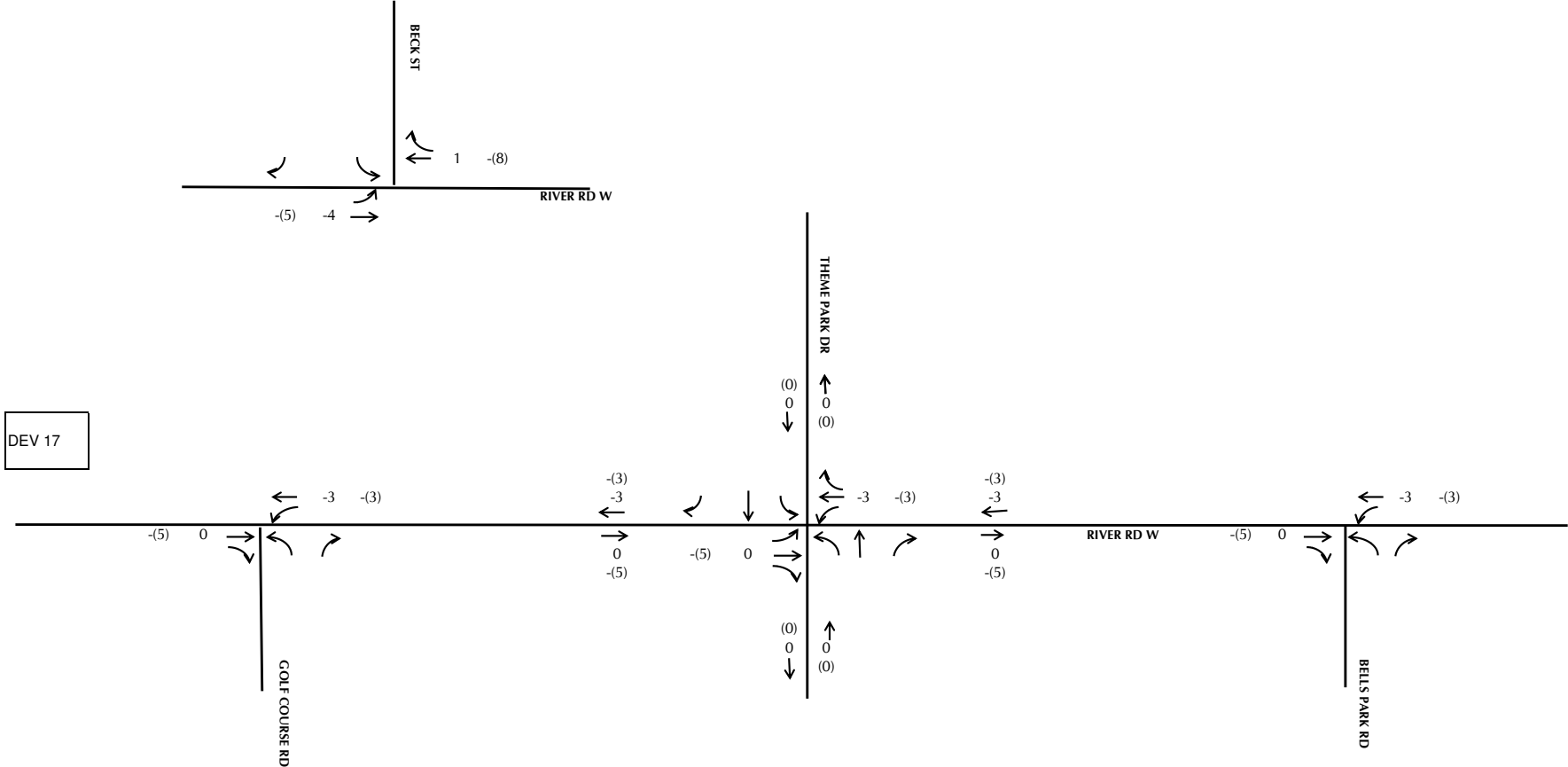
Accu-Traffic Inc.

Count Date: 16-Jun-21 Site #: 2104800004

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	43	43	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	111	68	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
7:45:00	0	0	171	60	1	0	0	0	0	0	0	0	0	0	2	2	0	0	1	0
8:00:00	0	0	245	74	4	3	0	0	1	1	0	0	0	0	4	2	0	0	1	0
8:15:00	0	0	315	70	5	1	0	0	1	0	0	0	0	0	5	1	0	0	1	0
8:30:00	0	0	381	66	5	0	0	0	1	0	0	0	0	0	7	2	0	0	1	0
8:45:00	0	0	448	67	5	0	0	0	1	0	0	0	0	0	9	2	0	0	1	0
9:00:00	0	0	516	68	6	1	0	0	3	2	0	0	0	0	11	2	0	0	1	0
9:15:00	0	0	585	69	8	2	0	0	5	2	0	0	0	0	14	3	0	0	1	0
9:30:00	0	0	658	73	9	1	0	0	5	0	0	0	0	0	17	3	0	0	1	0
9:45:00	0	0	733	75	10	1	0	0	7	2	0	0	0	0	20	3	0	0	1	0
10:00:00	0	0	814	81	13	3	0	0	7	0	0	0	0	0	21	1	0	0	1	0
10:15:00	0	0	814	0	13	0	0	0	7	0	0	0	0	0	21	0	0	0	1	0
12:00:00	0	0	814	0	13	0	0	0	7	0	0	0	0	0	21	0	0	0	1	0
12:15:00	0	0	911	97	13	0	0	0	10	3	0	0	0	0	24	3	0	0	1	0
12:30:00	0	0	997	86	16	3	0	0	12	2	0	0	0	0	27	3	0	0	1	0
12:45:00	0	0	1104	107	18	2	0	0	13	1	0	0	0	0	29	2	0	0	1	0
13:00:00	0	0	1173	69	20	2	0	0	16	3	0	0	0	0	32	3	0	0	1	0
13:15:00	0	0	1255	82	20	0	0	0	16	0	0	0	0	0	33	1	0	0	1	0
13:30:00	0	0	1336	81	21	1	0	0	19	3	0	0	0	0	35	2	0	0	1	0
13:45:00	0	0	1406	70	21	0	0	0	20	1	0	0	0	0	36	1	0	0	1	0
14:00:00	0	0	1490	84	22	1	0	0	21	1	0	0	0	0	37	1	0	0	1	0
14:15:00	0	0	1490	0	22	0	0	0	21	0	0	0	0	0	37	0	0	0	1	0
15:00:00	0	0	1490	0	22	0	0	0	21	0	0	0	0	0	37	0	0	0	1	0
15:15:00	0	0	1582	92	24	2	0	0	23	2	0	0	0	0	38	1	0	0	1	0
15:30:00	0	0	1660	78	25	1	0	0	24	1	0	0	0	0	39	1	0	0	1	0
15:45:00	0	0	1748	88	28	3	0	0	28	4	0	0	0	0	41	2	0	0	1	0
16:00:00	0	0	1831	83	31	3	0	0	29	1	0	0	0	0	43	2	0	0	1	0
16:15:00	0	0	1908	77	32	1	0	0	29	0	0	0	0	0	45	2	0	0	1	0
16:30:00	0	0	1997	89	32	0	0	0	30	1	0	0	0	0	45	0	0	0	1	0
16:45:00	0	0	2081	84	34	2	0	0	34	4	0	0	0	0	45	0	0	0	1	0
17:00:00	0	0	2167	86	34	0	0	0	36	2	0	0	0	0	47	2	0	0	1	0
17:15:00	0	0	2262	95	37	3	0	0	38	2	0	0	0	0	48	1	0	0	1	0
17:30:00	0	0	2356	94	38	1	0	0	40	2	0	0	0	0	49	1	0	0	1	0
17:45:00	0	0	2448	92	40	2	0	0	40	0	0	0	0	0	50	1	0	0	1	0
18:00:00	0	0	2536	88	40	0	0	0	42	2	0	0	0	0	50	0	0	0	1	0
18:15:00	0	0	2536	0	40	0	0	0	42	0	0	0	0	0	50	0	0	0	1	0
18:15:15	0	0	2536	0	40	0	0	0	42	0	0	0	0	0	50	0	0	0	1	0

Appendix II

Development Traffic Volumes

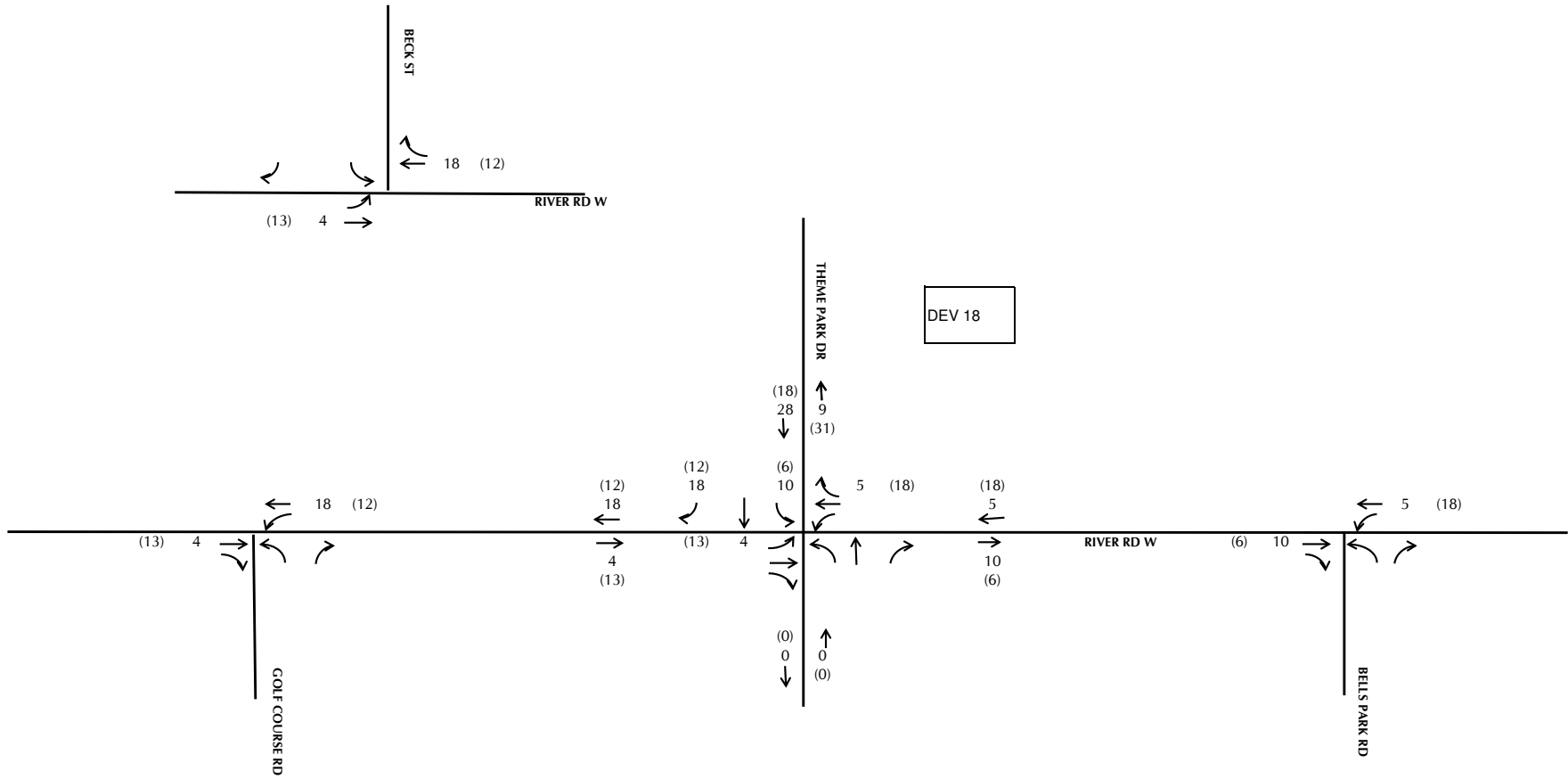


DEV 17

100 (100) AM (PM) Peak Hour

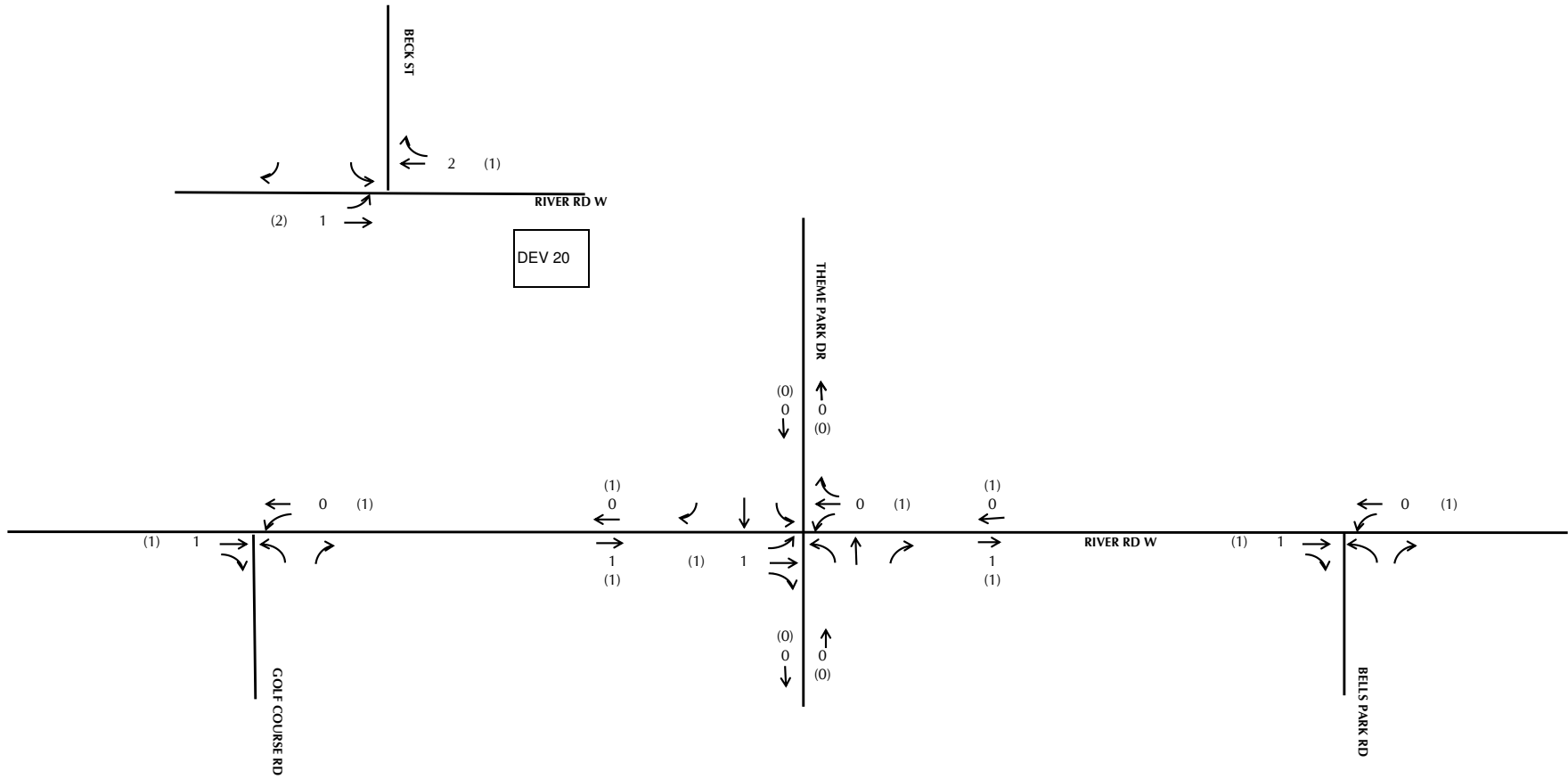
Figure II-1
York Contracting - Royal Bank Plaza Phase 2 Redevelopment Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach





100 (100) AM (PM) Peak Hour

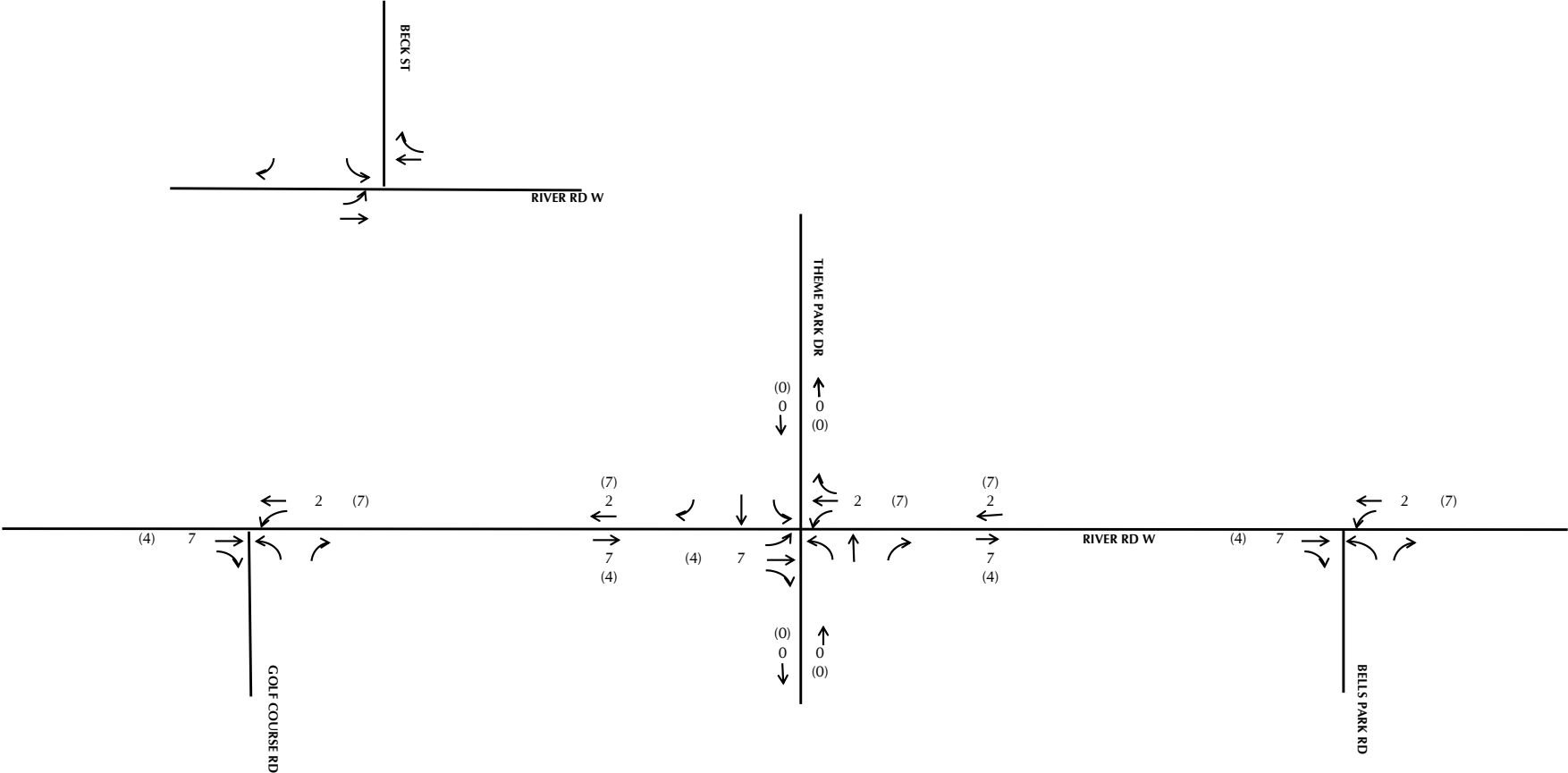
Figure II-2
Parkbridge Wasaga Meadows Phase 4 East Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach



100 (100) AM (PM) Peak Hour

Figure II-3
Pine Valley Townhouse Development Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach

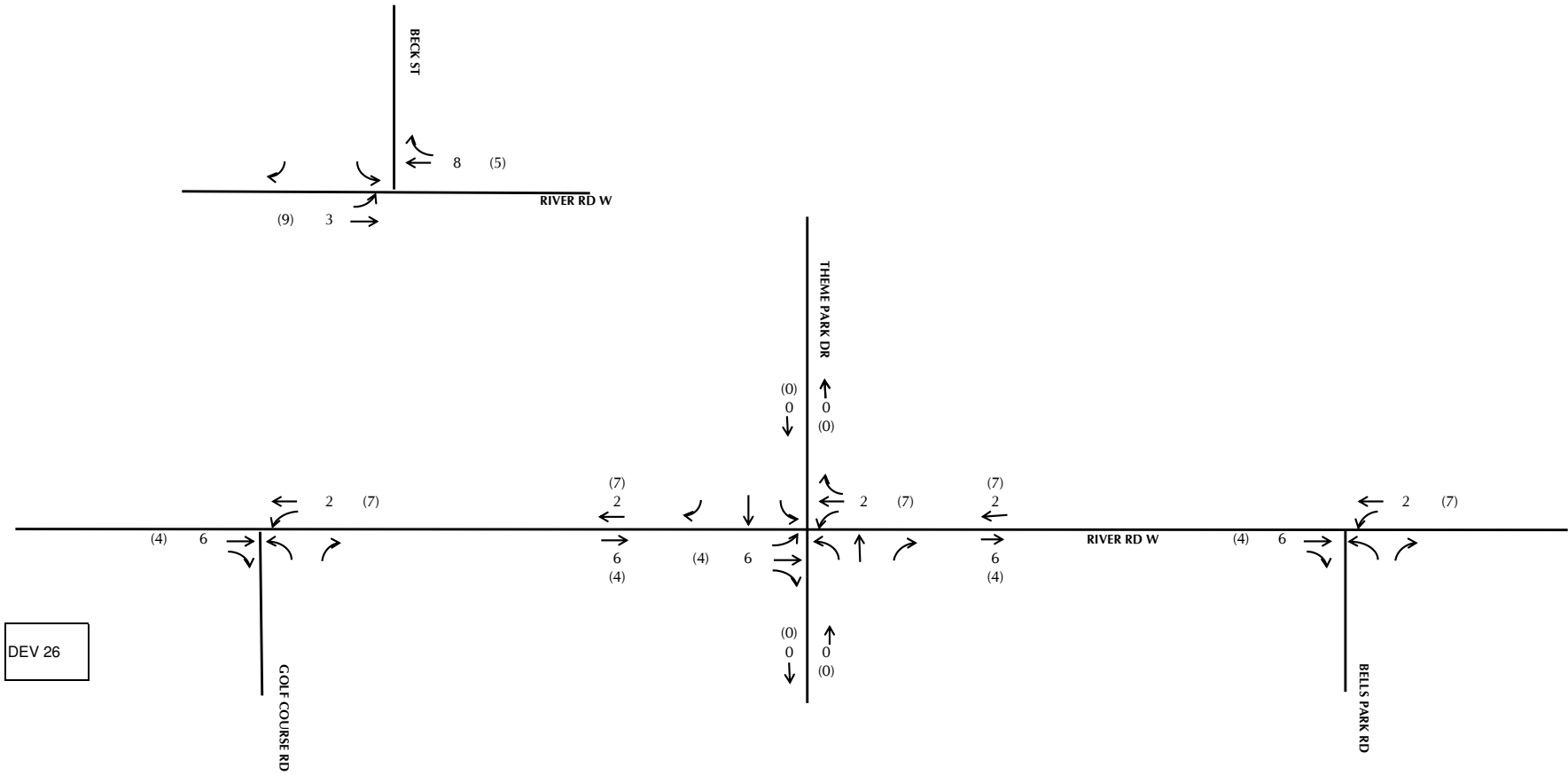
DEV 22



100 (100) AM (PM) Peak Hour

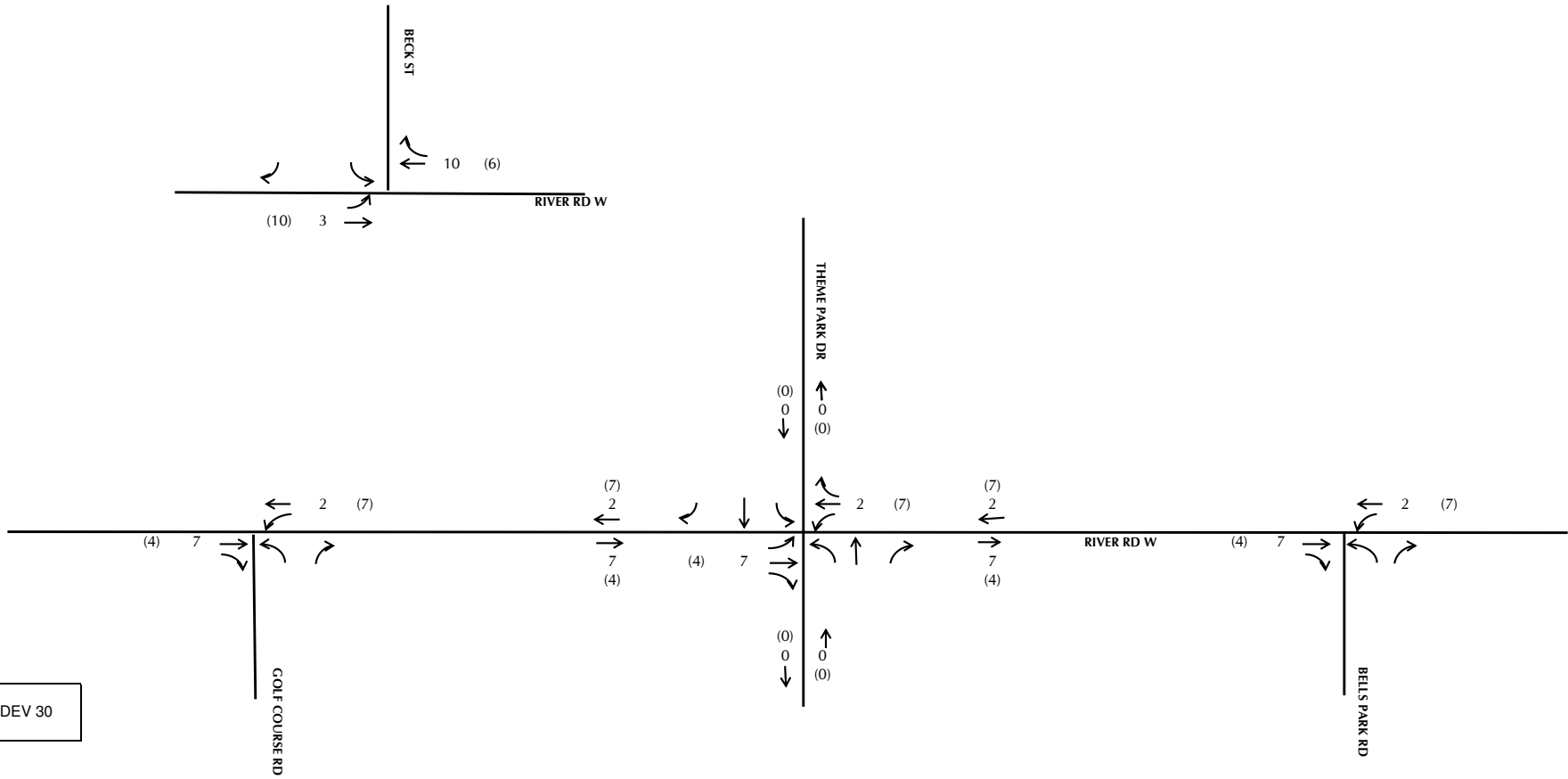
Figure II-4
Hamount Residential Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach





100 (100) AM (PM) Peak Hour

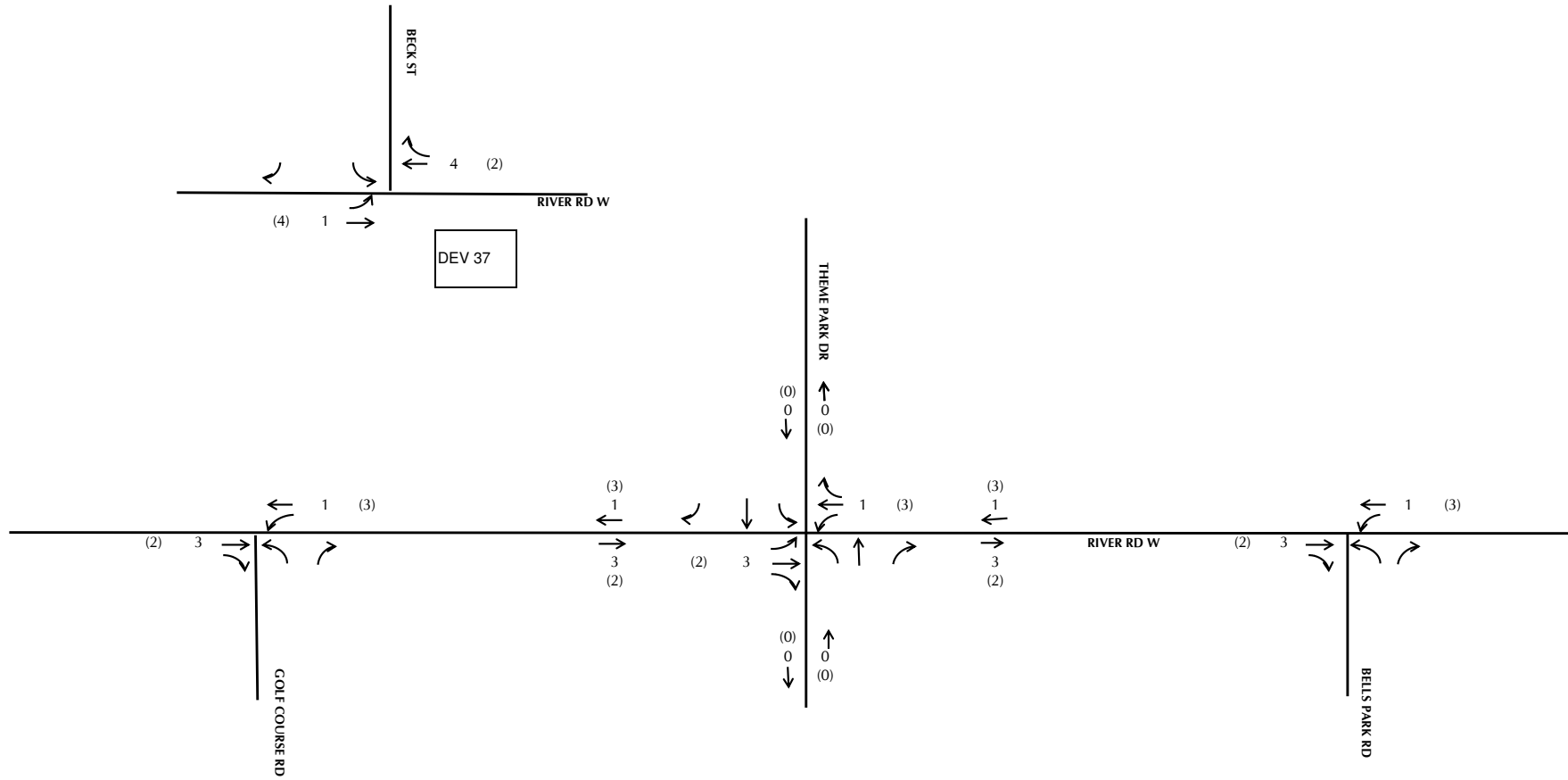
Figure II-5
Ansley Grove Subdivision - Pine Valley Developments Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach



DEV 30

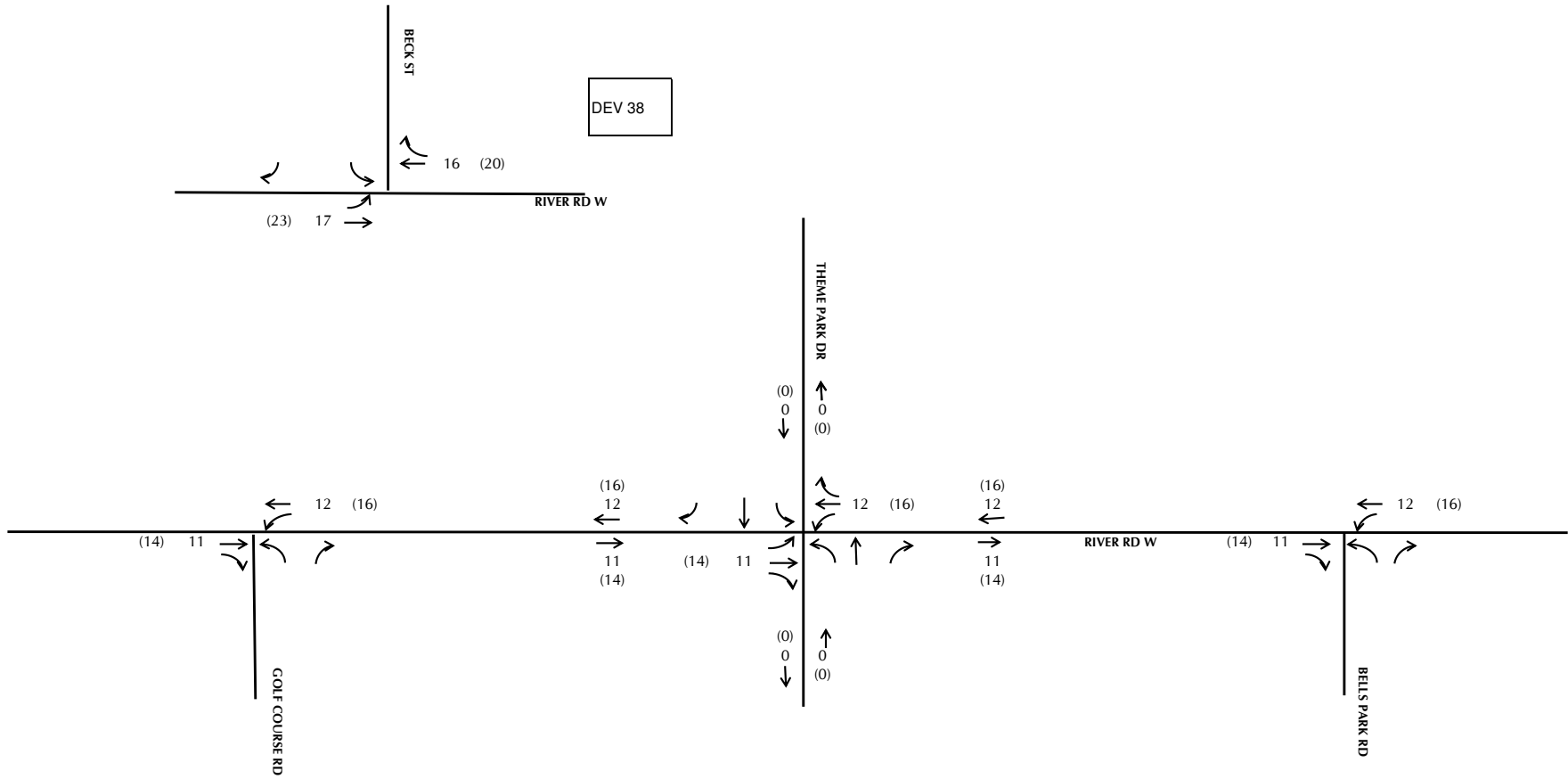
100 (100) AM (PM) Peak Hour

Figure II-6
Sterling Subdivision (Mollela) Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach



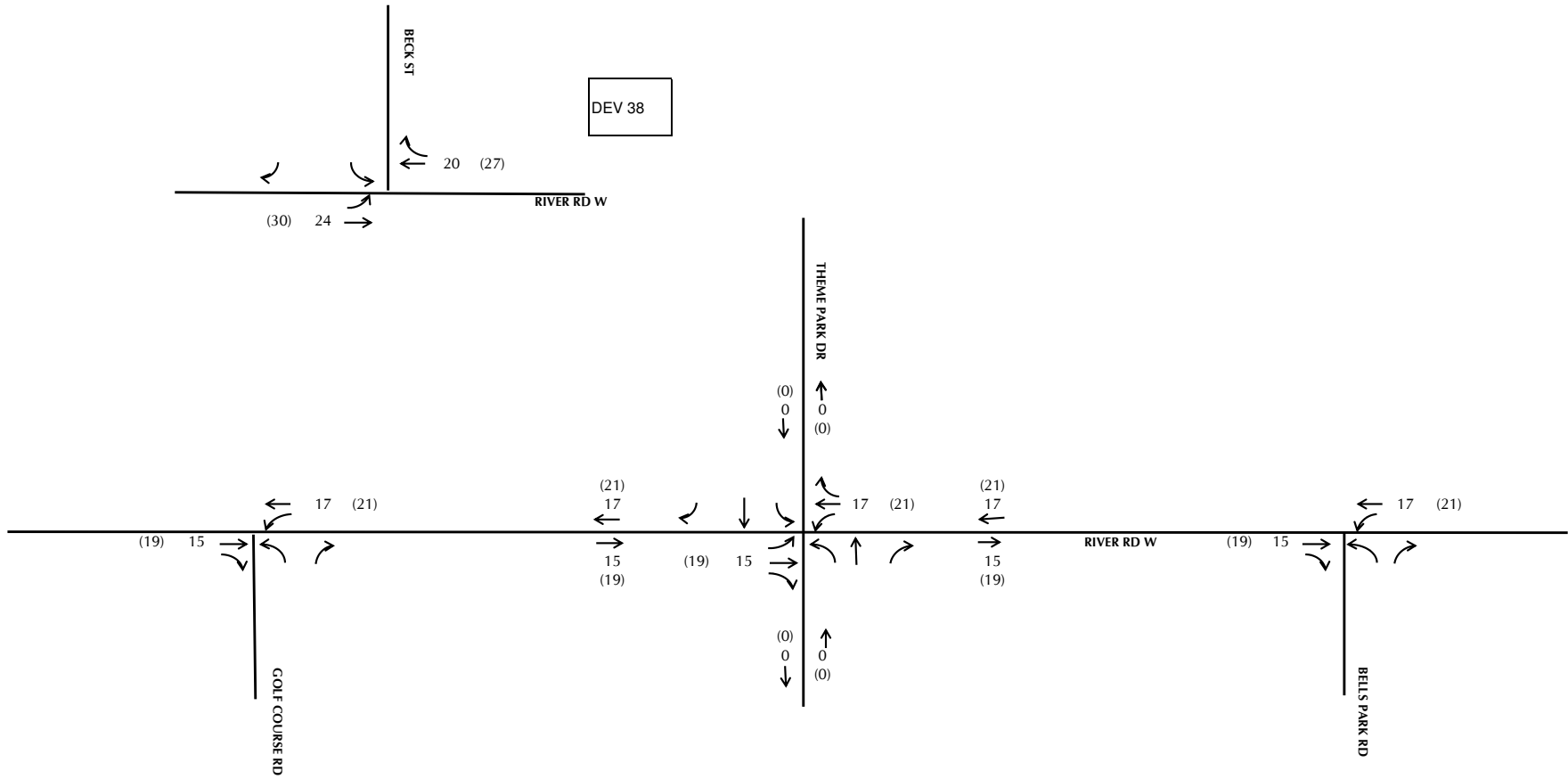
100 (100) AM (PM) Peak Hour

Figure II-7
Wasaga Beach Village Phase 3 Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach



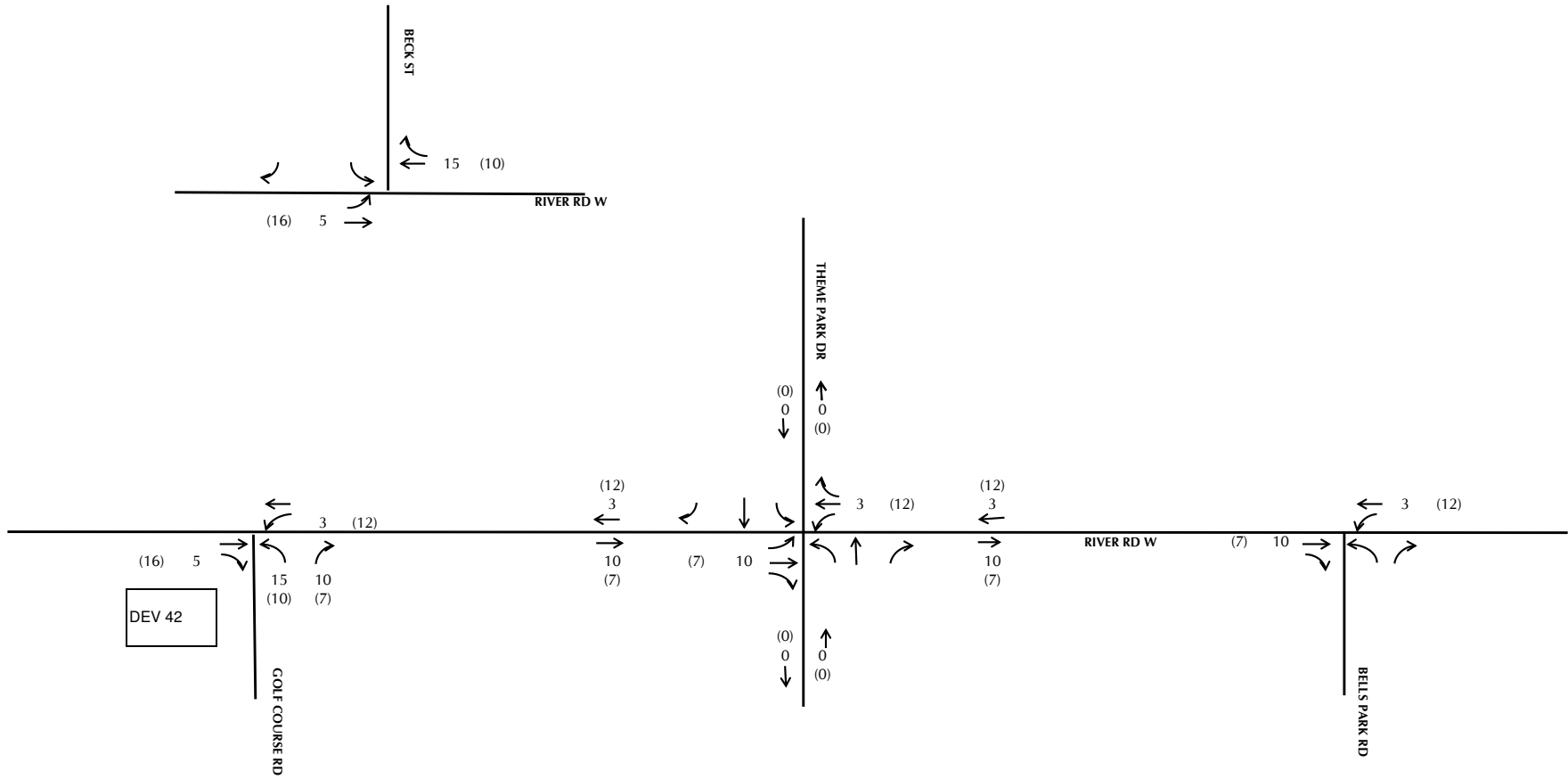
100 (100) AM (PM) Peak Hour

Figure II-8A
2026 Esso Redevelopment - Petro Gold Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach



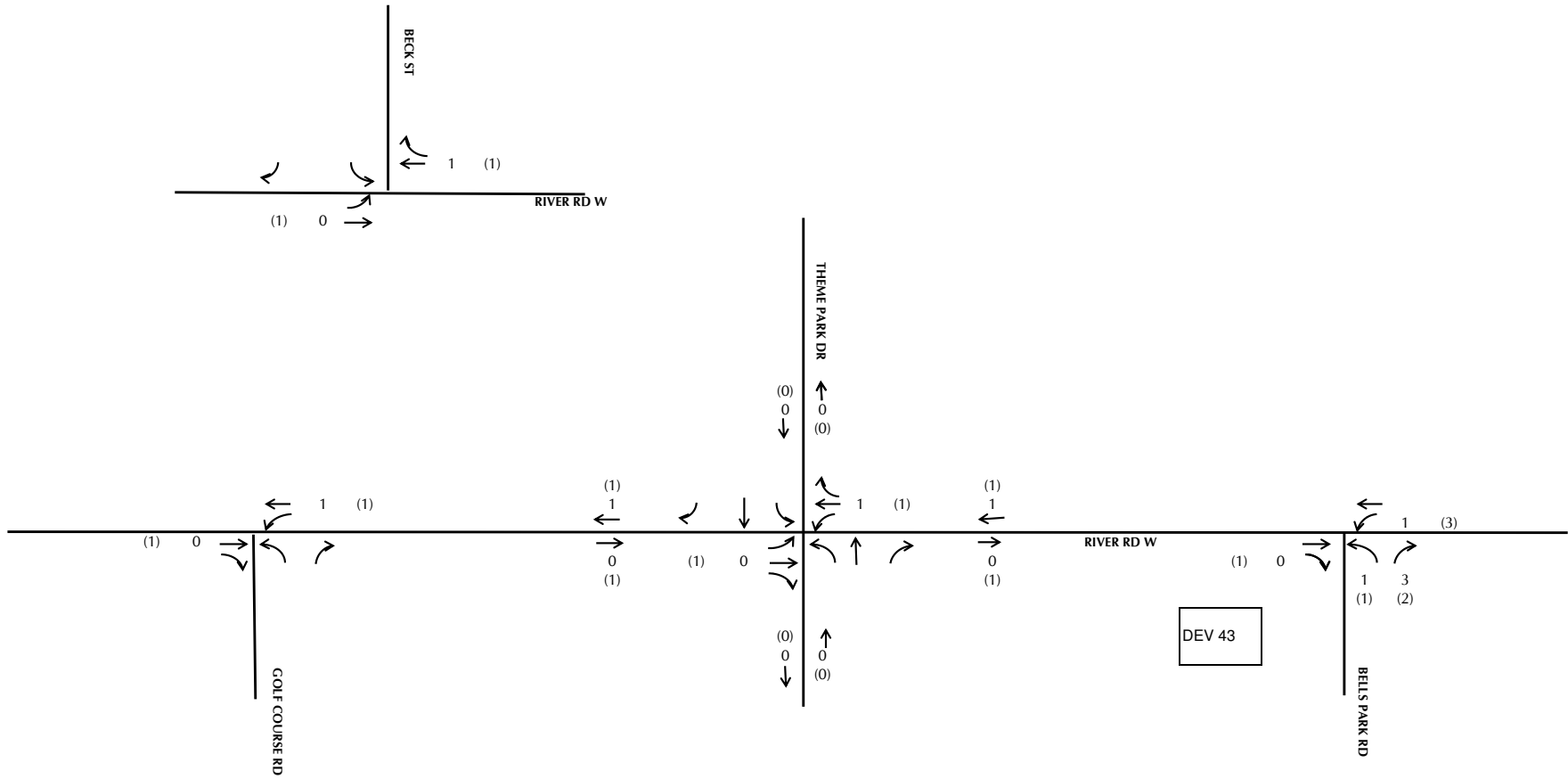
100 (100) AM (PM) Peak Hour

Figure II-8B
Beyond 2036 Esso Redevelopment - Petro Gold Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach



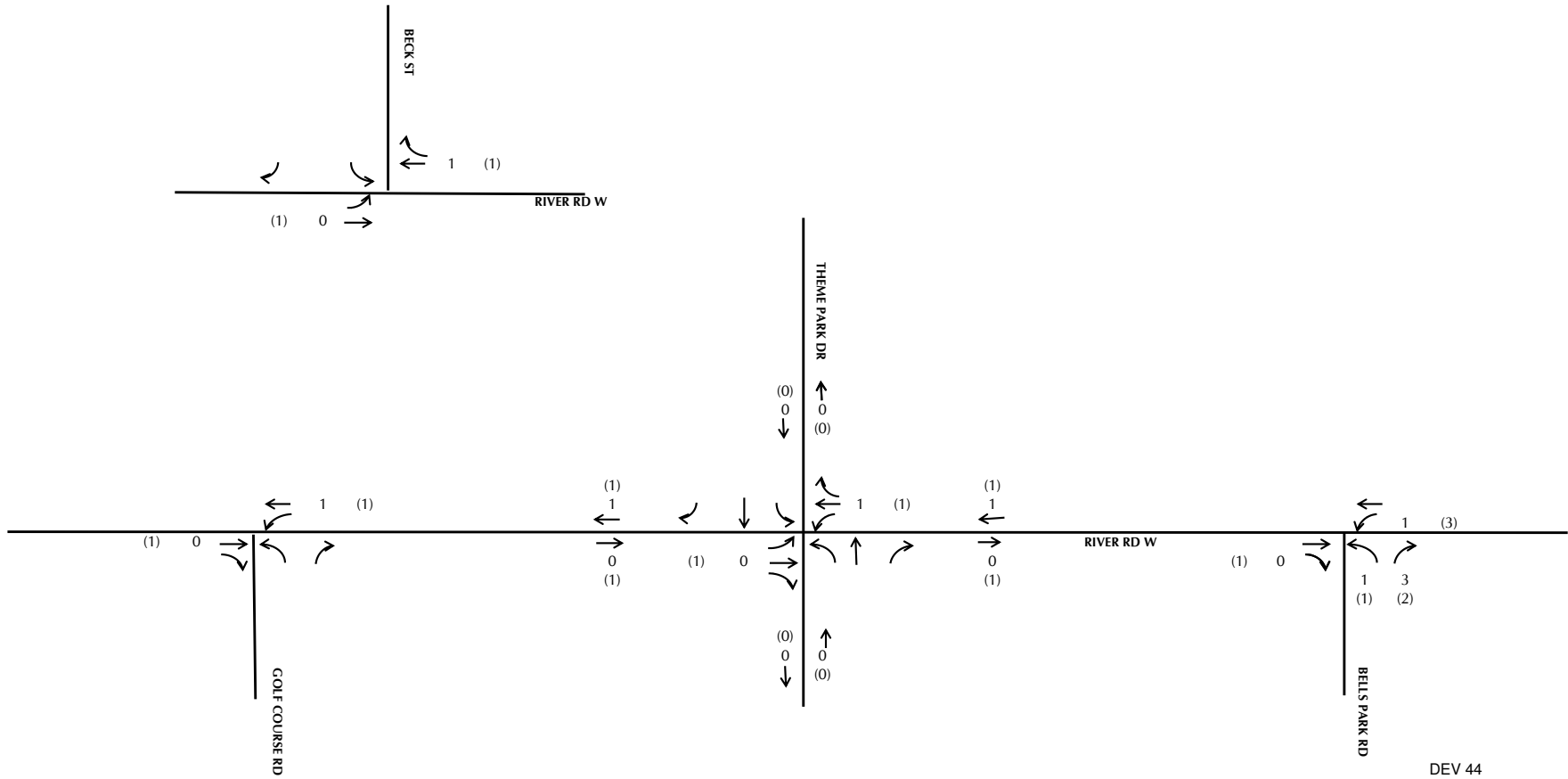
100 (100) AM (PM) Peak Hour

Figure II-9
Fernbrook Homes Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach



100 (100) AM (PM) Peak Hour

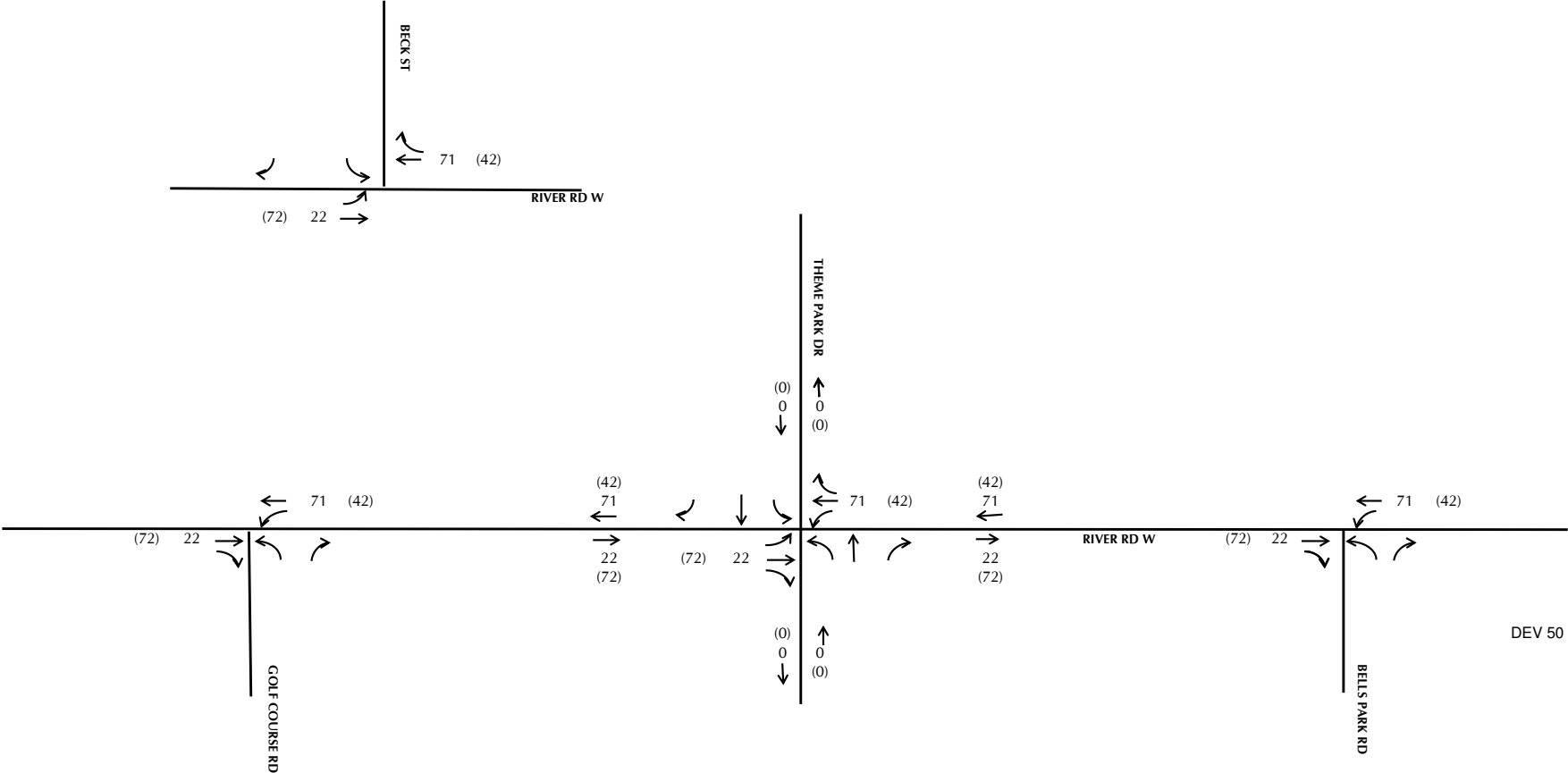
Figure II-10
Iantorno Residential Development Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach



100 (100) AM (PM) Peak Hour

DEV 44

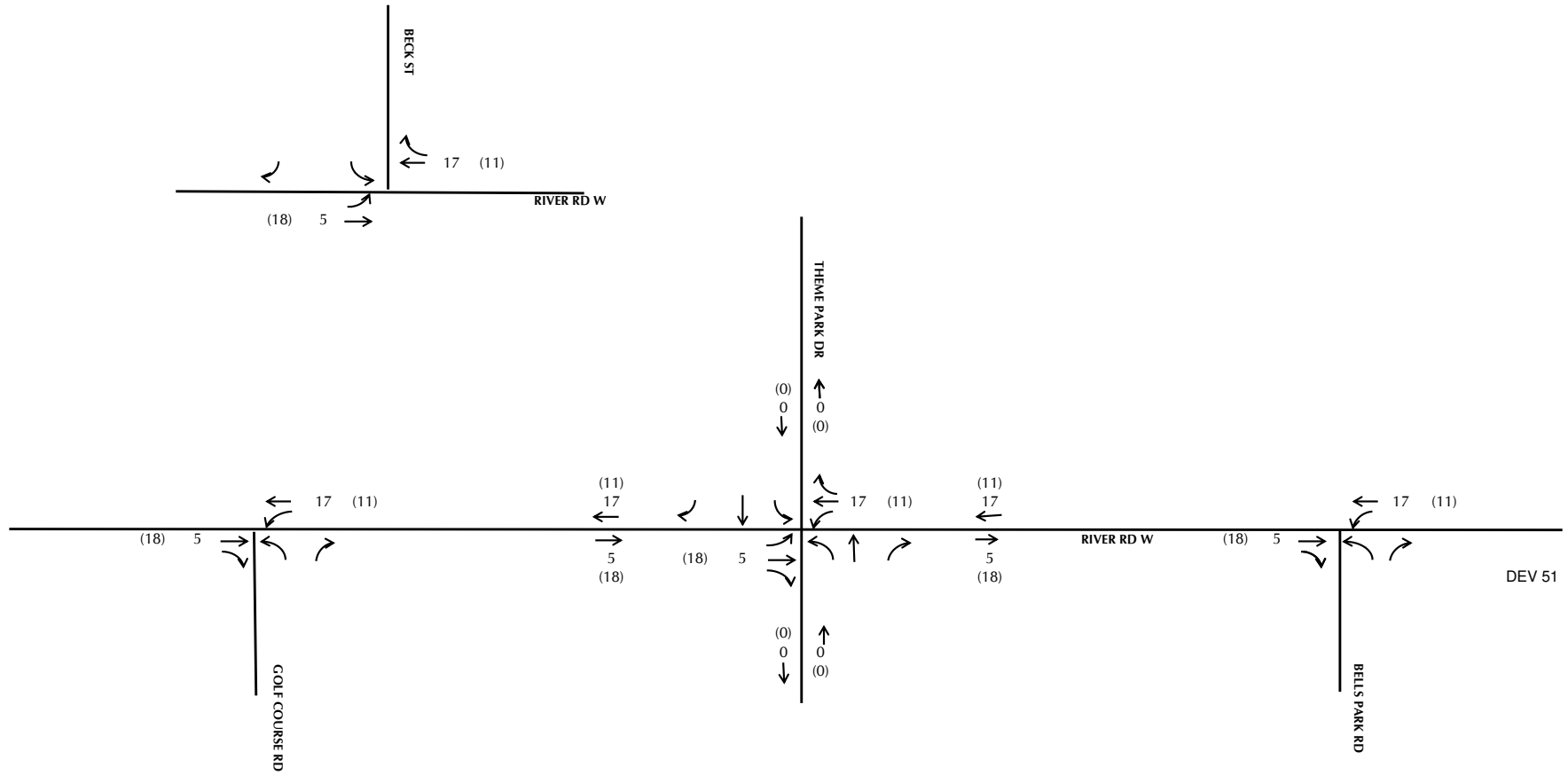
Figure II-11
Donato-Strite Subdivision Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach



100 (100) AM (PM) Peak Hour

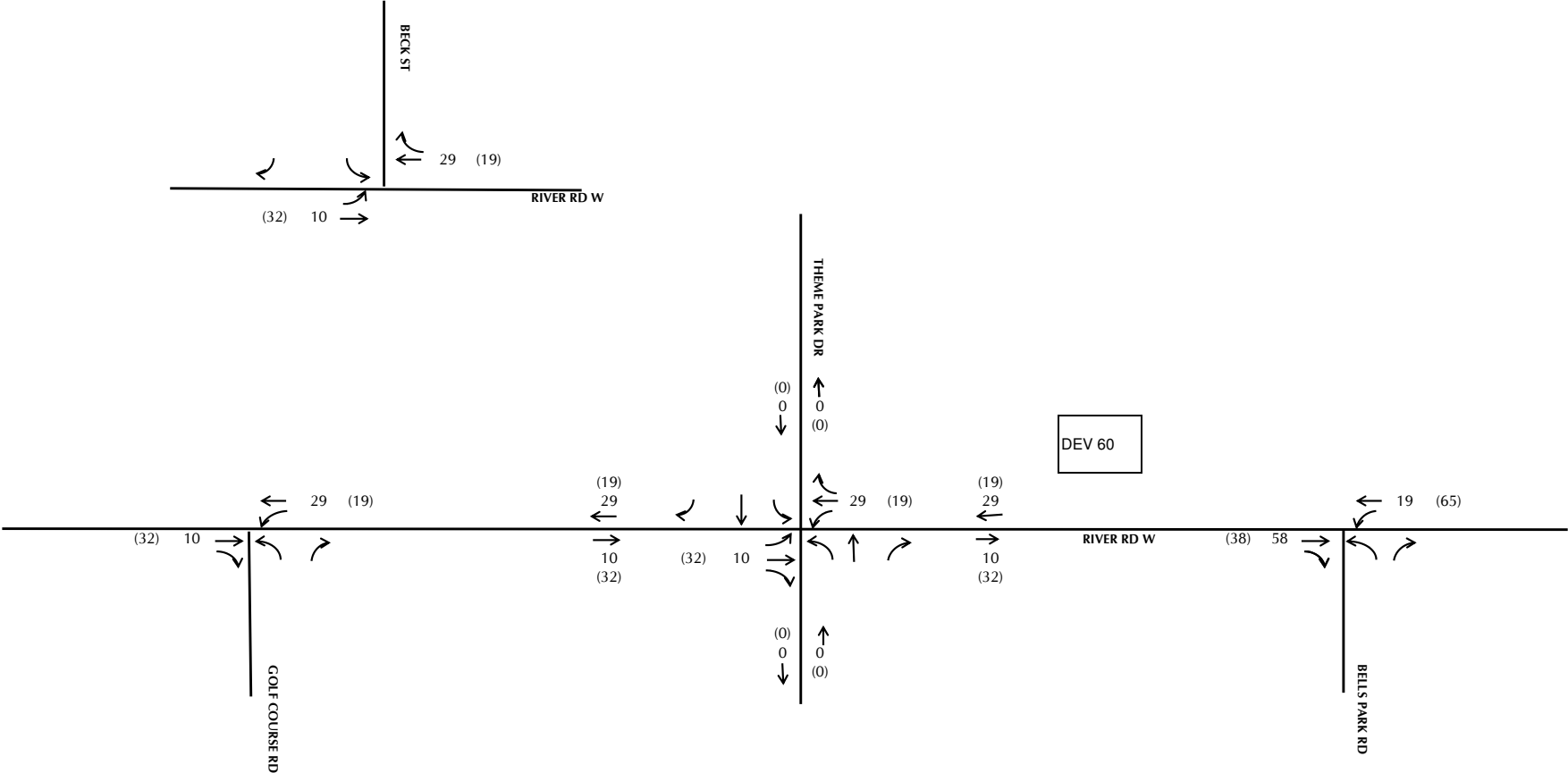
Figure II-12
Elm Developments - Georgian Sands (Subdivision) Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach





100 (100) AM (PM) Peak Hour

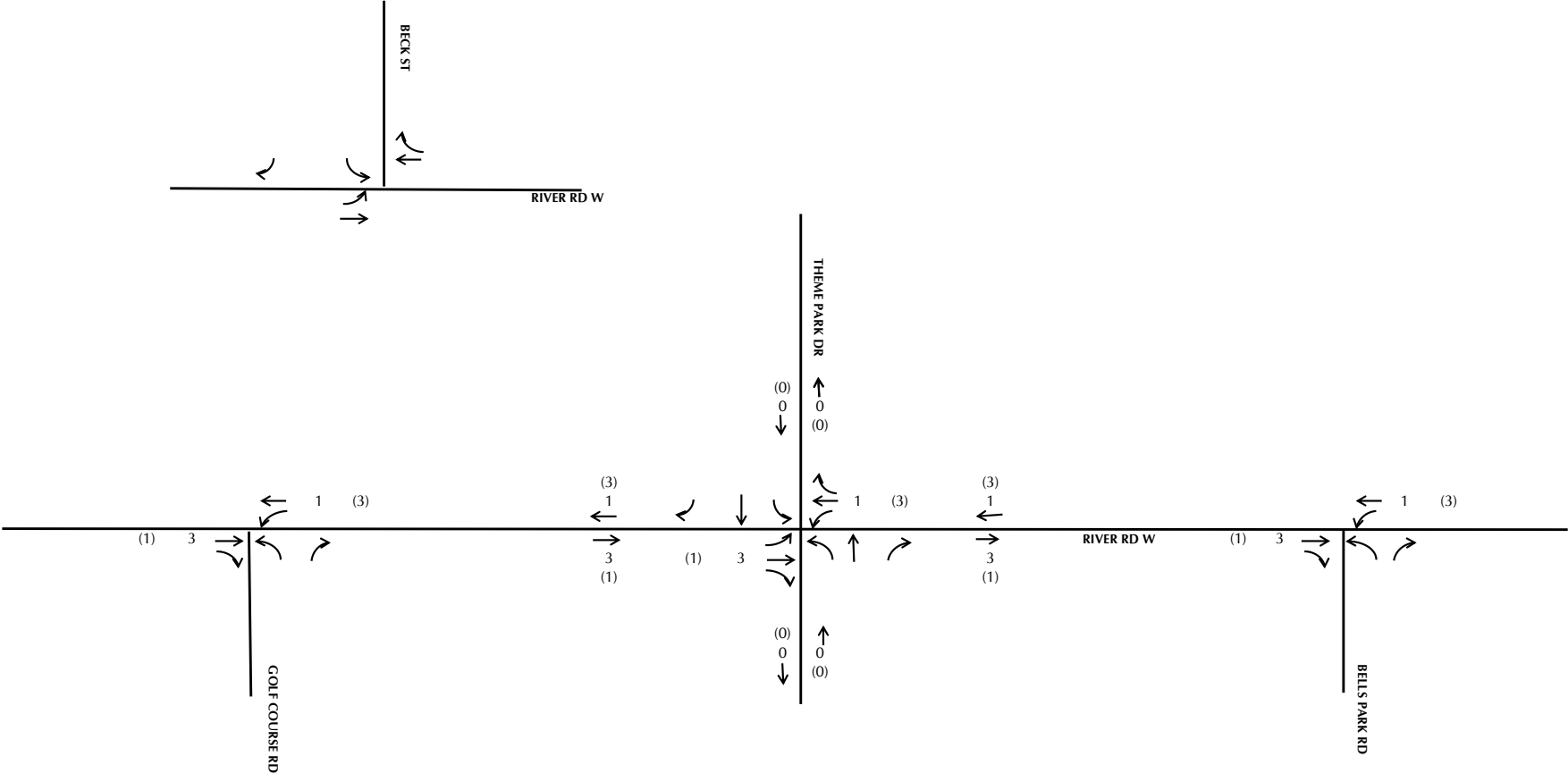
Figure II-13
Elm Developments - Georgian Sands Phase 2 (Subdivision) Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach



100 (100) AM (PM) Peak Hour

Figure II-14
Farsight Homes Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach

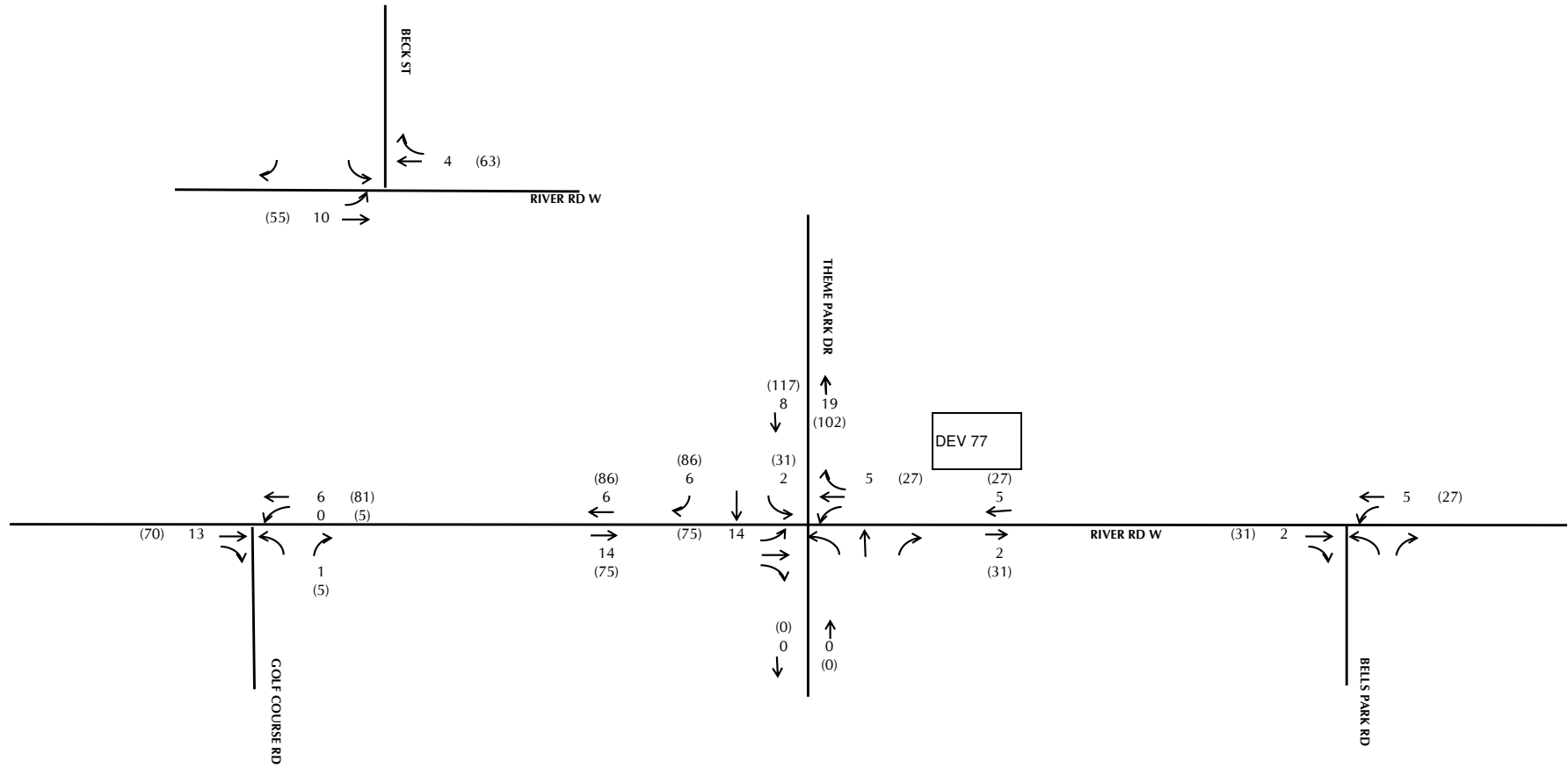
DEV 61



100 (100) AM (PM) Peak Hour

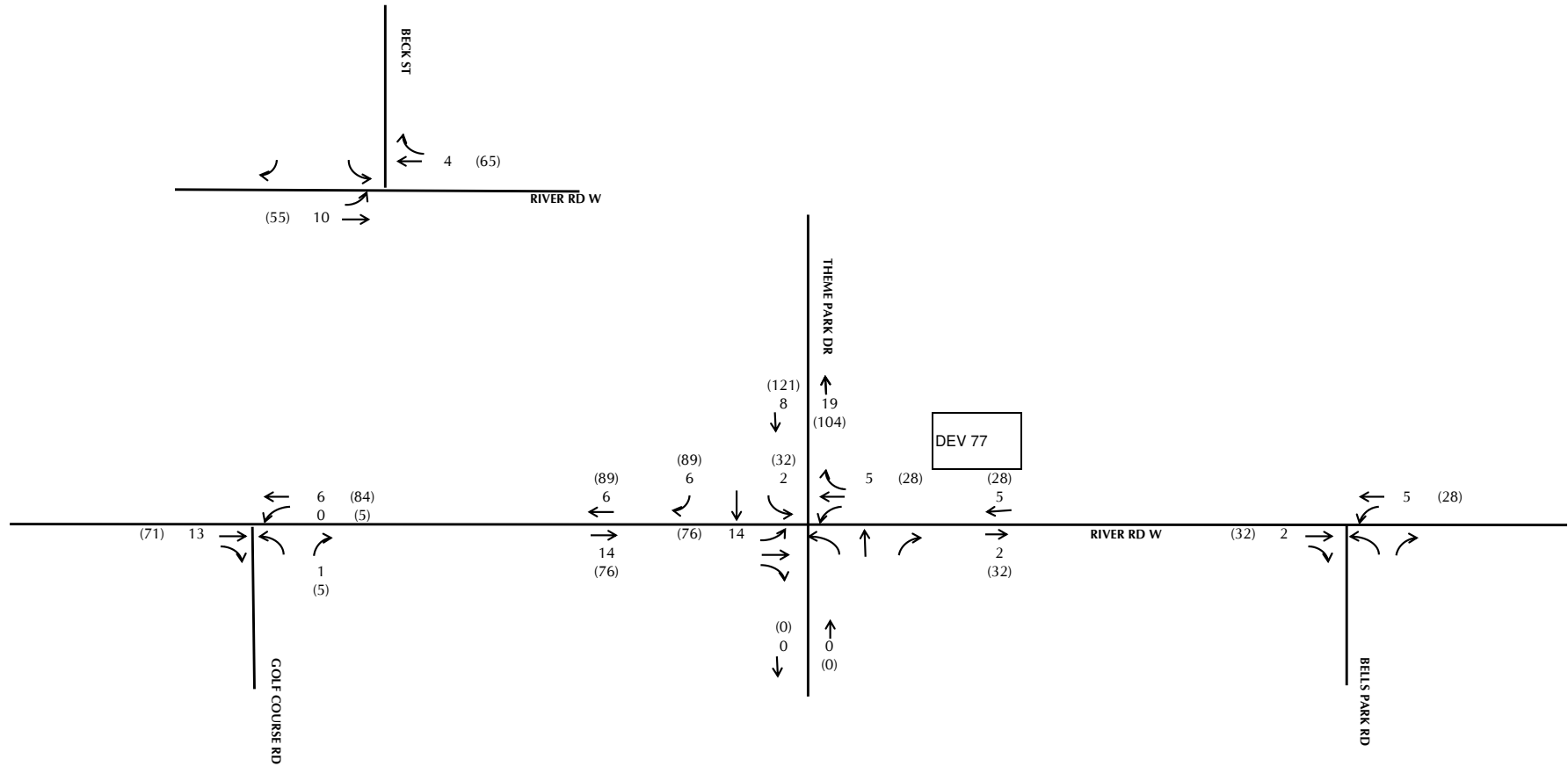
Figure II-15
Hamount Commercial (First Floor)/Residential Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach





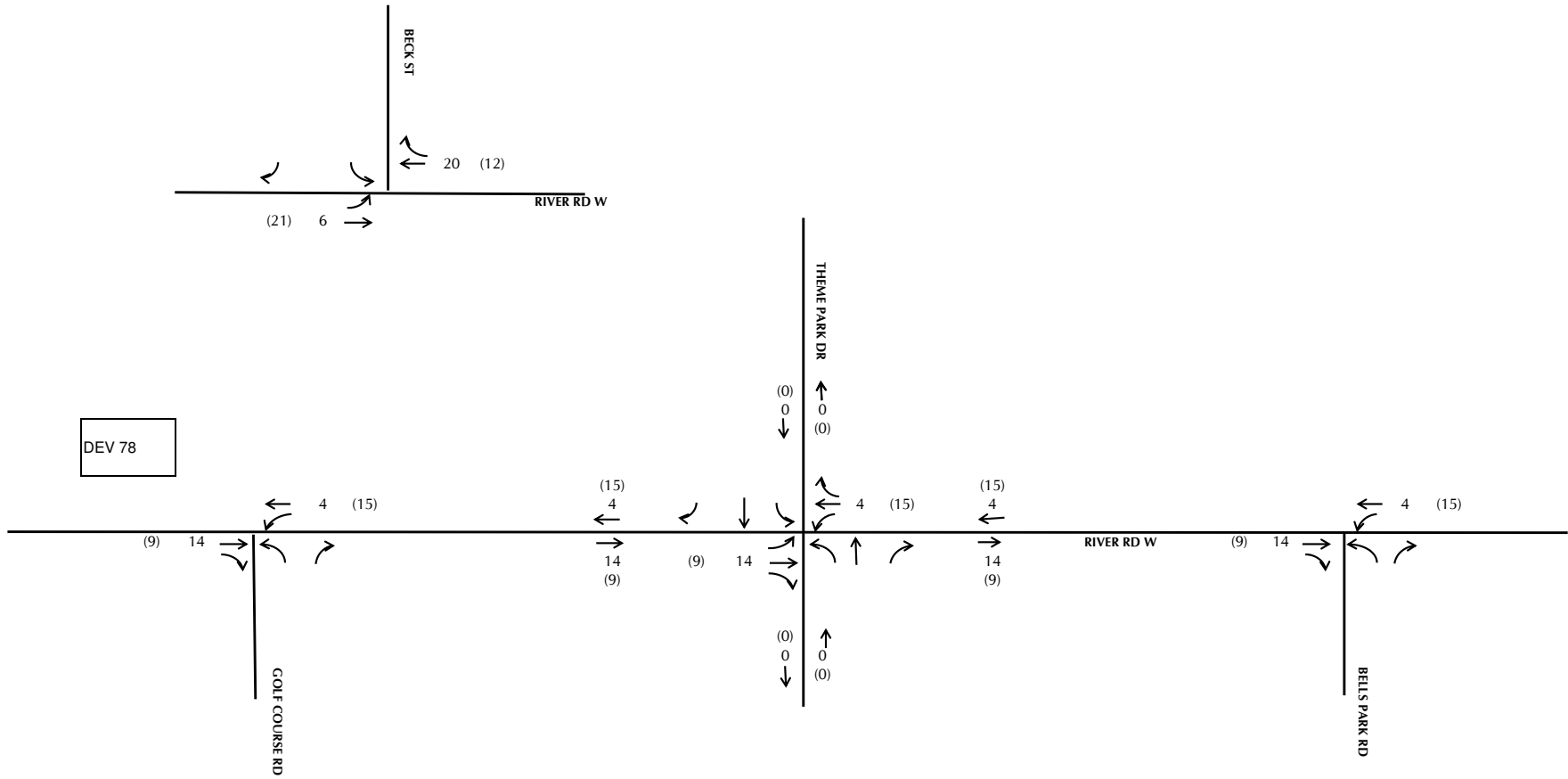
100 (100) AM (PM) Peak Hour

Figure II-16A
2026 Town Twin Pad Arena and Library Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach



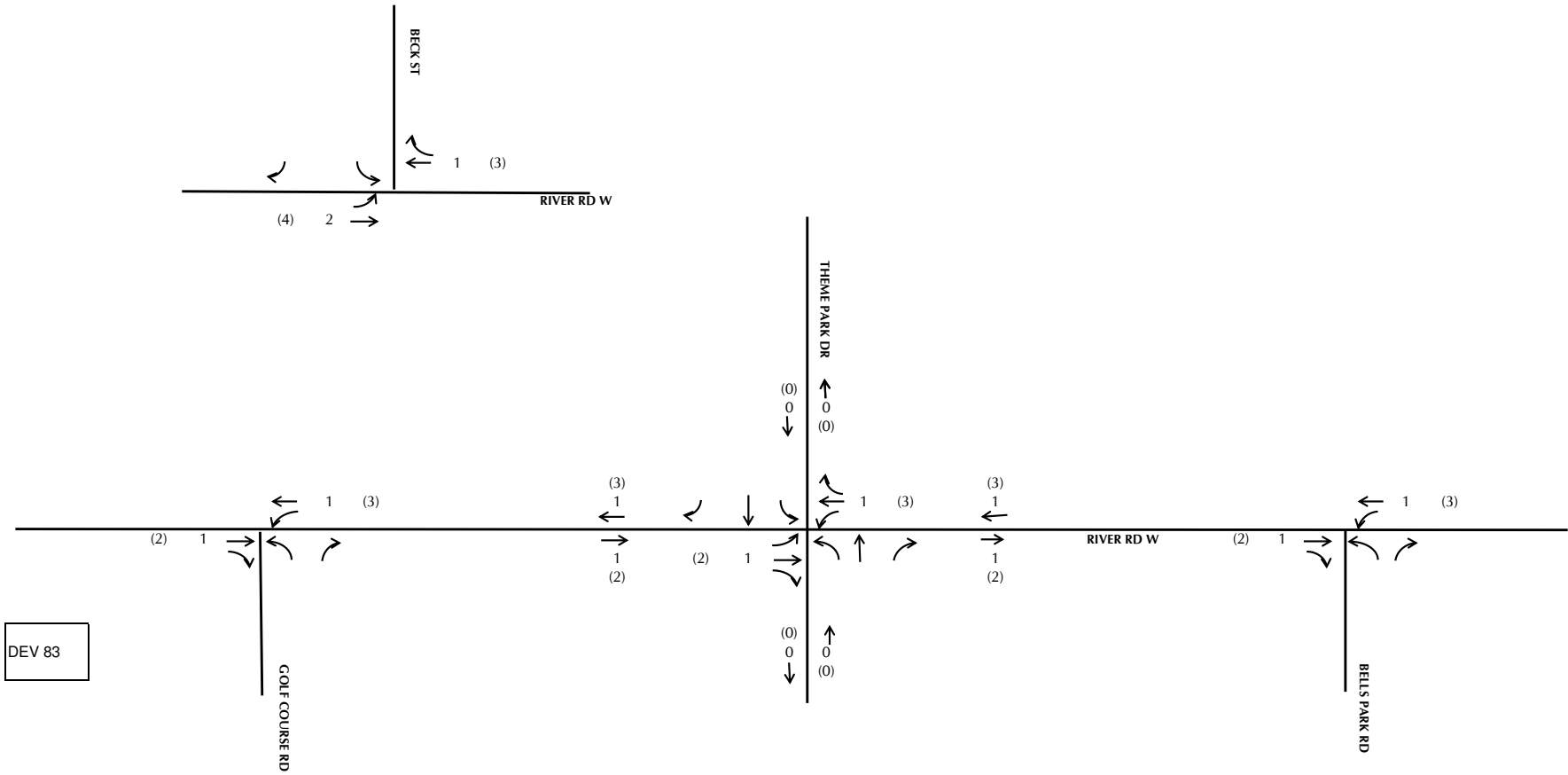
100 (100) AM (PM) Peak Hour

Figure II-16B
Beyond 2036 Town Twin Pad Arena and Library Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach



100 (100) AM (PM) Peak Hour

Figure II-17
1590245 Ontario Inc. - Sunshine Village Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach



DEV 83

100 (100) AM (PM) Peak Hour

Figure II-18
M6 Developments Inc. Generated Traffic Volumes
River Road West Traffic Analysis
Town of Wasaga Beach

Appendix III

Operational Analyses – Existing Road System

2021 Traffic Volumes

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	43	449	399	5	3	51
Future Vol, veh/h	43	449	399	5	3	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	4	5	0	0	2
Mvmt Flow	47	488	434	5	3	55
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	439	0	-	0	1019	437
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	582	-
Critical Hdwy	4.1	-	-	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.318
Pot Cap-1 Maneuver	1132	-	-	-	265	620
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	563	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1132	-	-	-	250	620
Mov Cap-2 Maneuver	-	-	-	-	250	-
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	563	-
Approach	EB	WB	SB			
HCM Control Delay, s	0.7	0	12			
HCM LOS			B			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1132	-	-	-	-	573
HCM Lane V/C Ratio	0.041	-	-	-	-	0.102
HCM Control Delay (s)	8.3	0	-	-	-	12
HCM Lane LOS	A	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.3

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	314	13	15	326	16	51
Future Vol, veh/h	314	13	15	326	16	51
Conflicting Peds, #/hr	0	2	2	0	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	0	13	8	0	0
Mvmt Flow	341	14	16	354	17	55

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	357	0	738
Stage 1	-	-	-	-	350
Stage 2	-	-	-	-	388
Critical Hdwy	-	-	4.23	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.317	-	3.5
Pot Cap-1 Maneuver	-	-	1143	-	388
Stage 1	-	-	-	-	718
Stage 2	-	-	-	-	690
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1141	-	380
Mov Cap-2 Maneuver	-	-	-	-	380
Stage 1	-	-	-	-	717
Stage 2	-	-	-	-	677

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	581	-	-	1141	-
HCM Lane V/C Ratio	0.125	-	-	0.014	-
HCM Control Delay (s)	12.1	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	305	46	4	304	15	5	1	4	14	3	30
Future Vol, veh/h	10	305	46	4	304	15	5	1	4	14	3	30
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	5	2	0	9	2	0	0	0	0	0	3
Mvmt Flow	11	332	50	4	330	16	5	1	4	15	3	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	347	0	0	382	0	0	743	734	357	729	751	339
Stage 1	-	-	-	-	-	-	379	379	-	347	347	-
Stage 2	-	-	-	-	-	-	364	355	-	382	404	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.327
Pot Cap-1 Maneuver	1223	-	-	1188	-	-	334	350	692	341	342	701
Stage 1	-	-	-	-	-	-	647	618	-	673	638	-
Stage 2	-	-	-	-	-	-	659	633	-	645	603	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1222	-	-	1188	-	-	312	344	692	333	336	700
Mov Cap-2 Maneuver	-	-	-	-	-	-	312	344	-	333	336	-
Stage 1	-	-	-	-	-	-	639	611	-	664	635	-
Stage 2	-	-	-	-	-	-	623	630	-	632	596	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			14.1			13		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	405	1222	-	-	1188	-	-	501
HCM Lane V/C Ratio	0.027	0.009	-	-	0.004	-	-	0.102
HCM Control Delay (s)	14.1	8	0	-	8	0	-	13
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	312	7	0	285	6	1
Future Vol, veh/h	312	7	0	285	6	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	0	0	8	17	0
Mvmt Flow	339	8	0	310	7	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	347	0	653
Stage 1	-	-	-	-	343
Stage 2	-	-	-	-	310
Critical Hdwy	-	-	4.1	-	6.57
Critical Hdwy Stg 1	-	-	-	-	5.57
Critical Hdwy Stg 2	-	-	-	-	5.57
Follow-up Hdwy	-	-	2.2	-	3.653
Pot Cap-1 Maneuver	-	-	1223	-	409
Stage 1	-	-	-	-	686
Stage 2	-	-	-	-	711
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1223	-	409
Mov Cap-2 Maneuver	-	-	-	-	409
Stage 1	-	-	-	-	686
Stage 2	-	-	-	-	711

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	435	-	-	1223	-
HCM Lane V/C Ratio	0.017	-	-	-	-
HCM Control Delay (s)	13.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	68	603	508	6	5	69
Future Vol, veh/h	68	603	508	6	5	69
Conflicting Peds, #/hr	3	0	0	3	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	74	655	552	7	5	75

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	562	0	-	0	1364 559
Stage 1	-	-	-	-	559 -
Stage 2	-	-	-	-	805 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1019	-	-	-	164 532
Stage 1	-	-	-	-	576 -
Stage 2	-	-	-	-	443 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1016	-	-	-	144 531
Mov Cap-2 Maneuver	-	-	-	-	144 -
Stage 1	-	-	-	-	508 -
Stage 2	-	-	-	-	442 -

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	14.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1016	-	-	-	449
HCM Lane V/C Ratio	0.073	-	-	-	0.179
HCM Control Delay (s)	8.8	0	-	-	14.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	423	24	12	457	18	5
Future Vol, veh/h	423	24	12	457	18	5
Conflicting Peds, #/hr	0	3	3	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	460	26	13	497	20	5

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	489	0	999 476
Stage 1	-	-	-	-	476 -
Stage 2	-	-	-	-	523 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1085	-	272 593
Stage 1	-	-	-	-	629 -
Stage 2	-	-	-	-	599 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1082	-	267 591
Mov Cap-2 Maneuver	-	-	-	-	267 -
Stage 1	-	-	-	-	627 -
Stage 2	-	-	-	-	589 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	17.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	303	-	-	1082	-
HCM Lane V/C Ratio	0.083	-	-	0.012	-
HCM Control Delay (s)	17.9	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	27	358	43	5	423	10	6	1	0	13	4	32
Future Vol, veh/h	27	358	43	5	423	10	6	1	0	13	4	32
Conflicting Peds, #/hr	2	0	2	2	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	3	0	0	2	0	0	0	0	15	0	0
Mvmt Flow	29	389	47	5	460	11	7	1	0	14	4	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	473	0	0	438	0	0	968	956	415	949	974	468
Stage 1	-	-	-	-	-	-	473	473	-	478	478	-
Stage 2	-	-	-	-	-	-	495	483	-	471	496	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.25	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.25	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.25	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.635	4	3.3
Pot Cap-1 Maneuver	1099	-	-	1133	-	-	235	260	642	228	254	599
Stage 1	-	-	-	-	-	-	576	562	-	544	559	-
Stage 2	-	-	-	-	-	-	560	556	-	549	549	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1097	-	-	1131	-	-	211	248	641	220	243	598
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	248	-	220	243	-
Stage 1	-	-	-	-	-	-	555	541	-	524	555	-
Stage 2	-	-	-	-	-	-	520	552	-	529	529	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.1			22.3			16		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	216	1097	-	-	1131	-	-	380
HCM Lane V/C Ratio	0.035	0.027	-	-	0.005	-	-	0.14
HCM Control Delay (s)	22.3	8.4	0	-	8.2	0	-	16
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.5

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	378	6	34	416	1	34
Future Vol, veh/h	378	6	34	416	1	34
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	0	6	2	0	0
Mvmt Flow	411	7	37	452	1	37

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	419	0	942
Stage 1	-	-	-	-	416
Stage 2	-	-	-	-	526
Critical Hdwy	-	-	4.16	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.254	-	3.5
Pot Cap-1 Maneuver	-	-	1119	-	294
Stage 1	-	-	-	-	670
Stage 2	-	-	-	-	597
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1118	-	281
Mov Cap-2 Maneuver	-	-	-	-	281
Stage 1	-	-	-	-	669
Stage 2	-	-	-	-	571

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	617	-	-	1118	-
HCM Lane V/C Ratio	0.062	-	-	0.033	-
HCM Control Delay (s)	11.2	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

2026 Traffic Volumes

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	44	496	475	5	3	52
Future Vol, veh/h	44	496	475	5	3	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	4	5	0	0	2
Mvmt Flow	48	539	516	5	3	57

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	521	0	0	1154	519
Stage 1	-	-	-	519	-
Stage 2	-	-	-	635	-
Critical Hdwy	4.1	-	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.318
Pot Cap-1 Maneuver	1056	-	-	220	557
Stage 1	-	-	-	601	-
Stage 2	-	-	-	532	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1056	-	-	206	557
Mov Cap-2 Maneuver	-	-	-	206	-
Stage 1	-	-	-	562	-
Stage 2	-	-	-	532	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1056	-	-	-	510
HCM Lane V/C Ratio	0.045	-	-	-	0.117
HCM Control Delay (s)	8.6	0	-	-	13
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	372	13	15	391	16	53
Future Vol, veh/h	372	13	15	391	16	53
Conflicting Peds, #/hr	0	2	2	0	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	0	13	8	0	0
Mvmt Flow	404	14	16	425	17	58

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	420	0	872
Stage 1	-	-	-	-	413
Stage 2	-	-	-	-	459
Critical Hdwy	-	-	4.23	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.317	-	3.5
Pot Cap-1 Maneuver	-	-	1083	-	324
Stage 1	-	-	-	-	672
Stage 2	-	-	-	-	641
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1081	-	317
Mov Cap-2 Maneuver	-	-	-	-	317
Stage 1	-	-	-	-	671
Stage 2	-	-	-	-	628

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	13.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	519	-	-	1081	-
HCM Lane V/C Ratio	0.145	-	-	0.015	-
HCM Control Delay (s)	13.1	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	28	347	47	4	345	26	5	1	4	26	3	54
Future Vol, veh/h	28	347	47	4	345	26	5	1	4	26	3	54
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	5	2	0	9	2	0	0	0	0	0	3
Mvmt Flow	30	377	51	4	375	28	5	1	4	28	3	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	404	0	0	428	0	0	891	875	403	863	886	390
Stage 1	-	-	-	-	-	-	463	463	-	398	398	-
Stage 2	-	-	-	-	-	-	428	412	-	465	488	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.327
Pot Cap-1 Maneuver	1166	-	-	1142	-	-	265	290	652	277	286	656
Stage 1	-	-	-	-	-	-	583	568	-	632	606	-
Stage 2	-	-	-	-	-	-	609	598	-	581	553	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1165	-	-	1142	-	-	232	278	652	266	275	655
Mov Cap-2 Maneuver	-	-	-	-	-	-	232	278	-	266	275	-
Stage 1	-	-	-	-	-	-	563	549	-	610	602	-
Stage 2	-	-	-	-	-	-	549	594	-	556	534	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.1			16.6			15.5		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	320	1165	-	-	1142	-	-	434
HCM Lane V/C Ratio	0.034	0.026	-	-	0.004	-	-	0.208
HCM Control Delay (s)	16.6	8.2	0	-	8.2	0	-	15.5
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.8

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	365	8	1	334	7	4
Future Vol, veh/h	365	8	1	334	7	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	0	0	8	17	0
Mvmt Flow	397	9	1	363	8	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	406	0	767
Stage 1	-	-	-	-	402
Stage 2	-	-	-	-	365
Critical Hdwy	-	-	4.1	-	6.57
Critical Hdwy Stg 1	-	-	-	-	5.57
Critical Hdwy Stg 2	-	-	-	-	5.57
Follow-up Hdwy	-	-	2.2	-	3.653
Pot Cap-1 Maneuver	-	-	1164	-	350
Stage 1	-	-	-	-	644
Stage 2	-	-	-	-	670
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1164	-	350
Mov Cap-2 Maneuver	-	-	-	-	350
Stage 1	-	-	-	-	644
Stage 2	-	-	-	-	669

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	421	-	-	1164	-
HCM Lane V/C Ratio	0.028	-	-	0.001	-
HCM Control Delay (s)	13.8	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	70	734	626	6	5	71
Future Vol, veh/h	70	734	626	6	5	71
Conflicting Peds, #/hr	3	0	0	3	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	74	773	659	6	5	75

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	668	0	-	0	1588 665
Stage 1	-	-	-	-	665 -
Stage 2	-	-	-	-	923 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	931	-	-	-	120 464
Stage 1	-	-	-	-	515 -
Stage 2	-	-	-	-	390 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	928	-	-	-	103 463
Mov Cap-2 Maneuver	-	-	-	-	103 -
Stage 1	-	-	-	-	441 -
Stage 2	-	-	-	-	389 -

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	17.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	928	-	-	-	376
HCM Lane V/C Ratio	0.079	-	-	-	0.213
HCM Control Delay (s)	9.2	0	-	-	17.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	0.8

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	555	25	17	604	18	10
Future Vol, veh/h	555	25	17	604	18	10
Conflicting Peds, #/hr	0	3	3	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	584	26	18	636	19	11

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	613	0	1272
Stage 1	-	-	-	-	600
Stage 2	-	-	-	-	672
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	976	-	187
Stage 1	-	-	-	-	552
Stage 2	-	-	-	-	511
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	973	-	181
Mov Cap-2 Maneuver	-	-	-	-	181
Stage 1	-	-	-	-	550
Stage 2	-	-	-	-	496

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	22.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	235	-	-	973	-
HCM Lane V/C Ratio	0.125	-	-	0.018	-
HCM Control Delay (s)	22.5	-	-	8.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection												
Int Delay, s/veh	7.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	116	406	44	5	476	76	6	1	0	51	4	131
Future Vol, veh/h	116	406	44	5	476	76	6	1	0	51	4	131
Conflicting Peds, #/hr	2	0	2	2	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	3	0	0	2	0	0	0	0	15	0	0
Mvmt Flow	122	427	46	5	501	80	6	1	0	54	4	138

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	583	0	0	475	0	0	1318	1289	452	1248	1272	543
Stage 1	-	-	-	-	-	-	696	696	-	553	553	-
Stage 2	-	-	-	-	-	-	622	593	-	695	719	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.25	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.25	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.25	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.635	4	3.3
Pot Cap-1 Maneuver	1001	-	-	1098	-	-	136	165	612	141	169	544
Stage 1	-	-	-	-	-	-	435	446	-	495	518	-
Stage 2	-	-	-	-	-	-	478	497	-	412	436	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	999	-	-	1096	-	-	86	136	611	121	139	543
Mov Cap-2 Maneuver	-	-	-	-	-	-	86	136	-	121	139	-
Stage 1	-	-	-	-	-	-	361	371	-	411	513	-
Stage 2	-	-	-	-	-	-	351	493	-	342	362	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.9			0.1			48			47.3		
HCM LOS							E			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	91	999	-	-	1096	-	-	269
HCM Lane V/C Ratio	0.081	0.122	-	-	0.005	-	-	0.728
HCM Control Delay (s)	48	9.1	0	-	8.3	0	-	47.3
HCM Lane LOS	E	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.3	0.4	-	-	0	-	-	5.1

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	463	8	38	514	2	37
Future Vol, veh/h	463	8	38	514	2	37
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	0	6	2	0	0
Mvmt Flow	487	8	40	541	2	39

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	496	0
Stage 1	-	-	-	492
Stage 2	-	-	-	621
Critical Hdwy	-	-	4.16	-
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.254	-
Pot Cap-1 Maneuver	-	-	1047	-
Stage 1	-	-	-	619
Stage 2	-	-	-	540
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1046	-
Mov Cap-2 Maneuver	-	-	-	220
Stage 1	-	-	-	618
Stage 2	-	-	-	510

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	535	-	-	1046	-
HCM Lane V/C Ratio	0.077	-	-	0.038	-
HCM Control Delay (s)	12.3	-	-	8.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

2036 Traffic Volumes

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	46	559	618	5	3	55
Future Vol, veh/h	46	559	618	5	3	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	4	5	0	0	2
Mvmt Flow	50	608	672	5	3	60

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	677	0	0	1383	675
Stage 1	-	-	-	675	-
Stage 2	-	-	-	708	-
Critical Hdwy	4.1	-	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.318
Pot Cap-1 Maneuver	924	-	-	160	454
Stage 1	-	-	-	510	-
Stage 2	-	-	-	492	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	924	-	-	147	454
Mov Cap-2 Maneuver	-	-	-	147	-
Stage 1	-	-	-	468	-
Stage 2	-	-	-	492	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	924	-	-	-	410
HCM Lane V/C Ratio	0.054	-	-	-	0.154
HCM Control Delay (s)	9.1	0	-	-	15.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	436	19	20	489	32	66
Future Vol, veh/h	436	19	20	489	32	66
Conflicting Peds, #/hr	0	2	2	0	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	0	13	8	0	0
Mvmt Flow	474	21	22	532	35	72

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	497	0	1065
Stage 1	-	-	-	-	487
Stage 2	-	-	-	-	578
Critical Hdwy	-	-	4.23	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.317	-	3.5
Pot Cap-1 Maneuver	-	-	1012	-	249
Stage 1	-	-	-	-	622
Stage 2	-	-	-	-	565
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1010	-	240
Mov Cap-2 Maneuver	-	-	-	-	240
Stage 1	-	-	-	-	621
Stage 2	-	-	-	-	546

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	17.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	398	-	-	1010	-
HCM Lane V/C Ratio	0.268	-	-	0.022	-
HCM Control Delay (s)	17.3	-	-	8.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0.1	-

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	28	420	50	4	445	27	5	1	4	27	3	56
Future Vol, veh/h	28	420	50	4	445	27	5	1	4	27	3	56
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	5	2	0	9	2	0	0	0	0	0	3
Mvmt Flow	30	457	54	4	484	29	5	1	4	29	3	61

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	514	0	0	511	0	0	1083	1066	484	1055	1079	500
Stage 1	-	-	-	-	-	-	544	544	-	508	508	-
Stage 2	-	-	-	-	-	-	539	522	-	547	571	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.327
Pot Cap-1 Maneuver	1062	-	-	1065	-	-	197	224	587	205	220	569
Stage 1	-	-	-	-	-	-	527	522	-	551	542	-
Stage 2	-	-	-	-	-	-	530	534	-	525	508	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1061	-	-	1065	-	-	168	214	587	196	210	568
Mov Cap-2 Maneuver	-	-	-	-	-	-	168	214	-	196	210	-
Stage 1	-	-	-	-	-	-	506	501	-	528	539	-
Stage 2	-	-	-	-	-	-	468	531	-	499	488	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.1			20.6			19.4		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	242	1061	-	-	1065	-	-	343
HCM Lane V/C Ratio	0.045	0.029	-	-	0.004	-	-	0.273
HCM Control Delay (s)	20.6	8.5	0	-	8.4	0	-	19.4
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	1.1

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	439	8	2	432	9	6
Future Vol, veh/h	439	8	2	432	9	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	0	0	8	17	0
Mvmt Flow	477	9	2	470	10	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	486	0	956
Stage 1	-	-	-	-	482
Stage 2	-	-	-	-	474
Critical Hdwy	-	-	4.1	-	6.57
Critical Hdwy Stg 1	-	-	-	-	5.57
Critical Hdwy Stg 2	-	-	-	-	5.57
Follow-up Hdwy	-	-	2.2	-	3.653
Pot Cap-1 Maneuver	-	-	1087	-	269
Stage 1	-	-	-	-	591
Stage 2	-	-	-	-	596
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1087	-	268
Mov Cap-2 Maneuver	-	-	-	-	268
Stage 1	-	-	-	-	591
Stage 2	-	-	-	-	595

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	343	-	-	1087	-
HCM Lane V/C Ratio	0.048	-	-	0.002	-
HCM Control Delay (s)	16	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection

Int Delay, s/veh 1.3

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↕	↔		↕	
Traffic Vol, veh/h	73	895	729	6	5	74
Future Vol, veh/h	73	895	729	6	5	74
Conflicting Peds, #/hr	3	0	0	3	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	77	942	767	6	5	78

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	776	0	-	0	1871	773
Stage 1	-	-	-	-	773	-
Stage 2	-	-	-	-	1098	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	849	-	-	-	80	402
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	322	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	847	-	-	-	64	401
Mov Cap-2 Maneuver	-	-	-	-	64	-
Stage 1	-	-	-	-	370	-
Stage 2	-	-	-	-	321	-

Approach EB WB SB

HCM Control Delay, s	0.7	0	21.5
HCM LOS			C

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	847	-	-	-	301
HCM Lane V/C Ratio	0.091	-	-	-	0.276
HCM Control Delay (s)	9.7	0	-	-	21.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	1.1

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	668	42	30	699	29	17
Future Vol, veh/h	668	42	30	699	29	17
Conflicting Peds, #/hr	0	3	3	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	703	44	32	736	31	18

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	750	0	1528
Stage 1	-	-	-	-	728
Stage 2	-	-	-	-	800
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	868	-	131
Stage 1	-	-	-	-	482
Stage 2	-	-	-	-	446
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	866	-	122
Mov Cap-2 Maneuver	-	-	-	-	122
Stage 1	-	-	-	-	481
Stage 2	-	-	-	-	418

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	35.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	166	-	-	866	-
HCM Lane V/C Ratio	0.292	-	-	0.036	-
HCM Control Delay (s)	35.4	-	-	9.3	0
HCM Lane LOS	E	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0.1	-

Intersection												
Int Delay, s/veh	16											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	117	522	46	5	582	78	6	1	0	52	4	132
Future Vol, veh/h	117	522	46	5	582	78	6	1	0	52	4	132
Conflicting Peds, #/hr	2	0	2	2	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	3	0	0	2	0	0	0	0	15	0	0
Mvmt Flow	123	549	48	5	613	82	6	1	0	55	4	139

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	697	0	0	599	0	0	1557	1528	575	1486	1511	656
Stage 1	-	-	-	-	-	-	821	821	-	666	666	-
Stage 2	-	-	-	-	-	-	736	707	-	820	845	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.25	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.25	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.25	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.635	4	3.3
Pot Cap-1 Maneuver	909	-	-	988	-	-	93	119	521	96	121	469
Stage 1	-	-	-	-	-	-	371	391	-	428	460	-
Stage 2	-	-	-	-	-	-	414	441	-	351	382	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	907	-	-	986	-	-	53	93	520	80	95	468
Mov Cap-2 Maneuver	-	-	-	-	-	-	53	93	-	80	95	-
Stage 1	-	-	-	-	-	-	295	310	-	340	455	-
Stage 2	-	-	-	-	-	-	286	437	-	278	303	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.6			0.1			78.8			122.3		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	56	907	-	-	986	-	-	193
HCM Lane V/C Ratio	0.132	0.136	-	-	0.005	-	-	1.025
HCM Control Delay (s)	78.8	9.6	0	-	8.7	0	-	122.3
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.4	0.5	-	-	0	-	-	8.9

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	579	9	43	618	3	40
Future Vol, veh/h	579	9	43	618	3	40
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	0	6	2	0	0
Mvmt Flow	609	9	45	651	3	42

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	619	0	1356
Stage 1	-	-	-	-	615
Stage 2	-	-	-	-	741
Critical Hdwy	-	-	4.16	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.254	-	3.5
Pot Cap-1 Maneuver	-	-	942	-	166
Stage 1	-	-	-	-	543
Stage 2	-	-	-	-	475
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	941	-	153
Mov Cap-2 Maneuver	-	-	-	-	153
Stage 1	-	-	-	-	542
Stage 2	-	-	-	-	439

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	428	-	-	941	-
HCM Lane V/C Ratio	0.106	-	-	0.048	-
HCM Control Delay (s)	14.4	-	-	9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Appendix IV

Signal Warrants

Input Data Sheet

Analysis Sheet

Results Sheet

Proposed Collision

GO TO Justification:

What are the intersecting roadways?

River Road West / Theme Park Rd

What is the direction of the Main Road street?

East-West

When was the data collected?

2036

Justification 1 - 4: Volume Warrants

a.- Number of lanes on the Main Road?

1

b.- Number of lanes on the Minor Road?

1

c.- How many approaches?

4

d.- What is the operating environment?

Urban

Population >= 10,000

AND

Speed < 70 km/hr

e.- What is the eight hour vehicle volume at the intersection? (Please fill in table below)

Hour Ending	Main Eastbound Approach			Minor Northbound Approach			Main Westbound Approach			Minor Southbound Approach			Pedestrians Crossing Main Road
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
7:00	36	236	24	3	1	1	2	257	26	20	2	47	5
8:00	36	236	24	3	1	1	2	257	26	20	2	47	5
9:00	36	236	24	3	1	1	2	257	26	20	2	47	5
12:00	36	236	24	3	1	1	2	257	26	20	2	47	5
13:00	36	236	24	3	1	1	2	257	26	20	2	47	5
16:00	36	236	24	3	1	1	2	257	26	20	2	47	5
17:00	36	236	24	3	1	1	2	257	26	20	2	47	5
18:00	36	236	24	3	1	1	2	257	26	20	2	47	5
Total	288	1,888	192	24	8	8	16	2,056	208	160	16	376	40

Justification 5: Collision Experience

Preceding Months	Number of Collisions*
1-12	0
13-24	0
25-36	0

* Include only collisions that are susceptible to correction through the installation of traffic signal control

Justification 6: Pedestrian Volume

a.- Please fill in table below summarizing total pedestrians crossing major roadway at the intersection or in proximity to the intersection (zones). Please reference Section 4.8 of the Manual for further explanation and graphical representation.

	Zone 1		Zone 2		Zone 3 (if needed)		Zone 4 (if needed)		Total
	Assisted	Unassisted	Assisted	Unassisted	Assisted	Unassisted	Assisted	Unassisted	
Total 8 hour pedestrian volume	0	5	0	5	0	0	0	0	
Factored 8 hour pedestrian volume	5		5		0		0		
% Assigned to crossing rate	23%		34%		30%		100%		
Net 8 Hour Pedestrian Volume at Crossing									3
Net 8 Hour Vehicular Volume on Street Being Crossed									2,000

b.- Please fill in table below summarizing delay to pedestrians crossing major roadway at the intersection or in proximity to the intersection (zones). Please reference Section 4.8 of the Manual for further explanation and graphical representation.

	Zone 1		Zone 2		Zone 3 (if needed)		Zone 4 (if needed)		Total
	Assisted	Unassisted	Assisted	Unassisted	Assisted	Unassisted	Assisted	Unassisted	
Total 8 hour pedestrian volume	0	5	0	5	0	0	0	0	
Total 8 hour pedestrians delayed greater than 10 seconds	10	10	1	6	2	4	0	0	
Factored volume of total pedestrians	5		5		0		0		
Factored volume of delayed pedestrians	30		8		8		0		
% Assigned to Crossing Rate	23%		34%		30%		100%		
Net 8 Hour Volume of Total Pedestrians									3
Net 8 Hour Volume of Delayed Pedestrians									12

Results Sheet

[Input Sheet](#)

[Analysis Sheet](#)

[Proposed Collision](#)

Intersection: River Road West / Theme Park Rd

Count Date: 2036

Summary Results

	Justification	Compliance	Signal Justified?	
			YES	NO
1. Minimum Vehicular Volume	A Total Volume	91 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B Crossing Volume	44 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Delay to Cross Traffic	A Main Road	81 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B Crossing Road	40 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Combination	A Justificaton 1	44 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B Justification 2	40 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. 4-Hr Volume		30 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5. Collision Experience		0 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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6. Pedestrians	A Volume	Justification not met	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B Delay	Justification not met	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Appendix V

Operational Analyses – Improvements

2036 Traffic Volumes

HCM 6th Roundabout
 9: Driveway/Theme Park Rd & River Rd W






















05/30/2022

Intersection				
Intersection Delay, s/veh	7.0			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	541	517	10	93
Demand Flow Rate, veh/h	565	562	10	95
Vehicles Circulating, veh/h	36	36	539	537
Vehicles Exiting, veh/h	596	513	62	61
Ped Vol Crossing Leg, #/h	0	0	0	1
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.0	7.2	4.6	5.8
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	565	562	10	95
Cap Entry Lane, veh/h	1330	1330	796	798
Entry HV Adj Factor	0.958	0.921	1.000	0.979
Flow Entry, veh/h	541	517	10	93
Cap Entry, veh/h	1274	1225	796	781
V/C Ratio	0.425	0.423	0.013	0.119
Control Delay, s/veh	7.0	7.2	4.6	5.8
LOS	A	A	A	A
95th %tile Queue, veh	2	2	0	0

HCM 2010 Signalized Intersection Summary

9: Driveway/Theme Park Rd & River Rd W

05/30/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	420	50	4	445	27	5	1	4	27	3	56
Future Volume (veh/h)	28	420	50	4	445	27	5	1	4	27	3	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1815	1900	1900	1749	1900	1900	1900	1900	1900	1847	1900
Adj Flow Rate, veh/h	30	457	54	4	484	29	5	1	4	29	3	61
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	5	2	0	9	2	0	0	0	0	0	3
Cap, veh/h	383	728	86	393	746	45	469	82	329	529	18	364
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	901	1593	188	903	1634	98	1359	333	1332	1434	73	1476
Grp Volume(v), veh/h	30	0	511	4	0	513	5	0	5	29	0	64
Grp Sat Flow(s),veh/h/ln	901	0	1782	903	0	1732	1359	0	1665	1434	0	1549
Q Serve(g_s), s	1.1	0.0	8.8	0.1	0.0	9.3	0.1	0.0	0.1	0.6	0.0	1.3
Cycle Q Clear(g_c), s	10.3	0.0	8.8	9.0	0.0	9.3	1.4	0.0	0.1	0.7	0.0	1.3
Prop In Lane	1.00		0.11	1.00		0.06	1.00		0.80	1.00		0.95
Lane Grp Cap(c), veh/h	383	0	814	393	0	791	469	0	411	529	0	382
V/C Ratio(X)	0.08	0.00	0.63	0.01	0.00	0.65	0.01	0.00	0.01	0.05	0.00	0.17
Avail Cap(c_a), veh/h	528	0	1100	538	0	1069	738	0	740	812	0	688
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.5	0.0	8.4	11.8	0.0	8.5	12.5	0.0	11.5	11.8	0.0	12.0
Incr Delay (d2), s/veh	0.1	0.0	0.8	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	4.4	0.0	0.0	4.5	0.0	0.0	0.0	0.3	0.0	0.6
LnGrp Delay(d),s/veh	12.6	0.0	9.2	11.8	0.0	9.4	12.5	0.0	11.5	11.8	0.0	12.2
LnGrp LOS	B		A	B		A	B		B	B		B
Approach Vol, veh/h		541			517			10				93
Approach Delay, s/veh		9.4			9.4			12.0				12.1
Approach LOS		A			A			B				B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.0		24.5		16.0		24.5				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		18.0		25.0		18.0		25.0				
Max Q Clear Time (g_c+I1), s		3.4		12.3		3.3		11.3				
Green Ext Time (p_c), s		0.0		6.2		0.7		6.4				
Intersection Summary												
HCM 2010 Ctrl Delay			9.6									
HCM 2010 LOS			A									






















HCM 6th Roundabout
 9: Driveway/Theme Park Rd & River Rd W

05/30/2022

Intersection				
Intersection Delay, s/veh	9.7			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	720	700	7	198
Demand Flow Rate, veh/h	736	712	7	206
Vehicles Circulating, veh/h	72	130	751	636
Vehicles Exiting, veh/h	770	628	57	206
Ped Vol Crossing Leg, #/h	0	0	2	2
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.5	10.2	5.7	8.7
Approach LOS	A	B	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	736	712	7	206
Cap Entry Lane, veh/h	1282	1209	641	721
Entry HV Adj Factor	0.978	0.983	1.000	0.961
Flow Entry, veh/h	720	700	7	198
Cap Entry, veh/h	1253	1188	641	693
V/C Ratio	0.574	0.589	0.011	0.286
Control Delay, s/veh	9.5	10.2	5.7	8.7
LOS	A	B	A	A
95th %tile Queue, veh	4	4	0	1

HCM 2010 Signalized Intersection Summary
9: Driveway/Theme Park Rd & River Rd W

05/30/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	522	46	5	582	78	6	1	0	52	4	132
Future Volume (veh/h)	117	522	46	5	582	78	6	1	0	52	4	132
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1849	1900	1900	1867	1900	1900	1900	1900	1652	1900	1900
Adj Flow Rate, veh/h	123	549	48	5	613	82	6	1	0	55	4	139
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	3	0	0	2	0	0	0	0	15	0	0
Cap, veh/h	355	921	81	423	886	119	309	389	0	403	9	323
Arrive On Green	0.55	0.55	0.55	0.55	0.55	0.55	0.20	0.20	0.00	0.20	0.20	0.20
Sat Flow, veh/h	761	1676	147	834	1613	216	1265	1900	0	1251	45	1576
Grp Volume(v), veh/h	123	0	597	5	0	695	6	1	0	55	0	143
Grp Sat Flow(s),veh/h/ln	761	0	1823	834	0	1829	1265	1900	0	1251	0	1622
Q Serve(g_s), s	6.8	0.0	10.7	0.2	0.0	13.5	0.2	0.0	0.0	1.8	0.0	3.8
Cycle Q Clear(g_c), s	20.3	0.0	10.7	10.9	0.0	13.5	4.0	0.0	0.0	1.8	0.0	3.8
Prop In Lane	1.00		0.08	1.00		0.12	1.00		0.00	1.00		0.97
Lane Grp Cap(c), veh/h	355	0	1001	423	0	1005	309	389	0	403	0	332
V/C Ratio(X)	0.35	0.00	0.60	0.01	0.00	0.69	0.02	0.00	0.00	0.14	0.00	0.43
Avail Cap(c_a), veh/h	389	0	1083	460	0	1086	543	739	0	634	0	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	7.4	11.0	0.0	8.0	18.7	15.4	0.0	16.2	0.0	16.9
Incr Delay (d2), s/veh	0.6	0.0	0.8	0.0	0.0	1.7	0.0	0.0	0.0	0.2	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	5.5	0.0	0.0	7.0	0.1	0.0	0.0	0.6	0.0	1.7
LnGrp Delay(d),s/veh	16.0	0.0	8.2	11.0	0.0	9.7	18.7	15.4	0.0	16.3	0.0	17.8
LnGrp LOS	B		A	B		A	B	B		B		B
Approach Vol, veh/h		720			700			7				198
Approach Delay, s/veh		9.5			9.7			18.2				17.4
Approach LOS		A			A			B				B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.0		32.8		16.0		32.8				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		19.0		29.0		19.0		29.0				
Max Q Clear Time (g_c+I1), s		6.0		22.3		5.8		15.5				
Green Ext Time (p_c), s		0.0		4.5		1.8		8.5				
Intersection Summary												
HCM 2010 Ctrl Delay			10.6									
HCM 2010 LOS			B									

Beyond 2036 Traffic Volumes

HCM 6th Roundabout
 9: Driveway/Theme Park Rd & River Rd W






















05/30/2022

Intersection				
Intersection Delay, s/veh	7.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	555	554	10	93
Demand Flow Rate, veh/h	580	602	10	95
Vehicles Circulating, veh/h	36	36	554	577
Vehicles Exiting, veh/h	636	528	62	61
Ped Vol Crossing Leg, #/h	0	0	0	1
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.2	7.6	4.7	6.1
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	580	602	10	95
Cap Entry Lane, veh/h	1330	1330	784	766
Entry HV Adj Factor	0.958	0.920	1.000	0.979
Flow Entry, veh/h	555	554	10	93
Cap Entry, veh/h	1274	1224	784	750
V/C Ratio	0.436	0.453	0.013	0.124
Control Delay, s/veh	7.2	7.6	4.7	6.1
LOS	A	A	A	A
95th %tile Queue, veh	2	2	0	0

HCM 2010 Signalized Intersection Summary

9: Driveway/Theme Park Rd & River Rd W

05/30/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	433	50	4	479	27	5	1	4	27	3	56
Future Volume (veh/h)	28	433	50	4	479	27	5	1	4	27	3	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1815	1900	1900	1749	1900	1900	1900	1900	1900	1847	1900
Adj Flow Rate, veh/h	30	471	54	4	521	29	5	1	4	29	3	61
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	5	2	0	9	2	0	0	0	0	0	3
Cap, veh/h	374	761	87	401	782	44	450	79	317	509	17	351
Arrive On Green	0.48	0.48	0.48	0.48	0.48	0.48	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	871	1599	183	891	1641	91	1359	333	1332	1434	73	1476
Grp Volume(v), veh/h	30	0	525	4	0	550	5	0	5	29	0	64
Grp Sat Flow(s),veh/h/ln	871	0	1782	891	0	1733	1359	0	1665	1434	0	1548
Q Serve(g_s), s	1.1	0.0	9.2	0.1	0.0	10.2	0.1	0.0	0.1	0.7	0.0	1.4
Cycle Q Clear(g_c), s	11.4	0.0	9.2	9.3	0.0	10.2	1.5	0.0	0.1	0.8	0.0	1.4
Prop In Lane	1.00		0.10	1.00		0.05	1.00		0.80	1.00		0.95
Lane Grp Cap(c), veh/h	374	0	849	401	0	825	450	0	396	509	0	369
V/C Ratio(X)	0.08	0.00	0.62	0.01	0.00	0.67	0.01	0.00	0.01	0.06	0.00	0.17
Avail Cap(c_a), veh/h	478	0	1061	507	0	1031	709	0	714	783	0	664
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.8	0.0	8.2	11.6	0.0	8.4	13.3	0.0	12.2	12.5	0.0	12.7
Incr Delay (d2), s/veh	0.1	0.0	0.7	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	4.5	0.0	0.0	5.0	0.0	0.0	0.0	0.3	0.0	0.6
LnGrp Delay(d),s/veh	12.9	0.0	8.9	11.6	0.0	9.6	13.3	0.0	12.2	12.6	0.0	12.9
LnGrp LOS	B		A	B		A	B		B	B		B
Approach Vol, veh/h		555			554			10			93	
Approach Delay, s/veh		9.1			9.6			12.8			12.8	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.0		26.0		16.0		26.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		18.0		25.0		18.0		25.0				
Max Q Clear Time (g_c+11), s		3.5		13.4		3.4		12.2				
Green Ext Time (p_c), s		0.0		5.9		0.7		6.5				
Intersection Summary												
HCM 2010 Ctrl Delay			9.7									
HCM 2010 LOS			A									

HCM 6th Roundabout
 9: Driveway/Theme Park Rd & River Rd W

05/30/2022

Intersection				
Intersection Delay, s/veh	10.3			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	760	725	7	202
Demand Flow Rate, veh/h	778	738	7	210
Vehicles Circulating, veh/h	73	131	794	662
Vehicles Exiting, veh/h	799	670	57	207
Ped Vol Crossing Leg, #/h	0	0	2	2
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.3	10.7	6.0	9.1
Approach LOS	B	B	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	778	738	7	210
Cap Entry Lane, veh/h	1281	1207	614	702
Entry HV Adj Factor	0.977	0.983	1.000	0.962
Flow Entry, veh/h	760	725	7	202
Cap Entry, veh/h	1252	1186	614	676
V/C Ratio	0.607	0.611	0.011	0.299
Control Delay, s/veh	10.3	10.7	6.0	9.1
LOS	B	B	A	A
95th %tile Queue, veh	4	4	0	1

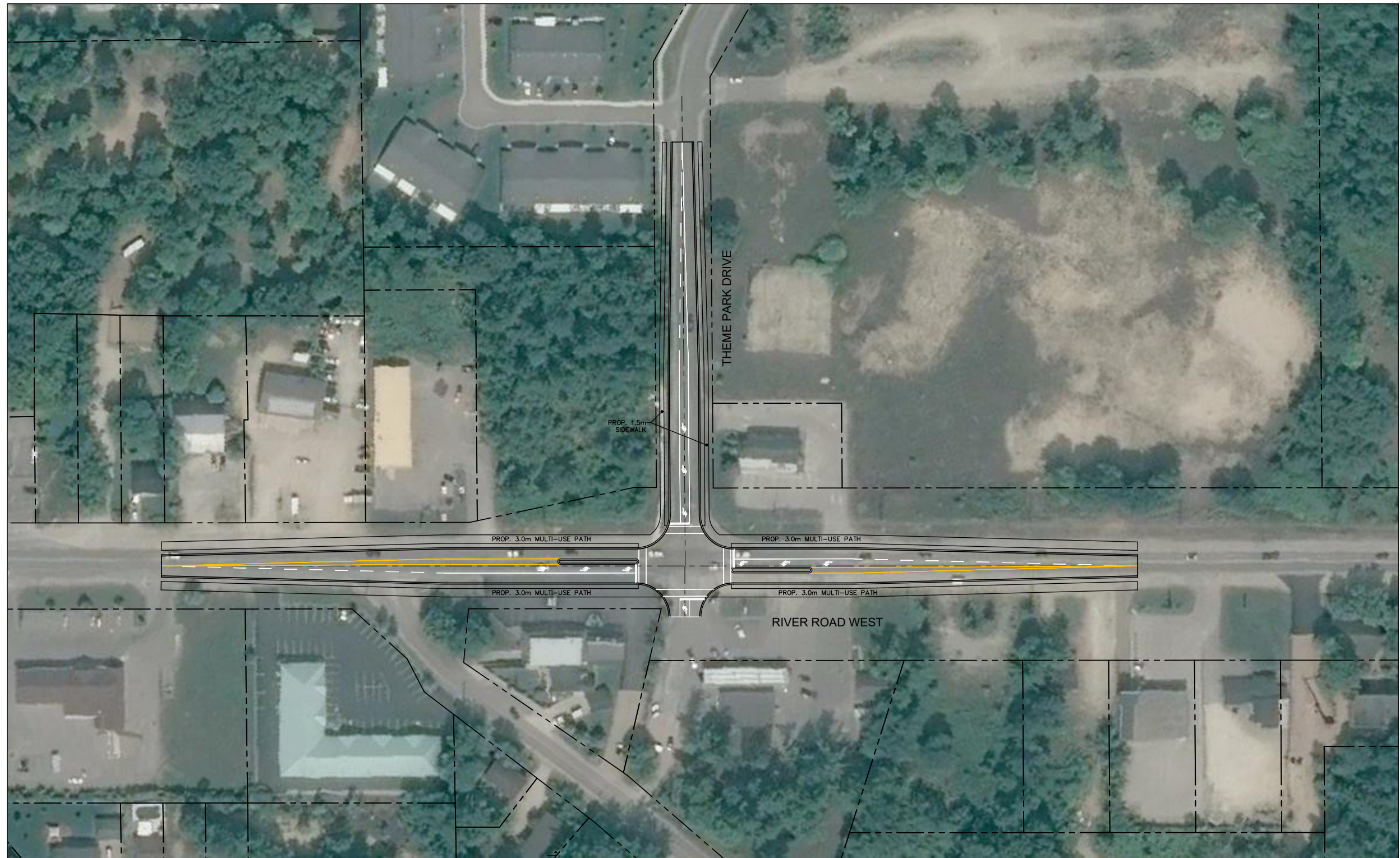
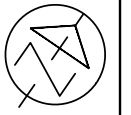
HCM 2010 Signalized Intersection Summary
 9: Driveway/Theme Park Rd & River Rd W

05/30/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	559	46	5	606	78	6	1	0	53	4	135
Future Volume (veh/h)	118	559	46	5	606	78	6	1	0	53	4	135
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1849	1900	1900	1867	1900	1900	1900	1900	1652	1900	1900
Adj Flow Rate, veh/h	124	588	48	5	638	82	6	1	0	56	4	142
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	3	0	0	2	0	0	0	0	15	0	0
Cap, veh/h	349	946	77	406	909	117	296	379	0	393	9	315
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.20	0.20	0.00	0.20	0.20	0.20
Sat Flow, veh/h	744	1686	138	804	1621	208	1262	1900	0	1251	44	1577
Grp Volume(v), veh/h	124	0	636	5	0	720	6	1	0	56	0	146
Grp Sat Flow(s),veh/h/ln	744	0	1824	804	0	1830	1262	1900	0	1251	0	1622
Q Serve(g_s), s	7.3	0.0	11.8	0.2	0.0	14.3	0.2	0.0	0.0	1.9	0.0	4.0
Cycle Q Clear(g_c), s	21.5	0.0	11.8	12.0	0.0	14.3	4.2	0.0	0.0	1.9	0.0	4.0
Prop In Lane	1.00		0.08	1.00		0.11	1.00		0.00	1.00		0.97
Lane Grp Cap(c), veh/h	349	0	1023	406	0	1026	296	379	0	393	0	324
V/C Ratio(X)	0.36	0.00	0.62	0.01	0.00	0.70	0.02	0.00	0.00	0.14	0.00	0.45
Avail Cap(c_a), veh/h	377	0	1092	436	0	1096	497	683	0	593	0	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	7.4	11.5	0.0	8.0	19.5	16.1	0.0	16.8	0.0	17.6
Incr Delay (d2), s/veh	0.6	0.0	1.0	0.0	0.0	1.9	0.0	0.0	0.0	0.2	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	6.1	0.0	0.0	7.5	0.1	0.0	0.0	0.7	0.0	1.9
LnGrp Delay(d),s/veh	16.4	0.0	8.4	11.5	0.0	9.8	19.5	16.1	0.0	17.0	0.0	18.6
LnGrp LOS	B		A	B		A	B	B		B		B
Approach Vol, veh/h		760			725			7				202
Approach Delay, s/veh		9.7			9.9			19.0				18.2
Approach LOS		A			A			B				B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.0		34.1		16.0		34.1				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		18.0		30.0		18.0		30.0				
Max Q Clear Time (g_c+I1), s		6.2		23.5		6.0		16.3				
Green Ext Time (p_c), s		0.0		4.6		1.7		8.9				
Intersection Summary												
HCM 2010 Ctrl Delay			10.8									
HCM 2010 LOS			B									

Appendix B

Intersection Plans



TOWN OF WASAGA BEACH
THEME PARK DRIVE & RIVER ROAD WEST
PROPOSED INTERSECTION LAYOUT

SCALE: 1:1500
DATE: MAY 2022
DWG. 221007-INT1

Appendix C

MECP Indigenous Consultation Direction

Jody Marks

From: Liu, Chunmei (MECP) <Chunmei.Liu@ontario.ca>
Sent: Friday, June 11, 2021 10:14 AM
To: Jody Marks
Cc: Potter, Katy (MECP)
Subject: RE: Class EA Addendum - Town of Wasaga Beach - Indigenous Consultation List
Attachments: A Proponent's Introduction to the Delegated Aspects of Consultation with.pdf

Good morning Jody, hope you and your family are all doing well! 😊

Based on information provided to date and the Crown's preliminary assessment the proponent is required to consult with the following communities who have been identified as potentially affected by the proposed project:

- The following Williams Treaties Communities (with a copy to the Williams Treaties Coordinator, Karry Sandy Mckenzie):
 - o Chippewas of Georgina Island
 - o Chippewas of Rama First Nation (Chippewas of Mnjikaning)
 - o Beausoleil First Nation
- Saugeen Ojibway Nation Environment Office (with a copy to the Chiefs of Saugeen First Nation and Chippewas of Nawash Unceded First Nation)
- Métis Nation of Ontario Lands and Resources Dept (with a copy to Region 7 Councillor David Dusome)
- Huron-Wendat Nation (if there are likely archaeological impacts)

Steps that the proponent may need to take in relation to Aboriginal consultation for the proposed project are outlined in the "[Code of Practice for Consultation in Ontario's Environmental Assessment Process](#)". Additional information related to Ontario's Environmental Assessment Act is available online at: www.ontario.ca/environmentalassessments.

Please also refer to the attached document "A Proponent's Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities" for further information, including the MECP's expectations for EA report documentation related to consultation with communities.

The proponent must contact the Director of Environmental Assessment Branch (EABDirector@ontario.ca) under the following circumstances subsequent to initial discussions with the communities identified by MECP:

- Aboriginal or treaty rights impacts are identified to you by the communities
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right
- Consultation with Indigenous communities or other stakeholders has reached an impasse
- A Part II Order request is expected on the basis of impacts to Aboriginal or treaty rights

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role you will be asked to play should additional steps and activities be required.

Should you or any members of your project team have any questions regarding the material above, please contact us for further discussion.

Thank you,

Chunmei Liu | Regional EA and Planning Coordinator

We want to hear from you. How was my service? You can provide feedback at 1-888-745-8888 or ontario.ca/inspectionfeedback

Nous attendons vos commentaires. Qu'avez-vous pensé de mon service? Vous pouvez nous faire part de vos commentaires au 1-888-745-8888 ou à ontario.ca/retroactioninspection

From: Jody Marks <marks@ainleygroup.com>
Sent: May-19-21 9:59 AM
To: Liu, Chunmei (MECP) <Chunmei.Liu@ontario.ca>
Subject: Class EA Addendum - Town of Wasaga Beach - Indigenous Consultation List

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Hi Chunmei,

I hope you are doing well.

Our team is preparing to complete an addendum to the River Road West Class EA that was completed in 2013. The project location is in Wasaga Beach, I have attached the Notice of Commencement from 2009 for you information. The outdated contact list for the EA shows that 19 indigenous communities were included in consultation.

Could you please provide a more accurate list of the Indigenous communities that should be consulted during the addendum process.

Thank you.

Regards,

Jody Marks
Environmental Planner



www.ainleygroup.com

Tel: (705) 726-3371 Ext. 227

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Appendix D

Contact List

**Town of Wasaga Beach
River Road West - Class EA Addendum
AGENCY CONTACT LIST**

Title	First	Last	Title	Company	Address 1	Address 2	Town	PC	Telephone	Email
Provincial & Federal Agencies										
Ms.	Chunmei	Liu	Environmental Resource Planner & EA Coordinator - Air, Pesticides and Environmental Planner (<i>Barrie, Orillia & County of Simcoe</i>)	Central Region Ministry of Environment, Conservation and Parks	5775 Yonge Street	8th Floor	North York, ON	M2M 4J1	416-326-4886	chunmei.liu@ontario.ca
Ms.	Cindy	Hood	District Manager	Barrie District Office Ministry of Environment, Conservation and	54 Cedar Point Drive	Unit 1201	Barrie, ON	L4N 5R7	705-739-6436	cindy.hood@ontario.ca
Mr.	Dan	Thompson	District Manager	Midhurst District Ministry of Natural Resources and Forestry	2284 Nursery Road		Midhurst, ON	L0L 1N8	705-725-7561	shawn.carey@ontario.ca
Ms.	Becky	Cudmore	Senior Science Advisor - Bayfield Institute	Department of Fisheries and Oceans	867 Lakeshore Road	P.O. Box 5050	Burlington, ON	L7R 4A6		becky.cudmore@dfo-mpo.gc.ca
Ms.	Karla	Barboza	Team Lead, Heritage	Ministry of Tourism, Culture & Sport	401 Bay Street	Suite 1700	Toronto, ON	M7A 0A7	416-314-7120	karla.barboza@ontario.ca
Ms.	Annelies	Eckert	Rural Planner	Ontario Ministry of Agriculture, Food and Rural Affairs	97;7#Zhoolqjwrq#Urdg#:#	Unit 10	Horud/#RQ	Q3E#4V3	84<0;5:09373	anneleis.eckert@ontario.ca
Ms.	Alejandra	Perdomo	Municipal Planning Advisor - Team Lead Central Ontario	Ministry of Municipal Affairs and Housing	777 Bay Street	13th Floor	Toronto, ON	M5G 2E5		Alejandra.perdomo@ontario.ca
Mr.	Teepu	Khawja	Regional Director	Ministry of Transportation, Central Region	1201 Wilson Avenue		Toronto, ON	M3M 1J8	416-235-5400	teepu.khawja@ontario.ca
Local Government, Adjacent Municipalities & Other Agencies										
Mr.	Christian	Meile	Director, Transportation and Engineering	County of Simcoe	1110 Highway 26 West		Midhurst, ON	L0L 1X0	705-726-9300	christian.meile@simcoe.ca
Mr.	Dave	Parks	Director, Planning and Economic Development	County of Simcoe	1110 Highway 26 West		Midhurst, ON	L0L 1X0	705-726-9300	dave.parks@simcoe.ca
Mr.	John	Fisher	Park Superintendent	Wasaga Beach Provincial Park	11-22nd Street North		Wasaga Beach, ON	L9Z 2W9	705-429-6629	
Mr.	Chris	Hibberd	Director, Watershed Management Services	Nottawasaga Valley Conservation Authority	John Hix Conservation Administration Centre	8195 8th Line	Utopia, ON	L0M 1T0	705-424-1479	c.hibberd@nvca.on.ca
Mr.	Ben	Krul	Manager, Planning Services	Nottawasaga Valley Conservation Authority	John Hix Conservation Administration Centre	8195 8th Line	Utopia, ON	L0M 1T0		bkul@nvca.on.ca
Ms.	Kate	Thomson	Regulations Technician	Nottawasaga Valley Conservation Authority	John Hix Conservation Administration Centre	8195 8th Line	Utopia, ON	L0M 1T1		kthomson@nvca.on.ca
Mr.	George	Vadeboncoeur	CAO	Town of Wasaga Beach	30 Lewis Street		Wasaga Beach, ON	L9Z 1A1		
Mr.	Doug	Herron	Director of Planning and Economic Initiatives	Town of Wasaga Beach	30 Lewis Street		Wasaga Beach, ON	L9Z 1A1		
Mr.	Kevin	Lalonde	Director of Public Works	Town of Wasaga Beach	150 Westbury Road		Wasaga Beach, ON	L9Z 0C8		
Mr.	Mike	McWilliam	Director of Emergency Services and Fire Chief	Town of Wasaga Beach	966 River Road West		Wasaga Beach, ON	L9Z 2K7		
Mr.	Jeff	Schmidt	CAO	Township of Springwater	2231 Nursery Rd		Minesing, ON	L9X 1A8		
Mr.	Michael	Prowse	CAO	City of Barrie	70 Collier Street	P.O. Box 400	Barrie, ON	L4M 4T5	705-739-4220	
Mrs.	Sonya	Skinner	CAO	Town of Collingwood	97 Hurontario Street	P.O Box 157	Collingwood, ON	L9Y 3Z5		
Mr.	John	Ferguson	CAO	Clearview Township	217 Gideon Street		Stayner, ON	L0M 1S0		jferguson@clearview.ca
			Simcoe County District Health Unit		280 Pretty River Parkway		Collingwood, ON	L9Y 4J5	705-445-6498	
Ms.	Barb	Fox	Planning Officer	Simcoe Muskoka Catholic District School Board	46 Alliance Blvd.		Barrie, ON	L4M 5K3	705-722-3559 ext. 250	bfox.smcdsb.on.ca
Ms.	Holly	Spacek	Planning Officer	Simcoe County District School Board	1170 Highway 26		Midhurst, ON	L0L 1X0	705-728-7570 ext. 11311	hspacek@scdsb.on.ca
Mr.	Miguel	Ladouceur	Director of Building, Maintenance and Planning	Conseil Scolaire Viamonde	116 Cornelius Parkway		Toronto, ON	M6L 2K5	1-416-614-5917	ladouceurm@csviamonde.ca
Ms.	Nathalie	Huard	Transportation Technician, Service de Transport Francobus	Association Franco-Ontarienne Des Conseils Scolaires Catholiques	138 rue Main Est	Bureau 205	Welland, ON	L3B 3W6	1-800-749-0002	huardn@francobus.ca
Ms.	Bonnie	Branch	Transportation Coordinator	Simcoe County Student Transportation Consortium	64 Cedar Pointe Drive	Unit 1403	Barrie, ON	L4N 5R7	705-733-8965, ext. 107	bbranch@scstc.ca

**Town of Wasaga Beach
River Road West - Class EA Addendum
AGENCY CONTACT LIST**

Title	First	Last	Title	Company	Address 1	Address 2	Town	PC	Telephone	Email
Mr.	Earl	Elliott	President	Simcoe County Historical Association		P.O. Box 144	Barrie, ON	L4M 4S9	705-796-7649	earl.elliott@rogers.com
Emergency Services										
Mr.	JC	Gilbert	Deputy Chief Operations	County of Simcoe Paramedic Services	1110 Highway 26		Midhurst, ON	L0L 1X0	705-726-9300	jc.gilbert@simcoe.ca
Ms.	Donna	Danyluk	Communications Representative	Royal Victoria Regional Health Centre	201 Georgian Drive		Barrie, ON	L4M 6M2	705-728-9090 ext. 41610	danylukd@rvh.on.ca
Ms.	Paula	Brown	Operational Policy & Strategic Planning	Ontario Provincial Police	777 Memorial Ave., 2nd Floor		Orillia, ON	L3V 7V3		
Attn: General			(Prefer to receive Fax)	Nottawasaga OPP Detachment Office	4601 Industrial Pkwy		Alliston, ON	L9R 1V2	705 434 1939	Fax: 705 434 9109
Special Interest Groups										
				The Links at Georgian Sands Golf Club						
Consultants & Developers										
Mr.	Paul	Racher		Archaeological Research Associates Ltd.	4262 Watson Rd., R.R. #1		Puslinch, ON	N0B 2J0		
Mr.	John	Coulter		J.E.Coulter & Associates	1210 Sheppard Aven.E., Suite 211		North York, ON	M2K 1E3		
Mr.	Yurij	Pelech	Senior Planner	EMC Group Limited	7577 Keele Street, Suite 200		Concord, ON	L4K 4X4		
Mr.	Jeff	Mark		Mark Engineering	250 Bristol Road		Newmarket, ON	L3Y 7X7		
Aboriginal Consultation										
Attn: Consultation Unit				Ministry of Indigenous Affairs	160 Bloor St. East	4th Floor	Toronto, ON	M7A 2E6	416-326-4757	maa.ea.review@ontario.ca
Chief	Donna	Big Canoe		Chippewas of Georgina Island*	R.R. #2	P.O. Box N-13	Sutton West, ON	L0E 1R0	705-437-1337	donna.bigcanoe@georginaisland.com
Chief	Ted	Williams		Chippewas of Rama First Nation *	5884 Rama Road	Suite 200	Rama, ON	L3V 6H6	705 325-3611	tedw@ramafirstnation.ca
Ms.	Sharday	James	Community Consultation	Chippewas of Rama First Nation *	5884 Rama Road	Suite 200	Rama, ON	L3V 6H6		shardayj@ramafirstnation.ca
Ms.	Susan	Copegog	Consultation	Beausoleil First Nation*	11 O'Gema Miikaans		Christian Island, ON	L9M 0A9		consultations@chimnissing.ca
*cc Karry Sandy-McKenzie on all corespondence sent to the above FN (Williams Treaty Communities)										
Ms.	Emily	Martin	Infrastructure and Resources Manager	Saugeen Ojibway Nation Environment Office	25 Maadookii Subdivision		Neyaashiinigmiing, ON	N0H 2T0		emily.martin@saugeenojibwaynation.ca juanita.meekins@saugeenojibwaynation.ca
Chief	Lester	Anoquot		Saugeen First Nation	6493 Highway 21	R.R. #1	Southampton, ON	N0H 2L0		sfn@saugeen.org
Chief	Veronica	Smith		Chippewas of Nawash Unceded First Nation	135 Lakeshore Blvd.		Neyaashiinigmiing, ON	N0H 2T0		chief.veronica@nawash.ca
	Remy	Vincent	Grand Chief	Huron-Wendat Nation	255 Place Chef Michel Laveau		Wendake, QC	G0A 4V0		administration@cnhw.qc.ca
Utilities										
Attn: General			Planning Department	Hydro One	16 Graham Street		Woodstock, ON	N4S 6J6	519-537-7122	
				Wasaga Distribution Inc.	950 River Road West	P.O. Box 20	Wasaga Beach, ON	L9Z 1A1		hydro@wasagadist.ca
Ms.	Carol	O'Brien		Bell Canada	136 Bayfield Street	2nd Floor	Barrie, ON	L4M 3B1	705-722-2405	carol.obrien@bell.ca
Mr.	Tony	Dominguez		Rogers	1 Sperling Drive		Barrie, ON	L4N 6B8	705-737-4660 xt 690	tony.dominguez@rci.rogers.com
Mr.	Tom	Jedemann		Enbridge Gas	101 Honda Blvd		Markham, ON	L6C 0M6	905-927-3184	tom.jedemann@enbridge.com

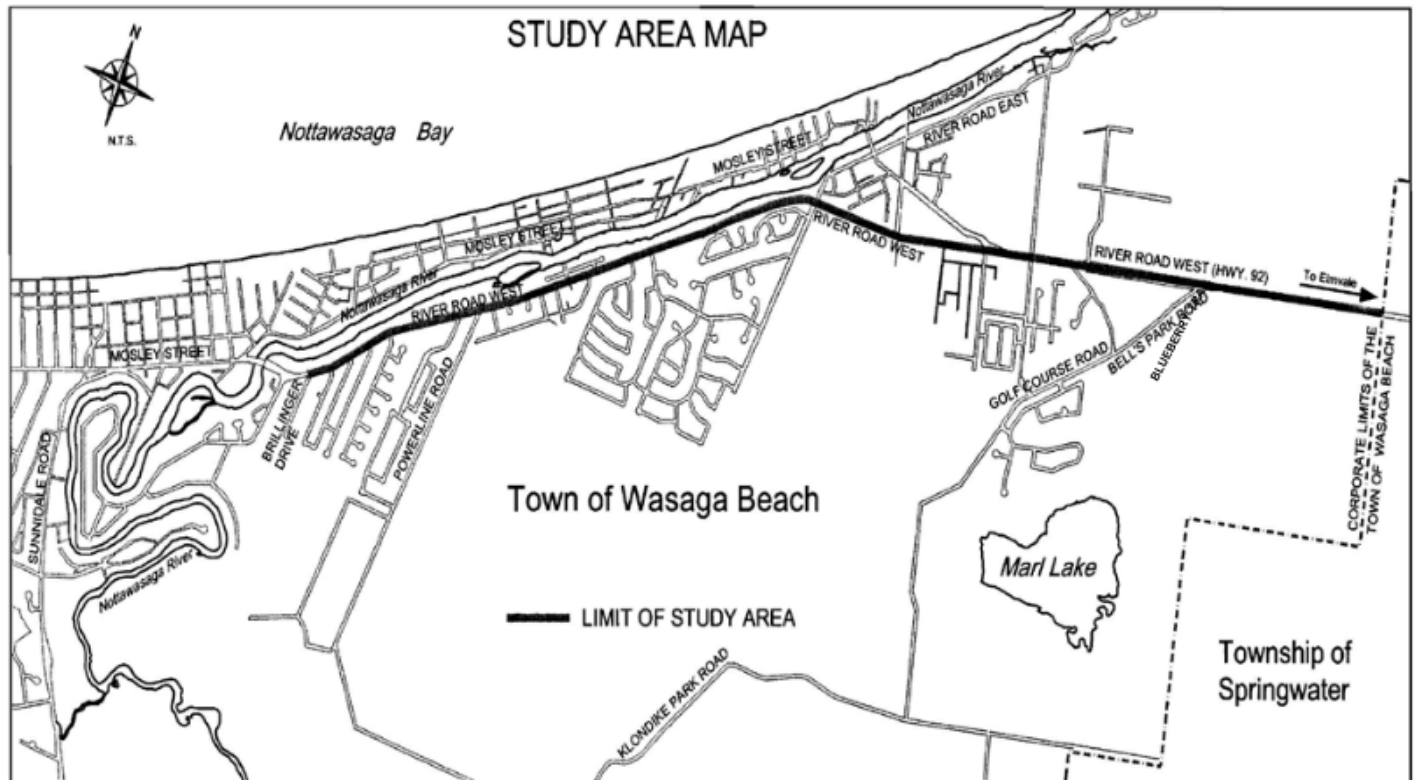
Appendix E

Notice of Filing of Addendum



Town of Wasaga Beach Class Environmental Assessment River Road West NOTICE OF FILING OF ADDENDUM

In 2010 the Town completed a Schedule C, Municipal Class Environmental Assessment (Class EA) to determine the Preferred Solution to address traffic congestion in the area of River Road West from Brillinger Drive to the eastern Town limits. As the Town's main east/west transportation corridor, River Road West plays an important role in servicing commuter, recreational and tourist traffic in the area. The Class EA was concluded with the finalization of the Environmental Study Report (ESR) on November 1, 2010. Since the filing of the Notice of Completion, the Town has proceeded with Phase 5 (Implementation) of the Class EA process with portions of River Road West having completed construction. The design for the remaining section of road between Blueberry Trail and the east Town limit (approx. 4 km) has not yet commenced. A map showing these limits is provided below.



There have been some changes with respect to development in the Town over the last ten years with potential impacts to the River Road West corridor, including but not limited to planned area growth as well as the new twin pad arena and library that is being constructed at the intersection of Theme Park Drive. Therefore, given the lapse in time since the original filing of the Notice of Completion as well as the changes in the area environment with respect to development, an addendum has now been completed to the ESR which was issued September 29, 2010. The Addendum contains details on updated traffic volumes and reassess the intersections located along the remaining stretch of roadway, between Blueberry Trail and the east Town limit to ensure they remain valid prior to proceeding with design.

By this Notice, the Addendum is being placed on the public record for a 30-day review period in accordance with the requirements of the Municipal Class Environmental Assessment. Please note that only the changes in the Addendum are open for review. Subject to comments received as a result of this Notice, the Town intends to proceed with construction of this project in 2025-2027. The Addendum is available for review at <https://www.wasagabeach.com/en/town-and-government/studies.aspx#Environmental-Assessments-Public-Works>

If you would like to submit a comment or to obtain further information on the addendum, please contact Jonathan Uylenbroek, Project Coordinator of the Town of Wasaga Beach at j.uylenbroek@wasagabeach.com or (705) 429-2540, ext. 2342 by **September 9, 2022**. In addition, a request may be made to the Ministry of the Environment, Conservation and Parks for an order requiring a higher level of study, or that conditions be imposed, only on the grounds that the requested order may prevent, mitigate or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights. Requests on other grounds will not be considered. The request should be sent by **September 9, 2022** in writing or by email to:

Minister
Ministry of Environment, Conservation and Parks
777 Bay St. 5th Floor
Toronto, ON M7A 2J3
minister.mecep@ontario.ca

Director, Environmental Assessment and
Permissions Branch
Ministry of Environment, Conservation and Parks
135 St. Clair Ave. W., 1st Floor
Toronto ON M4V 1P5
EABDirector@ontario.ca

Requests should also be sent to Jonathan Uylenbroek of the Town of Wasaga Beach.

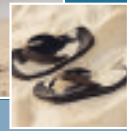
Any input received during this process will be maintained on file for use during the project and may be included in project documentation. Information collected will be used in accordance with the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

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TOWN OF Wasaga Beach

WWW.WASAGABEACH.COM



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