

5.0 Project Area Conditions

5.1 Transportation Network

5.1.1 Divided Highways

There are two divided highways that provide access to and from the Study Area: Highway 401 and Dougall Parkway. Highway 401 falls under the jurisdiction of the Province of Ontario with Dougall Parkway falling under the jurisdiction of the City of Windsor. The road network and associated lane configurations are provided in **Figure 5.1** and **Figure 5.2**.

Highway 401 is a controlled access, divided highway that provides inter-regional transportation between Windsor and the Quebec Border. It provides access to and from the Study Area in both the eastbound and westbound directions via an interchange at Provincial Road, just east of the Walker Road intersection as well as a partial interchange at the Dougall Parkway/Howard Avenue intersection. It should be noted that Highway 401 merges into Highway 3 (Talbot Road/Huron Church Road) just east of Howard Avenue, which provides another access to and from the study area.

Dougall Avenue is a four-lane road where it crosses Cabana Road. South of Cabana Road, Dougall Parkway curves in a south orientation and becomes a four-lane divided, controlled access road that connects to Highway 401.

5.1.2 Arterial Roads

The Cabana-Division Road corridor is the only east-west arterial road located south of the E.C. Row Expressway in the City of Windsor. There are five arterial roads that provide north/south access to and from the Study Area. They are as follows, from west to east:

- Huron Church Road;
- Dougall Avenue
- Howard Avenue;
- Division Road/Provincial Road; and
- Walker Road.

All of the arterial roads within the Study Area fall under the jurisdiction of the City of Windsor, with the exception of Huron Church Road, which is under provincial jurisdiction at the intersection with Cabana Road.

The following points describe the existing road configurations:

- The Cabana-Division Road corridor extends in an east-west direction. In the portion from Huron Church Road to Walker Road, it is configured as a two-lane cross-section. At signalized intersections, there are typically exclusive left turn lanes.
- Huron Church Road, Dougall Avenue, Howard Avenue, Provincial Road and Walker Road all extend in a north-south direction. Huron Church Road has a divided six-lane cross-section both north and south of Cabana Road, with three northbound and three



southbound lanes, left turn lanes at signalized intersections, and a southbound exclusive right turn lane onto Todd Lane;

- Dougall Avenue has a four-lane cross-section north and south of Cabana Road with two northbound and two southbound lanes, left turn lanes at some signalized intersections, and an exclusive right turn lane from Cabana Road to Dougall Avenue northbound;
- Howard Avenue has a two-lane cross-section north and south of Cabana Road with one northbound and one southbound lane, with left turn lanes at most signalized intersections. The ESR for the Howard Avenue corridor was recently completed by the City of Windsor and approved by the MOE;
- Provincial Road has a two-lane cross-section that extends southeast and northwest of Cabana Road with one northbound and one southbound lane, with left turn lanes at intersections; and
- Walker Road is being reconstructed to a four-lane cross-section north and south of Division Road with two northbound and two southbound lanes, plus left turn lanes at intersections.

5.1.3 *Collector Roads*

There are three collector roads located within the Study Area. They are as follows:

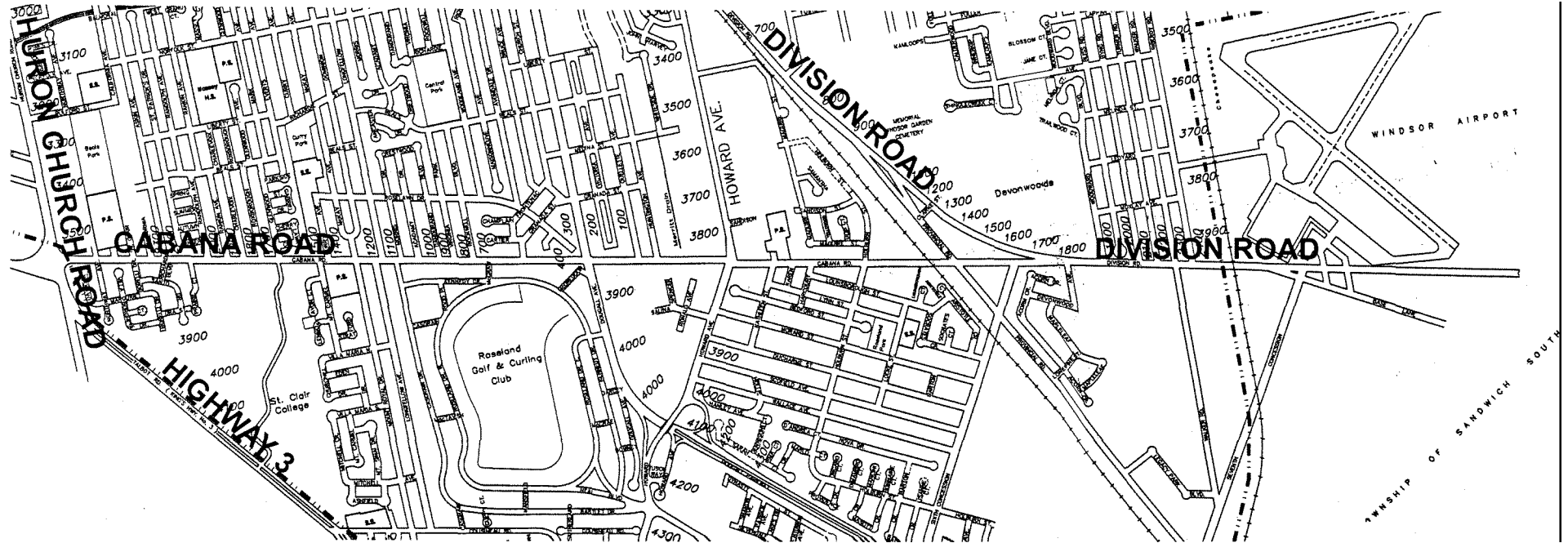
- Dominion Boulevard has a two-lane cross-section north and south of Cabana Road with one northbound lane and one southbound lane;
- Sixth Concession Road has a two-lane cross-section south of Cabana Road. Sixth Concession Road currently does not extend north of Cabana Road; and
- Holburn Street has a two-lane cross-section extending north and south from Cabana Road.

5.1.4 *Local Roads*

Glenwood Avenue is the only local road with a signalized intersection at Cabana Road. It has a two-lane cross-section north of Cabana Road with one northbound and one southbound lane. This road is under the jurisdiction of the City of Windsor. The south leg of this intersection is a private driveway that serves as the primary access for St. Clair College. There are numerous other local roads that intersect Cabana-Division Road at unsignalized intersections.

5.1.5 *Access to Cabana-Division Road from Abutting Properties*

Direct access is provided to Cabana-Division Road for both commercial and residential land uses along the study corridor. In the Cabana Road section of the corridor, there are approximately 220 driveways serving primarily residential land uses on both the north and south sides of the road.

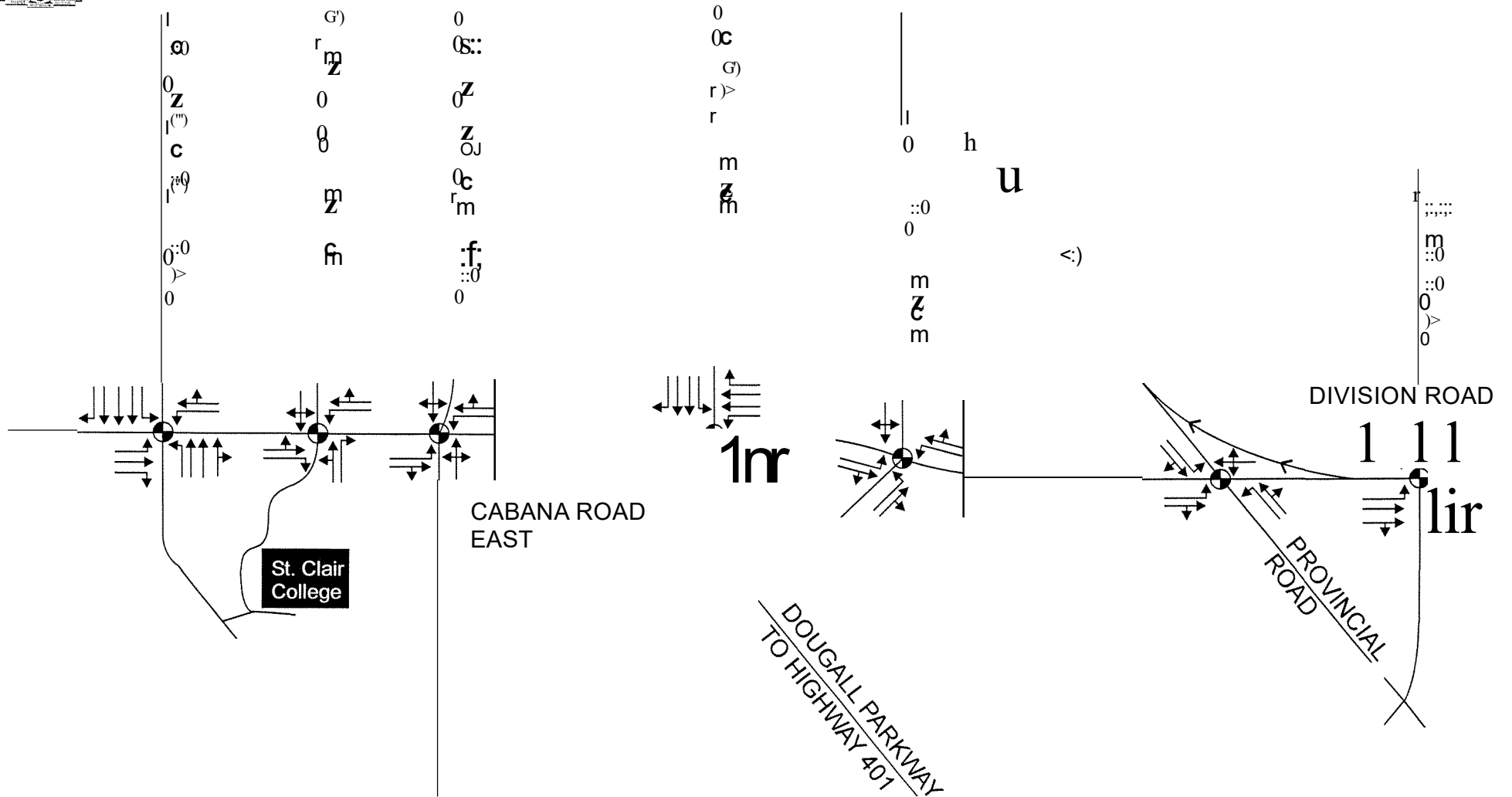


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**FIGURE 5.1
ROAD NETWORK**



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LEGEND

S Lane Configurations
S Signalized Intersection

FIGURE 5.2
EXISTING LANE CONFIGURATIONS



In the Division Road section of the corridor from Sixth Concession Road to Walker Road, in addition to residential driveways, there are numerous commercial properties with direct access via approximately 13 driveways that allow full movements to and from Division Road on both the north and south sides.

5.1.6 *Transit Service*

Transit Windsor operates three services within the study area. The services are shown in **Figure 5.3** and are described as follows:

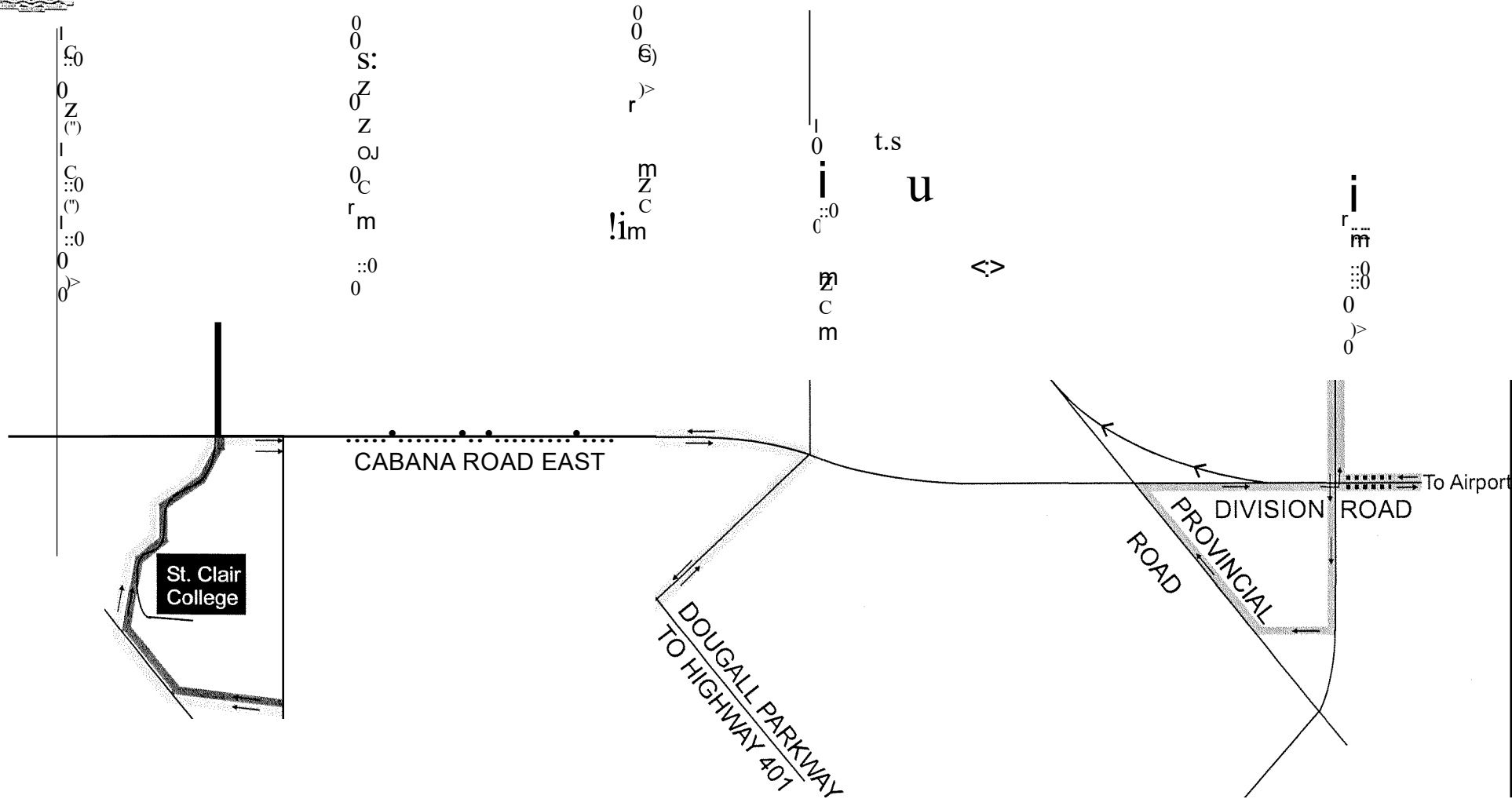
1. Route 5 - Dominion Boulevard: Service connects the Downtown Transit Terminal to St. Clair College and South Windsor via Dominion Boulevard. During the week, service operates at a 30-minute frequency from 6:15 a.m. to 9:15 a.m. and from 2:45 p.m. to 6:15 p.m., and at a one-hour frequency from 10:15 a.m. to 2:15 p.m. and from 7:15 p.m. to 10:15 p.m. On Saturday, service is provided at a one-hour frequency from 7:15 a.m. to 7:15 p.m. On Sunday, service is provided at one-hour frequencies from 9:15 a.m. to 7:15 p.m.
2. Route 6- Dougall Avenue: Service extends from the Downtown Transit Terminal to St. Clair College and South Windsor via Dougall Avenue. Service is provided from Monday to Saturday with no Sunday or holiday service. During the week, service operates at a 40-minute frequency from 6:00 a.m. to 5:40 p.m. and then at a one-hour frequency until 9:40 p.m. On Saturday, service is provided every hour from 7 a.m. to 6 p.m.
3. Route 8 - Walkerville: This service operates from the Downtown Transit Terminal to Legacy Park (including the Windsor Airport) via Lincoln Road and Walker Road. During the week, service operates at a 40-minute frequency from 5:50 a.m. to 6:30 p.m. and then at a one-hour frequency until 10:30 p.m. On Saturday, service is provided at a one-hour frequency from 7:30 a.m. to 10:30 p.m. On Sunday, service is provided at one-hour frequencies from 11:15 a.m. to 6:15 p.m.

5.1.7 *Existing Traffic Demands*

Turning movement counts for the a.m. and p.m. peak periods have been obtained from the City of Windsor and the Ontario Ministry of Transportation (MTO) in order to examine the existing traffic demand along the Cabana-Division Road corridor between Huron Church Road and Walker Road. The intersections analyzed are listed below, together with the dates on which the counts were conducted:

- | | |
|---|---------------|
| • Cabana Road at Huron Church Road | July 21, 1998 |
| • Cabana Road at Glenwood Avenue | May 14, 1997 |
| • Cabana Road at Dominion Boulevard/Mount Royal Drive | June 6, 2000 |
| • Cabana Road at Dougall Avenue | June 5, 2000 |
| • Cabana Road at Howard Avenue | June 6, 2000 |
| • Cabana Road at Provincial Road | May 31, 1999 |
| • Division Road at Walker Road | May 27, 1999 |





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- Intermittent Service (Service Weekdays Only Until 5:50 p.m.)
- - - - Route 5
- Route 6
- Route 8



**FIGURE 5.3
TRANSIT WINDSOR NETWORK**

The turning movement volumes were adjusted to ensure consistency between the counts. The adjusted 2001 base year a.m. and p.m. peak hour turning movements are shown in **Figure 5.4**.

5.1.8 Collision Analysis

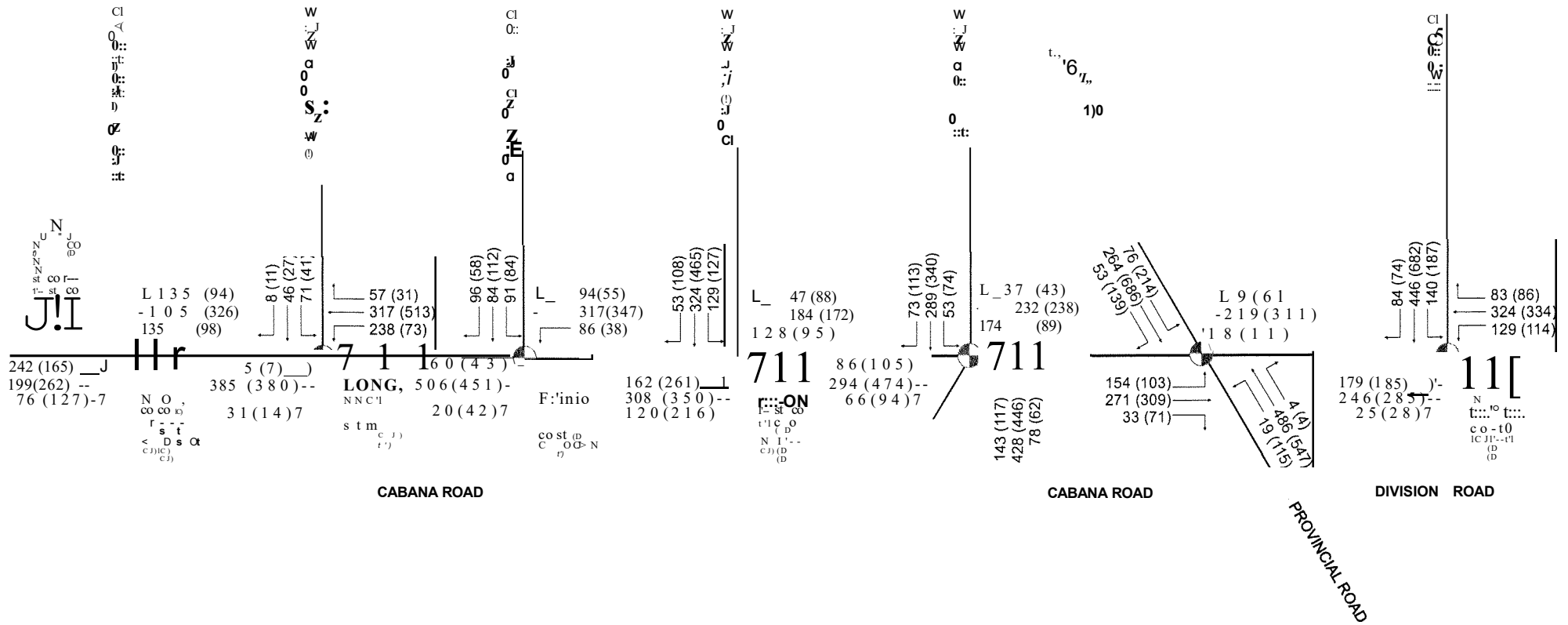
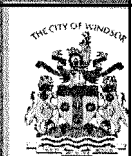
Collision data for the Cabana-Division Road corridor, between Huron Church Road and Walker Road, was obtained from the City for the period from 1998 to 2000. The collisions at intersections and the corresponding ratio in collisions per million entering vehicles (M.E.V.) are summarized in **Table 5.1**.

TABLES.I
COLLISION DATA AT SIGNALIZED INTERSECTIONS ALONG CABANA-
DIVISION ROAD
1998-2000

SIGNALIZED INTERSECTIONS	NUMBER OF COLLISIONS			AVERAGE COLLISION RATE
	1998	1999	2000	(COLLISIONS/M.E.V.)
Cabana Road at Huron Church Road	2	5	3	0.53
Cabana Road at Glenwood Avenue	7	5	1	1.53
Cabana Road at Dominion Boulevard	5	4	1	0.86
Cabana Road at Dougall Avenue	14	6	17	1.75
Cabana Road at Howard Avenue	5	10	10	1.35
Cabana Road at Provincial Road	12	9	12	1.60
Division Road at Walker Road	18	11	19	2.02
TOTAL	63	50	63	

The intersection collision rates were calculated using the year that had the highest occurrence of collisions within the three year period for which data was available. The average annual daily traffic (AADT) for each intersection was derived based on the generally accepted approximation that the summed a.m. and p.m. peak hour volumes for an intersection account for 20 percent of the AADT related to the intersection.

Based on the latest Province of Ontario Road Safety Annual Report (1997), the average collision rate for all roadways in the province from 1988 to 1997 was approximately 3.0 collisions per million entering vehicles. This value is typically used as a benchmark to determine if there is any cause for concern relating to collision rates. Based on the intersection



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- Signalized Intersection
- L 77 (86) Existing A.M. (P.M.) Traffic Volumes

1 Marshall Mackinnon Monaghan

**FIGURE 5.4
BASE YEAR (2001)
PEAK HOUR VOLUMES**

CABANA ROAD - DIVISION ROAD
SCHEDULE C CLASS ENVIRONMENTAL ASSESSMENT ROAD STUDY REPORT

collision data provided by the City of Windsor, there are no significant safety concerns in the study area since each of the intersections has a collision rate well below the provincial average.

It should also be noted that the collision information collected also included data related to impact type, weather conditions, and time of day. No patterns were evident in the collision data with respect to any of these collision categories.

The collisions occurring on the road links and the corresponding ratios in collisions per million vehicle kilometres (M.V.K.) between the intersections are summarized in **Table 5.2**.

TABLE 5.2
CABANA-DIVISION ROAD LINK COLLISION DATA
1998-2000

SECTION OF ROAD	NUMBER OF COLLISIONS			AVERAGE COLLISION RATE
	1998	1999	2000	(COLLISIONS/M.V.K.)
Cabana Road from Huron Church Road to Glenwood Avenue	4	5	1	1.30
Cabana Road from Glenwood Avenue to Dominion Boulevard	1	3	2	1.83
Cabana Road from Dominion Boulevard to Dougall Avenue	4	5	7	1.20
Cabana Road from Dougall Avenue to Howard Avenue	3	5	8	3.04
Cabana Road from Howard Avenue to Provincial Road	5	9	4	2.20
Cabana Road from Provincial Road to Division Road	2	1	3	2.27
Division Road from Cabana Road to Walker Road	5	5	3	1.34
TOTAL	24	33	28	

Based on the latest Ontario Road Safety Annual Report (1997), the average collision rate from 1988 to 1997 was approximately 3.0 collisions per million vehicles-kilometres. The average collision rates calculated in Table 5.2 are based on 1999 AADT volumes and the length of each road link. Based on the link collision data provided by the City of Windsor, the only link exceeding the provincial average is on Cabana Road from Dougall Avenue to Howard Avenue. It should be noted that there has been no significant increase in collisions over the three-year period.



5.1.9 Traffic at Railway Grade Crossings

There are two at-grade CNR crossings along the Cabana-Division Road Corridor. The first rail crossing is located east of Walker Road and the second is located west of Provincial Road. Currently, there are approximately five train movements per day on the rail corridor located east of Walker Road. For the rail corridor west of Provincial Road, there are currently no trains in operation. Information on existing train volumes for both rail corridors was obtained from C.N. Rail staff.

The C.N. Rail line is part of the Detroit River Tunnel Project (DRTP). The DRTP has expressed their intention to separate all at-grade rail crossings. These grade separations would impact Cabana-Division Road, but they would be funded by other sources, such as more senior levels of government.

The exposure index (which is equal to the AADT multiplied by the number of trains per day) at a rail crossing is a measure used in determining the need for grade separation. It is generally accepted that there is no need for a grade separation in cases where the exposure index is less than 200,000. The AADT on Cabana-Division Road in the vicinity of the rail corridor located east of Walker Road is approximately 14,950, with approximately five trains per day operating on the rail corridor. Therefore the exposure rate is 74,750, which is significantly less than the benchmark exposure index of 200,000. For the rail corridor west of Provincial Road, the exposure index is zero since there are currently no trains in operation on that line.

5.2 Existing Capacity Deficiencies

There are many ways to measure the capacity of an arterial roadway. One measure is based on the capacity of the signalized intersections along the arterial. It is important to note that intersection analysis is only reflective of the traffic demands which have actually passed through an intersection over a given time interval. It does not reflect capacity constraints such as narrow lanes, poor sightlines or reduced speeds caused by turning vehicles at driveways and stop-controlled intersections. The existing intersection capacity is determined based on the Level of Service as determined from intersection analysis. Capacity constraints along Cabana Division Road, not accounted for by the intersection analysis, are also discussed.

5.2.1 Intersection Analysis

In order to determine the existing Level of Service on Cabana-Division Road, the Level of Service was assessed at each of the following intersections:

- Cabana Road at Huron Church Road;
- Cabana Road at Glenwood Avenue;
- Cabana Road at Dominion Boulevard/Mount Royal Drive;
- Cabana Road at Dougall Avenue;
- Cabana Road at Howard Avenue;
- Cabana Road at Provincial Road; and
- Division Road at Walker Road.

The Level of Service was calculated using methods outlined in the Canadian Capacity Guide for Signalized Intersections (CCG, 2nd Edition) Canadian Institute of Transportation Engineers,



CABANA ROAD - DIVISION ROAD
SCHEDULE C CLASS ENVIRONMENTAL ASSESSMENT ROAD STUDY REPORT

1995. All of the intersections were analyzed using the existing a.m. and p.m. peak hour volumes shown in Figure 5.4. The existing signal phasing and timing information was obtained from the City of Windsor. The intersection capacity analysis is summarized in **Table 5.3**. A definition of Level of Service and a detailed analysis for each intersection can be found in **Appendix D**.

TABLES.3
EXISTING TRAFFIC ANALYSIS SUMMARY (2002)

SIGNALIZED INTERSECTIONS	A.M. PEAK HOUR		P.M. PEAK HOUR	
	LEVEL OF SERVICE (V/C RATIO)	*CRITICAL MOVEMENTS	LEVEL OF SERVICE (V/C RATIO)	*CRITICAL MOVEMENTS
Cabana Road at Huron Church Road	A (0.56)	-	B (0.64)	-
Cabana Road at Glenwood Avenue	A (0.42)	-	A (0.45)	-
Cabana Road at Dominion Boulevard	C (0.71)	-	A (0.50)	-
Cabana Road at Dougall Avenue	A (0.38)	-	B (0.62)	-
Cabana Road at Howard Avenue	B(0.69)	SB R,T,L	E(0.93)	SB R,T,L
Cabana Road at Provincial Road	A (0.54)	-	B (0.69)	-
Division Road at Walker Road	A (0.46)	-	A (0.50)	-

Note: SB = southbound; R = right; T = through; L = left

*Critical movements which are shaded are those with a volume/capacity ratio exceeding 0.85

The analysis shows that all of the intersections are operating at satisfactory Levels of Service during both the a.m. and p.m. peak hours based on the volumes passing through the intersections, with the exception of Cabana Road at Howard Avenue during the p.m. peak hour. While the intersection analysis suggests that traffic operations are adequate for the intersections, there are critical movements at the Cabana Road at Howard Avenue intersection that are operating very poorly during both the a.m. and p.m. peak hours.

At the intersection of Cabana Road at Howard Avenue, volumes on the southbound approach are constrained by the availability of only a single approach lane for left, through and right turn movements. This approach operates poorly during both the a.m. and p.m. peak hours. The higher east-west volumes on Cabana Road during the p.m. peak hour cause the overall p.m. peak hour traffic operations to be significantly worse than operations during the a.m. peak hour.

5.2.2 Traffic Operations along the Cabana-Division Road Corridor

The Cabana-Division Road corridor functions as both an arterial road accommodating through traffic, and as a local road providing access to individual driveways. The dual function of the corridor significantly constrains the capacity of the roadway. This corridor also functions as a connection between the Windsor Airport and several major north-south arterial roads. Capacity constraints along the corridor include slow moving trucks accessing commercial properties, rail crossings, intersection constraints at Howard Avenue, numerous residential driveways and



queuing problems at major intersections, particularly the intersection of Dougall Avenue at Cabana Road.

The commercial properties located east of Provincial Road generate a significant number of trucks that access the commercial properties via driveways directly onto Division Road. These large, slow moving vehicles impede through traffic as they reduce speed in order to make right turns or as they wait for gaps in order to complete left turn movements.

There are two at-grade CN Railway crossings along Cabana-Division Road that limit capacity. The first is located east of Walker Road with the second located west of Provincial Road. Vehicles are forced to wait while train traffic crosses east of Walker Road. Poor sight lines at the railway crossing west of Provincial Road also pose a capacity constraint.

West of Provincial Road, there are numerous residential driveways with direct access to Cabana Road. As is the case east of Provincial Road, vehicles slowing or stopping to access driveways effectively block through traffic because there is only one through lane per direction.

Capacity on Cabana Road is further reduced by the constrained operations at the intersection of Howard Avenue. The intersection is effectively a commercial node with many small commercial/retail uses located close to the roadside. As a result, narrow lanes and poor sightlines for turning vehicles reduce the capacity. Capacity is further constrained by the presence of many driveways for the businesses that comprise this commercial area.

Vehicles often take more than one signal cycle to clear the intersection of Cabana Road at Howard Avenue during the peak periods due to an inadequate left-turn storage lane and lack of an exclusive right turn lane. The queues created at Howard Avenue block access to the local roads and driveways in the area.

5.3 Future Transportation Needs

Future transportation demands have been projected for the 2006, 2011, and 2021 horizons. The projections and resulting analysis are based on traffic data provided by the City of Windsor, growth forecasts documented in the Windsor Area Long-Range Transportation Study (WALTS) report which have been confirmed with City staff, and specific development applications in the study area.

5.3.1 The Context of the WALTS Report and Other Studies

The WALTS report has provided the direction to proceed with the assessment of road needs on the Cabana-Division Road corridor. WALTS developed a Transportation Master Plan in accordance with Province's Class EA process. The key findings include the following:

- A population growth of up to 50,000 new residents in the City of Windsor is expected by the year 2016;
- An employment growth of up to 33,000 new jobs in the City of Windsor is projected by the year 2016;
- Traffic volumes grew by 3 percent per year in the study area during the 1990's;
- The recommended transportation plan includes travel demand management and roadway improvements; and

- The Cabana-Division Road corridor is recommended for "operational and capacity improvements" from Huron Church Road to Lauzon Parkway. This could include widening, upgrading, intersection improvements or other changes.

Other studies have also recommended improvements to the Cabana-Division Road corridor, including the City of Windsor's five-year Roadway Improvement Plan. As far back as 1980, the Windsor Urban Transportation Study defined a potential need for widening Cabana Road (by the time the area population reached 269,000). The City's Bicycle Use Master Plan (**BUMP**) identifies the introduction of reserved bike lanes within five years along the Cabana□ Division Road corridor.

5.3.2 Projected Traffic Growth

The projected traffic growth in the study area has been determined for the three horizons: 2006, 2011 and 2021. There are two components to the traffic growth at each of these horizons. The first component is based on growth rates determined from historical data and/or other relevant studies done for the study area. The second component is related to the vehicle trips generated as a result of specific development applications in the study area. The long-term growth potential for the Windsor Airport and the surrounding Industrial Development Park are also documented.

Corridor Traffic Growth

The first component of traffic growth, the growth rates, are based on an analysis of automatic traffic recorder (ATR) data provided by the City, and the growth forecasts documented in the WALTS report. The ATR data documented the link volumes at different years along Cabana Road, Huron Church Road, Dougall Avenue, Howard Avenue, Provincial Road and Walker Road. The data showed a combined annual growth rate of 2.7 percent per annum along Cabana Road and an average growth rate of 3.8 percent for the various north-south links. These growth rates are consistent with the annual growth rates shown in the WALTS report across the Walker-South Screenline from 1990 to 1996, and with the 2016 traffic projections for Cabana Road.

For growth from horizon 2011 to horizon 2021, it is not likely that these growth rates will be sustained. Based on the WALTS report, a reasonable long-term growth rate of 1.5 percent per annum was determined for traffic growth to horizon 2021. It should be noted that these growth rates include the continued build-out within the Howard Avenue-Division Road triangle and the development of the Legacy Park retail centre located near the Provincial Road / Walker Road intersection.

Impact of Specific Developments

The second component of the traffic growth is related to the vehicle trips generated as a result of specific development applications in the study area. Two such development applications were provided by the City, both of which are to be located on the south side of Cabana Road just west of St. Clair College. The two applications include the development of 106 condo units and 11 apartment units. The derivation of trips to and from these proposed land uses was based on rates contained in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, Sixth Edition.

Expansion of Windsor Airport and Industrial Park

Windsor Airport staff provided information related to the short-term growth in air traffic at the airport. The information can be summarized as follows:

- Addition of a 120 seat aircraft
- 3 flights per day
- 70 - 78% load factor
- 60 - 70% distribution to and from the United States

It should be noted that the "load factor" refers to the number of seats expected to be occupied on each flight, and that travellers from the United States destined to and from the airport are directed along Cabana-Division Road. For purposes of the analysis, the maximum load factor and distribution from the United States was used in order to show the "worst-case" scenario. It was assumed that half of the remaining inbound and outbound trips to the airport would be from downtown Windsor and would, therefore, also utilize the Cabana-Division Road/ Walker Road corridor.

Based on the information provided by the Windsor Airport staff and utilizing a vehicle occupancy of 2.5 persons per vehicle, the resulting inbound and outbound a.m. and p.m. peak hour trips are as follows:

- AM. peak hour: Inbound - 18 trips Outbound 14 trips
- P.M. peak hour: Inbound 18 trips Outbound - 14 trips

There is also substantial long-term growth potential for Windsor Airport and the surrounding Industrial Development Park. The Airport is about to undertake a Master Plan exercise to define this development potential more precisely. The development parcels in the Industrial Park include approximately 350 hectares of land proposed for industrial/commercial uses, plus an additional 80 ha parcel which could become a golf course or hotel site. The traffic potential of the 350 ha parcel has been considered at a strategic level. If these parcels were developed for industrial uses at 60 percent, typical peak hour traffic volumes would be in the range of 3,230 vehicles (2,680 inbound and 550 outbound) during the a.m. peak hour, and 2,810 vehicles (590 inbound and 2,220 outbound) during the p.m. peak hour. A large proportion of this traffic would use Division Road east of Provincial Road. That potential level of development would add significantly to the need for widening this section of the Cabana Road/Division Road corridor to four lanes.

5.3.3 Corridor Analysis

An analysis has been undertaken in order to identify the projected demands on the Cabana □ Division Road corridor links. It should be reiterated that the intersection analysis only accounts for vehicles actually passing through an intersection at a given time. A link analysis compares the available capacity to the projected volumes on specific road links in order to determine whether the projected growth in traffic volumes can be accommodated.

In a link analysis there are two primary factors to consider: volume and capacity. The design capacity of a lane is dependent on a number of factors, such as side friction which includes parameters such as the number of driveways along the road and the impact of vehicles turning into and out of these driveways, the absence or presence of a centre two-way left-turn lane,

pedestrian activity, sightlines and the width of the lanes. Based on the WALTERS report and discussion with City Staff, an appropriate capacity value for Cabana Road is 800 vehicles per lane. This is reflective of other similar roads in Windsor.

The projected volumes have been discussed above. A comparison of volume to capacity is provided in **Table 5.4** for the 2001 base year and horizon years 2011 and 2021. The volume to capacity ratios are for the current lane configurations and represent how each link would operate if no improvements be made to the Cabana-Division Road Corridor.

Table 5.4 shows that at the 2001 base year, there are already capacity deficiencies for eastbound traffic on the links between the intersections of Dominion Boulevard and Howard Avenue.

At the 2011 horizon year, the majority of the length of Cabana - Division Road operates with volumes approaching or exceeding capacity. The entire length of the corridor will operate at a volume to capacity ratio approaching or exceeding capacity by the 2021 horizon year.

Critical link distance levels of service conditions translate into congestion for through-moving vehicles. Motorists wishing to make left-turns face significant delays and queueing, while local residents would experience significant difficulty in gaining access to their driveways.

5.3.4 Horizon 2011 Intersection Capacity Analysis

The projection of traffic for the horizon of 2011 was developed based on the methodology described above. The projected 2011 peak hour turning movement volumes are shown in **Figure 5.5**. The horizon of 2011 is considered to be appropriate for an intersection analysis. It represents a medium term horizon at which turning movements can be estimated with a reasonable degree of certainty.

Traffic operations for the existing signalized intersections were assessed along Cabana-Division Road with the 2011 traffic volumes in place. A summary of the 2011 traffic analysis is shown in **Table 5.5**. The detailed intersection calculations of Level of Service for signalized intersections are included in Appendix D.

The future impacts of additional development have been conservatively accounted for in the analysis of future conditions. Although the impact of proposed developments for which development applications have already been submitted are considered in this analysis, the potential impact of residential intensification and infill has not been considered in this analysis. Other potential impacts on traffic include the redevelopment of underused commercial and industrial properties along the corridor.

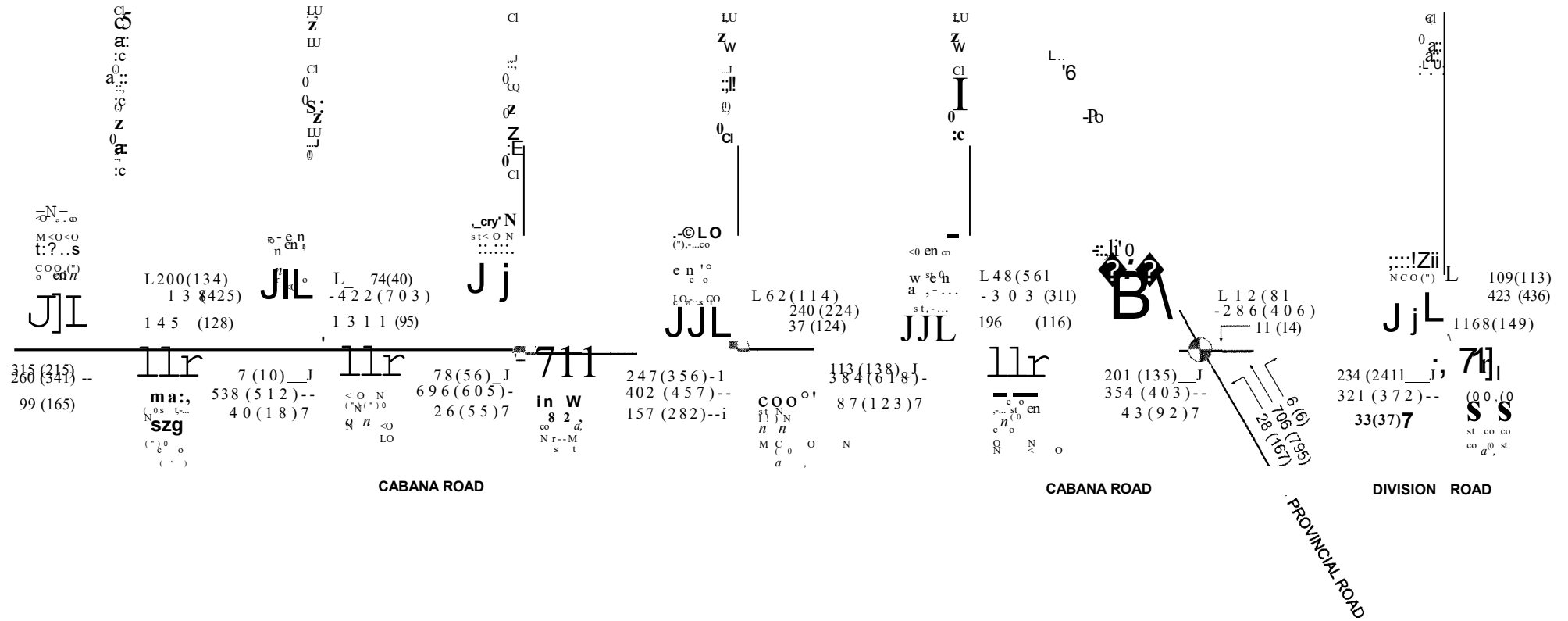


Table 5.4: Comparison of Volume to Capacity

	CABANA-DNISION ROAD LINK	PEAK HOUR	LINK CAPACITY (VEH/HR)	BASEYFAR(2001)		HORIZON 2006		HORIZON 2011		HORIZON 2021	
				EXISTING VOLUME	VOLUME ID CAPACITY RATIO	PROJEC1ID VOLUME	VOLUME10 CAPACITY RATIO	PROJEC1ID VOLUME	VOLUME10	PROJEC1ID VOLUME	VOLUME10 CAPACITY RATIO
Eastbound	Huron Church Road to GlenwoodAwnue	A.M.	800	430	0.54	520	0.65	590			
		P.M.	800	490	0.61	590	0.74	690			
	Glenwood Awnue to Dominion Awnue	A.M.	800	590	0.74	700					
		P.M.	800	560							
	Dominion Awnue to Dougall Awnue	A.M.	800	700							
		P.M.	800	830							
	Dougall Awnue to Howard Awnue	A.M.	800	460							
		P.M.	800	680		770		880			
	HowardAwnue to Provincial Road	A.M.	800	460		530	0.66	600			
		P.M.	800	610	0.76	710		820			
Provincial Road to Walker Road	A.M.	800	450	0.56	520	0.65	590				
	P.M.	800	530	0.66	620	0.78	720				
Westbound	Huron Church Road to Glenwood Awnue	A.M.	800	340	0.43	400	0.50	460			
		P.M.	800	550	0.69	660					
	Glenwood Awnue to Dominion Awnue	A.M.	800	620	0.78	710					
		P.M.	800	620	0.78	740					
	Dominion Awnue to Dougall Awnue	A.M.	800	500	0.63	580					
		P.M.	800	660	0.83	810					
	Dougall Awnue to HowardAwnue	A.M.	800	450	0.56	530		620			
		P.M.	800	470	0.59	550		650	0.81	750	
	Howard Awnue to Provincial Road	A.M.	800	350	0.44	400	0.50	450	0.56	520	
		P.M.	800	570	0.71	670		780		900	
Provincial Road to Walker Road	A.M.	800	470	0.59	540	0.68	630	0.79	730		
	P.M.	800	480	0.60	560	0.70	650	0.81	760		

Note: Shaded boxes represent volume to capacity ratios > 0.85





Not to Scale

LEGEND

Signalized Intersection

Marsh? II
Macklin
Monaghan

L 77 (86) Existing AM. (P.M.) Traffic Volumes

**FIGURE 5.5
HORIZON 2011
PEAK HOUR VOLUMES**

TABLE 5.5
TRAFFIC ANALYSIS SUMMARY
HORIZON 2011

SIGNALIZED INTERSECTIONS	A.M. PEAK HOUR		P.M. PEAK HOUR	
	LEVEL OF SERVICE (V/C RATIO)	*CRITICAL MOVEMENTS	LEVEL OF SERVICE (V/C RATIO)	*CRITICAL MOVEMENTS
Cabana Road at Huron Church Road	C (0.78)	EB-L	E (0.99)	NB-L WB-R, EB-L
Cabana Road at Glenwood Avenue	B (0.61)	EB-L	A (0.59)	-
Cabana Road at Dominion Boulevard	F (1.06)	SB-R,T,L WB-R,T,L EB-R,T,L	B (0.69)	-
Cabana Road at Doull Avenue	A (0.58)		D (0.84)	NB-L
Cabana Road at Howard Avenue	F (1.03)	SB-R,T,L WB-L	F (1.44)	SB-L,T,R WB-L, NB-L, EB-L,T,R
Cabana Road at Provincial Road	C (0.71)	SB-L	F (1.21)	SB-R WB-L,T,R NB-L, T EB-L,T,R
Division Road at Walker Road	B (0.69)		C (0.72)	

Note: SB = southbound; NB = northbound; WB = westbound; EB = eastbound
R = right; T = through; L = left

*Critical movements which are shaded are those with a volume/capacity ratio exceeding 0.85

The 2011 horizon intersection operations indicate a significant deterioration of conditions as traffic volumes continue to grow across the study area. Traffic operations are expected to be problematic along most of the corridor during both the a.m. and p.m. peak hours. Areas of particular concern include:

A.M. Peak Hour

The following intersections are expected to operate at unacceptable Levels of Service if no improvements are undertaken:

- Cabana Road at Dominion Boulevard/Mount Royal Drive
- Cabana Road at Howard Avenue

P.M. Peak Hour

The following intersections are expected to operate at unacceptable Levels of Service if no improvements are undertaken:

- Cabana Road at Huron Church Road
- Cabana Road at Howard Avenue
- Cabana Road at Provincial Road

5.3.5 Future Cross Section Needs

The projections of traffic volumes for the 2006, 2011 and 2021 horizons indicate a clear need for at least a four-lane cross-section between Provincial Road and Glenwood Avenue. The intersection analysis shows that intersection operations are expected to significantly worsen in this area by the 2011 horizon. Outside of this area, the numerical analysis of need is bolstered by consideration for broader factors, including:

- *Lack of other continuous east-west roads in the south end of Windsor, including EC ROW Expressway.* The Cabana/Division Road corridor is the only continuous east-west road in the southern area of the City. Without the widening, drivers will be forced to utilize a series of discontinuous minor east-west roads that will increase turning movements at area intersections and increase the potential for vehicle infiltration into residential neighbourhoods. The EC ROW Expressway, for example, is not a viable alternative to Cabana Road because it represents a large (approximately 4.2 kilometre) detour. During peak periods, congestion can be found on many of the ramps as well as on the EC ROW Expressway, and it does not always operate at the posted limit;
- *Network continuity.* A four-lane Cabana-Division Road corridor would be an appropriate link between the employment uses in the area of Walker Road and Huron Church Road, the latter of which is the major north-south street in the west that provides access to the Ambassador Bridge;
- *Access to development.* As development intensifies along the corridor, turning movements to and from driveways and side streets will increase. Provision of a four-lane cross-section will create the capacity needed for both through traffic and turning vehicles;
- *Accommodation of growth in traffic related to area growth, new development and the airport as outlined in Section 5.3.2;*
- *Ensuring that transit services can maintain schedule adherence and reliability.* On a two-lane cross-section, buses are delayed in queues at intersections. As development increases in South Windsor, transit service can be expected to increase as well. The ability to provide reliable transit service will be an important consideration in fostering development which is not focused exclusively on auto access;
- *The BUMP study has recommended that any reconfiguration of the Cabana-Division Road corridor should include bike lanes.* This reconfiguration has been recommended to occur within a five year time period; and
- *Centre two-way left turn lane advantages (CTWLTL).* These lanes help separate left-turning vehicles from through traffic, helping maintain good traffic flow while greatly reducing the risk of rear-end collisions.

The advantages of a five-lane cross section along Cabana Road is that the centre two-way left turn lane would significantly improve left turn access to and from the properties that front onto this corridor. It would minimize the likelihood of rear end collisions by providing storage for left turning vehicles. A CTWLTL would also significantly enhance the capacity of the through lanes by minimizing the "turbulence" caused by vehicles weaving and merging to avoid left turning traffic, as well as delays experienced by the delays experienced by motorists queued behind left turning vehicles.

These factors, together with the numerical assessment of demand and capacity, indicate the need to widen Cabana-Division Road between Huron Church Road on the west and Walker Road on the east to at a minimum a four-lane cross-section.



The large number of driveways and side streets along the corridor indicate that a centre two way left turn lane could be considered as a beneficial addition to the cross-section in order to realize the potential capacity of the through lanes.

5.3.6 Projected Exposure Indices for At-Grade Rail Crossings

In order to calculate the future exposure indices for the two at-grade rail crossings along the Cabana-Division Road corridor, the future train operations along the rail corridors must be projected. Due to the yearly, monthly and often weekly variability of train schedules, C.N. Rail staff were unable to provide forecast data. Therefore, the need for grade separation was determined based on the required increase in train operations necessary to exceed the exposure index benchmark of 200,000 based on the projected AADT's at each horizon. These calculations are summarized in Table 5.6.

**TABLES.6
REQUIRED INCREASE IN TRAIN OPERATIONS TO REACH AN
EXPOSURE INDEX OF 200,000**

HORIZON	RAIL CORRIDOR	AADT	# OF TRAINS PER DAY TO EXCEED E.I. OF 200,000
2006	West of Provincial Road	15,730	13
	East of Walker Road	17,410	12
2011	West of Provincial Road	17,735	11
	East of Walker Road	20,125	IO
2021	West of Provincial Road	20,585	IO
	East of Walker Road	23,365	9

For the rail corridor east of Walker Road, existing daily train operations would need to be tripled by the 2006 horizon for the exposure index to exceed the benchmark 200,000 value. For the corridor west of Provincial Road, which currently has no train activity, train operations would have to increase to at least 13 trains per day by the 2006 horizon in order to exceed the benchmark 200,000 value. Therefore, based on the existing train operations on the rail corridors crossing Cabana-Division Road, there is not expected to be a need for grade separation in the foreseeable future. However, operations over the long term cannot be credibly projected and, therefore, the need for grade separation of the railway tracks across Cabana Division Road should be reviewed if rail operations are significantly increased.

5.4 Utilities

Within the Cabana Division Road corridor, the following utilities and municipal services exist:

Utilities

- Hydro - Enwin Utilities
- Data - Maxiss
- Telephone- Bell Canada
- Gas - Union Gas
- Cable Television Cogeco

Services

- Watermain - Enwin Utilities
- Sanitary sewers - City of Windsor
- Storm Sewers - City of Windsor
- Traffic Signal Infrastructure - City of Windsor
- Street Lighting - Enwin Utilities

The type of utilities and their location are described in **Appendix F**.

5.5 Natural Environment

The majority of the land along the Cabana-Division Road corridor is developed and contains paved surfaces; however, some naturalized areas are found in pockets along or adjacent to the corridor. Three studies were conducted to assess the natural environmental conditions of the corridor: an Arborist Report; a Natural Heritage Study; and a Fauna Study. These reports can be found in **Appendix D**.

5.5.1 Floral Resources

Arborist Report

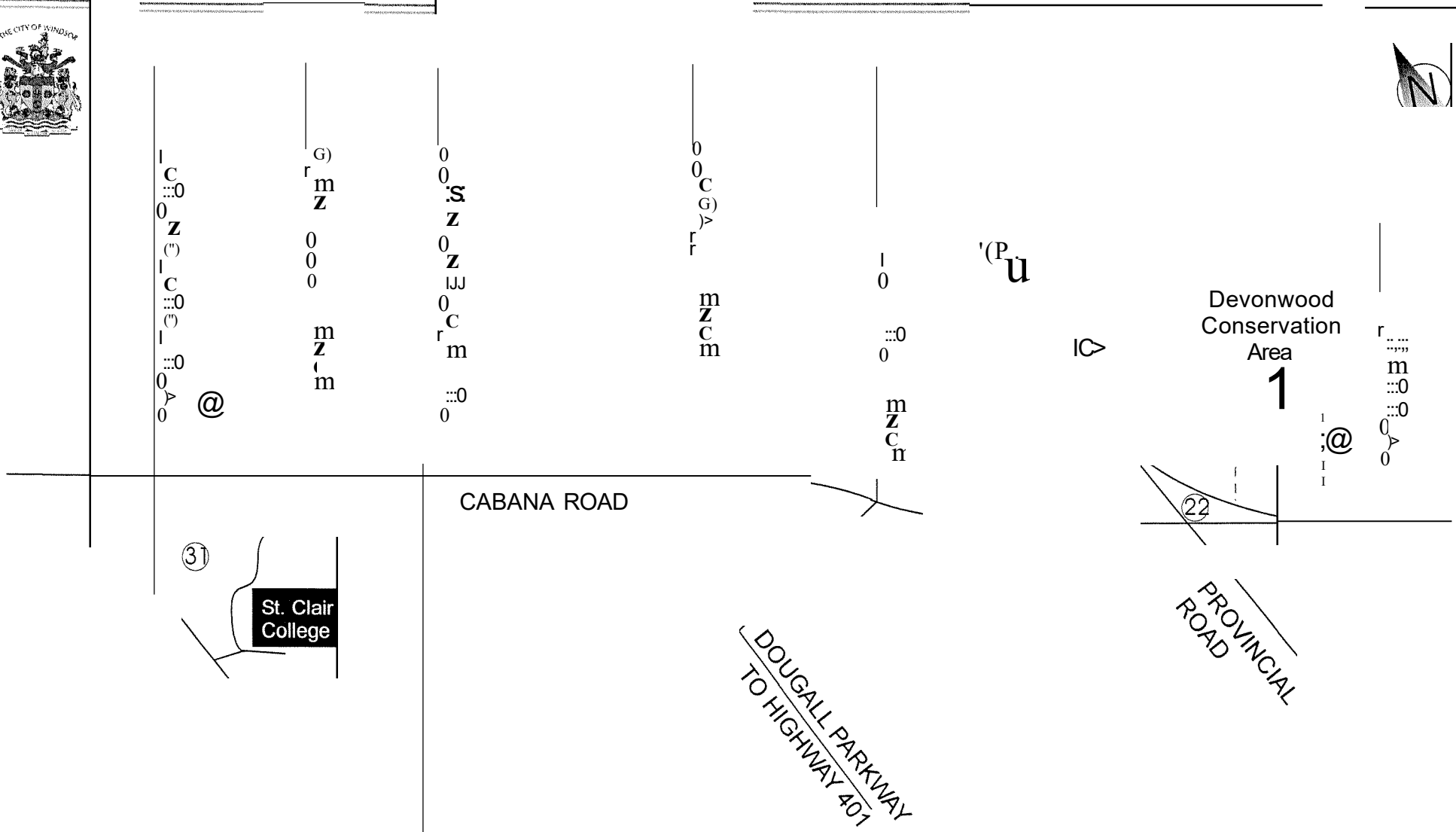
As a mixed-use corridor, the landscape along Cabana-Division Road is varied and is exemplified by many different species of trees. In this study, 303 trees along the corridor were identified, measured and their health was assessed.

As is typical in southern Ontario, the trees found along Cabana-Division Road Corridor are dominated by the Maple species (*Acer* spp.), particularly Silver Maple (*A. saccharinum*) and Norway Maple (*A. platanoides*). The Maple trees are generally healthy and in good condition. Ash, Oak and Spruce species are also quite common along the corridor, including Red Ash (*Fraxinus pennsylvanica*), Red Oak (*Quercus rubra*) and Norway Spruce (*Picea abies*). The Oak and Spruce species are generally in satisfactory condition. However, many of the Red Ash trees are in a state of perpetual decline. This is further exacerbated by the influx of the Emerald Ash Borer (EAB), a highly destructive insect that attacks ash trees. EAB, a non-native species from eastern Asia, was first discovered in Canada and the US in 2002. EAB has killed a large number of ash trees in the Windsor, Ontario/Detroit, Michigan area and poses a major economic and environmental threat to urban and forested areas in both countries.

The distance of each of the trees was measured from the centreline of the existing roadway as part of the Cabana-Division Road Corridor Study. Approximately 64 trees along the corridor are located within 10 metres or less from the centreline of the existing road. In addition, approximately 143 trees along the corridor are located within less than 15 metres of the existing centreline.

Natural Heritage Study

A Natural Heritage Study was conducted by Gerald Waldron, M.Sc. on eight potentially significant sites along or near the Cabana-Division Road corridor. The sites investigated included: Devonwood Conservation Area and City of Windsor Candidate Natural Heritage Site Numbers 16, 17, 20, 22, 24, 31 and 32 (refer to **Figure 5.6** for the location of these sites).



Not to Scale

LEGEND

- 1 Devonwood Conservation Area
- (8) Natural Heritage Candidate Sites



Cabana - Division Road Corridor Cross Environmental Assessment

FIGURE 5.6
NATURAL HERITAGE SITES

Devonwood Conservation Area

Located west of Walker Road on the north side of Division Road, the Devonwood Conservation Area is 44 hectares in size and currently fulfills three of the eight criterion for a significant natural heritage area. The Devonwood Conservation Area contains a picnic area and a nature trail that winds through the property. Eight different species of Oak trees are found in the Devonwood Conservation Area, including White, Swamp White, Bur, Chinquapin, Pin, Red, Shumard and Black.Oak (*Quercus alba, bicolor, macrocarpa, muhlenbergii, palustris, rubra, shumardii, and velutina*) The great variety of Oak and other tree species presents a unique opportunity for research and education. Twenty-eight rare plant species (25 rare in Canada, 20 rare in Ontario and 4 rare in Essex County) are also found in the Devonwood Conservation Area, with the preservation of these species deemed important to the conservation of natural heritage in the Region.

City of Windsor Candidate Natural Heritage Site #16

This site is 0.9 hectares in size, with the natural vegetation having been removed for development. This site fulfils none of the criteria for significance as a natural heritage site and has been eliminated from future consideration as a Candidate Natural Heritage Site by Council Resolution CR 1475/94.

City of Windsor Candidate Natural Heritage Site #17

Located in the Devon Planning District, this site was originally a rich, mesic woodlot dominated by the Oak (*Quercus* spp.), Maple (*Acer* spp.) and Elm (*Ulmus* spp.) species. In 1992, the site was cleared of vegetation by development, and the site no longer has potential as a naturally significant area. This site has been eliminated from future consideration as a Candidate Natural Heritage Site by Council Resolution CR 1475/94.

City of Windsor Candidate Natural Heritage Site #20

Located in the Devon Planning District, this site originally consisted of 3.8 hectares of natural vegetation. Although an adopted Sub-watershed Study, CR 1366/98, recommended that this area be designated as EPA 1, further site investigation revealed that the sub-watershed boundary was incorrect and the site was taken out of consideration. It has since been developed for residential uses.

City of Windsor Candidate Natural Heritage Site #22

Located in the Devon Planning District, this site of 2.0 hectares contains a canopy composition similar to that of Devonwood Conservation Area, which is primarily composed of Maple (*Acer* spp.), Oak (*Quercus* spp.) and Elm (*Ulmus*) species. The woodlot on this site, however, is not a significant natural area due to its small size and has been recommended for deletion from Natural Heritage Site consideration by the adopted Sub-watershed Study, CR 1366/98.

City of Windsor Candidate Natural Heritage Site #24

Located at Highway 401 and Howard Avenue in the Roseland Planning District, this 7.0 hectare site fulfills four of the eight criteria for natural significance. The dominant overstorey species is American Elm (*Ulmus americana*), although many of the Elm species in the canopy have died off and are being replaced by Red-fruited Thom (*Crataegus mollis*) and Dogwoods (*Cornus* spp.). The site is poorly drained and no trees are found in its centre. The periphery of the site contains Oak (*Quercus* spp.) and Hickory (*Carya* spp.) species and the southeast corner contains grasses (*Graminae* spp.) and Goldenrod (*Solidago* spp.) dominated fields.

City of Windsor Candidate Natural Heritage Site #31

Located in the St. Clair College Prairie in the Roseland Planning District, this 15.0 hectare site fulfills five out of the eight prescribed criteria for natural significance and is designated an Environmentally Significant Area (ESA). The site is generally in good condition with little evidence of disturbance, which is reflected by the low number of introduced species.

A total of 38 rare species are found in this area. The forest canopy is lined with oak trees, including Black, White, Pin, Swamp White and Bur-oak (*Quercus velutina*, *alba palustris*, *bicolor* and *macrocarpa*). Other hardwood trees found on this site include Red Maple (*Acer rubrum*), Shagbark Hickory (*Carya ovata*), Red Ash (*Fraxinus pennsylvanica*), White Elm (*Ulmus americana*), Sumac (*Rhus* spp.) and Dogwoods (*Cornus* spp.). The northern boundary of the site contains the Lennon Drain, which is a channelized tributary of Turkey Creek. The northeast corner of this area was formerly quarried for topsoil, and an assemblage of interesting plant species that are tolerant of subsoil conditions is found there.

City of Windsor Candidate Natural Heritage Site #32

Located in Oakwood in the South Windsor Planning District, this 17.0 hectare site fulfills six of the eight prescribed criteria for natural significance. The variation in soil types and drainage provides great diversity in the number and types of species found on this site. The northwest corner has an assemblage of tallgrass prairie species, such as Spiked Blazing Star (*Liatris spicata*) and Tall Coreopsis (*Coreopsis tripteris*). The canopy is dominated by hardwoods, including Northern Red Oak (*Quercus rubra*), White Oak (*Q. alba*), Red Maple (*Acer rubrum*), Sugar Maple (*A. saccharum*) and Basswood (*Tilia americana*). There are also portions of the prairie area that are in a shrub stage of succession and have Carolinian elements, including Sumac (*Rhus* spp.), Dogwoods (*Cornus* spp.) and Willows (*Salix* spp.).

Summary of Floral Resources

The Cabana-Division Road corridor is lined with multiple different species of trees, including: Maple, Oak and Ash. The Maple and Oak species were observed to be in a state of good condition. However, the Ash trees within the study area are in a state of perpetual decline and further, they have been affected by the Emerald Ash Borer, an insect relatively new to the area. Approximately 145 of the trees along the corridor are within 15 metres from the centreline of the existing roadway.

The Devonwood Conservation Area is the largest and most significant wooded area within the vicinity of the corridor. City of Windsor Natural Heritage Sites #22, 24 and 32 fulfill portions of the criterion for natural significance and are lined with Oak, Maple and Elm trees. City of

Windsor Natural Heritage Site #31 is designated an Environmentally Significant Area. This stand is oak-dominated and contains 38 rare floral species.

5.5.2 Fauna/ Resources

Two field investigations were conducted as part of a faunal study for the Cabana-Division Road Corridor EA. Inventories of bird, butterfly, amphibian, reptile and mammal species were taken and significant or sensitive habitats were assessed.

Four areas along the Cabana-Division Road Corridor were identified as faunal habitat:

1. The railroad crossing and ditches just west of Provincial Road;
2. A woodland on the north side of Cabana Road just west of the Welcome Travelers Motel , which includes a short portion of the Devonwood Conservation Area;
3. A small woodlot just west of Howard Avenue on the north side of Cabana Road; and
4. The Turkey Creek corridor.

It was determined that any potential widening within the study area will likely have minimal effects on the habitat of these identified locations.

The following is an overview of the faunal species that reside, or can be found in the natural areas along the corridor:

Birds - Thirty-four species of birds were found with approximately 27 of them breeding in the immediate vicinity of the Cabana-Division Road Corridor. Seven of these species are summer visitors. One Black-crowned Night-Heron was found in the area, which is considered rare in Essex Region.

Amphibians Three individuals of Green Frog were found. This species is not considered rare in Canada, Ontario or Essex Region.

Reptiles Two species of reptiles were found in the area: Midland Painted Turtle and Eastern Garter Snake. These species are not considered rare in Canada, Ontario or Essex Region.

Mammals - Two species of mammals were encountered in the area: Grey Squirrel and Muskrat. These species are not considered rare in Canada, Ontario or Essex Region. No significant mammal habitat was found within the study area.

Butterflies - Four species of butterflies were encountered in the area: Cabbage White, Clouded Sulphur, Little Wood Satyr, and European Skipper. None of these species are considered rare in Canada, Ontario or Essex Region, and no significant butterfly habitat was found in the area.

5.6 Socio-Economic Environment

5.6.1 Community Structure

The existing lands within the study area have established residential, institutional, commercial and industrial uses. The distributions of these uses within the study area are illustrated in **Figure 5.7**.





Figure 5.7: Existing Land Uses



The residential uses are predominately located on the west end of the corridor between Huron Church Road and Provincial Road. The housing along this corridor is mainly low density and low-rise, such as single-detached dwellings (see **Figure 5.8**). There exists one area that can be classified as medium density housing (greater than 8 units) on the south side of Cabana Road between Huron Church Road and Dominion Avenue.

There are a significant number of institutional uses along the corridor, such as St. Clair College, a Fire Station, four elementary schools, and four places of worship (see **Figure 5.9**). All of the institutional uses along the corridor, except for one school, are located between Huron Church Road and Dominion Avenue.

St. Clair College is identified as a planning area and is bounded by Highway 3 to the west, Cabana Road to the north, an existing residential neighbourhood to the east, and Cousineau Road to the south. The expansion of St. Clair College has been proposed and is incorporated in the Secondary Plan for the area. This Secondary Plan forecasts the expansion of College facilities northerly toward Cabana Road. The Secondary Plan also envisions an improved Cabana Road in future conditions.

5.6.2 Local Economy

A large number of industrial businesses are located near the intersection of Division Road at Walker Road. These businesses typically contain light industrial operations such as a concrete pipe manufacturer, a garden centre and a construction supply depot.

Commercial uses are found at major intersections throughout the study area, such as Cabana/Dougall, Cabana/Howard, Cabana/Provincial and Division/Walker. The commercial businesses along the corridor tend to be grouped in commercial "plazas" and provide daily commercial services such as drug stores and restaurants. There are a number of independent car dealerships found along the corridor, as well as auto repair shops and a marine sales dealership (see **Figure 5.10**).

5.6.3 Noise Levels

A noise study was completed to address the potential impact of any proposed project undertaking on any noise sensitive land uses adjacent to Cabana-Division Road and to assess whether noise mitigation measures would be warranted.

The City of Windsor Transportation Department provided existing traffic volumes. Future traffic volumes for Cabana-Division Road were projected from the traffic study component for this project. Future traffic volumes were used in order to calculate noise levels for the various alternatives for the Cabana-Division Road Corridor. Roadway noise levels were calculated using both the method outlined in the Ontario Ministry of the Environment document "ORNAMENT, October 1989" and the MOE "STAMSON 5.03" Computer Program for Road and Rail Traffic Noise Assessment.

The resulting calculations concluded that the existing noise-sensitive land uses will not be impacted by future traffic volumes resulting from any future improvements along the Cabana Division Road Corridor. Future traffic volumes combined with widened roadway conditions



Figure 5.8: Existing Residential Uses

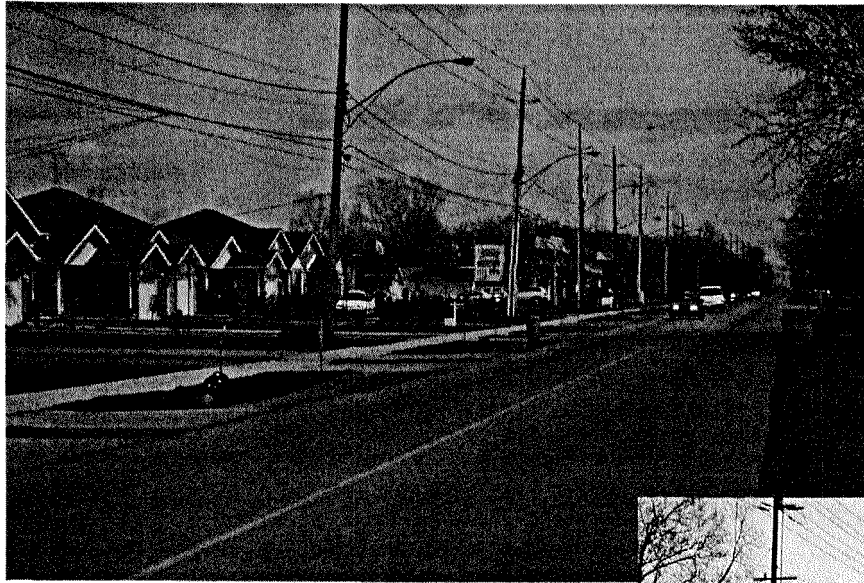




Figure 5.9: Existing Institutional Uses

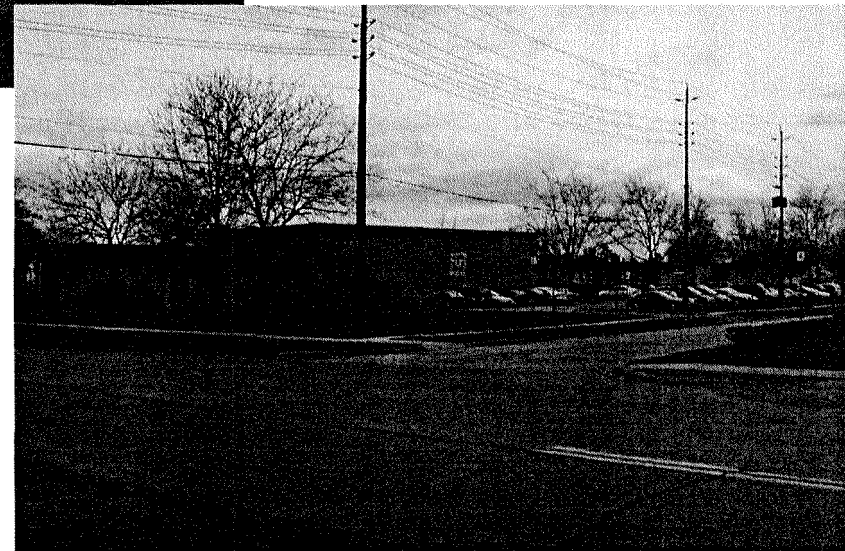
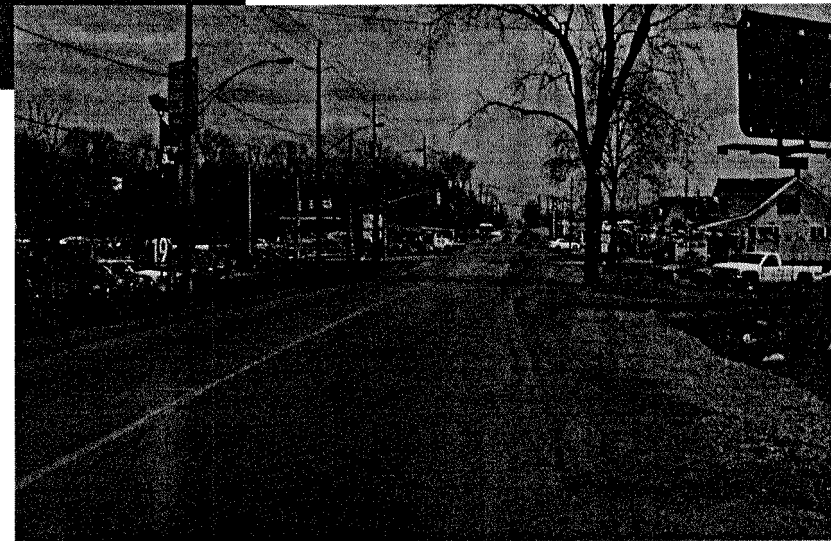
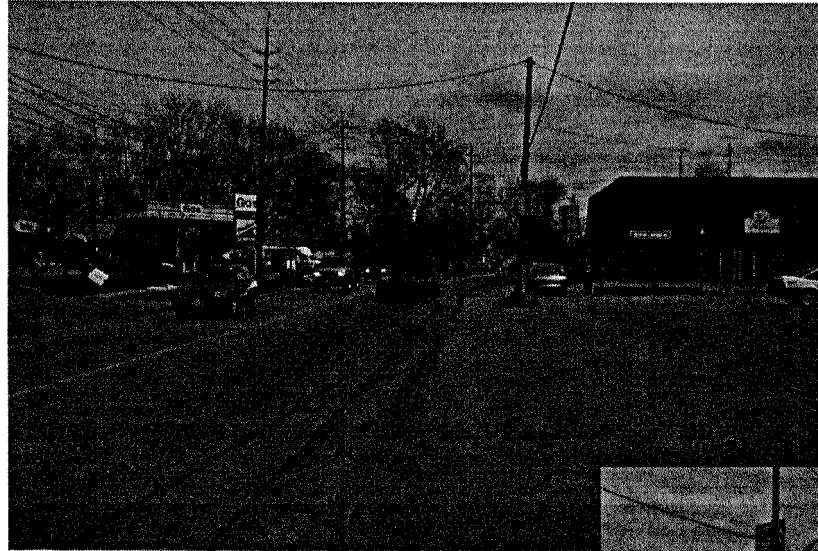




Figure 5.10: Existing Commercial Uses



resulted in noise level increases of less than five decibels. Accordingly, based on the guidelines outlined in the "Protocol for Dealing with Noise concerns during Preparation, Review and Evaluation of Provincial Highway Environmental Assessments" prepared by the Ontario Ministry of Transportation and the Ministry of the Environment, physical noise mitigation measures are not required in conjunction with any future widening along the Cabana-Division Road Corridor.

5.7 Cultural Environment

5.7.1 Stage 1 Archaeological Assessment

A Stage 1 Archaeological Study was conducted for the Cabana-Division Road Corridor EA. The study area begins at the eastern boundary of the City, extends westerly for 5.9 km to Huron Church Road. A distance of 30 metres on both sides of the Cabana-Division Road Corridor was examined with a wider range of 100 metres on both sides of Cabana-Division Road being examined at major intersections. The Stage 1 Archaeological Study Report can be found in Appendix F.

Two locations were identified as having archaeological potential due to past Aboriginal sites. The first site is in the area of the Devonwood Conservation Area at the east end of the corridor. The second site is an area of grass on the southwest side of the corridor, adjacent to an existing fire station and church.

An investigation of historic post-contact archaeological sites was conducted. Sites with archaeological potential that were identified include an area at the intersection of Cabana Road at Huron Church Road, and a small section of woodlot on the north side of the corridor, just west of Howard Avenue. Refer to Figures 10 through 12 in Appendix F for photos of all four of the areas of archaeological potential identified in the Stage 1 assessment.

Each of the four areas identified as sites of archaeological potential require a Phase 2 archaeological assessment prior to any roadway improvements.

5.7.2 Built Heritage Issues

As part of the Stage 1 Archaeological Assessment of the Cabana-Division Road corridor, a review of the Built Heritage issues was undertaken. This report can be found in Appendix F.

Two structures were identified in the City of Windsor's Heritage Properties Inventory: municipal numbers 865 and 315 Cabana Road East.

The property at 865 Cabana Road East is now a vacant lot. The original farmhouse, which was built in 1890, has been demolished and a shed and trailer now occupy the lot.

The structure at municipal number 315 Cabana Road East is the Hindu Mandir, a cultural and religious centre operated by the local East Indian community. The structure is of architectural importance, since it is a 1½ storey brown brick building with an ornamental stucco facade. This structure is of significant importance to Windsor's Hindu community with approximately 250 of the 350 Hindu families in Windsor with memberships at the Mandir. The built heritage features are shown in Figures 13 and 14 in Appendix F.



5.7.3 Civic Way Issues

Cabana Road at Division Road extending east toward the Walker Road intersection has been identified a civic way in the City of Windsor Official Plan. The reconfiguration of this portion of the corridor extending easterly from the Cabana-Division intersection toward Walker Road should enhance the public right-of-way using landscaping, fixtures and boulevard and median treatments. This is outlined in Section 8.11.2.12 - .13 in the City's official plan. This stretch of the corridor does not currently meet the requirements of a Civic Way since it contains a gravel shoulder, minimal landscaping and no median treatments.

