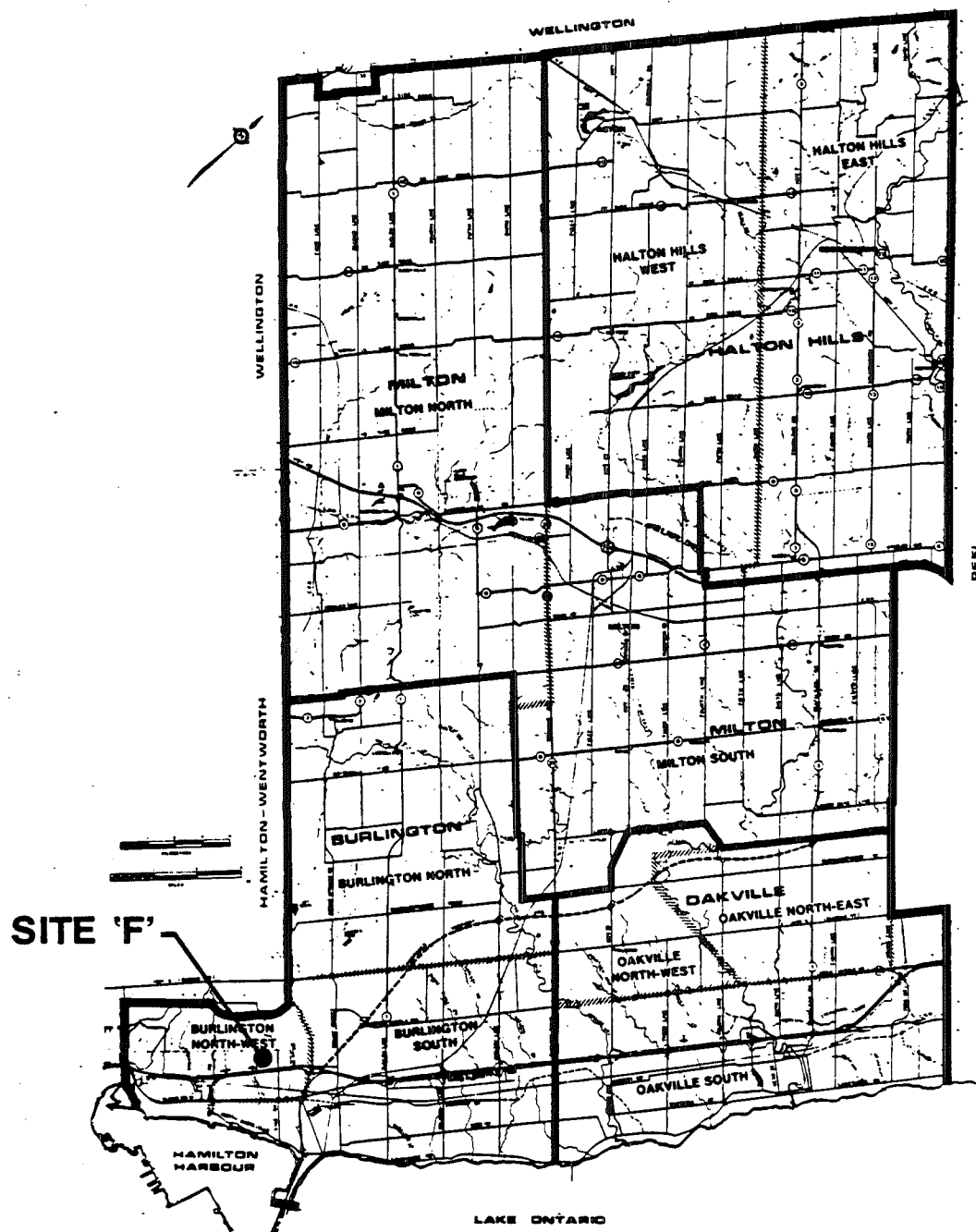

Halton Region
Landfill Technical Study
Transportation Analysis - Site F
Schedule CF

Halton Region
Landfill Technical Study

Transportation Analysis - Site F

Giffels Associates Limited
August 1986





KEY PLAN

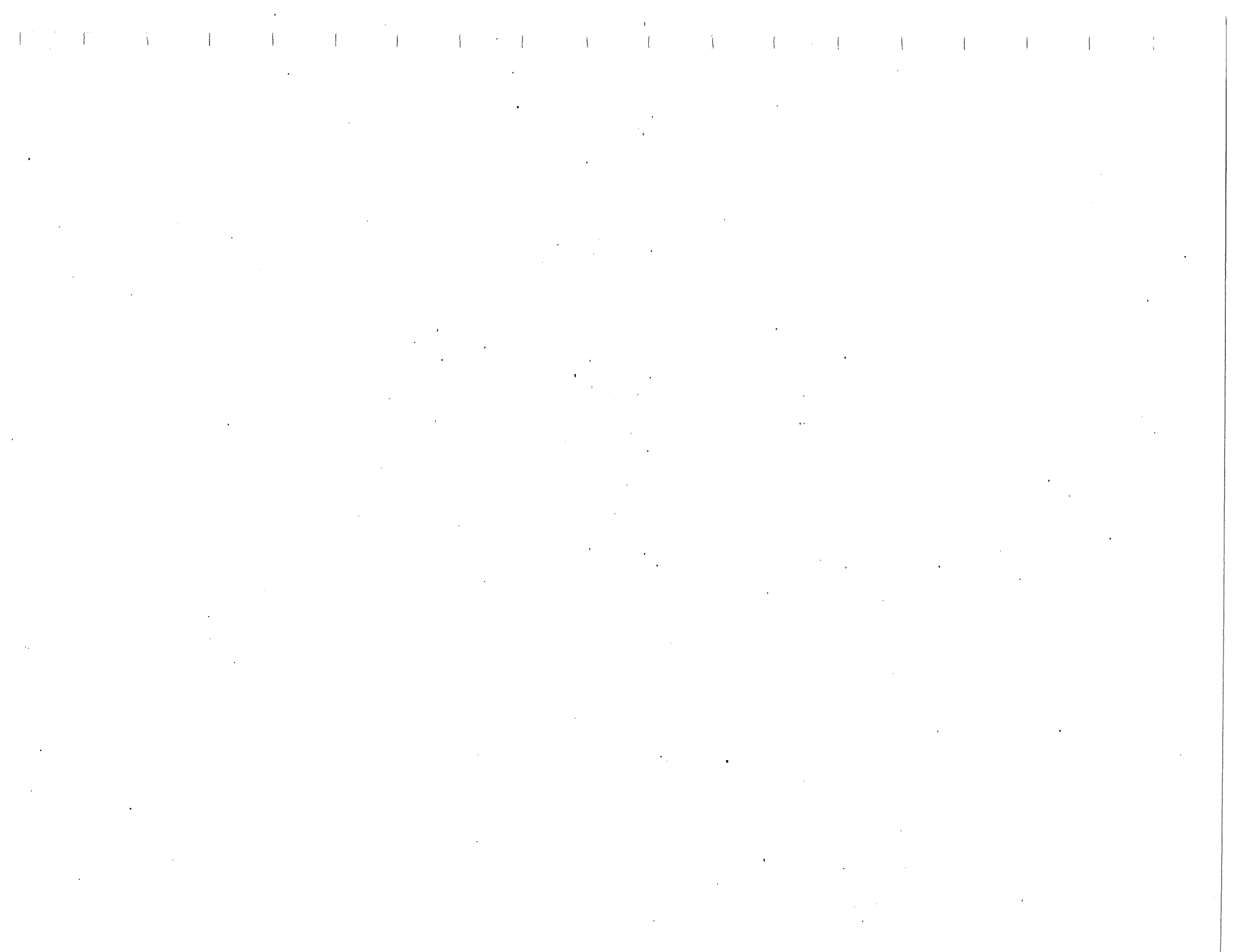


TABLE OF CONTENTS

		<u>Page No.</u>
1.0	EXECUTIVE SUMMARY	1
	1.1 Environmental Assessment Study	1
	1.2 Conclusions of Technical Study	1
	1.3 Transfer and Container Stations	3
	1.4 Review Committee	4
2.0	REVIEW OF STAGE 2C STUDY	5
3.0	METHODOLOGY	7
	3.1 Introduction	7
	3.2 Major Hauler Interviews	8
	3.3 Vehicle Arrival and Waste Quantity Assessment	8
	3.4 Traffic Counting Program	9
	3.5 Identification of Major Haulage Routes	9
	3.6 Existing Conditions Inventory	11
	3.7 School Boards	12
	3.8 Ministry of Transportation and Communications	12
	3.9 Background Traffic Volume Assessment	13
	3.10 Impact Assessment	13
4.0	CRITERIA FOR EVALUATING TRANSPORTATION IMPACTS	14
5.0	EVALUATION OF IMPACTS ON TRANSPORTATION FEATURES	15
	5.1 Vehicle Arrival and Weight Characteristics	15
	1. Introduction	15
	2. Vehicle Classification and Number of Arrivals	16
	3. Total Delivery Weights	19
	4. Time of Arrivals	20
	5. Typical Arrival Characteristics	21
	5.2 Characteristics of Major Haulers	30
	1. Introduction	30
	2. Pick-up Areas and Source of Waste	33
	3. Haulage to the Existing Site	34
	4. Comments and Concerns of Haulers	37
	5. General	37
	6. Conclusions	38

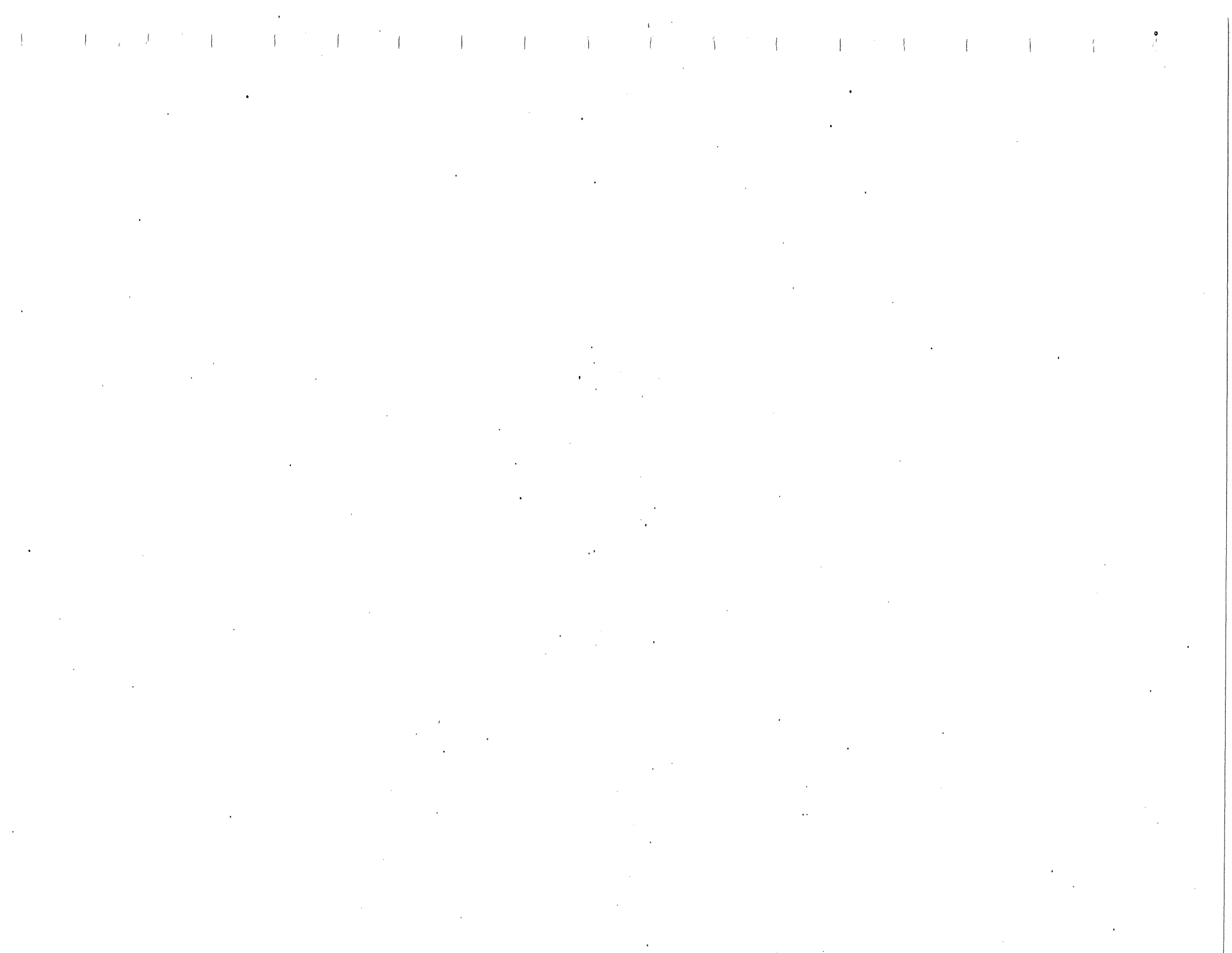
TABLE OF CONTENTS - continued

Page No.

5.3	Major Haulage Routes - Site F	42
	1. Introduction	42
	2. Future Transportation Facilities	42
	3. Haulage Routes	44
5.4	Impact Assessment	49
	1. Introduction	49
	2. Brant Street (Plains Road to Dundas Street)	54
	3. North Service Road	61
	4. School Bus Routes - General	62
	5. Site F Entrance	63
	6. Bayview Park	63
6.0	CONCLUSIONS AND RECOMMENDATIONS	64
6.1	Conclusions and Recommendations	64
6.2	Transfer and Container Stations	66
6.3	Review Committee	67

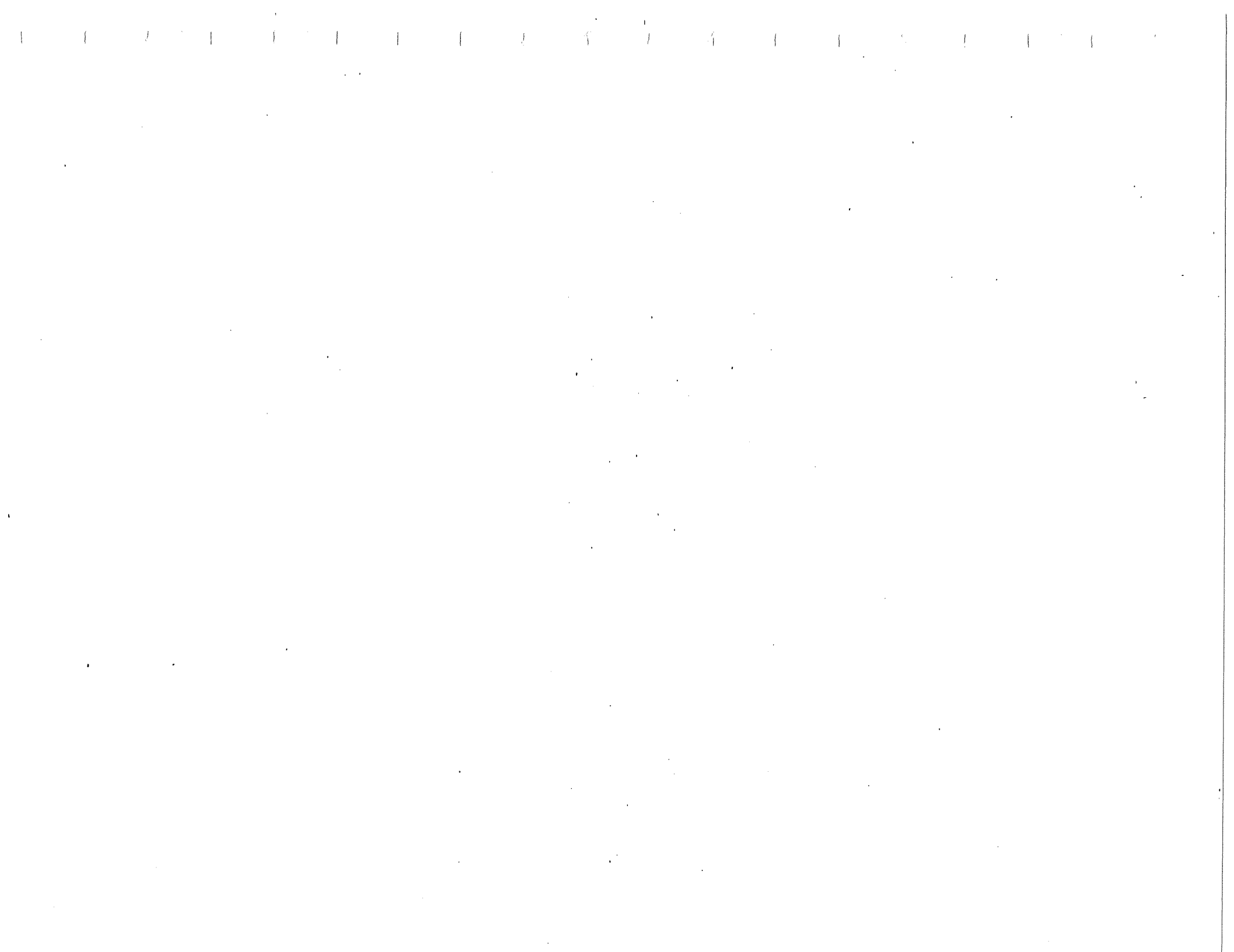
LIST OF TABLES

	<u>Page No.</u>
A. Time of Arrivals - Typical Distribution (1983, 1984 & 1985)	24
B. Average Hourly Distribution by Vehicle Classification (June)	25
C. Monthly Percentage of Total Yearly Delivery Weights - Typical Distribution	26
D. Vehicle Arrival Characteristics - Total Arrivals Per Day (Design Condition)	27
E. Vehicle Arrival Characteristics - Weekday Arrival Distribution (Design Condition)	28
F. Vehicle Arrival Characteristics - Saturday Arrival Distribution (Design Condition)	29
G. 1984 Delivery Weights - Major Users	32
H. Major Hauler Survey - Vehicle and Trip Summary	40 & 41
I. Annual Average Daily Traffic - 1983, 1988, 1996 and 2008	50, 51 & 52



LIST OF EXHIBITS

<u>Key Plan</u>	<u>Following Page</u>
1. Waste Zones	11
2. Waste Zones and Municipal Collection Area	34
3. Main Routes for Haulage Vehicles	44
4. Background Traffic Volume Projections - Key Plan	49



1.0 EXECUTIVE SUMMARY

1.1 Environmental Assessment Study

The Stage 2C Environmental Assessment Study completed a comparative assessment of six Site Plan Areas. The transportation component considered two traffic aspects:

- traffic safety
- traffic service and operations

The evaluation emphasis was on traffic safety. No major negative transportation impacts were identified. Sites D and F were considered "most preferred" and differences between them, relative to transportation, were considered insignificant.

Essentially, during the Environmental Assessment Study, all the sites were considered acceptable from a transportation standpoint and the differences with respect to Traffic Safety and Traffic Service/Operations were not considered significant.

1.2 Conclusions of Technical Study

The following are the main conclusions of the technical transportation assessment of establishing a landfill site at Site F.

1. For the critical analysis year (1996), when future waste delivered to the site will be at a peak (no energy from waste facility in place) a weekday total of 410 landfill vehicle arrivals has been predicted. This is representative of a high volume delivery day. This compares with a May average of 320 daily vehicles over the 1983 - 1985 period, an increase of approximately 30 percent. May is typically one of the highest refuse delivery months during the year.

300 in
May
1986

suppose no EFW

Q. Saturday arrivals for a similar design condition have been predicted at 660 vehicles per day, an increase of approximately 20 percent over the (560) average of 1983 - 1985 period. The number of predicted arrivals drops off considerably after 1996 with the assumption of the operation of an energy from waste facility.

- NB Q.*
2. A survey of major haulers in the Region, representing approximately 90 percent of the truck traffic to the existing site generally confirmed the main haulage routes that had been identified for Site F. These were the same routes identified during the Stage 2C Study. However, strict adherence to specific routes is not followed by all drivers or haulage companies because of customer fluctuations, traffic problems, driver preferences, etc.

- Q.*
3. Most haulage vehicle trips to proposed Site F will utilize the Q.E.W., Brant Street between the Q.E.W. and the North Service Road, and the North Service Road. These road sections are considered appropriate for haulage vehicles. A number of haulage vehicle trips will access the North Service Road from the north, utilizing Brant Street south from Highway 5. A general concern exists with this as a component route due to the urban nature of the road and potential conflict with pedestrians. However, access from the south (utilizing the Q.E.W.) is expected to become more attractive with the opening of the Brant Street/Q.E.W. interchange (1988/89). In addition, with the relatively high volumes of background traffic on Brant Street (18,400, 20,800, 24,300 and 27,800 average vehicles per day in 1983, 1988, 1996 and 2008 respectively), the minor landfill bound component from the north should not noticeably affect road or pedestrian safety. It is estimated that the large truck component of landfill bound vehicles using Brant Street north of the North Service Road will be less than one percent of the total traffic utilizing this road section.
- Q.*

but what is the total # of large trucks how many per day per hour etc.

APPENDICES

- A. Vehicle Arrival and Weight Characteristics - Detailed Statistics
- B. Interviews with Major Haulers - Summary
- C. Accident Experience Records
- D. Traffic Flow Diagrams
- E. References



4. No significant negative traffic or transportation effects have been identified with the establishment of a landfill operation at Site F.
5. The proposed entrance to Site F, off the North Service Road, is the same location as the entrance to the existing Regional Landfill site. No improvements to this entrance are considered necessary.

1.3 Transfer and Container Stations

Since no significant transportation related impacts have been identified, no specific mitigation measures are proposed. The continued operation of the existing transfer station in Georgetown cannot be justified from strictly a traffic safety standpoint. Other considerations, including economics, may indicate the general desirability of transfer stations for certain lengths of haul. However, without a local transfer station to maintain the level of service provided to Halton Hills, particularly in the Georgetown and Acton areas, Halton should assess the role of container stations in lieu of a transfer station.

Presently, Halton sponsors four container facilities in the following locations:

- Burlington (at the present landfill site)
- Oakville (on North Service Road between Highway 25 and Third Line)
- Milton (on Steeles Avenue west of the James Snow Parkway)
- Halton Hills (at the present transfer station in Georgetown)

These facilities are temporary and are in operation for the acceptance of small loads (up to 150 kilograms) of residential wastes from private citizens. Permanent container stations in more locations, possibly accepting larger loads and perhaps some non-residential waste could be

effective in providing an adequate level of service to the areas of Halton remote from Site F and should be considered.

1.4 Review Committee

It is recommended that Halton consider the establishment of a review committee to monitor waste haulage practices in the Region. The committee would be comprised of representatives from Halton, local municipalities and major hauling companies. Additional representation could come from the school boards, police force, community groups, etc. The purpose of the committee would be to discuss concerns, haulage routes and general haulage practices with the aim of assessing haulage operations to improve general traffic safety.

2.0 REVIEW OF STAGE 2C STUDY

The Stage 2C Study was a comparative assessment of six Site Plan Areas. The transportation component considered two traffic aspects:

- traffic safety
- traffic service and operations

The Site Plan Areas were compared utilizing these two transportation factors and an overall ranking (most preferred to least preferred) was developed. This ranking stressed the Traffic Safety factor since it is related to the high priority, 'overall' evaluation category of Public Health and Safety.

In order to develop likely or representative travel routes that haulage vehicles will utilize to access each Site Plan Area, the Region was divided into ten waste zones (three each for Burlington and Oakville, two each for Milton and Halton Hills). Routes of travel were identified from the centre of each waste zone to each of the six Site Plan Areas. Entrance locations into each site were selected that would minimize local impacts.

In general, each Site Plan Area was accessible via roads considered appropriate for haulage vehicles (e.g. highways, arterial roads). The exception was Site E which required the use of local roads for access in the immediate Site Plan Area.

All sites were considered acceptable from a transportation standpoint and the differences with respect to Traffic Safety and Service/Operations were not considered significant.

A ranking with respect to both of these transportation factors (most preferred to least preferred) was developed as follows:

<u>Rank</u>	<u>Site</u>
1	D/F
3	A
4	B/C
6	E

3.0 METHODOLOGY

3.1 Introduction

The general methodology followed in the transportation technical analysis included the following main areas of work:

1. Interviews with major haulers in Halton;
2. Detailed assessment of past vehicle arrival and waste quantity statistics from the existing Halton landfill site in Burlington;
3. Traffic counting program at critical roadway intersections including heavy vehicle and haulage vehicle counts (completed by Halton staff);
4. The identification of the main routes to be used by haulage vehicles;
5. Existing condition inventory along critical roadway sections;
6. Discussions with school boards regarding concerns, school bus routes, school crossings, etc;
7. Discussions with Ministry of Transportation and Communications regarding concerns, requirements and programming of future facilities in Halton;
8. Development of background traffic volumes on major road sections used for haulage for years 1988, 1996 and 2008 (completed by Halton staff);
9. Assessment of traffic impact including site entrance design requirements and general safety aspects on the main access routes (Brant Street, North Service Road).

The following text describes each of these main work areas.

3.2 Major Hauler Interviews

One of the key elements in the assessment of transportation impacts due to a new landfill site is the prediction of the roads that will be travelled on by trucks to access the site. In order to predict hauler behaviour, travel patterns and general practices and characteristics, interviews were conducted with nine main users of the existing landfill site. Those interviewed were selected on the basis of, their 1984 delivery weight totals at the existing site and, the desirability of having a representative from each of the four area municipalities. This year (1984) was the last complete year of records of delivery weight totals at the time of the survey. A detailed summary of each interview is contained in Appendix B. Information on existing pick-up areas and waste sources, haulage characteristics, potential haulage aspects and concerns at the new site and general concerns were requested from all the affected municipalities and major private waste haulers presently operating within Halton.

Those that were selected for interviewing delivered 86 percent of the total 1984 waste, by tonne, disposed of at the existing site. It is estimated that those interviewed represent approximately 90% of large truck deliveries to the landfill site.

3.3 Vehicle Arrival and Waste Quantity Assessment

A detailed assessment of vehicle arrival characteristics and trends at the existing Regional landfill site in Burlington was undertaken. This information was used to predict future traffic arrival characteristics at the new site. The assessment was based on detailed records of vehicle arrivals and waste quantities kept by Halton's Public Works Department

for 1983, 1984 and 1985. Detailed results of the assessment are summarized in Appendix A.

3.4 Traffic Counting Program

A traffic counting program was carried out by Halton staff at key intersections in September 1985. All turning movements, classified according to vehicle type (including haulage vehicles), were recorded for, generally, the period between 7:00 AM and 7:00 PM. This information was used to assess vehicle travel patterns, intersection loadings, pedestrian movements, etc. September traffic levels in general are considered typical of average conditions.

The following intersections were part of the program for the Site F analysis:

- Brant Street/Plains Road
- Brant Street/North Service Road
- North Service Road/Kerns Road
- North Service Road/King Road
- North Service Road/existing landfill entrance
- North Service Road/Waterdown Road

3.5 Identification of Main Haulage Routes

In order to predict the likely spatial orientation of haulage vehicles related to the new landfill site and to calculate comparative haulage travel times and distances (for use in the economic assessment), Halton was divided into ten waste zones as follows:

- | | |
|-------------|---------------|
| Burlington: | 1. North-West |
| | 2. South |
| | 3. North |

Oakville: 4. North-West
 5. South
 6. North-East

Milton: 7. South
 8. North

Halton Hills: 9. West
 10. East

These waste zones were developed considering the geographical characteristics of each of the area municipalities and their relationship to both the existing (and future) road network and the location of the proposed landfill site. Each of the ten zones has been represented by a zone centre located on the existing road network. The zone centres were used to approximate the origin of waste (start of haulage) from each zone. Waste statistics based on zone population and employment forecasts have been generated for each zone for selected years by C.N. Watson and Associates Limited.

The most likely, or most representative route between zone centre and the site has been identified. Consideration has been given to both the existing and future road facilities in determining haulage routes.

The following waste zones and zone centres have been developed:

<u>Zone</u>	<u>Location of Centre</u>
1. Burlington North-West	Highway 403 at Waterdown Road
2. Burlington South	Q.E.W. at Guelph Line
3. Burlington North	Guelph Line at No. 3 Sideroad

4. Oakville North-West	Highway 25 at Highway 5
5. Oakville South	Trafalgar Road just south of Q.E.W.
6. Oakville North-East	Highway 5 at Trafalgar Road
7. Milton South	Highway 25 at Steeles Avenue
8. Milton North	Guelph Line at No. 10 Sideroad
9. Halton Hills West	Highway 25 at Regional Road 12
10. Halton Hills East	Regional Road 11 at Regional Road 13

Exhibit 1 outlines the waste zones utilized. The main haulage routes were selected based on travel time and distance considerations, road standards and classification, discussions with major haulers and general observations.

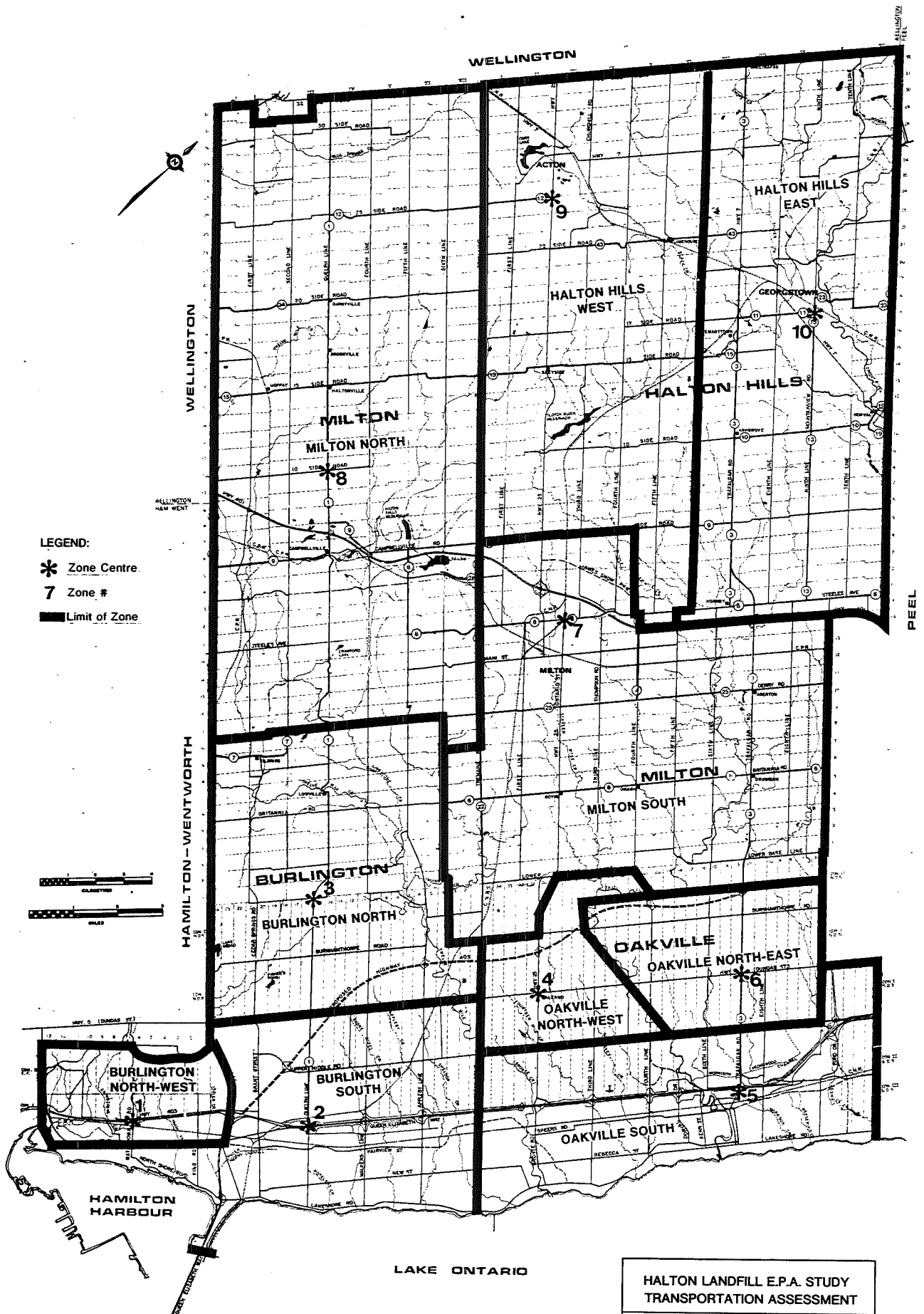
This procedure, and the main haulage routes identified, were identical to those established in the earlier Environmental Assessment Study (Stage 2C).

3.6 Existing Condition Inventory

Once the most likely routes to be taken by haulage vehicles had been identified, critical sections of the routes in the vicinity of the proposed landfill site (those that would contain a concentration of haulage vehicles) were assessed in detail. This involved reviewing existing plans and field reviews. The field reviews collected the following information:

- number of lanes
- driveway inventory (by classification)
- adjacent land use
- school crossing areas
- intersection layouts



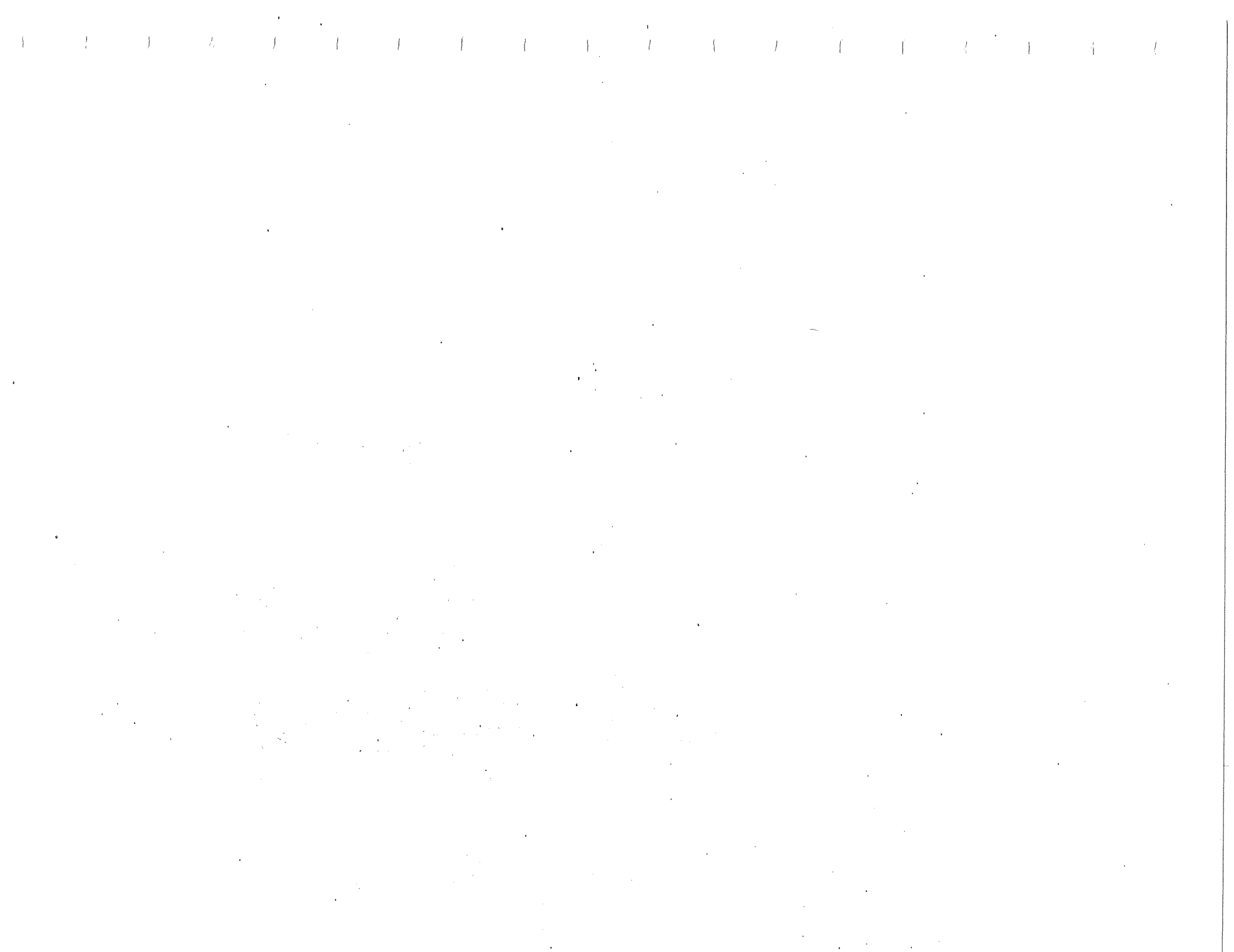


HALTON LANDFILL E.P.A. STUDY TRANSPORTATION ASSESSMENT

WASTE ZONES

Offsite Associates Limited
Consulting Engineers and Architects

Exhibit No. 1



This information was used as a basis for predicting the compatibility of the existing road with haulage vehicles.

3.7 School Boards

Discussions were held with the transportation officers of both the Halton Board of Education and the Halton Roman Catholic Separate School Board for the purpose of collecting information on the following:

- location of existing schools
- location of new schools
- school bus routes and pick-up areas
- general concerns

Information was also collected from the parking and school guard administrator for the City of Burlington. This information was used to assess the potential effect of haulage practices on school bus and student access and safety.

3.8 Ministry of Transportation and Communications

Discussions were held with the Planning and Design Office of M.T.C.'s Central Region. The following information was collected:

- turning volume counts
- road plan and profile
- future road facilities (configuration and timing)
- site entrance standards
- general concerns

This information was used, to determine the likely major components of Halton's future road network, to predict potential roadway impacts of hauling and to ascertain Ministry requirements and concerns.

3.9 Background Traffic Volume Assessment

Background traffic volumes on all major road sections used for haulage were developed by Halton planning staff. This information was used to assess future volumes and the general effect (on volumes) of introducing additional vehicles (due to haulage). Volumes for 1983, 1988, 1996 and 2008 have been assessed and annual average daily traffic (AADT) values developed.

3.10 Impact Assessment

Utilizing the above noted information, the main haulage routes were assessed for potential impacts resulting from the introduction of haulage vehicles (notably trucks). This assessment concentrated on the main routes in the vicinity of the site (Brant Street, North Service Road) where the number of haulage vehicles are greater. Aspects such as the following were considered:

- site entrance turning movements and design requirements
- capacity of main 'feeder' route
- general roadway safety aspects (including review of accident records)
- potential conflicts with other traffic and pedestrians

Negative transportation impacts resulting from a new landfill site were considered in this assessment to relate directly to the redistribution throughout the Region of landfill oriented vehicles and the implications of this redistribution. Representative travel times and distances have been calculated but have not been utilized in the transportation assessment. These variables relate to haulage costs and are utilized in the economic analysis. } NB

In the Environmental Assessment Study (Stage 2C), travel times and distances were used to illustrate differences among alternative sites to assess traffic service. However, they are not considered appropriate for use in describing traffic safety aspects at this technical stage of study.

The main evaluation criteria was the appropriateness of utilizing specific road sections that were identified as having potential for containing a significant haulage vehicle component (notably large trucks). The Site F assessment concentrated on the analysis of Brant Street and the North Service Road. These roads will be major feeder routes to Site F. A number of indicators were developed to evaluate the roadways and assess their appropriateness to carry haulage vehicles. These were:

- number of haulage vehicles
- background level of traffic
- classification of road
- condition of road
- adjacent land use and number of entrances
- general safety indicators (e.g. accident history)
- competition with other road users (school buses, pedestrians)

5.0 EVALUATION OF IMPACTS ON TRANSPORTATION FEATURES

5.1 Vehicle Arrival and Weight Characteristics

1. Introduction

A detailed assessment of vehicle arrival characteristics at the existing Halton landfill site in Burlington was undertaken in order to predict future traffic implications of the new site. This assessment, based on information provided by Halton's Public Works Department, analyzed waste disposal and vehicle arrival statistics for 1983, 1984 and 1985. Previous work completed during the Environmental Assessment Study considered statistics for only 1983. Detailed statistics are presented in Appendix A.

The following vehicle delivery characteristics were analyzed:

- vehicle classifications and number of arrivals (monthly variations)
- total delivery weights (monthly variations)
- time of arrivals (variation by month and vehicle classification)

Statistics for weekdays and Saturdays have been analyzed and summarized separately, due to the different nature of arrivals for these two periods.

The objective of the vehicle arrival and weight characteristics assessment was to produce typical arrival characteristics which would form the basis of predicting future vehicle arrival

patterns to the new site. Specifically, typical future arrival characteristics were developed to describe the following:

- distribution of arrivals throughout the day
- type of vehicles delivering wastes
- variation of delivery weight by month

A prediction methodology was developed to estimate the number of vehicles arriving at the site in 1988, 1996 and 2008 for a high delivery day condition, typical of a summer month. In addition, for the year with the highest number of arrivals (1996), a typical arrival profile was developed to describe a likely distribution of vehicle types (large trucks, pick-up trucks and vans, cars with trailers, cars) arriving in each hour throughout a summer weekday and Saturday.

2. Vehicle Classifications and Number of Arrivals

For reference, see Tables 1 - 5 in Appendix A.

The number of arrivals to the existing landfill site for each month of 1983, 1984 and 1985 has been summarized according to the following vehicle classifications:

- large trucks
- pick-up trucks and vans
- cars with trailers
- cars

The total number of weekday arrivals (all vehicles) has remained relatively constant for each of the three years of record, as follows:

- 1983 - 68,389 vehicles
- 1984 - 68,805 vehicles
- 1985 - 67,139 vehicles

This represents a yearly average of approximately 68,100 total weekday vehicles with the following distribution by type:

- large trucks	= 32,190 or 48%
- pick-up trucks and vans	= 23,920 or 35%
- cars with trailers	= 2,330 or 3%
- cars	= 9,660 or <u>14%</u>
	100%

There are significant monthly variations throughout each year. As an example, the average number of weekday arrivals for January is approximately 4,060, compared to an average of approximately 7,250 for May, an increase of almost 80 per cent. For each of the three years of record, the months with the highest total number of weekday arrivals (in order) were as follows:

- 1983 - June, August, July
- 1984 - May, July, June
- 1985 - May, April, July

The total number of arrivals on Saturdays (all vehicles) has increased slightly over the three year period:

- 1983 = 17,017
- 1984 = 18,850
- 1985 = 19,137

This represents a yearly total average for Saturdays of approximately 18,330 vehicles with a breakdown by type as follows:

- large trucks	= 1,440 or 8%
- pick-up trucks and vans	= 7,680 or 42%
- cars with trailers	= 2,230 or 12%
- cars	= 6,980 or <u>38%</u>
	100%

The composition of Saturday arrivals is significantly different than that of weekdays, with only 8% being large trucks.

Similar to weekdays, there are significant monthly variations in Saturday arrivals. January and February are the lowest arrival months and April, May and June are the highest.

The following general observations can be made:

- approximately half of weekday arrivals are large trucks
- less than 10 per cent of Saturday arrivals are large trucks
- [on weekdays, the percentage of total truck arrivals is lower in the summer months, when car deliveries are greater]
- weekday car deliveries are relatively low in the winter months
- approximately 80 per cent of Saturday traffic is pick-ups, vans and cars

- the average number of arrivals per day varies greatly with the month of the year, particularly on Saturdays
- the average number of weekday arrivals (all vehicles) over the three year period has remained relatively constant at approximately 260 vehicles
- the average number of arrivals on Saturdays has been increasing by approximately 10 per cent per year (the 1985 average was approximately 400)

3. Total Delivery Weights

For reference, see Tables 6 - 8 in Appendix A.

The total weekday and Saturday delivery weights show a similar monthly variation to vehicle arrivals. For weekdays, the following were the average weekday delivery weights for the record period:

- 1983 - 620 tonnes
- 1984 - 667 tonnes
- 1985 - 686 tonnes

The Saturday averages were as follows:

- 1983 - 113 tonnes
- 1984 - 155 tonnes
- 1985 - 177 tonnes

For weekdays, the months with the highest average daily delivery weights (in order) were as follows:

- 1983 - May, June, November
- 1984 - May, June, November
- 1985 - May, June, September

Similar statistics for Saturday highest average delivery weights were:

- 1983 - May, April, November
- 1984 - April, May, September
- 1985 - May, April, September

4. Time of Arrivals

For reference, see Tables 9 - 18 in Appendix A.

The number of arrivals has been summarized into hour periods for the three years of statistics. The existing landfill site opens during the week at 8.00 a.m. and closes at 5.30 p.m. Saturday closing times vary with shorter hours in the winter months. The percentage of total deliveries in any time period (weekdays and Saturdays) has remained relatively constant over the three year period. On weekdays, the period with the highest number of arrivals is 11.00 to 12.00 a.m., with an average of 13 per cent of the daily total. However, the daily arrival rate remains relatively constant between 8.00 a.m. and 4.00 p.m. The Saturday distribution of arrivals is more variable. Again, the period 11.00 to 12.00 a.m. contains the highest percentage of total daily arrivals. Approximately 25% of vehicles arrive between 10.00 a.m. and noon on an average weekday. On a typical Saturday, the same period contains an average of over 30% of the day's total arrivals.

16 large trucks per hour !!
June was selected as a typical, higher volume month for a detailed assessment of hourly arrival rates by vehicle type (refer to Appendix Tables 15 and 16). The distribution of large trucks was relatively constant between 8.00 a.m. and 4.00 p.m. on a weekday, averaging approximately 16 vehicles per hour. The overall weekday average arrival rate in the main delivery period (8.00 a.m. to 4.00 p.m.) for all vehicles was also relatively constant and averaged approximately 37 vehicles per hour. (June, 1985 averages were slightly lower.) On Saturdays, average hourly delivery rates varied considerably more than weekdays, with cars showing the greatest variability. During Saturdays, typically, there were approximately 4 - 7 large truck deliveries per hour between 8.00 a.m. and 12.00 a.m. Saturday afternoon average truck delivery rates were somewhat lower at approximately 2 - 4 trucks per hour.

5. Typical Arrival Characteristics

The preceding discussion summarizes vehicle arrival and weight characteristics that were recorded at the existing Regional landfill site in Burlington for the period January, 1983 to December, 1985. From this, typical arrival characteristics have been developed as a basis for predicting future arrival conditions. This information is presented in Tables A - F.

Table A summarizes a typical time of arrival distribution for weekdays and for Saturdays. Table B summarizes a typical hourly distribution of vehicle types. These figures were based on hourly distribution statistics for June 1983, 1984 and 1985. They are considered to represent the likely make-up of vehicles arriving at the new site for any hours in the busiest time or main delivery period (8.00 a.m. to 4.00 p.m.). Table C contains

a typical breakdown of total yearly delivery weight into monthly percentages.

The relationship between the number of vehicles and recorded delivery weight was assessed (refer to Appendix A, Tables 19 and 20). Waste weight projections (tonnes per month) have been estimated by C. N. Watson and Associates Limited for the years 1988, 1996 and 2008. The development of vehicle/weight relationships allows the conversion of these future weights into numbers of vehicles. For the prediction of the number of vehicle arrivals in these future years, a 'design day condition' concept was utilized. This was represented by the month with the highest delivery weight and number of vehicles (May). Therefore the number of predicted arrivals will correspond to the busiest delivery period during the year.

The following procedure was developed to predict the future number of daily vehicle arrivals to use as the design condition.

- determine May delivery weights for analysis years (1988, 1996 and 2008)
- determine delivery weight for a typical May weekday and Saturday for each of these three years
- using appropriate vehicle/weight relationships (Tables 19 and 20, Appendix A) convert delivery weight to number of delivery vehicles

Table D summarizes the predicted total arrivals per day for weekdays and Saturdays for 1988, 1996 and 2008 for a high arrival condition in each of these three years. Tables E and F have been developed to illustrate a typical arrival pattern for

the design day in 1996 (weekday, Saturday). For the critical year (1996), when future waste delivered to the landfill site will be at a peak (no energy from waste facility in place) a weekday arrival total of 410 vehicles has been predicted. This compares with a May average of 320 daily vehicles over the 1983-1985 period, an increase of approximately 30 per cent. Saturday arrivals for a similar design condition have been predicted at 660 vehicles per day, an increase of approximately 20 per cent over the 560 average of the last three years. The number of predicted arrivals drops off considerably after 1996 with the assumption of the operation of an energy from waste facility.

This number of arrivals is lower than previously predicted in the Environmental Assessment Study. This is the result of utilizing reduced future waste forecasts. (Refer to Review of Waste Quantity Projection - C.N. Watson and Associates Limited - February 1986).

TABLE A

Regional Landfill Site-Burlington (1983, 1984 & 1985)

TIME OF ARRIVALS-TYPICAL DISTRIBUTION (WEEKDAYS, SATURDAYS)

Period	% Of Total Arrivals In Period	
	Weekday	Saturday
8:00-9:00	11 %	7 %
9:00-10:00	12 %	10 %
10:00-11:00	12 %	15 %
11:00-12:00	13 %	16 %
12:00-1:00	11 %	13 %
1:00-2:00	11 %	13 %
2:00-3:00	11 %	12 %
3:00-4:00	10 %	11 %
4:00-5:00	7 %	2 %
5:00-6:00	2 %	1 %
TOTAL	100 %	100 %

Reference: Appendix Tables 17 & 18

TABLE B

Regional Landfill Site-Burlington (1983, 1984 & 1985)

AVERAGE HOURLY DISTRIBUTION BY VEHICLE CLASSIFICATION (JUNE)

Type of Vehicle	Weekday	Saturday
Large Truck	47 %	7 %
Pick-up Truck & Van	34 %	39 %
Car With Trailer	3 %	13 %
Car (no trailer)	16 %	41 %
Total	100 %	100 %

Reference: Appendix Tables 21 & 22

TABLE C

Regional Landfill Site-Burlington (1983, 1984 & 1985)

MONTHLY % OF TOTAL YEARLY DELIVERY WEIGHT-TYPICAL DISTRIBUTION
(WEEKDAYS & SATURDAYS)

Month	Weekday	Saturday
January	6 %	4 %
February	6 %	5 %
March	7 %	6 %
April	9 %	12 %
May	11 %	14 %
June	10 %	10 %
July	9 %	9 %
August	9 %	9 %
September	9 %	9 %
October	9 %	9 %
November	9 %	7 %
December	6 %	6 %
TOTAL	100 %	100 %

Reference: Appendix Tables 8 & 8A

TABLE D

VEHICLE ARRIVAL CHARACTERISTICS-TOTAL ARRIVALS PER DAY
(DESIGN CONDITION)

Year	Number of Vehicles	
	Weekday	Saturday
1988	390	610
1996	410	660
2008	250	390

*assumes
EFW?
+
this why
less?*

Note: "Design Condition" is representative of a high volume day typical of a busy delivery period during the year

TABLE E

VEHICLE ARRIVAL CHARACTERISTICS-ARRIVAL DISTRIBUTION
(DESIGN CONDITION)

WEEKDAY (1996)

Period	Large Trucks	P/U Trucks & Vans	Cars With Trailers	Cars	Total
8:00-9:00	21	15	1	7	45
9:00-10:00	23	17	2	8	49
10:00-11:00	23	17	2	8	49
11:00-12:00	26	18	2	9	54
12:00-1:00	21	15	1	7	45
1:00-2:00	21	15	1	7	45
2:00-3:00	21	15	1	7	45
3:00-4:00	19	14	1	7	41
4:00-5:00	14	10	1	5	29
5:00-6:00	4	3	0	1	8
TOTAL	193	139	12	66	410

Note: Developed from Tables A, B, & C.

TABLE F
VEHICLE ARRIVAL CHARACTERISTICS-ARRIVAL DISTRIBUTION
(DESIGN CONDITION)
SATURDAY (1996)

Period	Large Trucks	P/U Trucks & Vans	Cars With Trailers	Cars	Total
8:00-9:00	3	18	6	19	46
9:00-10:00	5	26	9	27	66
10:00-11:00	7	39	13	41	99
11:00-12:00	7	41	14	43	105
12:00-1:00	6	33	11	35	86
1:00-2:00	6	33	11	35	86
2:00-3:00	6	31	10	33	79
3:00-4:00	5	28	9	30	73
4:00-5:00	1	5	2	5	13
5:00-6:00	0	3	1	3	7
TOTAL	46	257	86	271	660

Note: Developed from Tables A, B, & C.

5.2 Characteristics of Major Haulers

1. Introduction

This section of the report summarizes the results of interviews carried out in late 1985 with nine users of the existing Regional landfill site in Burlington. A detailed summary of each interview is contained in Appendix B. The objective of the interviews was to provide background information on existing haulage characteristics and practices particularly on routes of travel and collection/disposal patterns. Specifically, information on existing pick-up areas/waste sources, haulage characteristics, potential haulage aspects/concerns at the new site and general concerns were requested from all the affected municipalities and major private waste haulers presently operating within Halton.

Those that were selected for interviewing delivered 86% of the total 1984 waste, by tonne, disposed of at the existing Regional landfill site in Burlington. Statistics for 1984 were used since they represented the last complete year of record at the time of the survey. The nine haulers are indicated in Table G, along with their corresponding percentages of the total 1984 weight. The Town of Halton Hills does not deliver waste directly to the landfill site. Rather, it collects domestic waste and delivers to the transfer station in Georgetown where it is subsequently hauled to the landfill site by Leferink Disposals Ltd.

Of the nine haulers, four are municipalities, one is a manufacturing operation, and four are private disposal companies. The City of Burlington is the only municipality of the four interviewed that does not directly haul domestic waste;

rather, this task is contracted out to Industrial Disposal, which also carries out its own commercial/industrial/construction waste collection service. The remaining private haulers service primarily non-residential commercial/industrial uses. The exception is Leferink Disposals Ltd. which services the Town of Halton Hills through the open air transfer station in Georgetown and some rural residential customers within Oakville, Milton and Halton Hills. Leaver Mushrooms carries only wastes from plant operations.

*but
1983
abnormally
low?!
true?!*

The average number of vehicle arrivals at the existing landfill site on a weekday over the 1983-1985 period was 260. Of these, approximately 125 were large trucks. The major haulers that participated in the interview represent approximately 110 of these large truck deliveries. Therefore, the comments on truck routes and travel patterns represents approximately 90 per cent of the total large truck traffic generated by the existing landfill site.

*125
large
trucks
per
day*

TABLE G

1984 DELIVERY WEIGHTS - MAJOR USERS

<u>Major Users</u>	<u>Weight</u> (tonnes)	<u>% of Total</u> <u>Yearly Weight</u>
City of Burlington	36,672.0	22.1%
Laidlaw Waste Systems	28,057.5	16.9%
Town of Oakville	26,133.1	15.8%
Industrial Disposal	19,972.6	12.0%
Leferink Disposals	19,419.7	11.7%
Town of Milton	7,808.1	4.7%
Leaver Mushrooms Ltd.	2,550.6	1.5%
Tricil Ltd.	2,198.3	1.3%
Town of Halton Hills	N/A	N/A
TOTAL	142,811.9	86.0%

2. Pick-up Areas and Source of Waste

Private haulers within Halton generally indicated no defined pick-up areas or zones, with the exception of the domestic services offered by Industrial Disposal and Leferink Disposals Ltd. Within Oakville and Burlington, customers are generally located in the industrial areas close to the QEW and further to the south. North of the highway, customers are more scattered and include primarily commercial and high density residential uses.

Geographically, the commercial/industrial areas serviced by the private haulers do not vary over the days of the week, although specific customers may require pick-up on certain days. Similarly, variation in customer locations over the length of a year is minor (less construction activity in winter, school closings in summer, arena operations in winter, etc.). Overall, business volume varies only slightly with some peaking apparent during the spring and fall seasons.

Most private haulers limit themselves primarily to industrial/commercial waste and a small amount of construction waste. Two exceptions are Industrial Disposal and Leferink who also haul domestic wastes; Industrial through a contract agreement with the City of Burlington and Leferink through agreements with the Town of Halton Hills and rural residents themselves.

Urban domestic waste pick-up is carried out by the Public Works Departments of the various area municipalities with the exception of Burlington which has the agreement with Industrial Disposal. The Town of Halton Hills disposes of domestic waste from Georgetown and Acton at the transfer station in Georgetown.

Exhibit 2 illustrates the geographic areas serviced, by day of the week, for domestic collection within the four Halton municipalities. Collection service is only provided to the urbanized areas of the municipalities.

All waste haulers interviewed indicated that the only changes that they anticipate in the sources of waste in the future are those that will accompany planned urban development. These areas are located primarily in north Burlington, north Oakville and potentially, a new development area in east Milton.

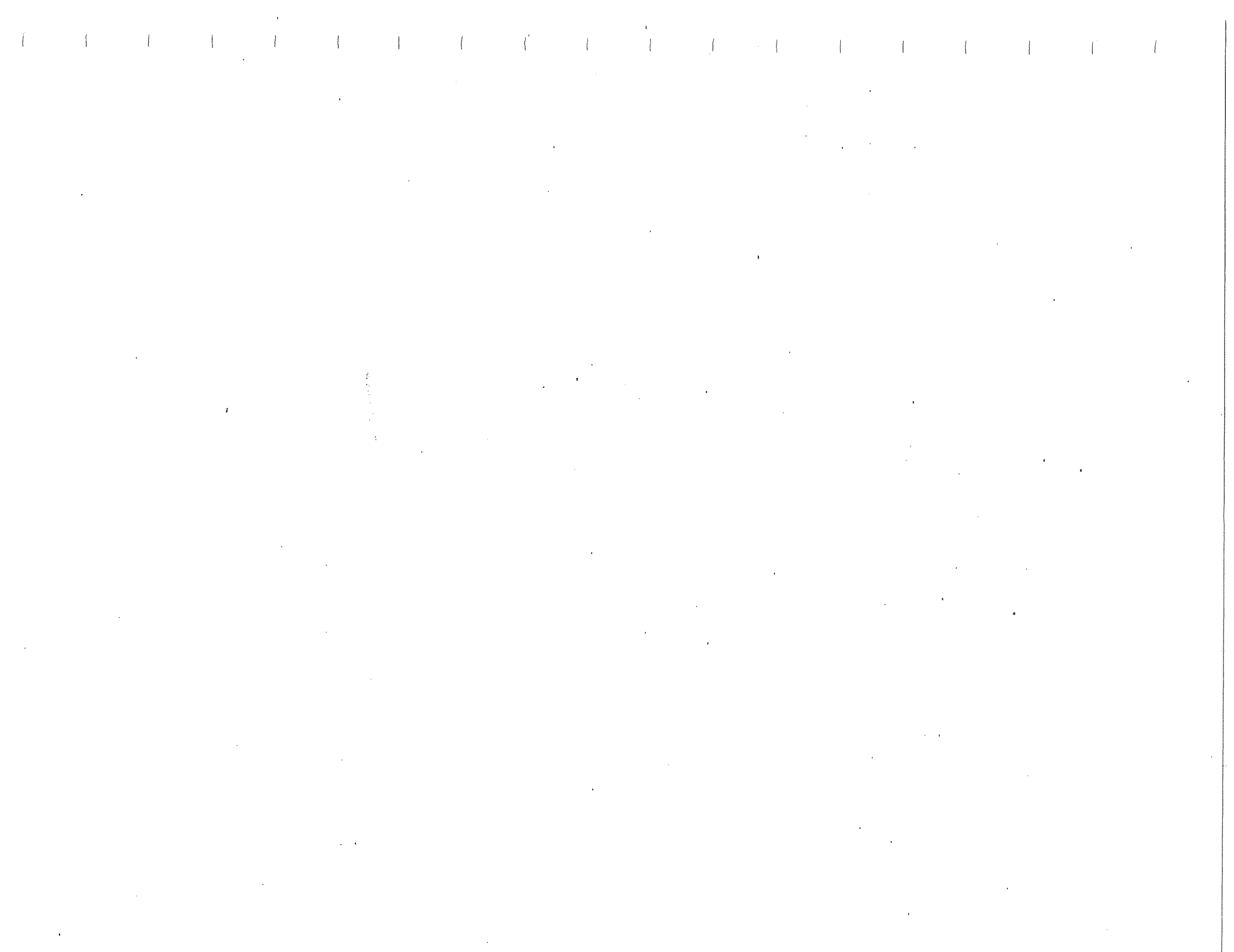
3. Haulage to the Existing Site

Following is a detailed description of the routing used by the interviewed haulers. The discussion is organized according to the waste zones developed within each of the four municipalities. (Refer to Exhibit 1). The main haulage routes that were identified are the same as those considered during the Environmental Assessment Study (Stage 2C).

Halton Hills

The Town of Halton Hills has been divided into an east and a west zone. Waste vehicles from the west zone are most likely to drive to the transfer station in Georgetown rather than directly to the landfill site. All the Town of Halton Hills collection vehicles travel to the transfer station in Georgetown primarily along Highway 7. The primary access route to the station is via Mountainview Road to Armstrong Road. From the transfer station in the east zone, Leferink trucks drive south on Trafalgar Road to Highway 5, west to Highway 25, south to the QEW, west to





Plains Road, north on Brant Street, and west on the North Service Road to the site.

Milton

The Town of Milton has been divided into a north and a south zone. Leaver Mushrooms' (north zone) vehicles use Guelph Line to Highway 5 to ~~Brant Street~~ to the North Service Road to the site. From Milton south, haulers include both municipal trucks and private carriers. Both indicated that the primary route is south on Highway 25, west on Highway 5, and south on Brant Street towards the site.

Oakville

The Town of Oakville has been divided into three zones - Northwest, Northeast, and South. The two northerly zones are not extensively developed and as such generate relatively small amounts of waste. Waste from the residential areas south of Highway 5 (in these two zones) is transported to the landfill site primarily via Highway 5 and Brant Street. Within Oakville South, the QEW is the primary route to the landfill site for both municipality and private haulage vehicles. Access to the highway is from such interchanges as Bronte Road, Dorval Drive and Trafalgar Road. Several of the municipal trucks also use the Highway 5/Brant Street route, particularly from the Tuesday and Wednesday pick-up zones east of Sixteen Mile Creek.

Burlington

The City of Burlington is also divided into three zones - North, Northwest and South. No particular haulers or customers were identified from Burlington North. From Burlington South,

haulage vehicles will use the QEW only from the eastern portion of the zone. Further west, the QEW is no longer as efficient as simply driving to Brant Street and then north or south to the North Service Road. From the Burlington North-West zone, most vehicles will use Plains Road to King Road to the North Service Road to the site.

Overall, the private waste haulers indicated that the principle route to and from the present landfill site is that which provides the shortest travel time. In Oakville and most of Burlington this route is the QEW. Routes to this highway vary considerably depending on when and where the trucks become fully loaded. Once on the QEW westbound, all trucks exit at Plains Road, travel west to Brant Street, north to the North Service Road and west to the site.

From west Burlington, trucks generally avoid Highway 403 because the distance to the landfill site is so short. King Street to the North Service Road appears to be the preferred route.

Summary

Routes for all drivers from the waste zones to the site are flexible, depending largely on where along their routes the trucks become full. In general, Burlington drivers prefer the QEW; Oakville drivers appear to travel slightly more often on the QEW than Highway 5 and Milton drivers utilize Highway 5 for almost all of their trips. Highway 5 is attractive for some municipal carriers due chiefly to its lower congestion (relative to the Q.E.W.).

No problems or concerns were expressed regarding routes to the existing site. Travel times (one way) average one hour from

Georgetown (Leferink Vehicles), 35 - 40 minutes from Milton, 20-25 minutes from Oakville, and 15-30 minutes in Burlington, depending on the location. Time spent at the site averages between 15 and 20 minutes although there is a considerable variance, due in large part to different vehicle types and the varying distance from the scale house to the landfill working face. Milton and Oakville municipal trucks average about 2 trips/day to the site while Burlington haulers (Industrial Disposal) average about 3 trips/day. Private haulers all average about 4 trips/day/vehicle.

4. Comments and Concerns of Haulers

Private haulers stated that Site F would essentially maintain haulage operations as they are at the existing site. Costs and profits would not change from present conditions.

Similarly, the municipalities stated that haulage operations to Site F would be the same as they are at the present site.

5. General

Responses by both private haulers and the area municipalities to the general questions relating to designated haulage routes and transfer/container stations were similar. All respondents were concerned about the establishment of designated haulage routes if there was any likelihood of conflict with existing pick-up operations or the possibility of longer trip lengths.

Transfer/container stations were seen as generally beneficial within the waste haulage industry. They save wear and tear on the vehicles, reduce vehicle mileage, and provide time savings. However, they were also recognized as being expensive to operate.

6. Conclusions

It is evident from the survey responses that representative routings for private haulage vehicles within Halton are difficult to develop. However, it was possible to develop generalized routings to and from the site on an overall basis. ~~Drivers do not follow pre-determined routes. Routes are not officially recorded and rigidly adhered to, likely because of customer fluctuations, traffic problems, driver preference, etc. Similarly, the area municipalities leave much of the actual routing to the present landfill site by the domestic waste vehicles up to the drivers themselves.~~ Drivers are responsible for specific zones on specific days but travel to the site from the pick-up zones is along routes which they believe are the best.

Observations on general routes of travel to and from the site tended to confirm the routing that was previously assumed to and from the ten transportation zones. One exception is within the Town of Halton Hills. Since most of the waste from the Town is transported from Georgetown via Trafalgar Road, only one main truck route from Halton Hills exists. A second exception was noted within the Town of Oakville where several trips originating from major areas north of the QEW tend to be made via Highway 5 rather than the QEW.

Transportation concerns regarding Site F were generally all based on distance. Site F was preferred by most private haulers because it essentially implies no changes from the present operation. Haulage distances and times can remain the same and therefore have no adverse effect on costs and profits.

Table H summarizes vehicle and trip information from the interviews.

Questions regarding back-up signals, fuel consumption, persons per vehicles and type of vehicles (gas or diesel) were included in the interview to provide information for use by other study disciplines (e.g. economic assessment, noise assessment).

| |

4. The fourth part of the document discusses the implications of the findings. It suggests that the results have significant implications for the field of study and may lead to further research in this area.

5. The fifth part of the document concludes the study. It summarizes the key findings and provides a final statement on the importance of the research.

TABLE H

MAJOR HAULER SURVEY

VEHICLE AND TRIP SUMMARY

CUSTOMER	AVERAGE NUMBER OF VEHICLES	TRIPS PER VEHICLE PER DAY	AVERAGE TOTAL WEEKDAY TRIPS	GAS (2) CONSUMP- TION	AVERAGE LOAD SIZE	PERSONS PER VEHICLE	GAS/ DIESEL	BACK-UP SIGNALS
Laidlaw Waste	2 front-end loaders 2 roll-offs	4 (front end) 9 (roll-off)	26	15.8 L/hr (front-end) 11.3 L/hr (roll-off)	9 tonnes (front-end) 6 tonnes (roll-off)	1	Diesel	On all trucks
Industrial Disposal (Industrial/Commercial)	3	3-4	11	2.8 mpg	7 tonnes (front-end) Variable (roll-off)	1	Diesel	On all trucks
TOTAL			110					

- Notes:
1. Lever Mushrooms' information has not been summarized due to its change in haulage operations with the utilization of a private haulage contractor.
 2. Units vary depending on records kept by the various customers.

TABLE H

MAJOR HAULER SURVEY

VEHICLE AND TRIP SUMMARY

CUSTOMER	AVERAGE NUMBER OF VEHICLES	TRIPS PER VEHICLE PER DAY	AVERAGE TOTAL WEEKDAY TRIPS	GAS (2) CONSUMP- TION	AVERAGE LOAD SIZE	PERSONS PER VEHICLE	GAS/ DIESEL	BACK-UP SIGNALS
City of Burlington (Industrial Disposal)	6 rear-end packers	3	18	9-10 L/hr	8 tonnes	3	Diesel	On all trucks
Town of Oakville	7 rear-end packers 3 one-man packers	2	20	4.5-5.0 mpg	N/A	rear- loading, 2 men side- loading 1 man	N/A	On 5 trucks
Town of Halton Hills	4 one-man packers 1 rear-end packer	2	10 (No trips on Monday)	N/A	6 tonnes (1-man packer) 5 tonnes (2-man packer)	4 1-man 1 2-man	Diesel	N/A
Town of Milton	2 rear-end packers 1 one-man packer	2	6	N/A	7 tonnes	1 1-man 1 2-man 1 3-man	Diesel	On 1 truck
Tricil	1 front-end loader 1 roll-off	3-4 (front end) 8-10 (roll-off)	13	5.4 mpg	9 tonnes (front end) 2-1/2 tonnes (roll-off)	1	Diesel	On all trucks
Leferink	2 roll-offs with trailers	3	6	7-7.5 mpg	18 tonnes (truck and trailer)	1	Diesel	On all trucks

5.3 Major Haulage Routes - Site F

1. Introduction

As indicated previously, Halton was divided into ten waste zones in order to predict the geographical distribution of landfill bound vehicles within Halton. The most likely, or most representative route of travel between the zone centre and Site F has been identified. Consideration has been given to both existing and future road facilities in determining these truck routes. The same procedure was followed in the previous work carried out during the Environmental Assessment Study (Stage 2C).

In developing haulage routes between these zones and Site F, all trips were assumed to originate at the zone centre. In fact, these zone centres are representative only of the haulage trip start. Within each zone, the distribution of waste generators with respect to the designated zone centre will affect the accuracy of the identified haulage route. General agreement was received from the major haulers regarding these routes being representative of the likely route of travel for most trips.

2. Future Transportation Facilities

Several future additions to the existing road network were considered in the assessment of haulage routes. These were:

1. Waterdown Road/Highway 403 interchange revisions
2. Brant Street/Q.E.W. interchange
3. Highway 403 (Q.E.W. to Highway 5)

4. Highway 403 (Highway 5 easterly)

①
Q. The Waterdown/Highway 403 interchange is being assessed for conversion into a full interchange. Presently, this interchange allows for Highway 403 transfer to and from the west only. With the addition of moves to and from the east, Q.E.W. drivers could access Site F via Waterdown Road to the North Service Road. The possible conversion of the interchange and its construction timing are currently under assessment by the Ministry of Transportation and Communication (M.T.C.) as part of their study of GO Transit rail extension to Hamilton. The M.T.C. has not, as yet, adopted a program for this project and therefore its timing is uncertain. However, the facility (Waterdown Road interchange revisions) could be in place as early as 1996.

②
A new Brant Street/Q.E.W. interchange is currently on the M.T.C.'s five year construction program. Construction is scheduled to be initiated in 1988 and will take 1-2 years to construct. This facility was considered to be 'in-place' throughout the landfill planning period.

The timing of the extension of Highway 403 between the Q.E.W. in Burlington and Highway 407 in Peel Region is currently under review. This extension will likely be completed in two stages. The section between the Q.E.W. and Highway 5 will be completed first, likely in the late 1990's and could be functional as early as 1996. Construction of the remainder of Highway 403 may not be initiated until after the turn of the century and likely will not be open to traffic until late in the landfill planning period.

Therefore, in the development of the main routes for haulage vehicles only one new facility was considered to be operational throughout the landfill planning period, the new Brant Street/ Q.E.W. interchange. NB

3. Haulage Routes

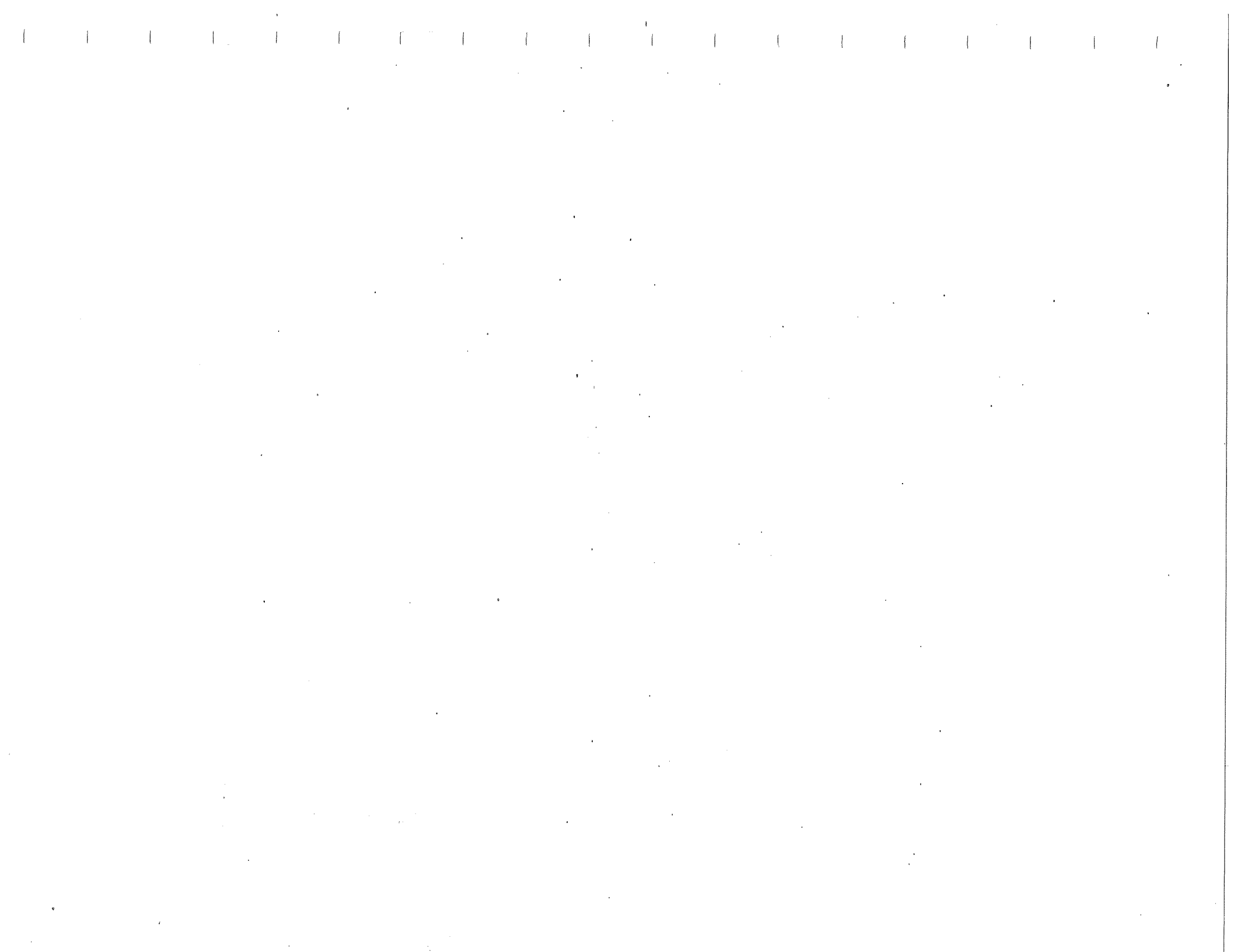
One main route of travel has been identified between each of the following waste zones and Site F (refer to Exhibit No. 3).

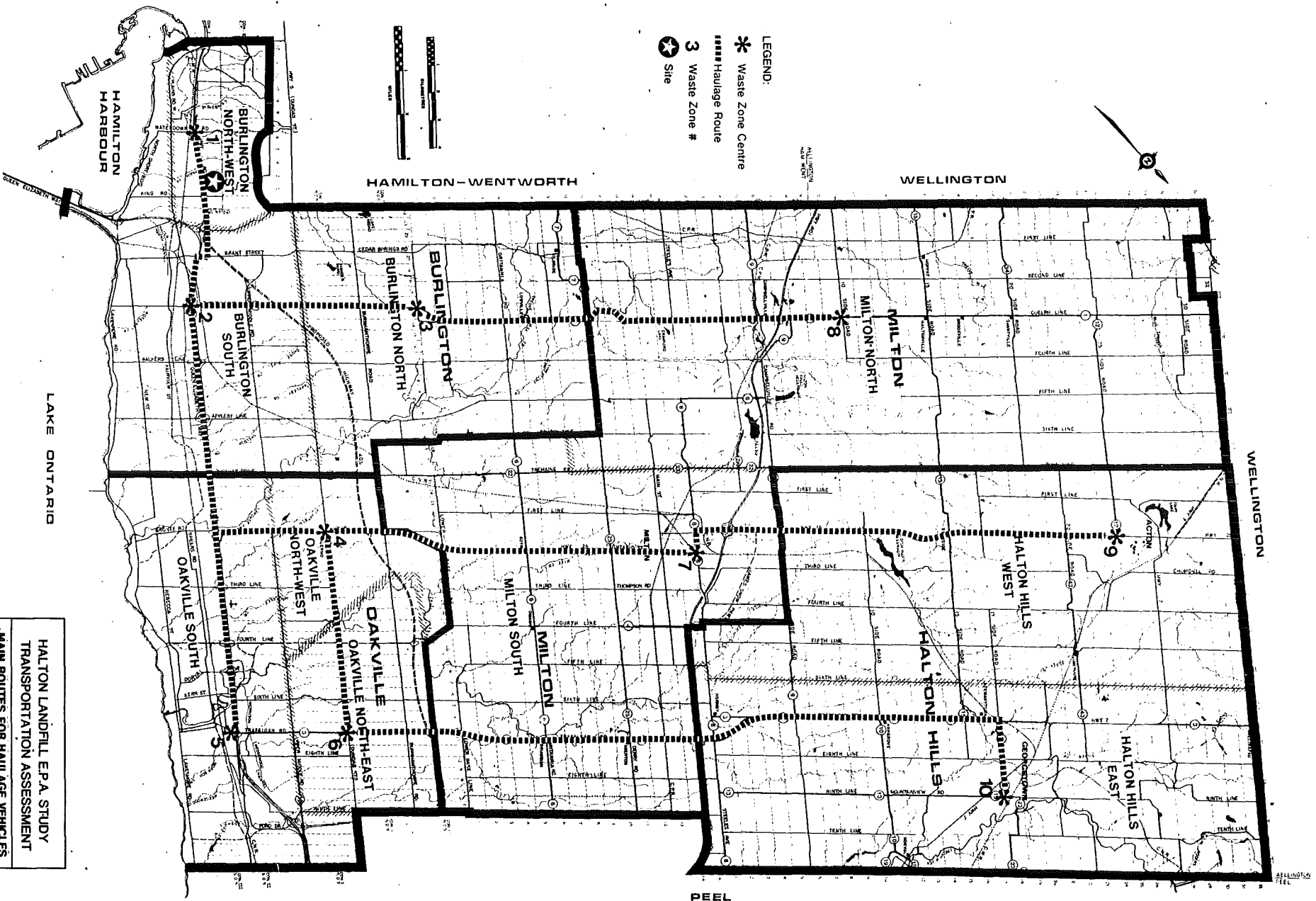
1. Burlington North-West
2. Burlington South
3. Burlington North
4. Oakville North-West
5. Oakville South
6. Oakville North-East
7. Milton South
8. Milton North
9. Halton Hills West
10. Halton Hills East

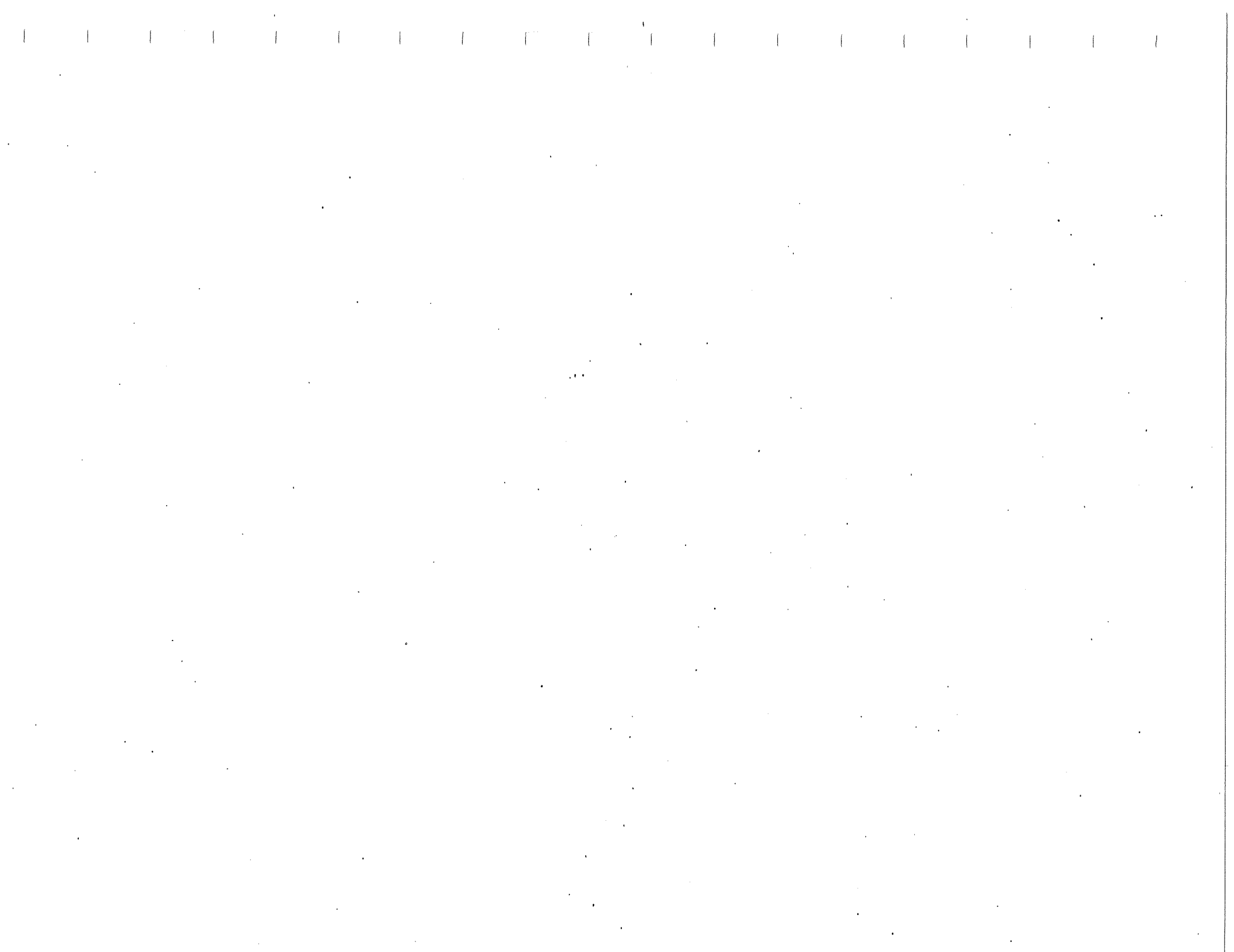
Refer to Table 23 in Appendix A for the waste quantities in each zone.

The following text discusses routing implications related to each of these zones.

The main route identified for each zone agrees with those identified during the Environmental Assessment Study (Stage 2C).







Zone 1: Burlington North-West

This zone generates approximately 2 per cent of Halton's waste. Site F is located within this zone and therefore identifying a single representative trip is difficult. The zone centre was located at Waterdown Road and Highway 403. This results in a route to the site east from Waterdown Road utilizing the North Service Road. However, an optional route likely to be used for some trips to Site F is north on King Road, then west on the North Service Road. A recent count of vehicles at the existing landfill site entrance (Wednesday, September 18, 1985) revealed that approximately 20 per cent of landfill trips on that day utilized the North Service Road from the west.

Burlington
42%

Zone 2: Burlington South

This zone generates approximately 39 per cent of Halton's waste. The zone centre was located at the Q.E.W. and Guelph Line. The main route for haulage vehicles was identified as the Q.E.W./Brant Street/North Service Road.



Zone 3: Burlington North

This zone generates approximately 1 per cent of Halton's waste. The zone centre was located on Guelph Line at No. 3 Sideroad. The main route for haulage vehicles was identified as Guelph Line/Q.E.W./Brant Street/North Service Road. An optional route likely to be used for some trips to Site F from the north is Guelph Line/Highway 5/Brant Street/North Service Road.

Zone 4: Oakville North-West

This zone generates approximately 1 per cent of Halton's waste. The zone centre was located on Highway 25 at Highway 5. The main route for haulage vehicles was identified as Highway 25/Q.E.W./Brant Street/North Service Road. An optional route likely to be used for some trips to Site F is Highway 5/Brant Street/North Service Road.

Zone 5: Oakville South

This zone generates approximately 34 per cent of Halton's waste. The zone centre was located on Trafalgar Road at the Q.E.W. The main route for haulage vehicles was identified as Q.E.W./Brant Street/North Service Road. An optional route likely to be used for some trips to Site F is north to Highway 5, west to Brant Street, south to the North Service Road. Although this optional route may result in out of the way travel, a few haulers indicated it is used for some of their trips because of the general attractiveness of Highway 5 (low volume and congestion levels).

39%
Oakville

Zone 6: Oakville North-East

This zone generates approximately 4 per cent of Halton's waste. The zone centre was located on Trafalgar Road at Dundas Street. The main route for haulage vehicles was identified as Dundas Street/Highway 25/Q.E.W./Brant Street/North Service Road. As with the other Oakville based trips, some vehicles will utilize the Highway 5/Brant Street/North Service Road optional route.

Zone 7: Milton South

This zone generates approximately 7 per cent of Halton's waste. The zone centre was located on Highway 25 (Ontario Street) at Steeles Avenue. The main route for haulage vehicles was identified as Highway 25/Q.E.W./Brant Street/North Service Road. An optional route likely to be used for some trips to Site F is Highway 25/Dundas Street/Brant Street/North Service Road.

Milton
9%

Zone 8: Milton North

This zone generates approximately 2 per cent of Halton's waste. The zone centre was located on Guelph Line at No. 10 Sideroad. The main route for haulage vehicles was identified as Guelph Line/Q.E.W./Brant Street/North Service Road. As with the Burlington North zone, an optional route likely to be used for some trips to Site F from Milton North is Guelph Line/Highway 5/Brant Street/North Service Road.

Zone 9: Halton Hills West

This zone generates approximately 3 per cent of Halton's waste. The zone centre was located on Highway 25 at Regional Road 13. The main route for haulage vehicles was identified as Highway 25/Q.E.W./Brant Street/North Service Road. However, most vehicles from this zone will utilize the existing open air transfer station in Georgetown, travelling there via Highway 7 if it continues in operation.

Halton Hills
12%

Zone 10: Halton Hills East

This zone generates approximately 9 per cent of Halton's waste. The zone centre was located on Regional Road 11 at Regional Road

13. The main route for haulage vehicles was identified as Regional Road 11/Trafalgar Road/Dundas Street/Highway 25/Q.E.W./Brant Street/North Service Road. The majority of existing trips from this zone originate at the Georgetown transfer station.

5.4 Impact Assessment

1. Introduction

Transportation impacts or concerns regarding landfilling at Site F relate primarily to ^① the appropriateness of roads that will be utilized by vehicles travelling to and from the site and ^② potential conflicts with existing traffic and pedestrians. Use of local or low volume roads by trucks, the implications of adjacent land uses on traffic safety, potential conflict areas and the site entrance configurations have been assessed.

③ For all road and highway sections identified as possible main routes for haulage vehicles, background traffic volumes have been determined. (Refer to Exhibit 4 and Table I) The traffic projections were generated by Halton staff and were derived from three main sources. For roads generally south of Highway 5, both the 1979 North Burlington Transportation Study and the 1984 Oakville Transportation Study update were consulted. For Regional Roads located mainly north of Highway 5, the Halton Road Needs Study, 10-year traffic projections (based on past counts) were used as the basis. A growth rate of 2 per cent per year was used to adjust these traffic figures for the dates shown in the table. These volumes are "link volume estimates" and they represent the average traffic volume over a stretch of roadway and not at a specific point.

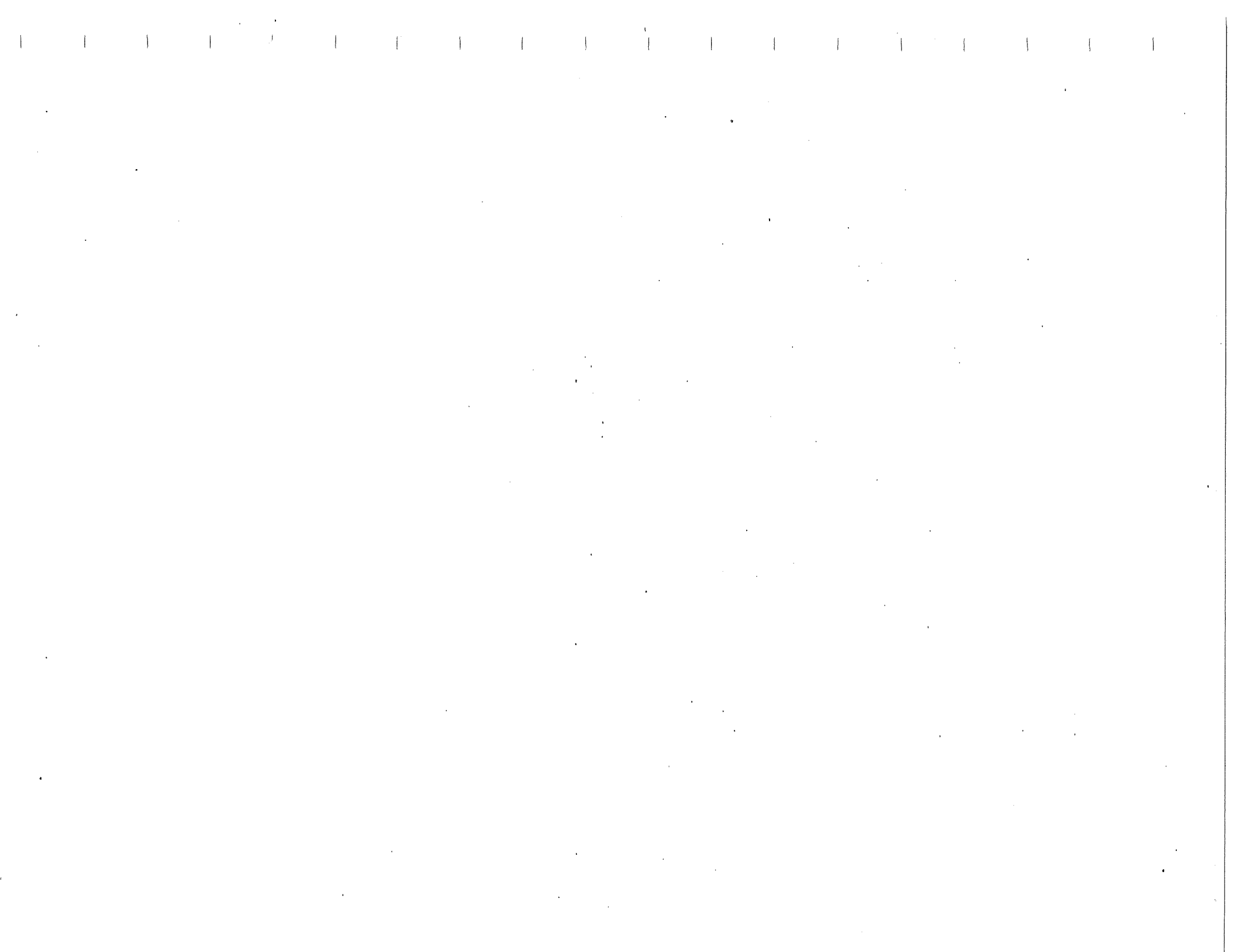
④ One indication of the potential for negative impact created by haulage vehicles (essentially the large truck component) is the level and characteristics (e.g. % trucks, recreation vehicles, etc.) of existing background traffic. The use of highways and arterials by haulage vehicles is generally considered appropriate. The resultant increase in traffic volumes on these

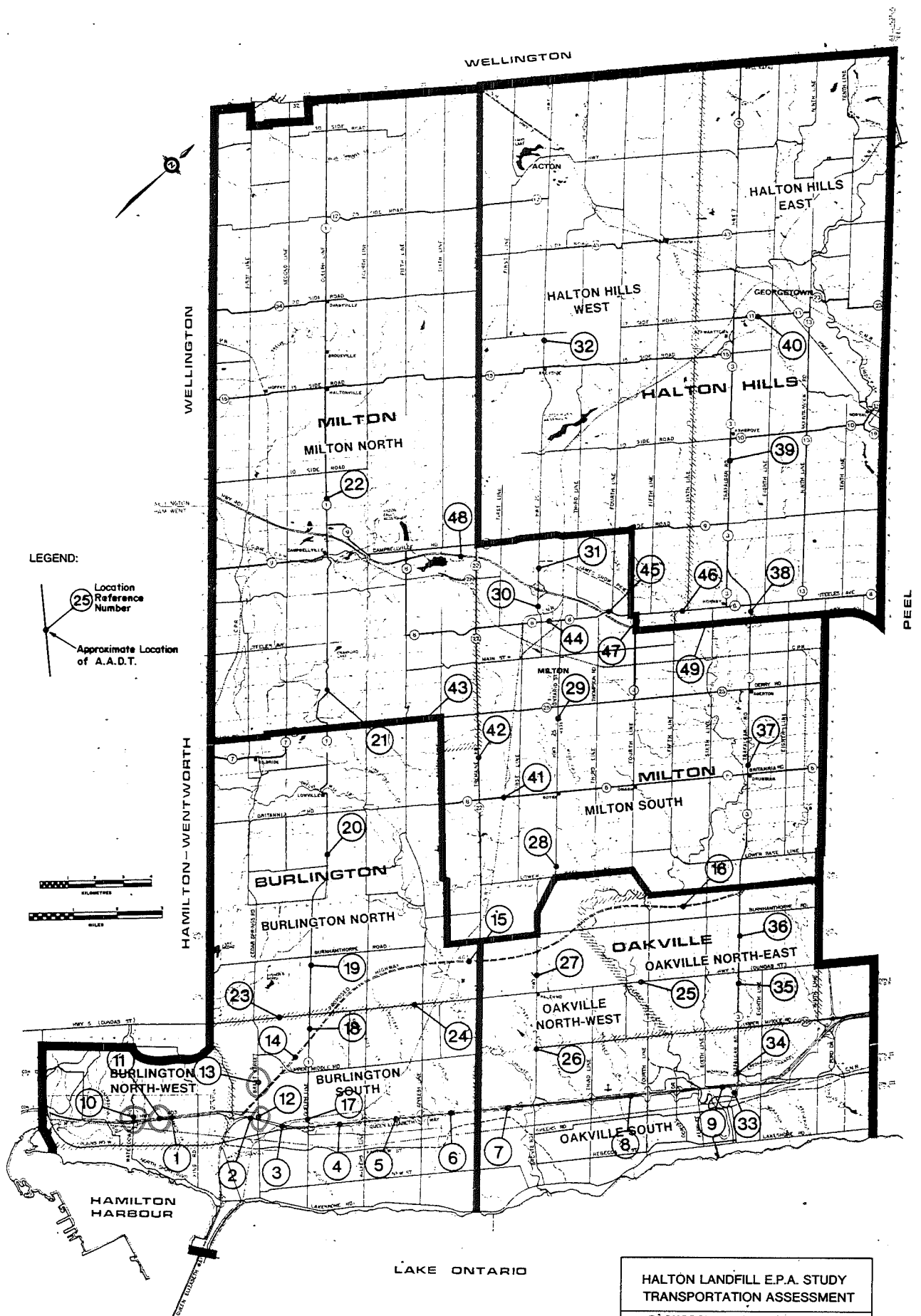
but look at
Table 1B
of Ex H -

re Vehicle
arrival
in 1986

33837

large truck arrivals
in 261 days.





**HALTON LANDFILL E.P.A. STUDY
TRANSPORTATION ASSESSMENT**

**BACKGROUND TRAFFIC VOLUME
PROJECTIONS - KEY PLAN**

Giffels Associates Limited
Consulting Engineers and Architects

Exhibit No. 4



TABLE I

ANNUAL AVERAGE DAILY TRAFFIC-1983, 1988, 1996 & 2008
(TOTAL NUMBER OF VEHICLES PER DAY-MAIN HAULAGE ROUTES)

Loc. #	HIGHWAY/ ROAD	SECTION	1983 AADT	1988 AADT	1996 AADT	2008 AADT
1	Highway 403	Waterdown- QEW	47000	55600	61700	70100
2	QEW	Highway 403- Brant Street	76500	82000	90000	90000
3	QEW	Brant Street- Guelph Line	65500	70200	86000	90000
4	QEW	Guelph Line- Walkers Line	80000	90000	90000	90000
5	QEW	Walkers Line- Appleby Line	79800	90000	90000	90000
6	QEW	Appleby Line- Burloak Drive	80900	90000	90000	90000
7	QEW	Burloak Drive- Highway 25	84000	90000	90000	90000
8	QEW	Highway 25- Dorval Drive	82500	90000	90000	90000
9	QEW	Dorval Drive- Trafalgar Road	97600	100000	100000	100000
10	Waterdown Rd.	Highway 403- N. Service Rd.	5100	8600	10100	12800
11	N. Service Rd.	Waterdown Road- Brant Street	9300	10500	12000	15300
12	Brant St.	QEW- N. Service Rd.	22800	25700	30100	34400
13	Brant St.	N. Service Rd- Highway 5	18400	20800	24300	27800
14	Highway 403	QEW- Highway 5	0	8000	18900	31400
15	Highway 403	Highway 5- Highway 25	0	0	42800	49000
16	Highway 403	Highway 25- Trafalgar Rd.	0	0	45500	47800

TABLE I (continued)

Loc. #	HIGHWAY/ ROAD	SECTION	1983 AADT	1988 AADT	1996 AADT	2008 AADT
17	Guelph Line	QEW- Highway 403	36000	39600	46400	50000
18	Guelph Line	Highway 403- Highway 5	10500	18900	22300	29100
19	Guelph Line	Highway 5- Burnhamthorpe	4300	6000	7500	9800
20	Guelph Line	Burnhamthorpe- Derry Road	2600	3200	4400	6500
21	Guelph Line	Derry Road- Highway 401	2300	2900	3700	5000
22	Guelph Line	Highway 401- 10 Side Road	5300	7000	12500	19600
23	Highway 5	Brant Street- Highway 403	9700	12000	9300	13400
24	Highway 5	Highway 403- Highway 25	9700	14300	9300	13400
25	Highway 5	Highway 25- Trafalgar Rd.	10000	18300	9400	15800
26	Highway 25	QEW- Highway 5	8200	9300	10600	12100
27	Highway 25	Highway 5- Highway 403	7200	8400	10600	15200
28	Highway 25	Highway 403- Britannia Rd.	7200	8400	10600	15200
29	Highway 25	Britannia Rd.- Steeles Ave.	7200	8400	10600	15200
30	Highway 25	Steeles Ave.- Highway 401	13800	15400	18400	24100
31	Highway 25	Highway 401- Reg. Rd. 9	8700	10300	13500	20200
32	Highway 25	Reg. Rd. 9- Reg. Rd 12	5500	6500	8500	12800

TABLE I (continued)

Loc. #	HIGHWAY/ ROAD	SECTION	1983 AADT	1988 AADT	1996 AADT	2008 AADT
33	Trafalgar Rd.	Cross Avenue- QEW	32800	37100	40000	40000
34	Trafalgar Rd.	QEW- Upper Middle	41700	47100	50000	50000
35	Trafalgar Rd.	Upper Middle- Highway 5	9300	13300	15500	19700
36	Trafalgar Rd.	Highway 5- Highway 403	8700	11200	15100	21600
37	Trafalgar Rd.	Highway 403- Highway 401	8600	10000	13200	18600
38	Trafalgar Rd.	Highway 401- Steeles Ave.	7400	9800	14600	20400
39	Trafalgar Rd.	Steeles Ave.- Reg. Rd. 11	7100	9400	14000	19600
40	Reg. Rd. 11	Trafalgar Rd.- Highway 7	5600	6600	8800	12500
41	Britannia Rd.	Tremaine Rd.- Highway 25	300	350	400	500
42	Tremaine Rd.	Britannia Rd.- Derry Road	1700	2000	3800	5800
43	Derry Road	Guelph Line- Tremaine Rd.	4000	4100	4800	5900
44	Steeles Ave.	Highway 25- Ontario Street	10200	11400	13600	17800
45	Steeles Ave.	Ontario Street- J.S. Prkwy.	8000	9100	13500	21800
46	Steeles Ave.	J.S. Prkwy.- Trafalgar Rd.	6400	8600	12200	18800
47	J.S. Prkwy.	Steeles Ave.- Highway 401	3100	3700	5100	8000
48	Highway 401	Guelph Line- Highway 25	38500	43500	49700	63100
49	Highway 401	Highway 25- Trafalgar Rd.	41000	46300	52900	67200

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routes due to the introduction of large trucks hauling refuse is
a small percentage of the total number of vehicles.

On Brant Street, it is predicted that there will be, on an average weekday, the following vehicle trips (two-way total) in 1996:

- o south of the North Service Road - 30,100
- o north of the North Service Road - 24,300

North of the North Service Road, the number of total vehicles will be less than that indicated above approaching Highway 5. If, for example, it is assumed that two-thirds of large refuse trucks will access Site D from the south on Brant Street, the following approximate percentages of landfill bound large truck traffic to overall traffic will result (on Brant Street).

- o south of the North Service Road - 1.0%
- o north of the North Service Road - 0.5% to 1.0%

These percentages are not considered a significant component of overall traffic.

A similar assessment for the North Service Road indicates that approximately three percent of total vehicle trips will be large trucks travelling to and from Site F, a small percentage of the total number of vehicles.

The main transportation concern related to landfilling at Site F is the potential use of urban roads by vehicles accessing the site, primarily Brant Street and the North Service Road. The transportation impact assessment concentrated on this aspect.

Q
But there were
33837
large
truck
arrivals
in 1986
on
241
days
or
121
large
truck
arrivals
a day.
blw 8-6

10 hrs on
12 an hour.

2. Brant Street (Plains Road to Highway 5)

From Plains Road to the North Service Road, Brant Street is essentially a four-lane road with curbs and gutters. Intersections exist at Plains Road, Leighland Road, Churchill Avenue. South of the Q.E.W. from just north of Churchill Avenue, there are the following entrances:

- West Side - 6 residential entrances (1 shared driveway)
 - 3 field entrances (2 to vacant lots, 1 to hydro property)
 - 2 entrances to a gas station (Esso)
- East Side - 5 residential entrances
 - 1 entrance to a 4-storey, 16 unit apartment building
 - 2 entrances to a vacant gas station

A pedestrian crosswalk is located on Brant Street at Leighland Road. With the completion of the Q.E.W./Brant Street interchange in the near future, the section of Brant Street south of the Q.E.W. will not be a major haulage route, as it is at present. In the future, two new signalized intersections will be in place on Brant Street at the Q.E.W. ramp terminals. Between the Q.E.W. and the North Service Road, there are no entrances and the adjacent property is vacant. There are two bus stops (one each direction) just south of the service road.

From the North Service Road to Mount Forest Drive, there are the following entrances:

- West Side - 1 residential entrance
 - 1 entrance to a vacant lot
 - 2 entrances to the Burlington Hydro office and yard
- East Side - 2 residential entrances (at the North Service Road)
 - 2 entrances to a townhouse complex
 - 1 double entrance to a church
 - 2 entrances to a gas station (Shell)

Brant Street is essentially five lanes wide in this section. Left turn lanes are provided at the North Service Road intersection (both directions), which is signalized. At Mount Forest, both approaches have left turn lanes and the intersection is signalized. Adjacent land uses are primarily vacant with scattered pockets of development. Two bus stops (one each direction) are located just north of the service road.

From Mount Forest Road to Tyandaga Park Drive, there are the following entrances:

- West Side - 1 access to hydro parking lot
 - 1 intersection with Esther Drive

- East Side - 1 access to the future Highway 403 property
- intersections with Bluefields Drive and Amherst Heights Drive
- 1 entrance to Mt. Royal Plaza

Most land uses in this section front away from Brant Street. They consist primarily of townhouse developments and a 2-storey apartment building under construction. Three 'pairs' of bus stops (one in each direction) exist in this section.

From Tyandaga Park Drive to Upper Middle Road, there are the following entrances:

- West Side - 1 access to a small parking lot in the hydro property

Q.

- 4 access points to the Wellington Green apartments *how many users or apartments there*
- 1 church entrance
- intersection with Havendale Boulevard
- 1 double entrance to a gas station (Gulf)

- East Side - 1 access to a hydro transformer station
- 2 access points to a mall south of Upper Middle Road

- intersections with Faversham Avenue and Dawlish Road

Brant Street is essentially a five-lane road north to the Havendale/Dawlish intersection. Land uses are largely reverse frontage single family residential with some commercial near Upper Middle Road. South of Upper Middle Road, Brant Street becomes four lanes with a grassed median. Two 'pairs' of bus stops are located in this section. A pedestrian crossing exists at Dawlish and at Upper Middle Road, which is signalized.

Further to the north, between Upper Middle Road and Dundas Street (Highway 5), there are the following entrances:

- West Side - 1 entrance to a vacant lot
 - 1 residential entrance
 - 1 entrance to Windsor Estate townhomes
 - intersection with Beaufort Drive
- East Side - 2 entrances to vacant lots
 - 1 entrance to Brant Hills Park
 - intersections with Greenbank Trail and Beaufort Drive

Brant Street is five lanes wide in this section. Much of the adjacent land towards the south is presently vacant. The residential developments to the north are largely single family

units. One 'pair' of bus stops is located just north of the mid-point of the section.

In total, there are approximately 60 access points (including intersections) between Plains Road and Highway 5. Of these, 27 are located on the west side of the road. Relatively few access points are to individual homes, except to the south near Plains Road. Medium density residential, commercial and some office/institutional uses comprise the majority of access. Of the 15 intersections between Plains Road and Highway 5, 6 are signalized (Plains, North Service Road, Mount Forest, Tyandaga Park, Upper Middle Road, Highway 5). The remaining 9 have stop signs on the minor roads. Transit service is provided throughout the section with a service frequency of approximately 10-15 minutes south of Upper Middle Road.

Q. There are a total of three existing school crossing locations on Brant Street between Plains Road and Highway 5, in addition to the regular pedestrian crossings at signalized intersections. A school crossing guard is stationed at the Upper Middle Road intersection (signalized). At Havendale Boulevard, two crossing guards are provided. A third school crossing is located at the signalized intersection with Mount Forest Road and is attended by one guard.

did not know Q. Site F is located in the southwest corner of the Halton West education area. The nearest schools are within approximately 2 km of the site, south of Highway 403. Several schools are located in the vicinity of Brant Street. A new elementary public school, located south east of the Brant Street/Highway 5 intersection is planned to be in operation during the 1986/1987 school season. Brant Street crossing requirements for this school will be resolved later in 1986.

Brant Street is not considered a pick-up area for public school buses, particularly once the new school at Dundas Street is operational. Separate schools utilize portions of Brant Street for school buses. Transportation offices for both the public and private school boards had no general or specific transportation related concerns relative to a new landfill at Site F.

Much of the development on the east side of Brant Street has been in existence for some time and the number of public school age children is likely relatively low. The west side of Brant Street has been much more recently developed and is expected to continue to grow. In addition, the area to the west of Brant Street has a number of higher density multi-unit developments. The area, therefore, likely has many young families with public school age children. (Q)

NB All schools in this area are located on the east side of Brant Street. These include Bruce T. Lindley P.S., Champlain P.S., Paul A. Fisher P.S., Rolling Meadows P.S., Mountain Garden P.S., Clarksdale P.S., M. M. Robinson H.S., St. Gabriel's S.S., and St. Mark S.S. Therefore, there is a clear need for school crossings at a number of locations on Brant Street. The most northerly, at Upper Middle Road (signalized intersection) is attended by a single guard during morning, noon and afternoon hours. This location averages about 270 elementary school crossings per day. Further south, the crossing at Dawlish/Havendale Boulevard is attended by two guards during the three time periods and averages about 150 elementary school crossings per day. This intersection is unsignalized. The signalized crossing at Mt. Forest Drive has a single guard and accommodates about 90 children per day. MB (Q)

The primary crossing times are between 8.15 a.m. and 9.00 a.m., the noon hour, and between 3.15 p.m. and 4.15 p.m. at all locations. Children living further west of Brant Street in the vicinity of Kerns Road are generally bussed to school, because of the distance to school. One additional future crossing may be required north of Upper Middle Road to accommodate an anticipated increase in the number of children. South of Upper Middle Road, no crossings are likely to be added in the future.

2/3 during the day.

An assessment of motor vehicle accidents occurring on Brant Street (between Plains Road and Dundas Street) in the period January, 1982 to December, 1984 was completed. A summary of all accident records is contained in Appendix C. On Brant Street, a total of 235 accidents occurred during this time period. Of these, two resulted in fatalities. Approximately one-third of the accidents occurred at night or at dusk. North of the Q.E.W., five accidents involved large trucks and twenty-three involved small trucks (pick-ups and vans).

From the above summary of existing conditions on Brant Street, the use of the section between Highway 5 and the North Service Road is a general concern due to the potential for traffic conflicts. However, the majority of haulage vehicles accessing Site F will be from the south, utilizing Brant Street only between the Q.E.W. and the North Service Road, a road section with no adjacent development or entrances. This south access orientation is expected to become more attractive, particularly by major haulers (trucks) with the opening of the Brant/Q.E.W. interchange (1988/89). This will eliminate the need for trucks to exit the Q.E.W. at Plains Road and utilize urban roads to access the site, as presently happens. In addition, with the relatively high volumes of background traffic on Brant Street,

north of the service road (18,400, 20,800, 24,300 and 27,800 average vehicles per day in 1983, 1988, 1996 and 2008 respectively), the minor landfill bound traffic component from the north (less than one percent additional large trucks) should not be a factor in road or pedestrian safety.

3. North Service Road

Existing conditions along the North Service Road were assessed between Brant Street and Waterdown Road. From Brant Street to Kerns Road, one entrance (south side) to a storage yard exists. The roadway in this section is two lanes with gravel shoulders. Adjacent land is vacant. At the Brant Street intersection, a left turn lane has been provided, as well as a right turn lane.

From Kerns Road to King Road, there are two field entrances on the north side and no entrances to the south, as the road is immediately adjacent to Highway 403. The Kerns Road intersection is unsignalized. Signal installation at this location will likely be completed prior to 1988. Most of the adjacent land to the north is open field and scrub land.

From King Road to Waterdown Road, the north side contains six field entrances, the existing landfill entrance and two entrances to office buildings further to the west. A right turn lane has recently (1985) been constructed at the landfill site.

The addition of large haulage vehicles (approximately three percent of total traffic) on the North Service Road will create a marginal decrease in the level of service provided by that road. However, due to the existing high background traffic levels, this decrease should not be noticeable to drivers.

*is this
3% over
current
traffic
volume
with
the
existing
landfill
still operating?*

⑦

On the North Service Road (Brant Street to Waterdown Road), a total of seventy accidents were recorded in the three year period ending in December 1984. Of these, twenty-two occurred at night or dusk. Thirteen of these accidents involved small trucks (pick-ups and vans). One involved a large truck. There were no fatalities.

No traffic or road safety concerns exist along the North Service Road.

4. School Bus Routes - General

① School bus routes in the vicinity of Site F no longer utilize the North Service Road. Instead, the buses use either Brant Street or Waterdown Road south to Plains Road. The destinations are either Mapleview School or Glenview School, both located on or near Plains Road between King and Waterdown Roads. Brant Street, being a major arterial, is used by school buses, including those that do not have designated pick-ups in the immediate area. 70 { including those that do.

No specific concerns exist with respect to the effect of haulage vehicles on operation of school buses in the area of Site F or on Brant Street.

5. Site F Entrance

The Site F entrance location is at the existing landfill site entrance. Turning movements at the Site F entrance are summarized in Appendix D. Traffic signal installation is not warranted at this location within the landfill planning period. Due to the high, eastern orientation of arrivals, a right-turn

lane on the North Service Road is a requirement, and was constructed in 1985. A left turn lane for eastbound landfill vehicles is not considered warranted. Therefore, no improvements to the existing landfill entrance are recommended. The existing entrance should continue to operate acceptably within the landfill planning period.

6. Bayview Park

Concern has been expressed regarding the potential conflicts between haulage vehicles and vehicles travelling to and from Bayview Park. This facility, situated adjacent to the site off King Road, contains among other things, equestrian facilities, a model airplane club and a gun club. Q

The introduction of additional vehicles on the North Service Road as a result of haulage is not a major concern due to the relatively high levels of background traffic (landfill large truck traffic is approximately three percent of total traffic). The highest use period for the park is on weekends, when truck traffic to Site F is relatively low. Q

Large landfill truck traffic is 3% of traffic total.

but each truck could: 13 = cars.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions and Recommendations

The following are the main conclusions of the transportation assessment of establishing a landfill site at Site F.

1. For the critical analysis year (1996), when future waste delivered to the site will be at a peak (no energy from waste facility in place) a weekday total of 410 landfill vehicle arrivals has been predicted.

30% increase by 1996
Q
assumes EFW what if no EFW? what is #550 up to per day? by 2008
This is representative of a high volume delivery day. This compares with a May average of 320 daily vehicles over the 1983-1985 period, an increase of approximately 30 percent. Saturday arrivals for a similar design condition have been predicted at 660 vehicles per day, an increase of approximately 20 percent over the 560 average of the last three years. The number of predicted arrivals drops off considerably after 1996 with the assumption of the operation of an energy from waste facility.

2. A survey of major haulers in the Region, representing approximately 90 percent of the truck traffic to the existing site generally confirmed the main haulage routes that had been identified to Site F. These were the same routes identified during the Stage 2C Study. However, strict adherence to specific routes is not followed by all drivers or haulage companies because of customer fluctuations, traffic problems, driver preferences, etc.

3. Most haulage vehicle trips to proposed Site F will utilize the Q.E.W., Brant Street between the Q.E.W. and the North Service Road, and the North Service Road. These road sections are considered appropriate for haulage vehicles. A number of haulage vehicle trips will access the North Service Road from the north, utilizing Brant Street south from Highway 5. A general concern exists with this as a

component route due to the urban nature of the road and potential conflict with pedestrians. However, access from the south (utilizing the Q.E.W.) is expected to become more attractive with the opening of the Brant Street/Q.E.W. interchange (in 1988/89). In addition, with the relatively high volumes of background traffic on Brant Street (18,400, 20,800, 24,300 and 27,800 average vehicles per day in 1983, 1988, 1996 and 2008 respectively), the minor landfill bound component from the north should not noticeably affect road or pedestrian safety. It is estimated that the large truck component of landfill bound vehicles using Brant Street north of the North Service Road will be less than one percent of the total traffic using this road section.

4. No significant negative traffic or transportation effects have been identified with the establishment of a landfill operation at Site F. All potential effects identified with Site F are rated as having a low impact level. The following is a summary of the identified effects.

Effect

Impact Level

④ o continues the use of Brant Street between the Q.E.W. and Highway 5 by haulage vehicles (potential vehicular and pedestrian conflicts)

Low

o continues the use of the North Service Road west of Brant Street (potential vehicular conflicts)

Low

⑤ o proximity to Bayview Park (potential vehicular conflicts)

Low

Q A low impact rating has been assigned to each of the three traffic safety effects identified with a landfill at Site F. Most haulage vehicles trips to Site F will utilize the Q.E.W., Brant Street between the Q.E.W. and the North Service Road, and the North Service Road. These road sections are considered appropriate for haulage vehicles, all being high standard roads with good stopping sight distances and roadway geometrics. The high levels of background traffic, particularly on Brant Street (large haulage truck component will be less than one percent of the total) should result in a small reduction in the level of traffic service afforded drivers, general traffic safety should not be affected, and increases in vehicular conflicts low. Pedestrian safety on Brant Street between the Q.E.W. and Highway 5 should not be affected because of the relatively low number of haulage trucks and the existence of numerous road crossing locations (at signalized intersections and school crossings). Traffic impacts on travellers to Bayview Park are considered low. The highest use period for the park is on weekends, when truck traffic to the site is relatively low.

5. The proposed entrance to Site F, off the North Service Road, is the same location as the existing Regional Landfill site. No improvements to this entrance are considered necessary.

6.2 Transfer and Container Stations

Since no significant transportation related impacts have been identified, no specific mitigation measures are proposed. The continued operation of the existing transfer station in Georgetown cannot be justified from strictly a traffic safety standpoint. Other considerations, including economics, may indicate the general desirability of transfer stations for certain lengths of haul. However, without a local transfer station, to maintain the level of service provided to Halton Hills, particularly in

the Georgetown and Acton areas, the Region should assess the role of container stations in lieu of a transfer station.

Presently, Halton sponsors four container facilities in the following locations:

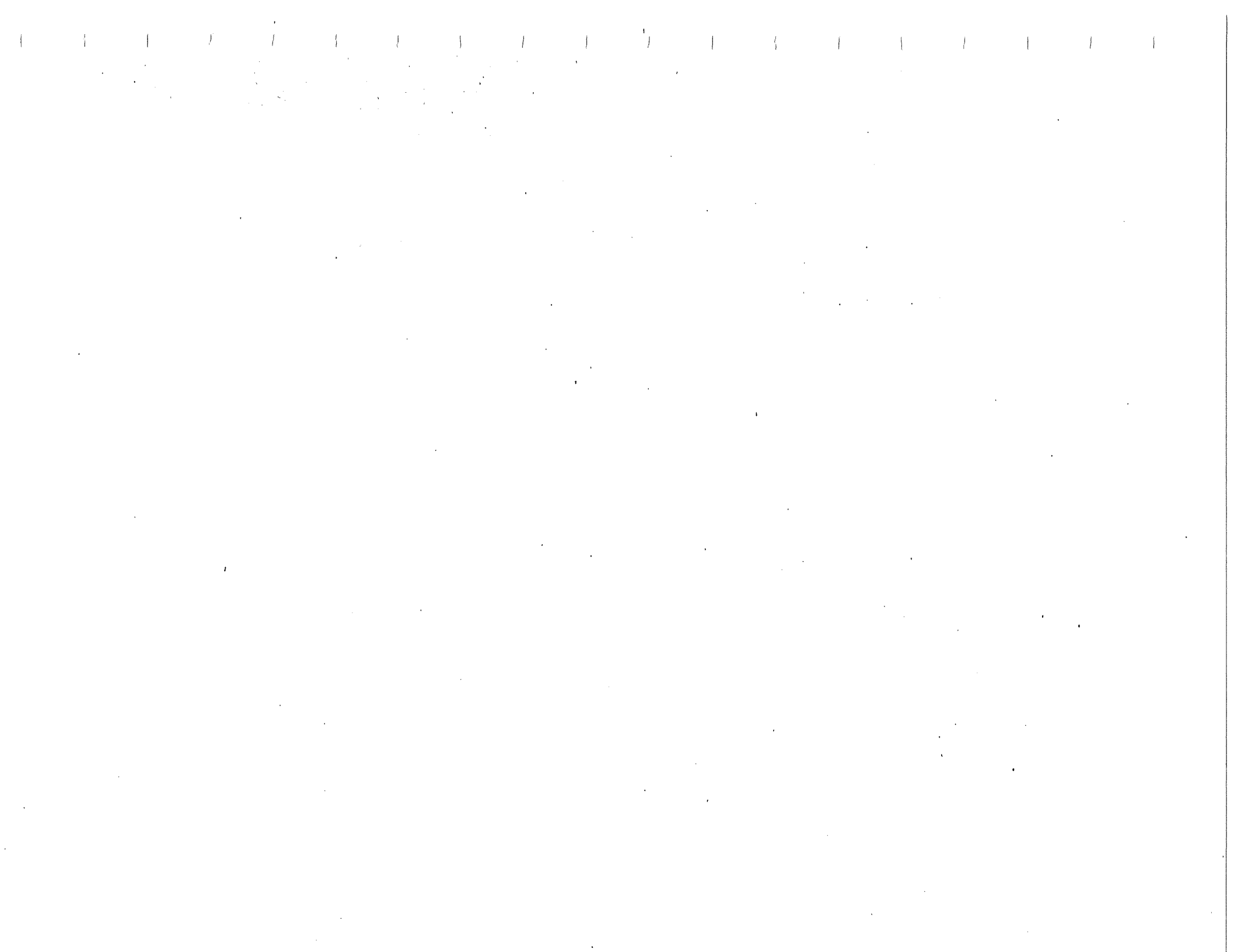
- Burlington (at the present landfill site)
- Oakville (on the North Service Road between Highway 25 and Third Line)
- Milton (on Steeles Avenue west of the James Snow Parkway)
- Halton Hills (at the present transfer station in Georgetown)

These facilities are temporary and are in operation for the acceptance of small (up to 150 kilograms) loads of residential wastes from private citizens. Permanent container stations in more locations, accepting larger loads and perhaps some non-residential waste could be effective in providing an adequate level of service to the areas of the Region remote from Site F and should be considered.

6.3 Review Committee

It is recommended that Halton consider the establishment of a review committee to monitor waste haulage practices in the Region. The committee would be comprised of representatives from Halton, local municipalities and major hauling companies. Additional representation could come from school boards, police force, community groups, etc. The purpose of the committee would be to discuss concerns, haulage routes and general haulage practices with the aim of assessing haulage operations to improve general traffic safety.

PM/nj:sgr(N550-S26)



APPENDIX A

VEHICLE ARRIVAL AND WEIGHT CHARACTERISTICS

BACKGROUND-VEHICAL ARRIVAL AND WEIGHT CHARACTERISTICS

The tables presented herein were developed from records kept by Halton's Public Works Department that summarize arrival characteristics at the existing landfill site in Burlington. The following Halton records were used:

- Waste Disposal Statistics (No. 1) For 1983, 1984, 1985
- Vehical Survey (No. 2) per Month For 1983, 1984, 1985
- Vehical Survey (No. 3) per Month For 1983, 1984, 1985,
- Vehical Survey (No. 1) for Each Day of the Week for June (1983, 1984, 1985).

A sample of each of these records is contained at the end of Appendix A.

Earlier work, completed during the Environmental Assessment Study (Stage 2C) utilized these same records, but only for 1983. This year was the first complete year of records where a single landfill site was operating in Halton (subsequent to the closing of the Oakville site). During the technical study, complete records from 1984 and 1985 became available and were incorporated into the analysis. No significant differences in results were evident between the Stage 2C and Technical Study work.

Thirty-one tables of information are contained in Appendix A. They were developed to aid in determining existing arrival characteristics which formed the basis for predicting future, typical arrival characteristics. Section 5.1 of this report, Vehical Arrival And Weight Characteristics, contains a discussion of these tables.

Each table in the appendix has a note regarding the basis for developing the data summarized. In most cases, the note refers to either Halton's 'Waste Disposal Statistics' (the records discussed above) or, other tables used as source information.

On some tables, statistical information has been summarized. A statistical analysis was completed to assess the variability of the data and as an aid in developing typical distributions. The following information is summarized:

- Mean:the average value of the series of numbers (distribution)
- Standard Deviation:the typical (standard) variance between the mean and other numbers in the distribution
- Coefficient of Variation:the standard deviation divided by the mean;a measure of the significance of the standard deviation.

LIST OF TABLES: REGIONAL LANDFILL SITE (BURLINGTON)

1. Total Weekday Arrivals By Vehicle Classification
(1983 & 1984)
- 1A. Total Weekday Arrivals By Vehicle Classification
(1985)
2. Total Saturday Arrivals By Vehicle Classification
(1983 & 1984)
- 2A. Total Saturday Arrivals By Vehicle Classification
(1985)
3. % Of Total Weekday Arrivals By Vehicle Classification
(1983 & 1984)
- 3A. % Of Total Weekday Arrivals By Vehicle Classification
(1985)
4. % Of Total Saturday Arrivals By Vehicle Classification
(1983 & 1984)
- 4A. % Of Total Saturday Arrivals By Vehicle Classification
(1985)
5. Average Vehicle Arrivals - Weekdays & Saturdays
(1983 & 1984)
- 5A. Average Vehicle Arrivals - Weekdays & Saturdays
(1985)
6. Total Monthly Delivery Weights - Weekdays & Saturdays
(1983 & 1984)
- 6A. Total Monthly Delivery Weights - Weekdays & Saturdays
(1985)
7. Average Delivery Weight - Weekdays & Saturdays
(1983 & 1984)
- 7A. Average Delivery Weight - Weekdays & Saturdays
(1985)
8. Monthly % Of Yearly Delivery Weight - Weekdays & Saturdays
(1983 & 1984)
- 8A. Monthly % Of Yearly Delivery Weight - Weekdays & Saturdays
(1985)
9. Time Of Arrivals - % Of Total Arrivals In Time Period
(1983, Weekdays)

LIST OF TABLES (continued)

10. Time Of Arrivals - % Of Total Arrivals In Time Period
(1983, Saturdays)
11. Time Of Arrivals - % Of Total Arrivals In Time Period
(1984, Weekdays)
12. Time Of Arrivals - % Of Total Arrivals In Time Period
(1984, Saturdays)
13. Time Of Arrivals - % Of Total Arrivals In Time Period
(1985, Weekdays)
14. Time Of Arrivals - % Of Total Arrivals In Time Period
(1985, Saturdays)
15. Average # Of Arrivals In Time Period
- June 1983, 1984, 1985 (Weekday)
16. Average # Of Arrivals In Time Period
- June 1983, 1984, 1985 (Saturday)
17. Average Arrival Distribution
- 1983, 1984, 1985 (Weekday)
18. Average Arrival Distribution
- 1983, 1984, 1985 (Saturday)
19. Vehicle/Weight Relationships
(Weekdays-1983, 1984 & 1985)
20. Vehicle/Weight Relationships
(Saturdays-1983, 1984 & 1985)
21. Time Of Arrivals-Distribution By Vehicle Classification
Typical Weekday (June)
22. Time Of Arrivals-Distribution By Vehicle Classification
Typical Saturday (June)
23. Estimated Waste Distribution By Zone (Landfill Waste)
-1988, 1996 & 2008

TABLE 1

Regional Landfill Site-Burlington (1983 & 1984)

TOTAL WEEKDAY ARRIVALS BY VEHICLE CLASSIFICATION

Month	Delivery Days		Large Trucks		P/U Trucks & Vans		Cars With Trailers		Cars		Total	
	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984
Jan.	21	22	2593	2384	1241	1223	74	48	346	392	4254	4047
Feb.	20	21	2267	2288	1061	1423	67	70	263	431	3658	4212
March	23	22	2637	2411	1516	1482	161	50	421	498	4735	4441
April	21	21	2657	2687	2046	2524	259	379	681	926	5643	6516
May	22	23	3251	3326	2576	2788	128	384	877	1133	6832	7631
June	22	21	3003	2908	2834	2666	229	410	1215	1051	7281	7035
July	21	22	2564	2642	2878	2756	190	427	1453	1585	7085	7410
Aug.	23	23	2807	2893	2776	2412	184	333	1487	1349	7254	6987
Sept.	22	20	2603	2423	2383	1774	154	237	1068	656	6208	5090
Oct.	21	23	2537	2777	2133	2075	207	235	826	661	5703	5748
Nov.	22	22	2652	2837	2015	1877	107	142	603	523	5377	5379
Dec.	22	20	2313	2210	1336	1311	68	97	642	691	4359	4309
TOTAL	260	260	31884	31786	24795	24311	1828	2812	9882	9896	68389	68805

Note: Developed from Regional Municipality of Halton Public Works Department's 'Waste Disposal Statistics'

TABLE 1A

Regional Landfill Site-Burlington (1985)

TOTAL WEEKDAY ARRIVALS BY VEHICLE CLASSIFICATION

Month	Delivery Days	Large Trucks	P/U Trucks & Vans	Cars With Trailers	Cars	Total
	1985	1985	1985	1985	1985	1985
Jan.	22	2499	1019	26	348	3892
Feb.	20	2172	974	19	267	3432
March	21	2532	1669	115	460	4776
April	22	3215	2780	307	775	7077
May	23	3400	2388	340	1162	7290
June	20	2944	1684	149	1070	5847
July	23	2933	2432	352	1355	7072
Aug.	22	2627	2450	366	1340	6783
Sept.	21	2848	1925	250	800	5823
Oct.	23	2844	2306	239	627	6016
Nov.	21	2574	1713	136	477	4900
Dec.	21	2318	1309	67	537	4231
TOTAL	259	32906	22649	2366	9218	67139

Note: Developed from Regional Municipality of Halton Public Works Departments's
'Waste Disposal Statistics'

TABLE 2

Regional Landfill Site-Burlington (1983 & 1984)

TOTAL SATURDAY ARRIVALS BY VEHICLE CLASSIFICATION

Month	Delivery Days		Large Trucks		P/U Trucks & Vans		Cars With Trailers		Cars		Total	
	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984
Jan.	4	4	52	69	293	259	42	28	218	301	605	657
Feb.	4	4	62	78	299	348	42	56	182	368	585	850
March	4	5	77	99	367	528	92	91	287	505	823	1223
April	5	4	136	141	957	1081	310	363	580	677	1983	2262
May	4	4	165	187	852	906	302	280	557	650	1876	2023
June	4	5	110	160	736	1035	267	317	731	945	1844	2457
July	5	4	135	127	750	655	299	159	843	713	2027	1654
Aug.	4	4	89	144	589	583	248	146	655	649	1581	1522
Sept.	4	5	109	141	422	859	216	242	588	850	1335	2092
Oct.	5	4	129	107	837	709	322	173	716	659	2004	1648
Nov.	4	4	91	82	492	652	207	183	499	458	1289	1375
Dec.	5	5	112	140	342	444	65	93	546	410	1065	1087
TOTAL	52	52	1267	1475	6936	8059	2412	2131	6402	7185	17017	18850

Note: Developed from Regional Municipality of Halton Public Works Department's 'Waste Disposal Statistics'

TABLE 2A

Regional Landfill Site-Burlington (1985)

TOTAL SATURDAY ARRIVALS BY VEHICLE CLASSIFICATION

Month	Delivery Days	Large Trucks	P/U Trucks & Vans	Cars With Trailers	Cars	Total
	1985	1985	1985	1985	1985	1985
Jan.	4	93	246	33	324	696
Feb.	4	70	214	16	268	568
March	5	119	702	116	688	1675
April	4	145	1066	288	826	2325
May	4	242	1178	376	1011	2807
June	5	170	977	308	1121	2576
July	4	107	745	176	578	1606
Aug.	5	146	769	222	739	1876
Sept.	4	148	670	213	565	1596
Oct.	4	129	580	124	490	1323
Nov.	5	113	548	155	419	1235
Dec.	4	104	338	67	345	854
TOTAL	52	1586	8033	2144	7374	19137

Note: Developed from Regional Municipality of Halton Public Works Department'
'Waste Disposal Statistics'

TABLE 3

Regional Landfill Site-Burlington (1983 & 1984)

% OF TOTAL WEEKDAY ARRIVALS BY VEHICLE CLASSIFICATION

Month	Large Trucks		P/U Trucks & Vans		Cars With Trailers		Cars	
	1983	1984	1983	1984	1983	1984	1983	1984
Jan.	61 %	59 %	29 %	30 %	2 %	1 %	8 %	10 %
Feb.	62 %	54 %	29 %	34 %	2 %	2 %	7 %	10 %
March	56 %	54 %	32 %	34 %	3 %	1 %	9 %	11 %
April	47 %	41 %	36 %	39 %	5 %	6 %	12 %	14 %
May	47 %	44 %	38 %	36 %	2 %	5 %	13 %	15 %
June	41 %	41 %	39 %	38 %	3 %	6 %	17 %	15 %
July	36 %	36 %	41 %	37 %	3 %	6 %	20 %	21 %
Aug.	39 %	41 %	38 %	35 %	2 %	5 %	20 %	19 %
Sept.	42 %	47 %	38 %	35 %	3 %	5 %	17 %	13 %
Oct.	45 %	48 %	37 %	36 %	4 %	4 %	14 %	12 %
Nov.	49 %	53 %	38 %	35 %	2 %	2 %	11 %	10 %
Dec.	53 %	51 %	31 %	31 %	1 %	2 %	15 %	16 %
Yearly Average	48 %	47 %	35 %	35 %	3 %	4 %	14 %	14 %
Stn. Dev.	8.4	6.9	4.1	2.6	1.1	2.0	4.4	3.6
Coef. of Variation	0.18	0.15	0.12	0.07	0.40	0.54	0.32	0.26

Note: Developed from Table 1

TABLE 3A

Regional Landfill Site-Burlington (1985)

% OF TOTAL WEEKDAY ARRIVALS BY VEHICLE CLASSIFICATION

Month	Large Trucks	P/U Trucks & Vans	Cars With Trailers	Cars
	1985	1985	1985	1985
Jan.	64 %	26 %	1 %	9 %
Feb.	63 %	28 %	1 %	8 %
March	53 %	35 %	2 %	10 %
April	46 %	39 %	4 %	11 %
May	46 %	33 %	5 %	16 %
June	50 %	29 %	3 %	18 %
July	42 %	34 %	5 %	19 %
Aug.	39 %	36 %	5 %	20 %
Sept.	49 %	33 %	4 %	14 %
Oct.	47 %	38 %	4 %	11 %
Nov.	52 %	35 %	3 %	10 %
Dec.	55 %	31 %	1 %	13 %
Yearly Average	51 %	33 %	3 %	13 %
Stn. Dev.	7.5	4.0	1.6	4.1
Coef. of Variation	0.15	0.12	0.50	0.31

Note: Developed from Table 1A

TABLE 4

Regional Landfill Site-Burlington (1983 & 1984)

% OF TOTAL SATURDAY ARRIVALS BY VEHICLE CLASSIFICATION

Month	Large Trucks		P/U Trucks & Vans		Cars With Trailers		Cars	
	1983	1984	1983	1984	1983	1984	1983	1984
Jan.	9 %	11 %	48 %	39 %	7 %	4 %	36 %	46 %
Feb.	11 %	9 %	51 %	41 %	7 %	7 %	31 %	43 %
March	9 %	8 %	45 %	43 %	11 %	8 %	35 %	41 %
April	7 %	6 %	48 %	48 %	16 %	16 %	29 %	30 %
May	9 %	9 %	45 %	45 %	16 %	14 %	30 %	32 %
June	6 %	7 %	40 %	42 %	14 %	13 %	40 %	38 %
July	7 %	8 %	37 %	39 %	15 %	10 %	41 %	43 %
Aug.	6 %	9 %	37 %	38 %	16 %	10 %	41 %	43 %
Sept.	8 %	7 %	32 %	41 %	16 %	11 %	44 %	41 %
Oct.	6 %	6 %	42 %	43 %	16 %	11 %	36 %	40 %
Nov.	7 %	6 %	38 %	48 %	16 %	13 %	39 %	33 %
Dec.	11 %	13 %	32 %	41 %	6 %	8 %	51 %	38 %
Yearly Average	8 %	8 %	41 %	42 %	13 %	11 %	38 %	39 %
Stn. Dev.	1.8	2.1	6.3	3.3	4.1	3.3	6.3	5.0
Coef. of Variation	0.23	0.25	0.15	0.08	0.32	0.32	0.17	0.13

Note: Developed from Table 2

TABLE 4A

Regional Landfill Site-Burlington (1985)

% OF TOTAL SATURDAY ARRIVALS BY VEHICLE CLASSIFICATION

Month	Large Trucks	P/U Trucks & Vans	Cars With Trailers	Cars
	1985	1985	1985	1985
Jan.	13 %	35 %	5 %	47 %
Feb.	12 %	38 %	3 %	47 %
March	7 %	42 %	10 %	41 %
April	6 %	46 %	12 %	36 %
May	9 %	42 %	13 %	36 %
June	7 %	38 %	12 %	43 %
July	7 %	46 %	11 %	36 %
Aug.	8 %	41 %	12 %	39 %
Sept.	9 %	42 %	13 %	36 %
Oct.	10 %	44 %	9 %	37 %
Nov.	9 %	44 %	13 %	34 %
Dec.	12 %	40 %	8 %	40 %
Yearly Average	9 %	42 %	10 %	39 %
Stn. Dev.	2.27	3.34	3.29	4.40
Coef. of Variation	0.25	0.08	0.33	0.11

Note: Developed from Table 2A

TABLE 5

Regional Landfill Site-Burlington (1983 & 1984)
 AVERAGE VEHICLE ARRIVALS (WEEKDAYS & SATURDAYS)

Month	Weekday		Saturday	
	1983	1984	1983	1984
January	201	184	151	164
February	183	201	146	213
March	206	202	206	245
April	269	310	397	566
May	311	332	469	506
June	331	335	461	491
July	337	337	405	414
August	315	304	395	381
September	282	255	334	418
October	272	250	401	412
November	244	245	322	344
December	198	215	213	217
Mean (average)	262	264	325	364
Standard Deviation	55	57	117	129
Coef. of Variation	0.21	0.22	0.36	0.35

Note: Developed from Tables 1 & 2

TABLE 5A

Regional Landfill Site-Burlington (1985)

AVERAGE VEHICLE ARRIVALS (WEEKDAYS & SATURDAYS)

Month	Weekday 1985	Saturday 1985
January	177	174
February	172	142
March	227	419
April	322	581
May	317	702
June	292	644
July	307	402
August	308	469
September	277	399
October	262	331
November	233	309
December	201	214
Mean (average)	258	399
Standard Deviation	55	179
Coef. of Variation	0.21	0.45

Note: Developed from Tables 1A & 2A

TABLE 6

Regional Landfill Site-Burlington (1983 & 1984)

TOTAL MONTHLY DELIVERY WEIGHTS-TONNES (WEEKDAYS & SATURDAYS)

Month	Total Weight		Total Weekday				Total Saturday			
	1983	1984	Weight	Weight	Days	Days	Weight	Weight	Days	Days
	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984
January	11169	11292	10922	11015	21	22	247	277	4	4
February	10275	12028	10037	11562	20	21	238	466	4	4
March	12546	12179	12279	11712	23	22	267	467	4	5
April	13129	15934	12437	14906	21	21	692	1028	5	4
May	18278	20359	17467	19343	22	23	811	1016	4	4
June	16689	17262	16215	16526	22	21	474	763	4	5
July	13520	15470	12956	14861	21	22	564	609	5	4
August	15577	16585	15084	15944	23	23	493	641	4	4
September	14699	15002	14225	14134	22	20	474	868	4	5
October	14262	16668	13625	15989	21	23	637	679	5	4
November	15102	16658	14588	16151	22	22	514	507	4	4
December	12085	12240	11616	11564	22	20	469	676	5	5
TOTAL	167331	181677	161451	173707	260	260	5880	7970	52	52
Mean (average)	13944	15140	13454	14476			490	664		
Standard Deviation	2304	2712	2183	2562			177	226		
Coef. of Variation	0.17	0.18	0.16	0.18			0.36	0.34		

Note: Developed from Regional Municipality of Halton Public Works Department's
'Waste Disposal Statistics'

TABLE 6A

Regional Landfill Site-Burlington (1985)

TOTAL MONTHLY DELIVERY WEIGHTS-TONNES (WEEKDAYS & SATURDAYS)

Month	Total Weight	Total Weekday	Days	Total Saturday	Days
	1985	Weight 1985		Weight 1985	
January	12398	11905	22	493	4
February	11200	10791	20	409	4
March	13739	13031	21	708	5
April	18244	17343	22	901	4
May	20103	18813	23	1290	4
June	17193	16125	20	1068	5
July	17120	16403	23	717	4
August	16632	15672	22	960	5
September	17681	16799	21	882	4
October	16167	15457	23	710	4
November	14919	14414	21	505	5
December	11733	11253	21	480	4
TOTAL	187129	178006	259	9123	52
Mean (average)	15594	14834		760	
Standard Deviation	2801	2565		269	
Coef. of Variation	0.18	0.17		0.35	

Notes: 1. Developed from Regional Municipality of Halton Public Works Department's 'Waste Disposal Statistics'.

2. Weight exported from Halton Hills is not included.

TABLE 7

Regional Landfill Site-Burlington (1983 & 1984)

AVERAGE DELIVERY WEIGHT -TONNES (WEEKDAYS & SATURDAYS)

Month	Weekday		Saturday	
	1983	1984	1983	1984
January	520	501	62	69
February	502	551	60	117
March	534	532	67	93
April	592	710	138	257
May	794	841	203	254
June	737	787	119	147
July	617	676	113	152
August	656	693	123	160
September	647	707	119	174
October	649	695	127	170
November	663	734	129	127
December	528	578	94	135
Mean (average)	620	667	113	155
Standard Deviation	90	105	40	56
Coef. of Variation	0.15	0.16	0.35	0.36

Note: Developed from Table 6

TABLE 7A

Regional Landfill Site-Burlington (1985)

AVERAGE DELIVERY WEIGHT -TONNES (WEEKDAYS & SATURDAYS)

Month	Weekday 1985	Saturday 1985
January	541	123
February	540	102
March	621	142
April	788	225
May	818	323
June	806	214
July	713	179
August	712	192
September	800	221
October	672	178
November	686	101
December	536	120
Mean- (average)	686	177
Standard Deviation	107	65
Coef. of Variation	0.16	0.37

Note: Developed from Table 6A

TABLE 8

Regional Landfill Site-Burlington (1983 & 1984)

MONTHLY % OF TOTAL YEARLY DELIVERY WEIGHT (WEEKDAYS & SATURDAYS)

Month	Weekday		Saturday	
	1983	1984	1983	1984
January	7 %	6 %	4 %	3 %
February	6 %	6 %	4 %	6 %
March	8 %	7 %	5 %	6 %
April	8 %	9 %	12 %	13 %
May	11 %	11 %	14 %	13 %
June	10 %	10 %	8 %	9 %
July	8 %	9 %	9 %	8 %
August	9 %	9 %	8 %	8 %
September	9 %	8 %	8 %	11 %
October	8 %	9 %	11 %	9 %
November	9 %	9 %	9 %	6 %
December	7 %	7 %	8 %	8 %
TOTAL	100 %	100 %	100 %	100 %
Mean (average)	8 %	8 %	8 %	8 %
Standard Deviation	1 %	2 %	3 %	3 %
Coef. of Variation	0.16	0.19	0.37	0.36

Note: Developed from Table 6

TABLE 8A

Regional Landfill Site-Burlington (1985)

MONTHLY % OF TOTAL YEARLY DELIVERY WEIGHT (WEEKDAYS & SATURDAYS)

Month	Weekday 1985	Saturday 1985
January	7 %	5 %
February	6 %	4 %
March	7 %	8 %
April	10 %	10 %
May	11 %	14 %
June	9 %	12 %
July	9 %	8 %
August	9 %	10 %
September	9 %	10 %
October	9 %	8 %
November	8 %	6 %
December	6 %	5 %
TOTAL	100 %	100 %
Mean (average)	8 %	8 %
Standard Deviation	2 %	3 %
Coef. of Variation	0.19	0.36

Note: Developed from Table 6A

TABLE 9

Regional Landfill Site-Burlington

TIME OF ARRIVALS-% OF TOTAL ARRIVALS IN TIME PERIOD (1983, WEEKDAYS)

Month	Time Period									
	8:00- 9:00	9:00- 10:00	10:00- 11:00	11:00- 12:00	12:00- 1:00	1:00- 2:00	2:00- 3:00	3:00- 4:00	4:00- 5:00	5:00- 6:00
Jan.	9.8%	12.3%	11.3%	13.0%	12.1%	13.0%	11.9%	10.2%	5.5%	0.7%
Feb.	10.7%	12.5%	11.3%	12.4%	12.8%	12.7%	11.8%	9.5%	5.7%	0.8%
March	11.0%	11.3%	12.3%	12.3%	12.4%	12.5%	10.9%	9.8%	6.0%	1.5%
April	11.1%	10.3%	10.7%	11.9%	10.6%	12.4%	11.4%	11.4%	8.2%	2.0%
May	11.4%	10.2%	11.7%	10.9%	10.9%	11.7%	11.3%	11.0%	8.1%	2.7%
June	11.1%	10.7%	11.2%	11.8%	10.1%	11.3%	11.5%	10.8%	8.9%	2.4%
July	9.8%	11.1%	11.4%	12.3%	10.7%	11.6%	11.1%	11.6%	8.0%	2.3%
Aug.	9.6%	10.7%	11.9%	11.7%	11.8%	12.2%	12.1%	10.3%	7.8%	2.0%
Sept.	9.9%	11.9%	11.3%	12.1%	10.6%	10.8%	11.3%	10.9%	8.8%	2.3%
Oct.	10.2%	11.7%	10.9%	13.0%	11.1%	12.1%	11.6%	10.7%	7.5%	1.2%
Nov.	11.2%	11.6%	12.0%	13.0%	11.1%	12.5%	10.4%	10.9%	6.5%	0.9%
Dec.	9.3%	14.5%	14.0%	15.3%	13.1%	9.9%	9.4%	9.1%	4.6%	0.7%
Avg.	10.4%	11.6%	11.7%	12.5%	11.5%	11.9%	11.2%	10.5%	7.1%	1.6%
S.D.	0.73	1.18	0.86	1.08	0.97	0.89	0.73	0.76	1.42	0.74
C.V.	0.07	0.10	0.07	0.09	0.08	0.07	0.07	0.07	0.20	0.46

Note: Developed from Reg. Municipality of Halton Public Work Department's
'Waste Disposal Statistics'

TABLE 10

Regional Landfill Site-Burlington

TIME OF ARRIVALS-% OF TOTAL ARRIVALS IN TIME PERIOD (1983, SATURDAYS)

Month	Time Period									
	8:00- 9:00	9:00- 10:00	10:00- 11:00	11:00- 12:00	12:00- 1:00	1:00- 2:00	2:00- 3:00	3:00- 4:00	4:00- 5:00	5:00- 6:00
Jan.	5.1%	6.8%	13.4%	18.7%	13.6%	15.5%	14.5%	11.6%	0.0%	0.0%
Feb.	6.2%	9.4%	15.7%	16.2%	15.0%	15.9%	10.8%	10.8%	0.0%	0.0%
March	7.8%	11.3%	11.7%	15.2%	16.0%	12.4%	16.0%	9.6%	0.0%	0.0%
April	7.5%	12.0%	16.2%	17.7%	12.8%	12.5%	11.9%	9.5%	0.0%	0.0%
May	7.9%	10.7%	12.6%	14.9%	13.3%	10.8%	11.3%	12.2%	4.9%	1.4%
June	9.4%	13.2%	13.8%	14.6%	12.3%	10.5%	10.2%	10.3%	4.6%	1.0%
July	7.7%	12.4%	16.4%	17.2%	11.3%	10.0%	10.5%	9.7%	4.2%	0.6%
Aug.	8.1%	10.6%	14.7%	17.0%	12.7%	11.9%	10.9%	8.8%	4.7%	0.7%
Sept.	7.4%	10.5%	14.9%	15.5%	13.6%	12.5%	10.1%	10.8%	4.0%	0.7%
Oct.	4.9%	11.0%	14.6%	17.7%	13.6%	13.2%	13.0%	12.1%	0.0%	0.0%
Nov.	4.7%	10.0%	14.4%	15.8%	13.5%	13.1%	15.7%	12.8%	0.0%	0.0%
Dec.	5.9%	11.0%	18.0%	22.5%	17.3%	8.9%	10.1%	6.2%	0.0%	0.0%
AVG.	6.9%	10.7%	14.7%	16.9%	13.7%	12.3%	12.1%	10.4%	1.9%	0.4%
S.D.	1.49	1.62	1.73	2.17	1.64	2.07	2.19	1.80	2.30	0.49
C.V.	0.22	0.15	0.12	0.13	0.12	0.17	0.18	0.17	1.21	1.23

Note: Developed from Reg. Municipality of Halton Public Works Department's
'Waste Disposal Statistics'

TABLE 11

Regional Landfill Site-Burlington

TIME OF ARRIVALS-% OF TOTAL ARRIVALS IN TIME PERIOD (1984, WEEKDAYS)

Month	Time Period									
	8:00- 9:00	9:00- 10:00	10:00- 11:00	11:00- 12:00	12:00- 1:00	1:00- 2:00	2:00- 3:00	3:00- 4:00	4:00- 5:00	5:00- 6:00
Jan.	9.3%	13.5%	11.3%	14.2%	11.6%	12.1%	11.3%	10.3%	5.2%	1.0%
Feb.	8.2%	13.4%	11.0%	14.9%	10.4%	12.2%	12.4%	10.4%	6.0%	0.9%
March	9.6%	13.6%	11.4%	13.3%	12.1%	11.9%	11.1%	9.9%	6.2%	1.0%
April	11.1%	11.0%	11.8%	12.3%	10.3%	12.0%	10.8%	11.5%	7.7%	1.5%
May	11.6%	10.3%	11.0%	10.8%	9.2%	11.0%	12.1%	11.8%	8.8%	3.5%
June	11.3%	11.3%	11.2%	11.2%	9.9%	10.9%	11.7%	11.3%	8.8%	2.3%
July	9.8%	10.5%	10.8%	12.4%	10.7%	11.1%	12.0%	11.9%	8.4%	2.4%
Aug.	10.2%	11.0%	11.7%	13.1%	11.1%	10.4%	12.0%	10.7%	7.8%	2.2%
Sept.	10.1%	11.5%	11.7%	12.8%	10.6%	11.1%	11.6%	11.1%	7.9%	1.6%
Oct.	10.4%	11.3%	12.4%	12.4%	10.7%	9.8%	12.3%	11.4%	7.8%	1.5%
Nov.	10.4%	11.7%	11.9%	13.3%	11.3%	11.9%	12.0%	9.8%	6.7%	0.9%
Dec.	9.4%	14.4%	13.9%	15.3%	11.1%	11.5%	11.1%	8.0%	4.7%	0.5%
AVG.	10.1%	12.0%	11.7%	13.0%	10.7%	11.3%	11.7%	10.7%	7.2%	1.6%
S.D.	0.95	1.38	0.83	1.34	0.77	0.73	0.52	1.10	1.38	0.85
C.V.	0.09	0.12	0.07	0.10	0.07	0.06	0.04	0.10	0.19	0.53

Note: Developed from Reg. Municipality of Halton Public Works Department's
'Waste Disposal Statistics'

TABLE 12

Regional Landfill Site-Burlington

TIME OF ARRIVALS-% OF TOTAL ARRIVALS IN TIME PERIOD (1984, SATURDAYS)

Month	Time Period									
	8:00- 9:00	9:00- 10:00	10:00- 11:00	11:00- 12:00	12:00- 1:00	1:00- 2:00	2:00- 3:00	3:00- 4:00	4:00- 5:00	5:00- 6:00
Jan.	5.5%	9.9	15.5%	18.1%	13.4%	12.6%	15.8%	9.1%	0.0%	0.0%
Feb.	5.4%	10.7%	14.7%	18.2%	13.1%	11.8%	13.9%	12.4%	0.0%	0.0%
March	5.5%	11.8%	15.0%	16.1%	14.4%	12.9%	13.5%	10.7%	0.0%	0.0%
April	9.2%	11.0%	15.7%	15.0%	13.3%	12.1%	12.5%	10.4%	0.7%	0.2%
May	8.5%	11.1%	13.5%	15.0%	11.7%	12.2%	10.8%	10.1%	6.0%	1.0%
June	8.6%	9.8%	13.5%	16.5%	11.7%	13.0%	10.6%	11.1%	4.3%	1.0%
July	8.1%	10.8%	15.4%	16.2%	12.4%	10.0%	10.2%	11.0%	4.9%	1.1%
Aug.	5.4%	9.7%	12.4%	17.6%	10.4%	13.4%	10.8%	12.8%	6.1%	1.4%
Sept.	5.8%	9.7%	13.7%	15.9%	11.4%	12.1%	13.2%	12.4%	5.0%	0.7%
Oct.	5.8%	8.1%	14.9%	16.7%	13.3%	13.1%	13.3%	14.8%	0.0%	0.0%
Nov.	4.8%	8.4%	13.8%	14.3%	13.9%	15.1%	13.9%	15.8%	0.1%	0.0%
Dec.	5.4%	10.1%	15.8%	19.4%	14.4%	12.2%	12.5%	9.9%	0.1%	0.0%
AVG.	6.5%	10.1%	14.5%	16.6%	12.8%	12.5%	12.6%	11.7%	2.3%	0.4%
S.D.	1.59	1.08	1.08	1.51	1.26	1.19	1.69	2.02	2.69	0.55
C.V.	0.24	0.11	0.07	0.09	0.10	0.10	0.13	0.17	1.17	1.38

Note: Developed from Reg. Municipality of Halton Public Works Department's
'Waste Disposal Statistics'

TABLE 13

Regional Landfill Site-Burlington

TIME OF ARRIVALS-% OF TOTAL ARRIVALS IN TIME PERIOD (1985, WEEKDAYS)

Month	Time Period									
	8:00- 9:00	9:00- 10:00	10:00- 11:00	11:00- 12:00	12:00- 1:00	1:00- 2:00	2:00- 3:00	3:00- 4:00	4:00- 5:00	5:00- 6:00
Jan.	9.7%	13.9%	11.2%	14.8%	11.9%	10.9%	11.3%	9.7%	5.3%	1.2%
Feb.	10.7%	13.0%	12.3%	14.9%	11.5%	11.5%	11.1%	9.9%	4.3%	0.9%
March	10.4%	11.6%	11.2%	13.7%	12.3%	12.1%	11.3%	10.0%	6.4%	1.0%
April	11.6%	11.5%	12.4%	12.6%	9.4%	11.0%	11.4%	11.0%	7.1%	2.0%
May	11.8%	10.7%	11.7%	11.8%	10.7%	11.4%	10.6%	11.0%	8.0%	2.3%
June	11.9%	11.7%	12.7%	12.3%	10.7%	10.3%	10.5%	10.7%	7.4%	1.9%
July	11.3%	11.2%	12.2%	13.2%	11.0%	10.8%	10.9%	10.0%	7.3%	2.0%
Aug.	10.4%	12.2%	11.9%	12.9%	10.5%	10.6%	11.4%	10.5%	8.0%	1.5%
Sept.	11.4%	11.7%	11.1%	11.8%	10.7%	10.4%	10.9%	10.2%	8.3%	3.4%
Oct.	10.5%	12.5%	10.6%	13.5%	10.9%	11.5%	10.9%	9.7%	7.9%	1.8%
Nov.	11.0%	12.9%	11.4%	14.5%	11.5%	10.2%	10.8%	10.6%	6.2%	0.9%
Dec.	9.5%	13.6%	13.6%	14.6%	12.8%	11.3%	10.3%	9.0%	4.7%	0.5%
AVG.	10.9%	12.2%	11.9%	13.4%	11.2%	11.0%	11.0%	10.2%	6.7%	1.5%
S.D.	0.79	0.98	0.83	1.14	0.91	0.58	0.36	0.59	1.36	0.79
C.V.	0.07	0.08	0.07	0.09	0.08	0.05	0.03	0.06	0.20	0.53

Note: Developed from Reg. Municipality of Halton Public Works Department's
'Waste Disposal Statistics'

TABLE 14

Regional Landfill Site-Burlington

TIME OF ARRIVALS-% OF TOTAL ARRIVALS IN TIME PERIOD (1985, SATURDAYS)

Month	Time Period									
	8:00- 9:00	9:00- 10:00	10:00- 11:00	11:00- 12:00	12:00- 1:00	1:00- 2:00	2:00- 3:00	3:00- 4:00	4:00- 5:00	5:00- 6:00
Jan.	5.7%	9.9%	13.8%	14.4%	12.9%	16.8%	14.7%	11.8%	0.0%	0.0%
Feb.	3.9%	11.4%	14.3%	17.8%	15.8%	12.3%	13.4%	11.1%	0.0%	0.0%
March	7.7%	11.8%	16.4%	17.2%	13.1%	11.7%	12.3%	9.7%	0.1%	0.0%
April	7.4%	11.2%	16.5%	16.4%	12.2%	12.0%	11.8%	11.0%	1.5%	0.0%
May	7.3%	10.7%	13.1%	15.4%	10.5%	11.4%	11.4%	13.9%	5.3%	1.0%
June	7.7%	12.1%	14.2%	14.8%	12.0%	11.3%	10.2%	11.1%	5.2%	1.4%
July	7.7%	8.8%	13.9%	15.4%	13.1%	11.5%	10.4%	11.6%	5.9%	1.6%
Aug.	6.8%	9.2%	14.1%	15.8%	12.4%	12.4%	11.2%	11.9%	5.0%	1.1%
Sept.	8.3%	9.3%	14.2%	13.3%	11.5%	12.5%	13.2%	12.7%	4.3%	0.9%
Oct.	5.8%	9.7%	14.2%	12.9%	13.6%	15.5%	13.3%	15.0%	0.1%	0.0%
Nov.	7.0%	10.0%	14.0%	16.1%	13.8%	13.9%	13.8%	11.5%	0.0%	0.0%
Dec.	4.6%	10.3%	15.7%	22.3%	13.6%	9.9%	11.9%	11.6%	0.0%	0.0%
AVG.	6.7%	10.4%	14.5%	16.0%	12.9%	12.6%	12.3%	11.9%	2.3%	0.4%
S.D.	1.37	1.07	1.07	2.45	1.33	1.92	1.40	1.40	2.58	0.64
C.V.	0.20	0.10	0.07	0.15	0.10	0.15	0.11	0.12	1.17	1.60

Note: Developed from Reg. Municipality of Halton Public Works Department's
'Waste Disposal Statistics'

TABLE 15

Regional Landfill Site-Burlington

AVERAGE # AND CLASSIFICATION OF ARRIVALS IN TIME PERIODS
JUNE 1983, 1984 & 1985 (WEEKDAY)

Year	Time Period										Average Day
	8-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5	5-6	
Large Trucks											
1983	17	15	17	17	16	16	15	13	9	1	136
1984	19	17	15	17	15	15	15	15	8	2	138
1985	20	17	18	20	18	16	15	15	5	1	145
P/U Trucks & Vans											
1983	15	14	12	15	10	14	15	15	15	5	130
1984	12	13	14	13	11	14	15	16	14	4	126
1985	10	11	11	9	7	8	9	9	9	2	85
Cars With Trailers											
1983	<1	1	1	1	1	1	1	1	1	1	10
1984	1	2	2	2	2	2	2	2	2	1	18
1985	<1	1	2	1	1	1	1	<1	1	<1	9
Cars Without Trailers											
1983	4	6	7	6	6	7	7	7	5	1	56
1984	5	6	6	6	5	5	7	5	5	1	51
1985	4	5	6	6	5	5	6	7	7	2	53
Average Totals For Time Period											
1983	37	36	37	39	33	38	38	36	30	8	332
1984	37	38	37	38	33	36	39	38	29	8	333
1985	35	34	37	36	31	30	31	31	22	5	292

Note: Developed from Reg. Municipality of Halton Public Works Department's
'Vehicle Survey'

TABLE 16

Regional Landfill Site-Burlington

AVERAGE # AND CLASSIFICATION OF ARRIVALS IN TIME PERIODS
JUNE 1983, 1984 & 1985 (SATURDAY)

Year	Time Period										Average Day
	8-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5	5-6	
Large Trucks											
1983	6	4	4	4	2	3	2	4	<1	0	29
1984	7	2	5	4	4	3	2	3	2	<1	33
1985	6	4	7	4	4	3	1	2	1	1	33
P/U Trucks & Vans											
1983	18	24	24	28	25	20	17	16	9	3	184
1984	17	20	27	36	23	24	23	24	11	1	206
1985	15	24	25	29	24	25	22	21	11	<1	196
Cars With Trailers											
1983	4	10	9	10	10	7	5	8	3	<1	66
1984	4	7	11	11	7	8	7	6	2	1	64
1985	5	9	9	7	7	7	8	6	3	<1	61
Cars Without Trailers											
1983	15	24	27	26	19	19	23	19	9	2	183
1984	12	19	24	31	23	29	20	22	7	2	189
1985	14	26	32	36	26	22	24	28	12	5	225
Average Totals For Time Period											
1983	43	62	64	68	56	49	47	47	21	5	462
1984	40	48	67	82	57	64	52	55	22	5	492
1985	40	63	73	76	61	57	55	57	27	6	515

Note: Developed from Reg. Municipality of Halton Public Works Department's
'Vehicle Survey'

TABLE 17

Regional Landfill Site-Burlington (1983, 1984 & 1985)
 AVERAGE ARRIVAL DISTRIBUTION (WEEKDAYS)

Period	% Of Total Weekday Arrivals In Period			Mean	S.D.	C.V.
	1983	1984	1985			
8:00-9:00	10.4 %	10.1 %	10.9 %	10.5 %	0.40	0.04
9:00-10:00	11.6 %	12.0 %	12.2 %	11.9 %	0.31	0.03
10:00-11:00	11.7 %	11.7 %	11.9 %	11.8 %	0.12	0.01
11:00-12:00	12.5 %	13.0 %	13.4 %	13.0 %	0.45	0.03
12:00-1:00	11.5 %	10.7 %	11.2 %	11.1 %	0.40	0.04
1:00-2:00	11.9 %	11.3 %	11.0 %	11.4 %	0.46	0.04
2:00-3:00	11.2 %	11.7 %	11.0 %	11.3 %	0.36	0.03
3:00-4:00	10.5 %	10.7 %	10.2 %	10.5 %	0.25	0.02
4:00-5:00	7.1 %	7.2 %	6.7 %	7.0 %	0.26	0.04
5:00-6:00	1.6 %	1.6 %	1.5 %	1.6 %	0.06	0.04
TOTAL	100 %	100 %	100 %			

Note: Developed from Tables 9, 11 & 13

TABLE 18

Regional Landfill Site-Burlington (1983, 1984 & 1985)
AVERAGE ARRIVAL DISTRIBUTION (SATURDAYS)

Period	% Of Total Weekday Arrivals In Period			Mean	S.D.	C.V.
	1983	1984	1985			
8:00-9:00	6.9 %	6.5 %	6.7 %	6.7 %	0.20	0.03
9:00-10:00	10.7 %	10.1 %	10.4 %	10.4 %	0.30	0.03
10:00-11:00	14.7 %	14.5 %	14.5 %	14.6 %	0.12	0.01
11:00-12:00	16.9 %	16.6%	16.0 %	16.5 %	0.46	0.03
12:00-1:00	13.7 %	12.8 %	12.9 %	13.1 %	0.49	0.04
1:00-2:00	12.3 %	12.5 %	12.6 %	12.5 %	0.15	0.01
2:00-3:00	12.1 %	12.6 %	12.3 %	12.3 %	0.25	0.02
3:00-4:00	10.4 %	11.7 %	11.9 %	11.3 %	0.81	0.07
4:00-5:00	1.9 %	2.3 %	2.3 %	2.1 %	0.23	0.11
5:00-6:00	0.4 %	0.4 %	0.4 %	0.4 %	0.00	0.00
TOTAL	100 %	100 %	100 %			

Note: Developed from Tables 10, 12 & 14

TABLE 19

Regional Landfill Site-Burlington

VEHICLE/WEIGHT RELATIONSHIPS (WEEKDAYS-1983, 1984 & 1985)

Month	Average # of Tonnes Per Vehicle					
	1983	1984	1985	Mean	S.D.	C.V.
January	2.57	2.72	3.06	2.78	0.25	0.09
February	2.74	2.74	3.14	2.87	0.23	0.08
March	2.59	2.64	2.73	2.65	0.23	0.09
April	2.20	2.29	2.45	2.31	0.13	0.06
May	2.56	2.53	2.58	2.56	0.03	0.01
June	2.23	2.35	2.76	2.45	0.28	0.11
July	1.83	2.01	2.32	2.05	0.25	0.12
August	2.08	2.28	2.31	2.22	0.13	0.06
September	2.29	2.78	2.88	2.55	0.25	0.10
October	2.39	2.78	2.57	2.58	0.20	0.08
November	2.71	3.00	2.94	2.88	0.15	0.05
December	2.66	2.68	2.66	2.67	0.01	0.00
MEAN	2.40	2.57	2.70	2.55	0.17	
S.D.	0.28	0.28	0.27	0.26	0.09	
C.V.	0.12	0.11	0.10			

Note: Developed from Tables 1, 1A, 6 & 6A

TABLE 20

Regional Landfill Site-Burlington

VEHICLE/WEIGHT RELATIONSHIPS (SATURDAYS-1983, 1984 & 1985)

Month	Average # of Tonnes Per Vehicle					
	1983	1984	1985	Mean	S.D.	C.V.
January	0.41	0.42	0.71	0.51	0.17	0.33
February	0.41	0.55	0.72	0.56	0.16	0.29
March	0.32	0.38	0.42	0.37	0.05	0.14
April	0.35	0.45	0.39	0.40	0.05	0.13
May	0.43	0.50	0.46	0.46	0.04	0.09
June	0.26	0.31	0.41	0.33	0.08	0.24
July	0.28	0.37	0.45	0.37	0.09	0.24
August	0.31	0.42	0.51	0.41	0.10	0.24
September	0.36	0.41	0.55	0.44	0.10	0.23
October	0.32	0.41	0.54	0.42	0.11	0.26
November	0.40	0.37	0.41	0.39	0.02	0.05
December	0.44	0.62	0.56	0.54	0.09	0.17
MEAN	0.36	0.43	0.51	0.43	0.09	
S.D.	0.06	0.09	0.11	0.07	0.05	
C.V.	0.17	0.21	0.22			

Note: Developed from Tables 2, 2A, 6 & 6A

TABLE 21

Regional Landfill Site-Burlington (1983, 1984 & 1985)

TIME OF ARRIVALS - DISTRIBUTION BY VEHICLE CLASSIFICATION
TYPICAL WEEKDAY (June)

Period	Large Trucks	P/U Trucks & Vans	Cars With Trailers	Cars	Total
8:00-9:00	53 %	33 %	3 %	11 %	100 %
9:00-10:00	44 %	36 %	3 %	17 %	100 %
10:00-11:00	46 %	33 %	5 %	16 %	100 %
11:00-12:00	49 %	32 %	3 %	16 %	100 %
12:00-1:00	52 %	29 %	3 %	16 %	100 %
1:00-2:00	46 %	34 %	3 %	17 %	100 %
2:00-3:00	42 %	36 %	3 %	19 %	100 %
3:00-4:00	41 %	38 %	3 %	18 %	100 %
4:00-5:00	26 %	48 %	4 %	22 %	100 %
5:00-6:00	14 %	58 %	14 %	14 %	100 %
Daily Avg.	41 %	38 %	4 %	17 %	100 %
Stan. Dev.	12.2	8.8	3.4	2.9	
Co. of Var.	0.30	0.23	0.85	0.17	

If the records of the 2 periods between 4:00 & 6:00 are excluded, the following values result:

Daily Avg.	47 %	34 %	3 %	16 %	100 %
Stan. Dev.	4.4	2.8	0.7	2.4	
Co. of Var.	0.09	0.08	0.22	0.17	

Note: Developed from Table 15

TABLE 22

Regional Landfill Site-Burlington (1983, 1984 & 1985)

TIME OF ARRIVALS - DISTRIBUTION BY VEHICLE CLASSIFICATION
TYPICAL SATURDAY (June)

Period	Large Trucks	P/U Trucks & Vans	Cars With Trailers	Cars	Total
8:00-9:00	15 %	41 %	10 %	34 %	100 %
9:00-10:00	5 %	40 %	15 %	40 %	100 %
10:00-11:00	7 %	37 %	15 %	41 %	100 %
11:00-12:00	5 %	41 %	12 %	42 %	100 %
12:00-1:00	5 %	41 %	14 %	40 %	100 %
1:00-2:00	5 %	41 %	13 %	41 %	100 %
2:00-3:00	4 %	40 %	14 %	42 %	100 %
3:00-4:00	6 %	38 %	13 %	43 %	100 %
4:00-5:00	4 %	44 %	13 %	39 %	100 %
5:00-6:00	14 %	29 %	14 %	43 %	100 %
Day Avg.	7 %	39 %	13 %	41 %	100 %
Stan. Dev.	4.0	4.0	1.5	2.6	
Co. of Var.	0.57	0.10	0.11	0.06	

Note: Developed from Table 16

TABLE 23

ESTIMATED WASTE DISTRIBUTION BY ZONE (LANDFILL WASTE)-TONNES

Municipality	Waste Zone	1988 Waste (4 months)	1996 Waste (12 months)	2008 Waste (8 months)
1.Burlington	North-West	1250	3400	800
2.Burlington	South	24650	66600	30700
3.Burlington	North	650	1700	800
4.Oakville	North-West	50	350	800
5.Oakville	South	22150	57700	25850
6.Oakville	North-East	1200	6850	4850
7.Milton	South	4450	11950	5650
8.Milton	North	1250	1700	1600
9.Halton Hills	West	1900	5100	2400
10.Halton Hills	East	5700	15300	7250
TOTAL		63250	170650	80700
AVERAGE PER MONTH		15800	14200	10100

- Notes: 1. Weights shown are based on the "most probable" waste quantities and do not include any contingencies.
2. The waste distribution is based on the projected landfill waste only. Wastes to be handled from an Energy From Waste facility are not included.

Source: C.N. Watson & Associates Limited

PUBLIC WORKS DEPARTMENT
VEHICLE SURVEY (NO. 1) FOR WEDNESDAY, JUNE 26, 1935

NUMBER OF VEHICLES - BURLINGTON LANDFILL SITE

TIME INTERVAL	LARGE TRUCK	P/U TRUCK	VAN OR SMALL VEHICLE	CAR WITH TRAILER	CAR WITHOUT TRAILER			TOTAL
12:00 - 12:14	4	1	0	0	1	0	0	6
12:15 - 12:29	0	1	0	1	0	0	0	8
12:30 - 12:44	0	1	0	0	1	0	0	8
12:45 - 12:59	4	0	1	0	0	0	0	5
1:00 - 1:14	6	0	0	0	1	0	0	7
1:15 - 1:29	4	1	0	0	1	0	0	6
1:30 - 1:44	4	1	0	0	1	0	0	6
1:45 - 1:59	4	1	0	0	4	0	0	10
2:00 - 2:14	4	2	0	0	1	0	0	7
2:15 - 2:29	1	1	2	2	1	0	0	7
2:30 - 2:44	2	1	0	0	1	0	0	4
2:45 - 2:59	2	0	2	0	0	0	0	4
3:00 - 3:14	6	1	0	0	0	0	0	7
3:15 - 3:29	0	0	1	0	2	0	0	3
3:30 - 3:44	3	0	2	1	0	0	0	6
3:45 - 3:59	2	0	3	0	1	0	0	6
4:00 - 4:14	0	2	0	0	1	0	0	3
4:15 - 4:29	1	2	1	1	1	0	0	6
4:30 - 4:44	1	1	0	0	1	0	0	3
4:45 - 4:59	1	3	2	0	2	0	0	8
5:00 - 5:14	1	0	1	0	3	0	0	5
5:15 - 5:29	0	0	0	1	2	0	0	3
TOTAL	140	40	27	7	38	0	0	262

AUTOMOBILES
WITHOUT TRAILER

OTHER
VEHICLES

PEAK 15 MIN: 1:45 - 1:59 3:00 - 3:14
LOW 15 MIN: 2:00 - 2:14 3:15 - 3:29

AVERAGE: 7 VEHICLES PER 15 MINUTE INTERVAL

85/08/06

REGIONAL MUNICIPALITY OF HALTON

PAGE NO: 1

PUBLIC WORKS DEPARTMENT

VEHICLE SURVEY (NO. 2) FOR JULY , 1985

NUMBER OF VEHICLES - BURLINGTON LANDFILL SITE

DATE	DAY OF THE WEEK	LARGE TRUCK	P/U TRUCK	VAN OR SMALL VEHICLE	CAR WITH TRAILER	CAR WITHOUT TRAILER	TOTAL
1	MON	18	39	6	15	80	158
2	TUE	163	42	37	12	81	335
3	WED	138	55	30	2	54	279
4	THU	143	59	35	11	59	307
5	FRI	150	50	32	5	67	304
6	SAT	41	117	60	31	158	407
7	MON	129	46	45	16	67	303
8	TUE	145	57	43	5	35	285
9	WED	136	34	18	4	51	243
10	THU	133	86	52	30	70	371
11	FRI	130	53	67	28	0	278
12	SAT	27	157	51	50	142	427
13	MON	109	68	47	15	55	294
14	TUE	143	80	62	10	67	362
15	WED	127	85	52	19	57	340
16	THU	138	72	45	19	53	327
17	FRI	114	85	49	26	67	341
18	SAT	16	125	60	52	114	369
19	MON	127	79	43	18	72	339
20	TUE	120	67	32	15	58	292
21	WED	138	51	33	10	80	312
22	THU	130	57	50	10	47	294
23	FRI	122	55	64	10	58	309
24	SAT	23	126	49	43	162	403
25	MON	134	56	66	26	67	349
26	TUE	127	94	45	26	53	345
27	WED	119	65	44	20	57	305

TOTAL	3,040	1,960	1,217	528	1,933	0	8,678
	1,933	1,217	528	1,933	0	0	7,072
	1,107	743	689	595	933	0	1,606

AVERAGE NO. OF VEHICLES PER DAY, MONDAY TO FRIDAY: 307
 AVERAGE NO. OF VEHICLES PER DAY, SATURDAYS: 402

85/08/06

REGIONAL MUNICIPALITY OF HALTON
PUBLIC WORKS DEPARTMENT
VEHICLE SURVEY (NO. 3) FOR JULY , 1985

PAGE NO: 1

NUMBER OF VEHICLES - BURLINGTON LANDFILL SITE																																		
DATE		1	2	3	4	5	6	8	9	10	11	12	13	15	16	17	18	19	20	22	23	24	25	26	27	29	30	31	TOTAL					
DAY		MON	TUE	WED	THU	FRI	SAT	MON	TUE	WED	THU	FRI	SAT	MON	TUE	WED	THU	FRI	SAT	MON	TUE	WED	THU	FRI	SAT	MON	TUE	WED						
8:00 -	8:14	4	10	13	13	22	7	11	13	11	12	11	9	11	11	18	16	17	11	10	12	11	27	18	8	10	18	17	353					
8:15 -	8:29	3	7	7	9	4	4	4	7	4	9	3	6	5	5	11	10	9	2	7	1	9	6	3	5	11	8	6	165					
8:30 -	8:44	5	8	9	12	7	8	5	3	3	6	1	6	5	7	8	7	14	5	6	2	6	9	3	5	10	10	10	180					
8:45 -	8:59	3	6	7	9	6	<u>20</u>	8	9	6	7	7	<u>6</u>	7	11	5	7	9	<u>7</u>	8	7	4	10	12	<u>15</u>	7	9	11	223					
						<u>39</u>							<u>27</u>						<u>25</u>					<u>35</u>				124	797	921				
9:00 -	9:14	4	17	6	8	17	13	7	5	7	5	11	8	3	4	3	10	8	7	13	11	3	6	8	6	13	4	11	218					
9:15 -	9:29	6	13	8	5	6	17	4	7	7	8	6	7	5	13	9	12	4	11	14	2	10	5	10	5	6	7	9	216					
9:30 -	9:44	5	7	5	9	6	7	10	6	10	11	5	7	15	13	11	11	7	6	8	13	8	9	8	6	6	4	6	219					
9:45 -	9:59	8	11	10	11	10	<u>11</u>	6	11	3	10	10	<u>9</u>	15	7	13	8	22	<u>13</u>	11	13	11	9	12	<u>9</u>	12	8	11	284					
						<u>40</u>							<u>31</u>						<u>37</u>					<u>26</u>				142	795	937				
10:00 -	10:14	1	11	13	5	11	12	8	7	7	9	7	12	6	10	5	12	14	18	4	10	13	12	12	18	9	20	6	272					
10:15 -	10:29	10	6	14	10	7	28	5	6	10	10	5	13	9	8	6	3	8	8	9	11	10	7	9	11	12	15	10	260					
10:30 -	10:44	7	7	7	10	16	13	9	8	10	11	7	14	11	7	14	10	7	9	15	9	5	8	14	13	9	16	15	281					
10:45 -	10:59	3	20	12	7	6	<u>11</u>	3	9	7	13	7	<u>15</u>	6	13	13	11	11	<u>23</u>	9	13	5	10	6	<u>6</u>	13	9	11	272					
						<u>64</u>							<u>54</u>						<u>58</u>					<u>40</u>				224	861	1085				
11:00 -	11:14	4	8	13	16	11	18	17	8	9	16	8	15	10	20	15	6	6	18	11	9	14	5	8	14	14	13	10	316					
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11:45 -	11:59	4	10	7	5	10	<u>20</u>	13	12	6	13	11	<u>22</u>	6	13	9	9	14	<u>11</u>	12	9	6	11	11	<u>12</u>	12	8	17	293					
						<u>66</u>							<u>60</u>						<u>57</u>					<u>56</u>				247	936	1183				

737 3389 A126

85/08/06

REGIONAL MUNICIPALITY OF HALTON
PUBLIC WORKS DEPARTMENT
VEHICLE SURVEY (NO. 3) FOR JULY , 1985

PAGE NO: 2

NUMBER OF VEHICLES - BURLINGTON LANDFILL SITE

DATE DAY	1 MON	2 TUE	3 WED	4 THU	5 FRI	6 SAT	8 MON	9 TUE	10 WED	11 THU	12 FRI	13 SAT	15 MON	16 TUE	17 WED	18 THU	19 FRI	20 SAT	22 MON	23 TUE	24 WED	25 THU	26 FRI	27 SAT	29 MON	30 TUE	31 WED	TOTAL
12:00 - 12:14	4	11	10	9	5	12	10	10	2	10	8	15	10	13	14	13	17	15	12	7	9	5	11	15	13	7	10	277
12:15 - 12:29	3	5	8	9	5	15	8	3	8	12	12	19	9	9	12	11	9	9	8	7	12	5	11	15	13	7	10	253
12:30 - 12:44	6	11	7	7	6	11	9	7	10	7	10	15	4	12	13	11	9	9	6	8	10	6	8	11	13	13	10	231
12:45 - 12:59	6	6	8	7	7	12	8	4	9	8	7	16	4	9	12	6	8	12	8	7	6	4	12	9	10	13	9	227
						<u>50</u>						<u>65</u>						<u>45</u>						<u>50</u>				210 770 900
1:00 - 1:14	11	3	2	8	13	16	2	8	7	16	8	16	9	14	6	4	6	8	8	11	5	8	12	10	6	13	12	242
1:15 - 1:29	3	4	10	7	5	13	9	9	7	10	9	13	7	9	13	8	10	12	5	8	12	8	8	11	16	8	7	241
1:30 - 1:44	4	10	4	9	11	9	7	3	5	6	5	10	9	5	12	18	5	12	4	8	9	6	8	8	5	12	6	208
1:45 - 1:59	9	12	3	14	9	13	10	11	12	12	7	13	12	7	11	13	10	10	5	6	8	4	4	11	13	10	11	260
						<u>51</u>						<u>52</u>						<u>42</u>						<u>40</u>				185 766 951
2:00 - 2:14	10	7	7	5	4	5	10	5	5	14	10	6	8	11	9	9	13	9	11	6	12	9	9	10	16	11	9	240
2:15 - 2:29	2	10	6	7	4	5	13	10	3	7	9	8	12	12	5	9	9	9	12	10	7	3	8	10	12	5	6	213
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2:45 - 2:59	0	5	8	12	8	5	10	10	5	11	11	14	14	7	13	9	7	14	11	7	8	10	9	26	11	9	6	260
						<u>20</u>						<u>42</u>						<u>42</u>						<u>63</u>				167 774 941
3:00 - 3:14	3	9	7	6	13	6	7	4	12	17	7	18	7	11	8	10	9	7	10	8	8	6	12	7	7	10	7	236
3:15 - 3:29	2	8	6	8	6	9	9	10	5	15	10	14	2	9	6	9	11	16	5	8	8	7	6	13	5	6	2	220
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3:45 - 3:59	7	9	6	4	5	12	5	7	5	10	6	10	10	10	8	4	5	7	12	5	4	9	10	10	4	5	5	199
						<u>43</u>						<u>52</u>						<u>46</u>						<u>44</u>				186 709 895
4:00 - 4:14	2	12	12	3	4	5	8	5	3	9	4	10	7	8	6	4	8	2	3	7	8	4	11	7	7	5	2	166
4:15 - 4:29	0	11	5	8	4	9	8	6	9	10	7	11	6	5	3	4	5	4	9	5	8	9	1	5	3	9	3	169
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4:45 - 4:59	2	6	1	4	4	6	6	10	5	5	6	5	1	11	3	4	5	3	8	7	4	5	3	5	6	6	1	132
						<u>24</u>						<u>32</u>						<u>15</u>						<u>24</u>				95 911 613
5:00 - 5:14	0	3	5	4	4	2	6	2	0	1	7	2	1	5	6	7	2	1	2	2	6	2	2	12	3	6	7	101
5:15 - 5:29	1	1	0	3	4	0	4	2	1	5	5	2	3	3	0	5	1	1	5	3	6	1	2	2	3	6	7	101
						<u>2</u>						<u>2</u>						<u>2</u>						<u>19</u>				26 136 64
TOTAL	158	335	279	307	304	407	303	285	243	371	278	427	294	362	340	327	341	369	339	292	312	294	309	403	349	345	305	8,678

PEAK 15 MIN: 8:00 - 8:14
LOW 15 MIN: 5:15 - 5:29

8,678

86/01/07

REGIONAL MUNICIPALITY OF HALTON

PAGE NO: 1

PUBLIC WORKS DEPARTMENT

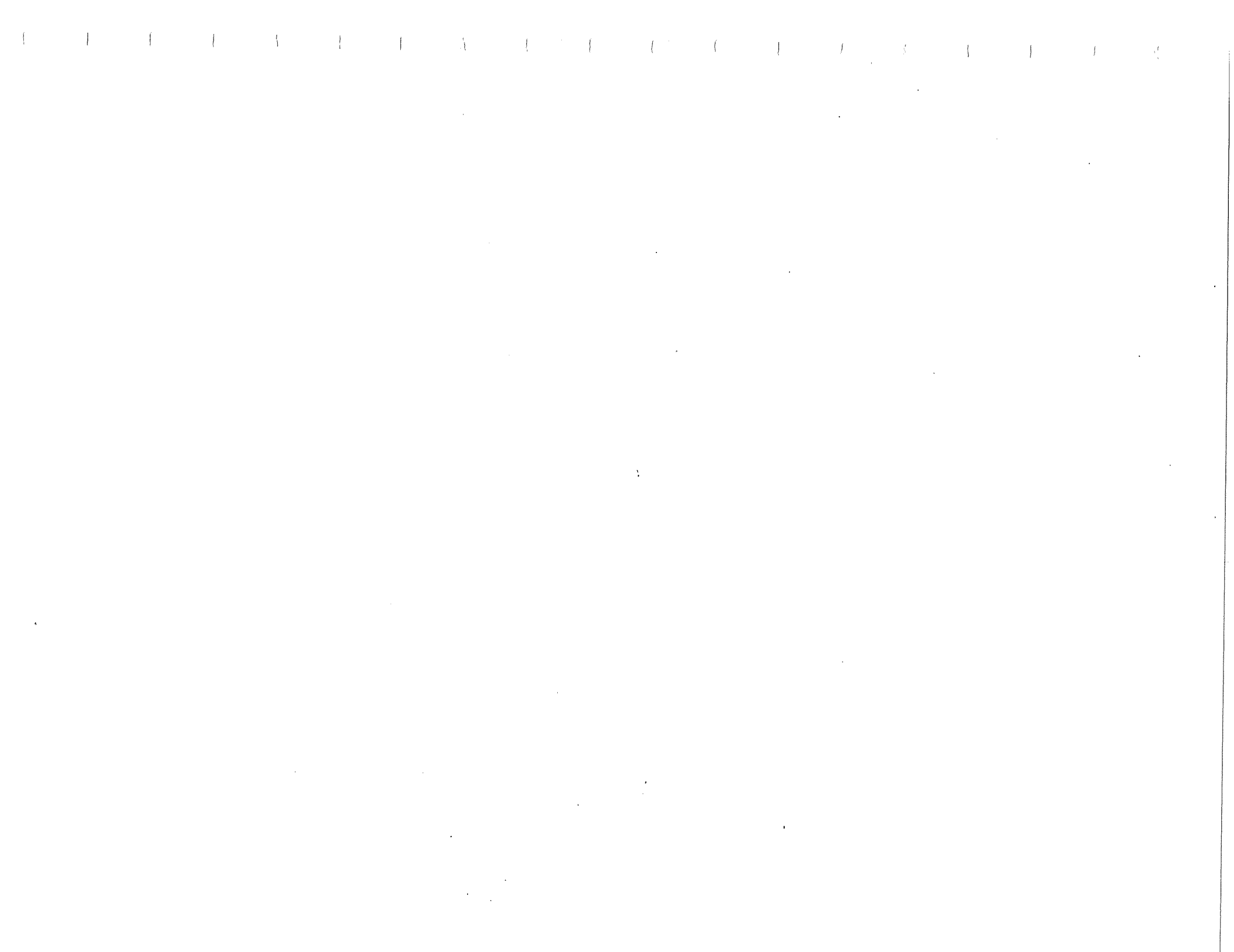
WASTES DISPOSAL STATISTICS (NO. 1) FOR 1985

QUANTITIES OF WASTES - METRIC TONNE - BURLINGTON LANDFILL SITE

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
01	0	596	645	594	866	254	142	625	0	720	746	0	5,188
02	751	97	147	753	830	0	941	611	180	663	122	628	5,723
03	653	0	0	606	854	773	810	157	1,038	647	0	558	6,096
04	652	419	154	700	299	879	781	0	831	693	600	488	6,496
05	230	599	641	204	0	847	838	186	743	111	760	623	5,782
06	0	445	492	188	885	814	284	776	842	0	672	645	6,043
07	530	487	545	0	902	792	0	618	354	759	651	97	5,735
08	596	536	676	633	883	247	723	691	0	687	643	0	6,315
09	543	57	143	881	919	0	788	772	752	624	87	650	6,216
10	481	0	0	758	998	783	767	345	811	652	0	623	6,228
11	578	464	716	741	316	826	742	0	715	618	618	550	6,884
12	90	240	654	739	0	878	731	594	809	202	650	559	6,146
13	0	535	695	201	804	756	137	713	745	0	659	539	5,784
14	552	563	605	0	888	759	0	626	203	148	614	80	5,038
15	596	541	627	818	822	174	647	703	0	857	611	0	6,396
16	435	117	178	935	815	0	785	663	764	708	113	534	6,047
17	548	0	0	944	799	818	694	151	775	732	0	531	5,992
18	527	492	749	851	215	822	707	0	779	730	843	501	7,216
19	85	516	775	800	0	774	715	799	737	797	797	545	6,823
20	0	581	643	242	164	754	141	895	742	0	785	489	5,416
21	307	506	543	0	1,014	733	0	785	150	659	811	76	5,584
22	500	557	644	831	926	192	728	773	0	707	692	0	6,560
23	514	138	138	1,084	311	0	710	730	940	680	98	552	6,395
24	344	0	0	930	840	777	745	136	1,030	630	0	451	6,083
25	545	666	587	915	460	852	697	0	908	623	746	0	6,999
26	88	832	675	885	0	766	686	862	1,019	117	683	105	6,718
27	0	626	642	270	680	933	155	825	931	0	641	731	6,434
28	445	600	553	0	889	789	0	778	175	765	608	0	5,702
29	571	0	570	850	716	201	734	856	0	769	584	0	5,951
30	481	0	102	891	756	0	636	791	708	686	85	610	5,746
31	550	0	0	0	752	0	656	171	0	690	0	568	3,393
TOTAL	12,398	11,200	13,739	18,244	20,103	17,193	17,120	16,632	17,681	16,167	14,919	11,733	187,129
WEEKENDS	11,905	10,791	13,031	17,313	18,813	16,125	16,403	15,672	16,799	15,457	14,414	11,253	178,006
WEEKDAYS	493	409	708	931	1,290	1,068	717	960	882	710	505	480	9,123
AVERAGE WEIGHT, MONDAY TO FRIDAY:	509												
AVERAGE WEIGHT, SATURDAYS:	165												

* Week - total tonnage disposed, 1985
 * Week - total tonnage disposed, 1985

11-11-85



APPENDIX B

LANDFILL CUSTOMER SURVEY

INTERVIEW SUMMARIES

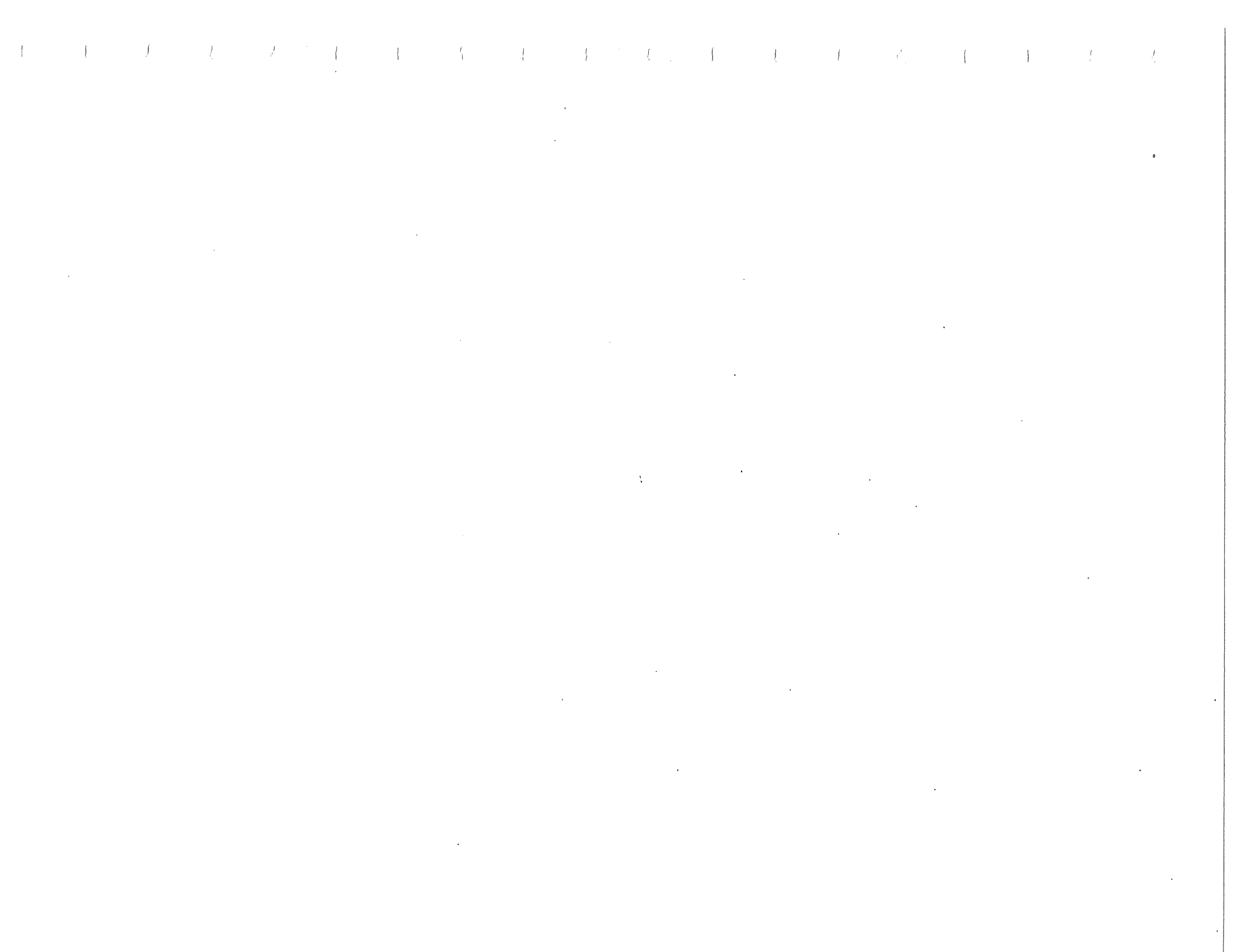
BACKGROUND-LANDFILL CUSTOMER SURVEY

Appendix B contains a summary of interviews conducted with area municipalities and haulage companies operating within Halton. Section 5.2 of this report contains a discussion of this information.

The following interview summaries are provided herein:

- 1.City of Burlington
- 2.Laidlaw Waste Systems Limited
- 3.Town of Oakville
- 4.Industrial Disposal, Hamilton
- 5.Leferink Disposala Limited
- 6.Town of Milton
- 7.Leaver Mushrooms
- 8.Tricil Limited
- 9.Town of Halton Hills.

The answers to questions and general comments that have been summarized are the responses of the person interviewed.



REGIONAL MUNICIPALITY OF HALTON

LANDFILL TECHNICAL STUDY - TRANSPORTATION ASSESSMENT

LANDFILL CUSTOMER SURVEY

NAME OF CUSTOMER: CITY OF BURLINGTON
PERSON INTERVIEWED: MR. R. DAVY
POSITION/TITLE OF
PERSON INTERVIEWED: ASSISTANT DIRECTOR OF PUBLIC WORKS
INTERVIEWER: H. VAN BEILEN
DATE OF INTERVIEW: OCTOBER 2, 1985

Giffels Associates Ltd.

CITY OF BURLINGTON (Cont'd)

4. How do you expect the pick-up areas/sources of waste to change in the future? Are there any trends apparent?
 - WILL EXPAND TO ACCOMMODATE GROWTH WITHIN THE CITY.
 - SIGNIFICANT RESIDENTIAL DEVELOPMENT IS PLANNED IN THE MAPLE, HEADON AND ROSE COMMUNITIES (SEE MAP).
 - GROWTH IN THE SHELL INDUSTRIAL AREA ON THE WEST SIDE OF BURLOAK IS ALSO EXPECTED.

B. EXISTING HAULAGE CHARACTERISTICS TO THE PRESENT LANDFILL SITE

1. What is the principal route of travel from your major customers/ collection areas to the existing landfill site in Burlington?
 - 3 GENERAL ROUTES.
 - (1) FROM EAST OF WALKERS LINE TRUCKS USE EITHER WALKERS LINE OR APPLEBY LINE TO THE QEW TO PLAINS RD. TO BRANT ST. TO N. SERVICE ROAD TO THE SITE.
 - (2) FROM BETWEEN WALKERS LINE AND BRANT ST. TRUCKS USE FAIRVIEW TO BRANT ST. TO N. SERVICE RD. TO THE SITE.
 - (3) FROM BRANT ST. WEST, 90% OF THE TIME TRUCKS USE PLAINS RD. TO KING RD. TO N. SERVICE RD. TO SITE - 10% OF THE TIME TRUCKS USE WATERDOWN TO N. SERVICE RD. TO SITE.
2. How flexible are the drivers' routes? Are they left up to the individual or are they instructed to use a specific route?
 - DRIVERS ROUTES ARE FAIRLY CONSTANT - TRY TO USE THE HIGHER SPEED ROADS TO GET TO AND FROM THE SITE - INCLUDES THE QEW WHERE POSSIBLE.
3. Are there any problems, difficulties or concerns with existing roads that are used as haulage routes? Any safety concerns? (e.g. road and intersection conditions, area of traffic congestion, pedestrian conflicts). Do you have any comments about possible changes that could improve haulage conditions to the existing landfill site? (road improvements, signing, speed limits, on-site conditions, etc.)
 - NO PROBLEMS ON THE ROADS PRESENTLY USED.

CITY OF BURLINGTON (Cont'd)

4. Is the return route from the landfill site essentially the same as the arrival route?
 - SAME.
5. What is the average trip time from the last pick-up location to the landfill site along the major haulage route? What are the average speeds of travel?
 - VARIES CONSIDERABLY - DRIVERS OBEY POSTED SPEED LIMITS.
 - GENERALLY ABOUT 15 MINUTES FROM WEST BURLINGTON.
 - AS HIGH AS 40 MINUTES FROM EAST BURLINGTON.
6. What is the average manoeuvre/dump time at the landfill site?
0-5 min.(); 5-10 min. (); 10-15 min. (X);
greater than 15 min. ()
7. What type(s) of vehicle(s) is used to haul waste? Do you have information on gas usage (ie. miles/gallon)? What is the average load size? How many people per vehicle? Diesel or gas vehicles? Do trucks have back-up warning signals? Do trucks have tailgates?
 - REAR-END PACKERS.
 - 9-10 LITRE/HR.
 - 8 TONNES/LOAD.
 - ALL DIESEL.
 - ALL HAVE BACK-UP SIGNALS.
 - TAILGATES ARE HYDRAULICALLY OPERATED - NOISE MAY OCCUR FROM ENGINE REVING.
8. Where are the haulage vehicles stored at the end of the day?
 - STORED AT CONTRACTORS YARD ON BROCKLEY DR. IN STONEY CREEK.
 - TAKE N. SERVICE RD. TO KING TO PLAINS TO QEW SOUTH.

CITY OF BURLINGTON (Cont'd)

9. How many individual vehicle trips do you average per day? week? month? year?
 - EACH VEHICLE BRINGS 3 LOADS/DAY (VERY RARELY CHANGES) - 7 VEH. MONDAY, 6 VEH. TUESDAY, 5 VEH. WEDNESDAY, 6 VEH. THURSDAY, 6 VEH. FRIDAY - 90 TRIPS/WEEK, 390 TRIPS/MONTH, 4680 TRIPS/YEAR.
10. Any general comments with respect to hauling waste to the existing landfill site in Burlington? (eg. safety, convenience, trends).
 - NO COMMENTS.

C. WASTE HAULAGE ASPECTS - SITE D

1. Do you have any general concerns or comments regarding haulage of waste to a landfill site located at Site D?
 - BECAUSE OF LONGER DISTANCE, COSTS WILL LIKELY BE HIGHER - IT IS POSSIBLE THAT AN ADDITIONAL TRUCK WOULD BE REQUIRED BECAUSE THE LONGER DUMP TIME WOULD TAKE AWAY FROM THE COLLECTION TIME.
 - BECAUSE OF LIMITED ROAD CROSSINGS OVER BRONTE CREEK, HWY.5 AND Q.E.W. WOULD LIKELY BE THE PRIMARY E-W ROUTES TO HWY. 25.

D. WASTE HAULAGE ASPECTS - SITE F

1. Do you have any general concerns regarding haulage of waste to a landfill site located at Site F?
 - NO TRANSPORTATION RELATED CONCERNS BECAUSE THE SITE IS BESIDE THE EXISTING LANDFILL OPERATION.

E. GENERAL

1. How would you feel about the establishment by the Region of specific, designated haulage routes?
 - NO PROBLEMS IN PRINCIPLE - HOWEVER, RESTRICTING TRAFFIC FROM CERTAIN ROADS SUCH AS BRANT STREET WOULD IMPOSE MORE CIRCUITOUS AND THEREFORE MORE TIME CONSUMING ROUTES FOR LOADED VEHICLES.

CITY OF BURLINGTON (Cont'd)

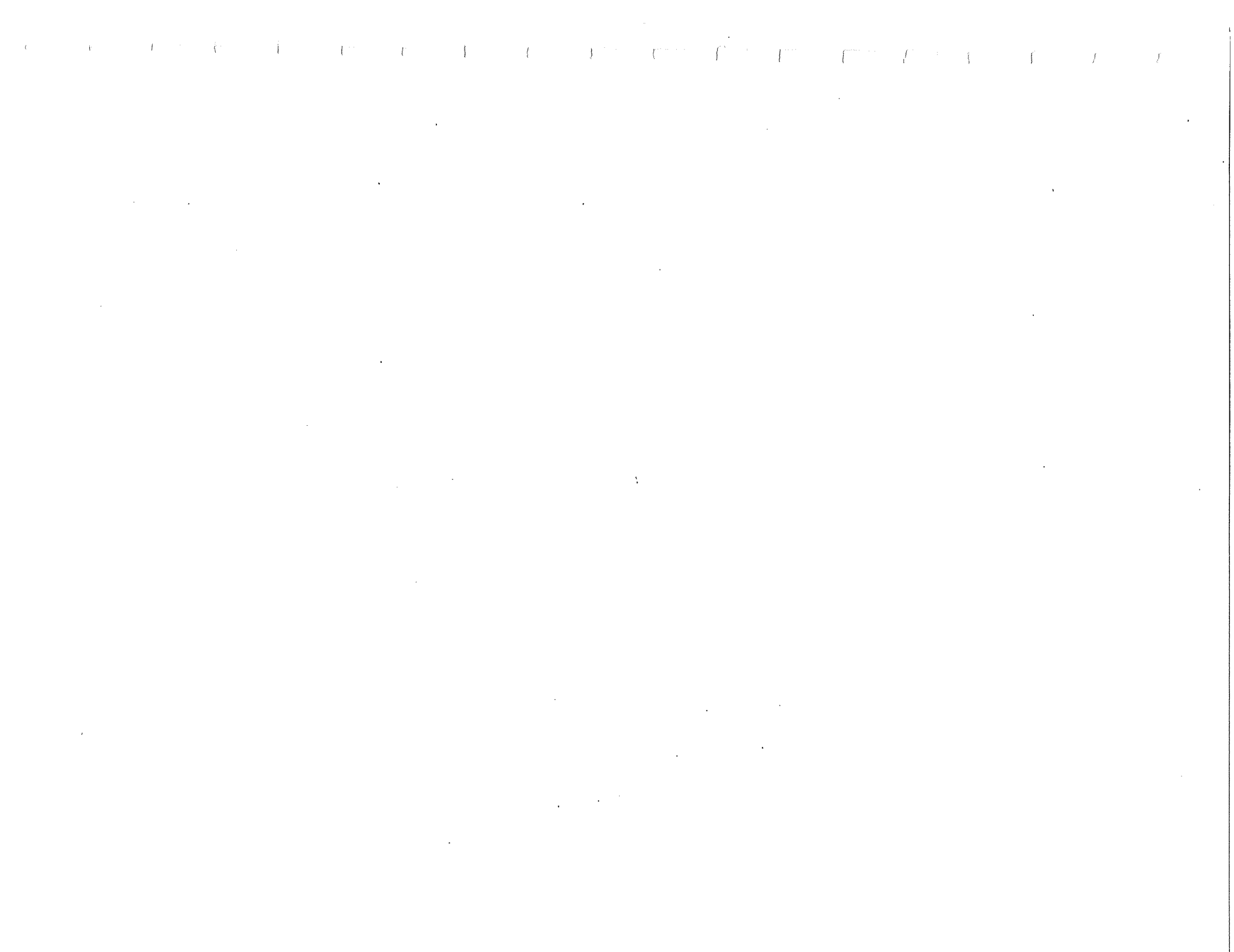
2. The existence of transfer stations and container stations in the Region influences haulage characteristics and travel patterns. Do you have any general (or specific) comments regarding the use of container stations or transfer stations?

- CONTAINER STATIONS IN THE CITY WOULD HAVE NO ADVANTAGE FOR SITE F BECAUSE THE SITE IS CLOSE TO THE BURLINGTON PICK-UP AREAS.
- A DISADVANTAGE IS THE VISUAL IMPACT OF THE CONTAINER ITSELF.

3. Do you have any other comments?

- CITY OF BURLINGTON MUNICIPAL VEHICLES DEPOSIT WASTES GENERATED BY VARIOUS DEPARTMENTS (PUBLIC WORKS, PARKS AND RECREATION, ETC.) AT THE PRESENT SITE - APPROXIMATELY 500-600 TRIPS/YEAR - THERE ARE NO PARTICULAR ROUTES OR SPECIALLY IDENTIFIED MUNICIPALITY GENERATED WASTE SOURCES.

MM/N346



LAIDLAW WASTE SYSTEMS LTD.

HAULER PROFILE

Laidlaw Waste Systems is a private company operating out of Hamilton on Guise St. Wastes are collected from industrial, commercial and construction uses. Construction waste comprises a small percentage of the total volume. Within Halton Region, business is located primarily in the urban areas of Burlington, Oakville and, to some extent, Milton.

A. PICK-UP AREAS/SOURCE OF WASTE DELIVERED TO THE PRESENT LANDFILL SITE

1. Where are your major customers/main collection areas located?
(Refer to Map)
 - CUSTOMERS ARE LOCATED IN VARIOUS LOCATIONS WITHIN MILTON, OAKVILLE AND BURLINGTON.
 - LOCATIONS ARE RANDOM AND ARE NOT GROUPED IN CERTAIN AREAS.
2. How does the source of waste (i.e. pickup locations) vary during the week? month? year?
 - TRUCKS OPERATE IN ALL AREAS, EVERY DAY OF THE WEEK - PICK-UPS DEPEND ON HOW FULL THE CONTAINERS ARE, AGREED PICK-UP TIMES, ETC.
 - SEASONAL VARIATION IS MINOR.
3. What type(s) of waste(s) is collected? residential (); industrial (X); commercial (X); construction (X); agricultural (); other ()
 - CONSTRUCTION WASTE COMPRISES A RELATIVELY SMALL PERCENTAGE OF THE TOTAL VOLUME.
4. How do you expect the pick-up areas/sources of waste to change in the future? Are there any trends apparent?
 - GROWTH IN MILTON, OAKVILLE AND, TO SOME EXTENT, NORTH BURLINGTON SHOULD BRING IN ADDITIONAL BUSINESS.
 - IN GENERAL, NO MAJOR CHANGES ARE EXPECTED.

B. EXISTING HAULAGE CHARACTERISTICS TO THE PRESENT LANDFILL SITE

1. What is the principal route of travel from your major customers/ collection areas to the existing landfill site in Burlington?
 - FROM MILTON, TRUCKS TAKE HWY.25 TO HWY.5 TO BRANT TO NORTH SERVICE RD. TO THE SITE.
 - FROM OAKVILLE AND EAST BURLINGTON, ROUTING IS VIA THE QEW TO PLAINS TO BRANT TO NORTH SERVICE RD. TO THE SITE - ACCESS TO THE QEW IS EXTREMELY VARIABLE AND DEPENDS ON WHERE THE TRUCK IS FULL - ANY INTERCHANGE CAN BE USED.
 - FROM W. BURLINGTON TRUCKS GENERALLY TAKE KING RD. TO THE NORTH SERVICE RD. TO THE SITE.
2. How flexible are the drivers' routes? Are they left up to the individual or are they instructed to use a specific route?
 - ROUTES ARE QUITE FLEXIBLE - DRIVERS HAVE DESIGNATED PICK-UP AREAS BUT CAN TAKE ANY ROUTE TO THE SITE DEPENDING ON WHEN AND WHERE THE TRUCK IS FULL. - DRIVERS DO TRY TO TAKE THE FASTEST ROUTES. - THE MILTON ROUTE TO THE SITE IS FAIRLY CONSTANT.
3. Are there any problems, difficulties or concerns with existing roads that are used as haulage routes? Any safety concerns? (e.g. road and intersection conditions, area of traffic congestion, pedestrian conflicts). Do you have any comments about possible changes that could improve haulage conditions to the existing landfill site? (road improvements, signing, speed limits, on-site conditions, etc.)
 - ~~FAIRLY HEAVY TRAFFIC ON NORTH SERVICE RD. - DIFFICULT TO LEAVE THE SITE.~~
 - ~~KERNS RD/NORTH SERVICE RD. IS CONSIDERED A FAIRLY DANGEROUS INTERSECTION BY DRIVERS, BECAUSE OF THE NUMBER OF TURNING MOVEMENTS.~~
4. Is the return route from the landfill site essentially the same as the arrival route?
 - THE RETURN ROUTE IS GENERALLY THE SAME.

LAIDLAW WASTE SYSTEMS LTD. (Cont'd)

5. What is the average trip time from the last pick-up location to the landfill site along the major haulage route? What are the average speeds of travel?
 - FROM MILTON, 1-1/2 HRS. TURNAROUND TIME - 35-40 MINUTES ONE-WAY.
 - FROM OAKVILLE, 1 HR. 10 MIN. TURNAROUND TIME - 25-30 MINUTES ONE-WAY (AVERAGE).
 - FROM BURLINGTON, 50 MIN. TURNAROUND TIME - 15 MINUTES ONE-WAY (AVERAGE).
6. What is the average manoeuvre/dump time at the landfill site?
0-5 min. (); 5-10 min. (); 10-15 min. ();
greater than 15 min. (x)
 - 20 MINUTES
7. What type(s) of vehicle(s) is used to haul waste? Do you have information on gas usage (ie. miles/gallon)? What is the average load size? How many people per vehicle? Diesel or gas vehicles? Do trucks have back-up warning signals? Do trucks have tailgates?
 - FRONT-END LOADING AND ROLL-OFF VEHICLES.
 - 3.5 GALLONS/HR. FRONT-END, 2.5-3.0 GALLONS/HR. ROLL-OFF.
 - 9 TONNES/LOAD FRONT-END, EXTREME VARIATION FOR ROLL-OFF; AVERAGE 6 TONNES.
 - 1 PERSON/TRUCK.
 - ALL TRUCKS ARE DIESEL.
 - ALL HAVE BACK-UP WARNING SIGNALS.
 - FRONT-END LOADING TRUCKS DUMP WITH HYDRAULIC EQUIPMENT, ROLL-OFFS HAVE GATES OPENING AT THE SIDE.
8. Where are the haulage vehicles stored at the end of the day?
 - STORED IN THE YARD IN HAMILTON, 65 GUISE STREET.
 - TO THE YARD THE TRUCKS TAKE HWY. 403 (FROM THE N. SERVICE RD. RAMP WEST OF WATERDOWN RD.) TO YORK TO VICTORIA - FROM THE YARD THEY TAKE WELLINGTON TO CANNON TO YORK TO 403/QEW.

LAIDLAW WASTE SYSTEMS LTD. (Cont'd)

9. How many individual vehicle trips do you average per day? week? month? year?
 - 4 TRIPS/DAY BY EACH OF THE TWO FRONT-END LOADING TRUCKS.
 - THE TWO ROLL-OFF TRUCKS TOTAL 18 TRIPS/DAY.
10. Any general comments with respect to hauling waste to the existing landfill site in Burlington? (eg. safety, convenience, trends).
 - NONE.

C. WASTE HAULAGE ASPECTS - SITE D

1. Do you have any general concerns or comments regarding haulage of waste to a landfill site located at Site D?
 - SITE D IS SEEN AS A GOOD LOCATION FROM A BUSINESS POINT OF VIEW BECAUSE IT IS ALMOST IN THE MIDDLE OF THE THREE BUSINESS AREAS IN MILTON, OAKVILLE, AND BURLINGTON - TRANSPORTATION COSTS WOULD BE REDUCED.

D. WASTE HAULAGE ASPECTS - SITE F

1. Do you have any general concerns regarding haulage of waste to a landfill site located at Site F?
 - CONCERNS ARE NO DIFFERENT FROM THOSE EXPRESSED FOR THE EXISTING SITE.

E. GENERAL

1. How would you feel about the establishment by the Region of specific, designated haulage routes?
 - IT IS VERY IMPORTANT TO MAINTAIN THE EASE OF ACCESS TO CUSTOMERS AS WELL AS TO THE SITE.

LIDLAW WASTE SYSTEMS LTD. (Cont'd)

2. The existence of transfer stations and container stations in the Region influences haulage characteristics and travel patterns. Do you have any general (or specific) comments regarding the use of container stations or transfer stations?

- CONTAINER AND TRANSFER STATIONS ARE A GOOD IDEA FROM A TRANSPORTATION POINT OF VIEW - HAMILTON HAS THREE, PLACED IN STRATEGIC LOCATIONS WHICH APPARENTLY ARE VERY EFFECTIVE.

3. Do you have any other comments?

- NONE

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[illegible]

REGIONAL MUNICIPALITY OF HALTON

LANDFILL TECHNICAL STUDY - TRANSPORTATION ASSESSMENT

LANDFILL CUSTOMER SURVEY

NAME OF CUSTOMER: TOWN OF OAKVILLE
PERSON INTERVIEWED: MR. R. G. GREEN, P. ENG.
POSITION/TITLE OF PERSON INTERVIEWED: DIRECTOR OF OPERATIONS
DEPARTMENT OF PUBLIC WORKS
INTERVIEWER: H. VAN BEILEN
DATE OF INTERVIEW: OCTOBER 4, 1984

Giffels Associates Ltd.

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TOWN OF OAKVILLE

HAULER PROFILE

Domestic waste haulage within the Town of Oakville is co-ordinated by the Public Works Department. The Town has its own vehicles which service the area to as far north as Highway 5 once over the course of a week. Oakville is divided into five specific areas, each of which is serviced on a particular day. Major commercial, industrial and construction waste generators are not serviced by the municipality.

A. PICK-UP AREAS/SOURCE OF WASTE DELIVERED TO THE PRESENT LANDFILL SITE

1. Where are your major customers/main collection areas located?
(Refer to Map)
 - THE COLLECTION AREA INCLUDES ALL OF OAKVILLE BETWEEN THE EAST AND WEST BOUNDARIES TO AS FAR NORTH AS HWY. 5.
 - SOME MINOR RURAL AREAS SOUTH OF HWY. 5 ARE EXCLUDED.
2. How does the source of waste (i.e. pickup locations) vary during the week? month? year?
 - THE TOWN IS DIVIDED INTO FIVE ZONES (SEE MAP), EACH OF WHICH HAS A DESIGNATED PICK-UP DAY OF THE WEEK - COLLECTION IS ONCE PER WEEK FOR RESIDENTIAL USES AND TWICE PER WEEK FOR COMMERCIAL USES.
 - SOURCES ARE CONSTANT EXCEPT DURING SPRING AND FALL, WHEN EXTRA VEHICLES ARE USED FOR DEBRIS COLLECTION.
3. What type(s) of waste(s) is collected? residential (X); industrial (); commercial (X); construction (); agricultural (); other ()
 - COMMERCIAL SERVICE IS LIMITED TO CORE AREAS AND INCLUDES ONLY BAG PICK-UP - NO BIN SERVICE.
4. How do you expect the pick-up areas/sources of waste to change in the future? Are there any trends apparent?
 - MOST OF THE GROWTH IS PLANNED TO THE NORTH.
 - GLEN ABBEY IS EXPECTED TO CONTINUE EXPANSION TO HWY. 5.
 - EAST OF 16 MILE CREEK TO 8TH LINE, DEVELOPMENT IS EXPECTED TO EXPAND HALFWAY TO HWY. 5.
 - POPULATION IS PRESENTLY GROWING BY ABOUT 4,000 PEOPLE/YEAR.

B. EXISTING HAULAGE CHARACTERISTICS TO THE PRESENT LANDFILL SITE

1. What is the principal route of travel from your major customers/ collection areas to the existing landfill site in Burlington?

- THERE ARE TWO PRINCIPAL ROUTES TO THE EXISTING LANDFILL SITE. THE FIRST IS ALONG THE Q.E.W. USING THE TRAFALGAR, DORVAL OR BRONTE RD. INTERCHANGES AND ACCOUNTS FOR ABOUT 60% OF THE TRIPS. HIGHWAY 5 IS USED FOR ALMOST ALL OF THE TRIPS ON TUESDAY (ZONE 3) AND MANY OF THE TRIPS ON WEDNESDAY (ZONE 1). HOWEVER, AN EXACT GEOGRAPHICAL BREAKDOWN IS DIFFICULT BECAUSE DRIVERS ARE FREE TO DECIDE WHICH ROUTE TO TAKE.

2. How flexible are the drivers' routes? Are they left up to the individual or are they instructed to use a specific route?

- ROUTES ARE FLEXIBLE - DRIVERS ARE RESPONSIBLE FOR THE PICK-UPS IN THEIR ZONES AND CAN GET TO THE SITES ANY WAY THEY PREFER.

3. Are there any problems, difficulties or concerns with existing roads that are used as haulage routes? Any safety concerns? (e.g. road and intersection conditions, area of traffic congestion, pedestrian conflicts). Do you have any comments about possible changes that could improve haulage conditions to the existing landfill site? (road improvements, signing, speed limits, on-site conditions, etc.)

- HWY. 5 IS PREFERRED BY THE MUNICIPALITY, ESPECIALLY IN BAD WEATHER CONDITIONS.

4. Is the return route from the landfill site essentially the same as the arrival route?

- THE TRUCKS' FIRST RUN USUALLY RETURNS VIA THE Q.E.W.

- THE SECOND (AND LAST) RUN IS VIA HWY. 5 BECAUSE IT IS THE BEST ROUTE FOR RETURNING TO THE YARD ON TRAFALGAR ROAD.

5. What is the average trip time from the last pick-up location to the landfill site along the major haulage route? What are the average speeds of travel?

- AVERAGE TRIP TIME IS 20-25 MINUTES TO THE SITE.

- TRUCKS HAVE SPEED GOVERNORS AND LIKELY AVERAGE BETWEEN 45-50 MPH.

6. What is the average manoeuvre/dump time at the landfill site? 0-5 min. (); 5-10 min. (); 10-15 min. (X); greater than 15 min. ()

- HAS IMPROVED SINCE LANDFILL OPERATION FIRST BEGAN.

- AT THAT TIME LONG LINE-UPS WERE COMMONPLACE.

TOWN OF OAKVILLE (Cont'd)

7. What type(s) of vehicle(s) is used to haul waste? Do you have information on gas usage (ie. miles/gallon)? What is the average load size? How many people per vehicle? Diesel or gas vehicles? Do trucks have back-up warning signals? Do trucks have tailgates?
 - 7 FULL-TIME REAR LOADERS (2 PART-TIME) - 3 SIDE-LOADING PACKERS
 - ALL ABOUT 4.5-5.0 MPG.
 - REAR LOADERS HAVE 2 MEN/VEHICLE, SIDE-LOADERS HAVE ONE MAN.
 - SIDE LOADERS HAVE WARNING SIGNALS, AS DO TWO REAR LOADERS.
 - TRUCKS UNLOAD HYDRAULICALLY - THE ONLY NOISE IS FROM THE INCREASED R.P.M.'S DRIVING THE PTO (POWER TAKE-OFF)
8. Where are the haulage vehicles stored at the end of the day?
 - WORKS YARD - 2274 TRAFALGAR, APPROXIMATELY 1 KM NORTH OF UPPER MIDDLE ROAD
9. How many individual vehicle trips do you average per day? week? month? year?
 - TWO TRIPS/DAY X 10 VEHICLES (RESIDENTIAL AND COMMERCIAL).
 - SPRING AND FALL HAVE TWO TRIPS X 2 VEHICLES EXTRA FOR DEBRIS PICK-UP.
10. Any general comments with respect to hauling waste to the existing landfill site in Burlington? (eg. safety, convenience, trends).
 - THE HAUL IS LONG BUT NOT LONG ENOUGH FOR TRANSFER FACILITIES.
 - THE MUNICIPALITY HAS HAD TO INCREASE THE FLEET BY ONE VEHICLE SINCE THE SITE WAS BROUGHT TO BURLINGTON.

C. WASTE HAULAGE ASPECTS - SITE D

1. Do you have any general concerns or comments regarding haulage of waste to a landfill site located at Site D?
 - SITE D IS GOOD FROM A HAULAGE POINT OF VIEW.
 - DRIVERS AVOID O.E.W.
 - SLIGHTLY SHORTER HAULAGE TIME.
 - DRIVERS CAN AVOID DRIVING FULLY LOADED THROUGH RESIDENTIAL AREAS SUCH AS BRANT ST. IN BURLINGTON.

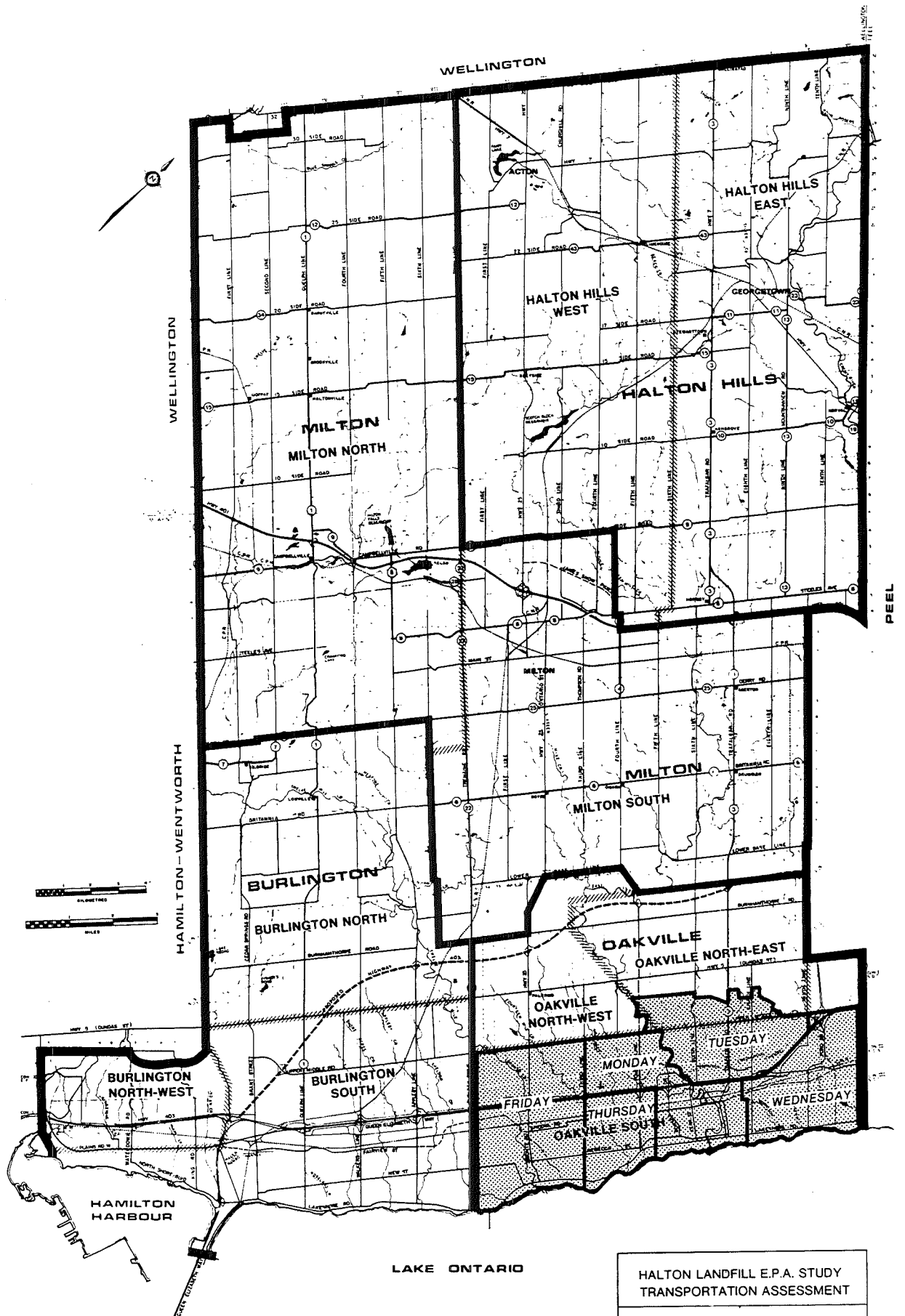
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D. WASTE HAULAGE ASPECTS - SITE F

1. Do you have any general concerns regarding haulage of waste to a landfill site located at Site F?
- OPERATING CONCERNS ARE THE SAME AS THOSE FOR THE EXISTING SITE.

E. GENERAL

1. How would you feel about the establishment by the Region of specific, designated haulage routes?
- ~~RESTRICTION FROM BRANT ST. WOULDN'T BE LIKED BY DRIVERS BECAUSE HWY. 5 WOULD NO LONGER BE A VIABLE ROUTE. (Drivers would have to go south on Guelph Line or another major north-south arterial to as far as Fairview St., and then travel west toward the site. Trip times would be higher.)~~
- ~~Q.E.W. IS NOT A FAVOURED ROUTE BECAUSE OF TRAFFIC, ACCIDENTS, ETC.~~
2. The existence of transfer stations and container stations in the Region influences haulage characteristics and travel patterns. Do you have any general (or specific) comments regarding the use of container stations or transfer stations?
- (Regarding transfer stations, Mr. Green believes that for Oakville, a 35-40 minute return trip is required for them to be economically feasible).
- A CONTAINER SITE ON THE N. SERVICE RD. BETWEEN 3RD LINE AND BRONIE RD. IS PRESENTLY OPERATED BY THE REGION FOR USE BY THE GENERAL PUBLIC.
3. Do you have any other comments?
- NONE FROM A TRANSPORTATION POINT OF VIEW.



HALTON LANDFILL E.P.A. STUDY TRANSPORTATION ASSESSMENT

OAKVILLE COLLECTION AREAS

Offsite Associates Limited
Consulting Engineers and Architects

NOVEMBER, 1985

Exhibit No. /

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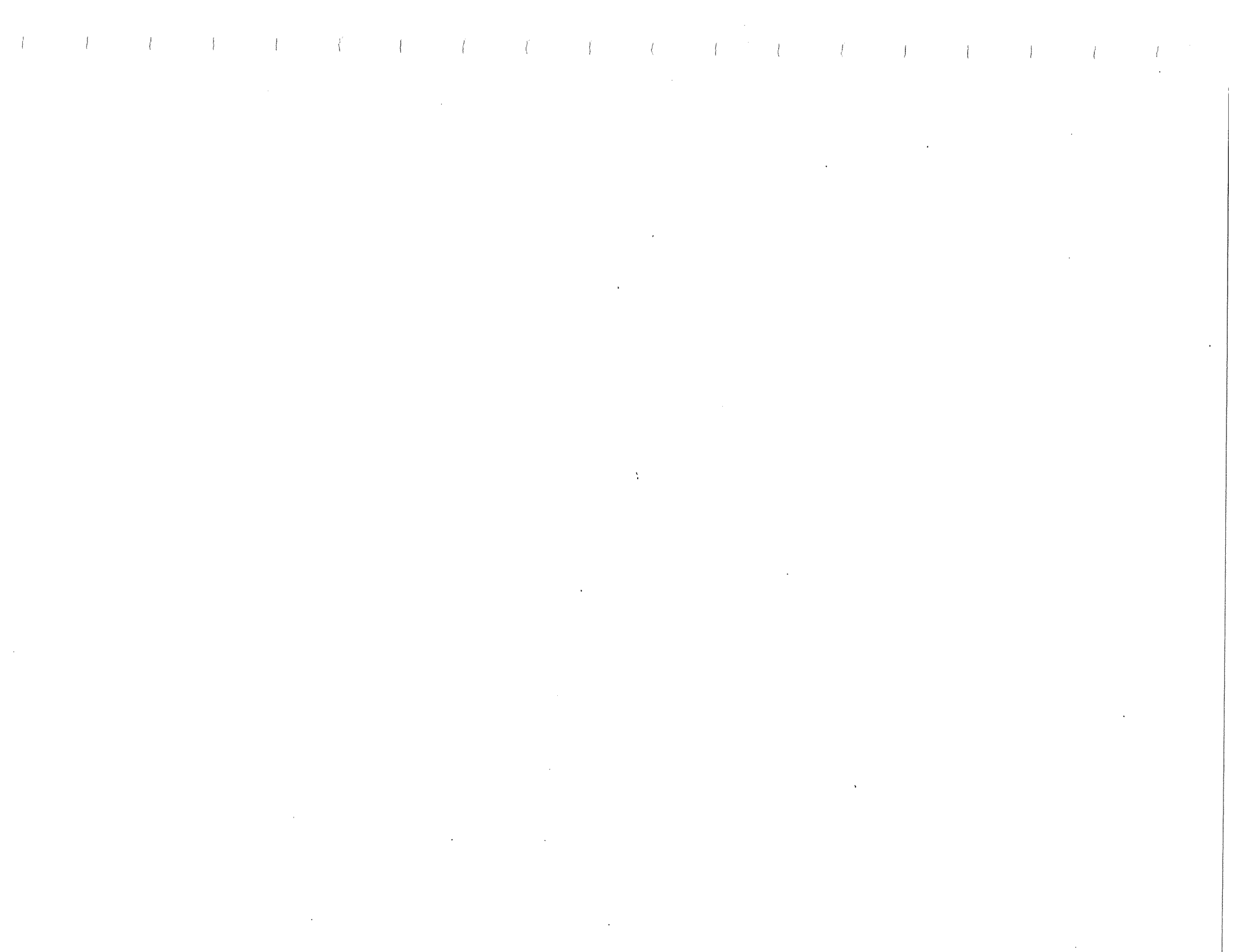
REGIONAL MUNICIPALITY OF HALTON

LANDFILL TECHNICAL STUDY - TRANSPORTATION ASSESSMENT

LANDFILL CUSTOMER SURVEY

NAME OF CUSTOMER: INDUSTRIAL DISPOSAL, HAMILTON
PERSON INTERVIEWED: PAUL MCLISTER
POSITION/TITLE OF
PERSON INTERVIEWED: GENERAL MANAGER
INTERVIEWER: H. VAN BEILEN
DATE OF INTERVIEW: OCTOBER 7, 1985

Giffels Associates Ltd.



INDUSTRIAL DISPOSAL

HAULER PROFILE

Industrial Disposal Hamilton is a private waste hauling company (part of Waste Management of Canada) operating out of Hamilton on Brockley Drive. The company hauls domestic waste for the City of Burlington, a major customer. As well, Industrial Disposal has a considerable number of industrial and commercial customers. Customers with construction waste comprise a smaller proportion. Most Halton business is located within Burlington and, to a lesser extent, Oakville.

A. PICK-UP AREAS/SOURCE OF WASTE DELIVERED TO THE PRESENT LANDFILL SITE

1. Where are your major customers/main collection areas located?
(Refer to Map)
 - RESIDENTIAL WASTE IS COLLECTED FROM RESIDENTIAL AREAS IN BURLINGTON, GENERALLY SOUTH OF HWY.5.
 - COMMERCIAL WASTE IS COLLECTED FROM ANYWHERE IN BURLINGTON OR OAKVILLE, AGAIN PRIMARILY SOUTH OF HWY.5.
 - ABOUT 60% IS FROM BURLINGTON AND 40% FROM OAKVILLE.
2. How does the source of waste (i.e. pickup locations) vary during the week? month? year?
 - GEOGRAPHICALLY THE SOURCE DOESN'T VARY, I.E. THE SAME AREAS ARE COVERED EACH DAY - FROM HEAVY TO LIGHT, THE WEEKDAY BREAK-DOWN IS FRIDAY, MONDAY, WEDNESDAY, TUESDAY AND THURSDAY - VERY LITTLE SEASONAL VARIATION IN COMMERCIAL PICKUPS - SOME SEASONAL VARIATION IN RESIDENTIAL; HIGH IN SPRING AND FALL.
3. What type(s) of waste(s) is collected? residential (X); industrial (X); commercial (X); construction (X); agricultural (X); other ()
 - ALL TYPES OF NON-HAZARDOUS, SOLID WASTES.
4. How do you expect the pick-up areas/sources of waste to change in the future? Are there any trends apparent?
 - NO SIGNIFICANT GROWTH IS EXPECTED OTHER THAN THAT WHICH ACCOMPANYS MUNICIPAL DEVELOPMENT.

INDUSTRIAL DISPOSAL (cont'd)

B. EXISTING HAULAGE CHARACTERISTICS TO THE PRESENT LANDFILL SITE

1. What is the principal route of travel from your major customers/ collection areas to the existing landfill site in Burlington?
 - THREE GENERAL SERVICE AREAS CAN BE DEFINED AS BEING LOCATED IN EAST OAKVILLE (SOUTH OF THE QEW MAINLY), EAST BURLINGTON (SOUTH OF THE QEW) AND WEST BURLINGTON (INCLUDING NORTH OF THE QEW BETWEEN BRANT ST. AND GUELPH LINE).
 - DRIVERS IN THE FIRST TWO AREAS USE THE QEW TO PLAINS RD. TO BRANT ST. TO GET TO THE SITE - ACCESS TO THE HIGHWAY DEPENDS ON WHERE THE TRUCK IS LOCATED WHEN IT BECOMES FULL.
 - THE DRIVER IN THE THIRD AREA GENERALLY DOES NOT USE THE QEW BECAUSE OF PROXIMITY TO THE SITE - THE PRINCIPLE ROUTE IS PLAINS ROAD TO KING ROAD TO THE N. SERVICE ROAD TO THE SITE.
2. How flexible are the drivers' routes? Are they left up to the individual or are they instructed to use a specific route?
 - THE DRIVERS HAVE CUSTOMER LISTS WHICH THEY USE AS A GUIDE FOR PICKING UP; HOWEVER, THE EXACT ROUTES ARE LEFT TO THEIR OWN DISCRETION - ROUTES VARY DEPENDING HOW QUICKLY THE TRUCKS BECOME FULLY LOADED.
3. Are there any problems, difficulties or concerns with existing roads that are used as haulage routes? Any safety concerns? (e.g. road and intersection conditions, area of traffic congestion, pedestrian conflicts). Do you have any comments about possible changes that could improve haulage conditions to the existing landfill site? (road improvements, signing, speed limits, on-site conditions, etc.)
 - NO MAJOR CONCERNS.
 - A POTENTIAL TRAFFIC PROBLEM EXISTS AT THE PLAINS RD. INTER-CHANGE WITH THE QEW EASTBOUND BECAUSE THE MERGE LANE IS VERY SHORT FOR TRUCK DRIVERS, DRIVERS ARE GIVEN VERY LITTLE ROOM IN WHICH TO ACCELERATE.
4. Is the return route from the landfill site essentially the same as the arrival route?
 - YES

INDUSTRIAL DISPOSAL (cont'd)

5. What is the average trip time from the last pick-up location to the landfill site along the major haulage route? What are the average speeds of travel?
 - THE AVERAGE TRIP TIME FROM THE LAST PICK-UP TO THE SITE IS ABOUT 10-15 MINUTES FOR RESIDENTIAL WASTE HAULERS.
 - COMMERCIAL HAULERS AVERAGE THE SAME OVERALL.
 - AVERAGE SPEEDS WHILE LOADED ARE ABOUT 70 KM/H, WHILE EMPTY 90-100 KM/H.
6. What is the average manoeuvre/dump time at the landfill site?
0-5 min. (); 5-10 min. (); 10-15 min. (X);
greater than 15 min. ()
7. What type(s) of vehicle(s) is used to haul waste? Do you have information on gas usage (ie. miles/gallon)? What is the average load size? How many people per vehicle? Diesel or gas vehicles? Do trucks have back-up warning signals? Do trucks have tailgates?
 - REAR-END PACKERS, FRONT-END LOADERS, SOME ROLL-OFFS, SOME CARRIERS WITH CHAIN-HOISTED BINS (LUGGERS).
 - GAS USAGE, 9-10 LITRE/HR (REAR-END), 1 LITRE/KM (FRONT-END LOADERS).
 - 8 TONNES (REAR-END), 7 TONNES (FRONT-END), 1-20 TONNES (ROLL-OFF).
 - ALL DIESEL.
 - ALL HAVE BACK-UP SIGNALS.
 - HYDRAULIC UNLOADING.
 - DOORS ON BINS ARE HINGED TO OPEN SIDEWAYS.
8. Where are the haulage vehicles stored at the end of the day?
 - VEHICLES ARE STORED AT INDUSTRIAL DISPOSAL ON BROCKLEY DRIVE IN HAMILTON.
 - FROM THE SITE TO INDUSTRIAL DISPOSAL, TRUCKS TAKE KING ST. TO THE QEW AT PLAINS RD.
9. How many individual vehicle trips do you average per day? week? month? year?
 - 3-4/TRUCK LOADS/DAY FOR THE 3 COMMERCIAL VEHICLES.
 - 2-3/TRUCK LOADS/DAY FOR THE 6 RESIDENTIAL WASTE VEHICLES.
(7 ON MONDAYS, 5 ON WEDNESDAYS).

INDUSTRIAL DISPOSAL (cont'd)

10. Any general comments with respect to hauling waste to the existing landfill site in Burlington? (eg. safety, convenience, trends).

- NO COMMENTS.

C. WASTE HAULAGE ASPECTS - SITE D

1. Do you have any general concerns or comments regarding haulage of waste to a landfill site located at Site D?

- THIS SITE WOULD BE MORE EXPENSIVE FOR THE COMPANY IN TERMS OF HAULAGE COSTS.
- NO TRANSPORTATION PROBLEMS CAN BE FORESEEN EXCEPT THAT HWY. 25 IS NOT AS FAST A ROAD AS THE QEW (2 LANES, MORE FREQUENT STOPS, AND LOWER SPEEDS).
- SITE D WOULD LIKELY RESULT IN AN INCREASED COST TO BURLINGTON RESIDENTS FOR WASTE PICK-UP SERVICES.

D. WASTE HAULAGE ASPECTS - SITE F

1. Do you have any general concerns regarding haulage of waste to a landfill site located at Site F?

- 80-85% OF THE HAULED WASTES ARE CLOSER TO SITE F.
- ACCESS TO SITE F IS QUITE EASY BECAUSE MOST ROADS ARE EASILY TRAVELLED BY TRUCKS, THERE IS LITTLE CONGESTION, AND DRIVING THROUGH RESIDENTIAL AREAS CAN BE AVOIDED.

E. GENERAL

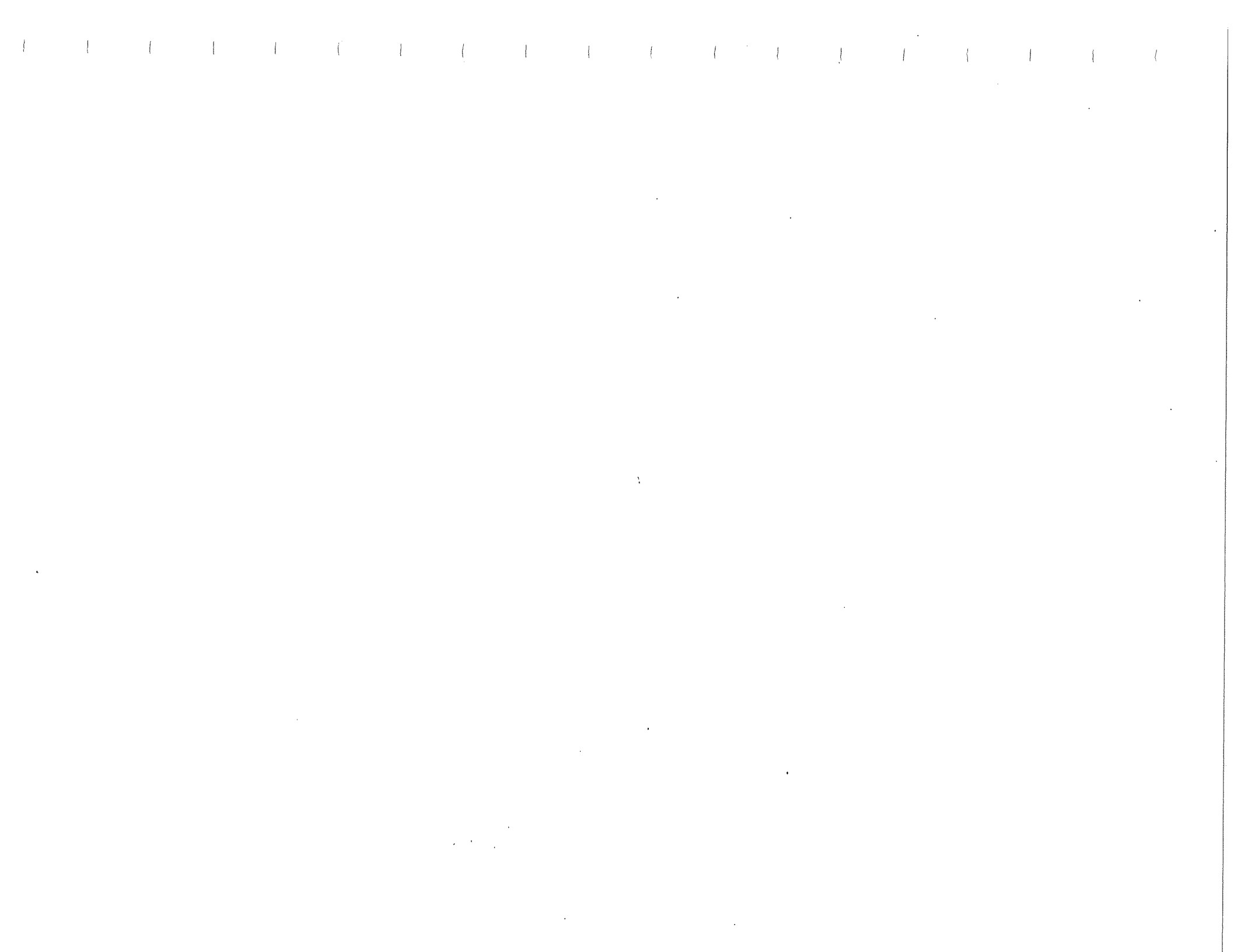
1. How would you feel about the establishment by the Region of specific, designated haulage routes?

- HAULAGE ROUTES WOULD HAMPER SERVICE, UNLESS THEY WERE DESIGNED IN A WAY THAT MAINTAINED PRESENT TRIP TIMES
- BRANT ST. IS PRESENTLY THE ONLY DIRECT ROUTE FROM ANYONE COMING FROM THE NORTH ALONG HWY. 5.

INDUSTRIAL DISPOSAL (cont'd)

2. The existence of transfer stations and container stations in the Region influences haulage characteristics and travel patterns. Do you have any general (or specific) comments regarding the use of container stations or transfer stations?
 - TRANSFER STATIONS ARE A GOOD CONCEPT ALTHOUGH, AS CAN BE SEEN IN GEORGETOWN, THEY ARE COSTLY.
3. Do you have any other comments?
 - A TRANSFER STATION NOT REQUIRED WITH SITE F.
 - WITH SITE D, A TRANSFER STATION WOULD BE A GOOD IDEA IN BURLINGTON.

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REGIONAL MUNICIPALITY OF HALTON

LANDFILL TECHNICAL STUDY - TRANSPORTATION ASSESSMENT

LANDFILL CUSTOMER SURVEY

NAME OF CUSTOMER: Leferink Disposals Ltd.
PERSON INTERVIEWED: John Gillissen (and John Leferink)
POSITION/TITLE OF
PERSON INTERVIEWED: General Manager
INTERVIEWER: H. Van Beilen
DATE OF INTERVIEW: September 26, 1985

Giffels Associates Ltd.

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LEFERINK DISPOSALS LTD.

HAULER PROFILE

Leferink Disposals Ltd. is a private waste handling company operating out of Georgetown. It collects domestic wastes for a fee from rural homeowners located primarily in Halton Hills. As well, industrial, commercial and construction wastes are collected from various customers, again located largely in the Halton Hills area and to some extent, Milton. Disposals are made at the transfer station in Georgetown. Compacted wastes from the transfer station are transported by Leferink to the landfill site in Burlington. The transfer station is operated by Leferink, independent of the disposal operations. Leferink also handles the municipal wastes collected by the Town of Halton Hills and waste deposited in the Town of Milton container station.

A. PICK-UP AREAS/SOURCE OF WASTE DELIVERED TO THE PRESENT LANDFILL SITE

1. Where are your major customers/main collection areas located?
(Refer to Map)

FOR RURAL DOMESTIC PICK-UP, MOST CUSTOMERS ARE LOCATED IN HALTON HILLS, SOME IN MILTON, AND A FEW IN OAKVILLE. THE PICK-UP LOCATIONS (HOMES) ARE SCATTERED ALONG ALL OF THE RURAL SIDEROADS IN HALTON HILLS. NON-DOMESTIC WASTE CUSTOMERS ARE LOCATED THROUGHOUT THE REGION INCLUDING MILTON AND, TO A LESSER EXTENT, OAKVILLE.

2. How does the source of waste (i.e. pickup locations) vary during the week? month? year?

NO WEEKLY VARIATION. THE MONTHS OF DECEMBER, JANUARY, FEBRUARY AND MARCH ARE USUALLY LOW, GENERATING ONLY ABOUT 60% OF THE ANNUAL MONTHLY AVERAGE. PEAK MONTHS ARE USUALLY APRIL, MAY, OCTOBER AND NOVEMBER. A TYPICAL SEASONAL VARIATION OCCURS DURING THE SUMMER WHEN SCHOOLS ARE CLOSED BUT PARKS ARE OPEN. UNEXPLAINED CHANGES ALSO OCCUR OVER THE YEAR.

3. What type(s) of waste(s) is collected? residential (X); industrial (X); commercial (X); construction (X); agricultural (); other ()

CARRY NON-HAZARDOUS WASTES ONLY.

LEFERINK DISPOSALS LTD. (Cont'd)

4. How do you expect the pick-up areas/sources of waste to change in the future? Are there any trends apparent?

THE AMOUNTS HAVE BEEN CONTINUOUSLY INCREASING OVER TIME, REFLECTING GROWTH WITHIN HALTON HILLS. RURAL ESTATE AREAS ARE GROWING WITHIN THE REGION.

AS WELL, NEW CUSTOMERS ARE ANTICIPATED WITH THE APPROVAL OF A NEW INDUSTRIAL AREA IN THE VICINITY OF 10TH LINE, EAST OF GEORGETOWN.

B. EXISTING HAULAGE CHARACTERISTICS TO THE PRESENT LANDFILL SITE

1. What is the principal route of travel from your major customers/ collection areas to the existing landfill site in Burlington?

FROM THE TRANSFER STATION IN GEORGETOWN, THE ROLL-OFF TRUCKS NORMALLY USE TRAFALGAR ROAD SOUTH TO HWY. 5, WEST TO HWY. 25, SOUTH TO Q.E.W., WEST TO PLAINS ROAD, WEST TO BRANT STREET, NORTH TO NORTH SERVICE ROAD AND WEST TO THE SITE.

OCCASIONALLY A FRONT END LOADING TRUCK, WHEN FULL IN OAKVILLE, WILL ALSO DRIVE DIRECTLY TO THE SITE. IT WOULD NORMALLY TAKE THE Q.E.W.

2. How flexible are the drivers' routes? Are they left up to the individual or are they instructed to use a specific route?

THE ROUTES ARE FLEXIBLE ALTHOUGH DRIVERS PREFER FOR EXAMPLE THE Q.E.W. TO HWY. 5 BECAUSE OF A 10-15 MINUTE TIME SAVINGS.

3. Are there any problems, difficulties or concerns with existing roads that are used as haulage routes? Any safety concerns? (e.g. road and intersection conditions, area of traffic congestion, pedestrian conflicts). Do you have any comments about possible changes that could improve haulage conditions to the existing landfill site? (road improvements, signing, speed limits, on-site conditions, etc.

IT IS DIFFICULT NOT TO EXCEED THE SPEED LIMIT OF 60 KM/H ON TRAFALGAR ROAD THROUGH STEWARTOWN BECAUSE OF THE HILLY ROAD CONDITIONS IN THE AREA.

4. Is the return route from the landfill site essentially the same as the arrival route?

RETURN ROUTES ARE THE SAME.

LEFERINK DISPOSALS LTD. (Cont'd)

5. What is the average trip time from the last pick-up location to the landfill site along the major haulage route? What are the average speeds of travel?

THE TRIP TIME FROM THE TRANSFER STATION TO THE SITE IS ABOUT ONE HOUR, DEPENDING ON TRAFFIC. WITH THE DISTANCE BEING 55 KM, THE AVERAGE SPEED IS CALCULATED AS 55 KM/HR.

6. What is the average manoeuvre/dump time at the landfill site?
0-5 min. (); 5-10 min. (); 10-15 min. ();
greater than 15 min. (X)

GENERALLY TAKES ABOUT 1/2 HR. BECAUSE MOST LEFERINK TRUCKS ARE CARRYING TWO CONTAINERS; THE SECOND ONE ON A TRAILER. MOST TRUCKS JUST HAVE THE ONE CONTAINER, WITHOUT A TRAILER.

7. What type(s) of vehicle(s) is used to haul waste? Do you have information on gas usage (ie. miles/gallon)? What is the average load size? How many people per vehicle? Diesel or gas vehicles? Do trucks have back-up warning signals? Do trucks have tailgates?

A ROLL-OFF TRUCK WITH A TRAILER IS USED TO GET TO THE LANDFILL SITE.

GAS USAGE IS ABOUT 7 TO 7.5 MILES/GALLON.

AVERAGE LOAD SIZE IS ABOUT 18 TONNES (9 TONNES/CONTAINER).

THERE IS ONE DRIVER PER VEHICLE.

ROLL-OFF TRUCKS AND FRONT-END LOADING TRUCKS ARE DIESEL, DOMESTIC COLLECTION VEHICLES ARE GAS.

TRUCKS HAVE BACK-UP SIGNALS.

CONTAINER DOORS ARE LOCATED AT THE REAR OF THE BINS. DOORS ON ROLL-OFF BINS ARE HINGED TO OPEN SIDEWAYS. DOORS ON FRONT-END LOADING BINS ARE OPERATED HYDRAULICALLY AND LIFT UP.

8. Where are the haulage vehicles stored at the end of the day?

VEHICLES ARE STORED IN A GARAGE ON HWY. 7 BETWEEN GEORGETOWN AND ACTON IN THE SILVER CREEK AREA.

LEFERINK DISPOSALS LTD. (Cont'd)

9. How many individual vehicle trips do you average per day? week? month? year?

3 TRIPS/DAY/VEHICLE, 2 VEHICLES. THE MONTH OF AUGUST HAD 152 TRIPS IN TOTAL. OF THESE, ABOUT 10/MONTH WILL DRIVE DIRECTLY TO THE SITE WITHOUT GOING TO THE TRANSFER STATION. THESE NORMALLY COME FROM THE OAKVILLE AREA.

10. Any general comments with respect to hauling waste to the existing landfill site in Burlington? (eg. safety, convenience, trends).

IN GENERAL THERE ARE NO REAL PROBLEMS OR CONCERNS WITH RESPECT TO TRANSPORTATION. HOWEVER, THE HIGH TIPPING FEE (\$23.50/TONNE) BY THE REGION HAS FORCED THE COMPANY TO RAISE PRICES AND THEREFORE LOSE CUSTOMERS. (MR. GILLISSEN SUSPECTS THAT SOME FORMER CUSTOMERS ARE NOW USING HAULERS WHO EXPORT FROM THE REGION).

C. WASTE HAULAGE ASPECTS - SITE D

1. Do you have any general concerns or comments regarding haulage of waste to a landfill site located at Site D?

A LOCATION AT SITE D WOULD BE LESS PROFITABLE BECAUSE THE PROXIMITY WOULD FORCE THE COMPANY TO CHARGE LOWER FEES.

CONCERN WAS EXPRESSED ABOUT THE ECONOMIC VIABILITY OF THE EXISTING TRANSFER STATION IF A LANDFILL AT SITE D IS SELECTED. IT WILL NECESSITATE A GENERAL LOWERING OF FEES DUE TO ITS CLOSER PROXIMITY TO THE HALTON HILLS AREA.

AT PRESENT, 3400 CARS AND OVER 500 TRUCKS USE THE STATION PER MONTH. CLOSURE OF THE TRANSFER STATION WOULD INCREASE THE NUMBER OF VEHICLES ON THE ROAD SYSTEM TO THE SITE AS WELL AS ON THE SITE ITSELF. AN INCREASE IN ROAD SIDE LITTER IS ALSO LIKELY.

D. WASTE HAULAGE ASPECTS - SITE F

1. Do you have any general concerns regarding haulage of waste to a landfill site located at Site F?

THERE ARE NO TRANSPORTATION RELATED CONCERNS WITH SITE F.

E. GENERAL

1. How would you feel about the establishment by the Region of specific, designated haulage routes?

IT DEPENDS ON WHAT THE DESIGNATED HAULAGE ROUTES ARE, ALTHOUGH THERE IS A REAL CONCERN ABOUT THE POTENTIAL LOSS IN FLEXIBILITY.

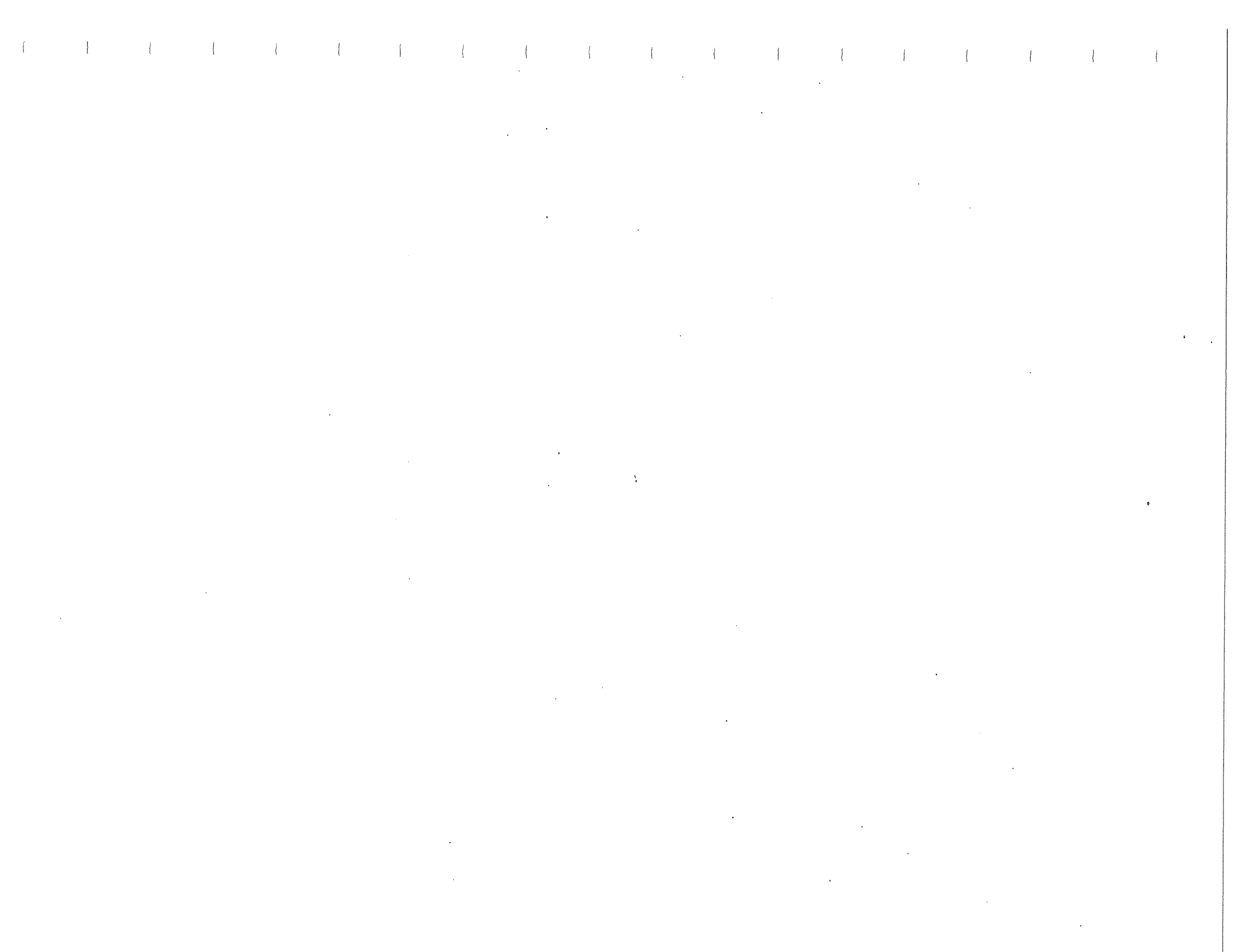
2. The existence of transfer stations and container stations in the Region influences haulage characteristics and travel patterns. Do you have any general (or specific) comments regarding the use of container stations or transfer stations?

FROM A TRANSPORTATION POINT OF VIEW, TRANSFER AND CONTAINER STATIONS ARE GOOD BECAUSE THEY RESULT IN LOWER TRAFFIC VOLUMES AT THE SITE AND ON THE ROADS TO THE SITE.

3. Do you have any other comments?

A CONTAINER/TRANSFER STATION WILL BE REQUIRED IN GEORGETOWN REGARDLESS OF THE SITE SELECTED. IT IS ECONOMICALLY GOOD FOR THE TOWN OF HALTON HILLS.

FEES SHOULD BE BLENDED, I.E. MADE THE SAME AT BOTH THE TRANSFER STATION AND THE LANDFILL SITE SO AS NOT TO DISCRIMINATE AGAINST THE PEOPLE IN HALTON HILLS. AT THE PRESENT TIME, ALL HAULAGE VEHICLES (MUNICIPALITY AND PRIVATE TRUCKS) PAY A TIPPING FEE OF \$23.50/TONNE TO THE REGION AT THE BURLINGTON SITE. THE SAME FEE IS CHARGED BY THE REGION FOR WASTES FROM THE GEORGETOWN TRANSFER STATION. HOWEVER, CUSTOMERS MUST ALSO ABSORB THE COST OF TRANSPORTING THE WASTE TO THE LANDFILL SITE OF \$19.50/TONNE. THEREFORE, THE PEOPLE WHO ARE GENERATING ONLY 10% OF THE REGIONAL WASTE ARE PAYING SUBSTANTIALLY MORE FOR WASTE COLLECTION BECAUSE OF THE LONG DISTANCE TO THE LANDFILL SITE. IF THE TIPPING FEE CHARGED BY THE REGION WAS \$25/TONNE, \$19.50/TONNE TRANSPORTATION FEE WOULD BE ABSORBED BY THE REGION AS A WHOLE. TOTAL FEES COLLECTED BY THE REGION WOULD THEREFORE REMAIN THE SAME AND ALL RESIDENTS WOULD HAVE SIMILAR COSTS.



REGIONAL MUNICIPALITY OF HALTON

LANDFILL TECHNICAL STUDY - TRANSPORTATION ASSESSMENT

LANDFILL CUSTOMER SURVEY

NAME OF CUSTOMER: TOWN OF MILTON
PERSON INTERVIEWED: MR. J. MATTHEWS
POSITION/TITLE OF
PERSON INTERVIEWED: DIRECTOR OF PUBLIC WORKS
INTERVIEWER: H. VAN BEILEN
DATE OF INTERVIEW: OCTOBER 2, 1985

Giffels Associates Ltd.

TOWN OF MILTON

HAULER PROFILE

Domestic waste haulage within the Town of Milton is co-ordinated by the Public Works Department. The Town has its own vehicles which service the area bounded generally by Highway 401, Third Line, Derry Road and First Line to the north, east, south and west respectively. The urban area of Milton is divided into four areas, each of which is serviced on a particular day of the week, excluding Friday. Major commercial, industrial and construction waste generators are not serviced by the municipality.

A. PICK-UP AREAS/SOURCE OF WASTE DELIVERED TO THE PRESENT LANDFILL SITE

1. Where are your major customers/main collection areas located?
(Refer to Map)
 - COLLECTION AREAS ARE WITHIN THE MILTON URBAN AREA
(GENERALLY BOUNDED BY STEELES AVENUE, THOMPSON ROAD, DERRY ROAD AND FIRST LINE)
2. How does the source of waste (i.e. pickup locations) vary during the week? month? year?
 - TOWN IS DIVIDED INTO FOUR COLLECTION ZONES (SEE MAP)
 - (1) N.E. OF ONTARIO/MAIN ST., COLLECTION ON MONDAY
 - (2) S.E. OF ONTARIO/MAIN ST., COLLECTION ON TUESDAY
 - (3) S.W. OF ONTARIO/MAIN ST., COLLECTION ON WEDNESDAY
 - (4) N.W. OF ONTARIO/MAIN ST., COLLECTION ON THURSDAY
3. What type(s) of waste(s) is collected? residential (X);
industrial (); commercial (); construction ();
agricultural (); other ()
 - SOME COMMERCIAL AND A SMALL AMOUNT OF OFFICE WASTE FROM INDUSTRIAL USES.
4. How do you expect the pick-up areas/sources of waste to change in the future? Are there any trends apparent?
 - GROWTH IS PLANNED TO THE EAST OF THE TOWN IN THE FUTURE;
WASTE COLLECTION WILL EXPAND ACCORDINGLY TO ACCOMMODATE THIS GROWTH.

TOWN OF MILTON (Cont'd)

B. EXISTING HAULAGE CHARACTERISTICS TO THE PRESENT LANDFILL SITE

1. What is the principal route of travel from your major customers/ collection areas to the existing landfill site in Burlington?

X - FROM THE COLLECTION AREAS, TRUCKS TAKE HWY. NO. 25 SOUTH TO HWY. 5, TRAVEL WEST TO BRANT STREET, SOUTH TO N. SERVICE ROAD, AND WEST TO THE LANDFILL SITE.

2. How flexible are the drivers' routes? Are they left up to the individual or are they instructed to use a specific route?

X - DRIVERS ARE NOT RESTRICTED TO SPECIFIC ROUTES ALTHOUGH 95% OF THE TIME THEY WILL BE USING THE ABOVE MENTIONED ROUTE.

3. Are there any problems, difficulties or concerns with existing roads that are used as haulage routes? Any safety concerns? (e.g. road and intersection conditions, area of traffic congestion, pedestrian conflicts). Do you have any comments about possible changes that could improve haulage conditions to the existing landfill site? (road improvements, signing, speed limits, on-site conditions, etc.

- NO PROBLEMS, DIFFICULTIES, CONCERNS ON THE ROADS USED AS HAULAGE ROUTES.

4. Is the return route from the landfill site essentially the same as the arrival route?

X - RETURN ROUTE IS THE SAME.

5. What is the average trip time from the last pick-up location to the landfill site along the major haulage route? What are the average speeds of travel?

- 35-40 MINUTES ON AVERAGE TO THE SITE.

- AVERAGE SPEED ABOUT 60 KM/HR.

6. What is the average manoeuvre/dump time at the landfill site?
0-5 min. (); 5-10 min. (); 10-15 min. (X);
greater than 15 min. ()

- TIME VARIES CONSIDERABLY DEPENDING ON TRAFFIC AT THE SITE.

TOWN OF MILTON (Cont'd)

7. What type(s) of vehicle(s) is used to haul waste? Do you have information on gas usage (ie. miles/gallon)? What is the average load size? How many people per vehicle? Diesel or gas vehicles? Do trucks have back-up warning signals? Do trucks have tailgates?
 - 3 REAR LOADERS, ONE 1-MAN PACKER (SIDE-LOADING).
 - GAS USAGE INFORMATION NOT AVAILABLE.
 - AVERAGE LOAD SIZE, BALLPARK ESTIMATE OF 7 TONNES.
 - 3 CREWS, ONE 1-MAN, ONE 2-MAN, ONE 3-MAN (ONE TRUCK IS A BACKUP VEHICLE).
 - ALL VEHICLES ARE DIESELS.
 - NEW VEHICLE HAS WARNING SIGNAL, OTHERS DON'T.
 - NO TAILGATES.
8. Where are the haulage vehicles stored at the end of the day?
 - INSIDE STORAGE BUILDING IN WORKS YARD ON NIPISSING ROAD (JUST EAST OF MILTON MALL, ONTARIO/MAIN STREET)
9. How many individual vehicle trips do you average per day? week? month? year?
 - TWO PER VEHICLE TO SITE/DAY, SIX IN TOTAL/DAY, ABOUT 26/WEEK, 110-115/MONTH, APPROX. 1350/YEAR.
10. Any general comments with respect to hauling waste to the existing landfill site in Burlington? (eg. safety, convenience, trends).
 - DISTANCE TO THE PRESENT SITE IS THE ONLY CONCERN.

C. WASTE HAULAGE ASPECTS - SITE D

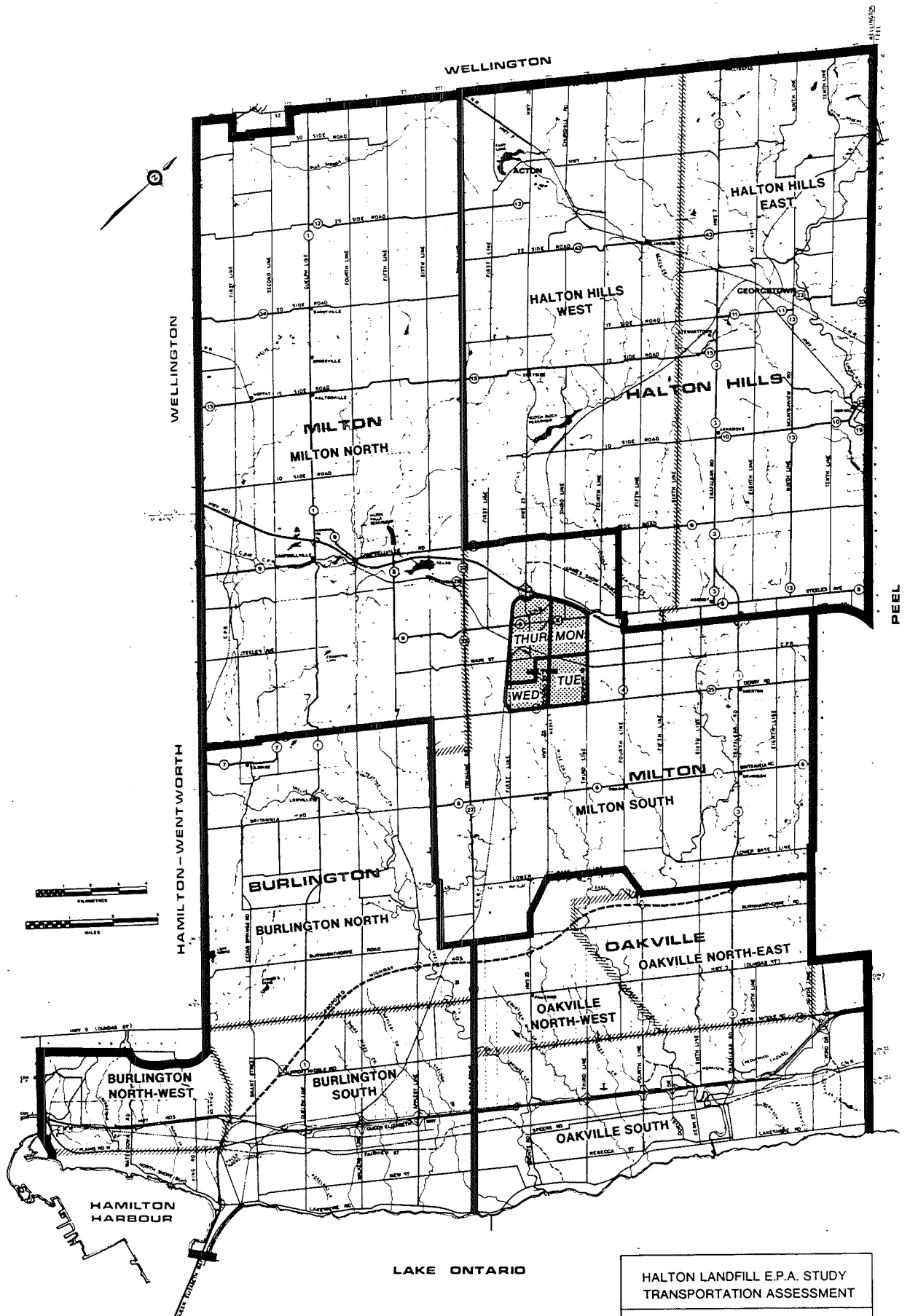
1. Do you have any general concerns or comments regarding haulage of waste to a landfill site located at Site D?
 - SITE D IS CLOSER TO THE TOWN OF MILTON AND AS SUCH WOULD LIKELY RESULT IN LOWER TRANSPORTATION OPERATING COSTS.
 - LESS WEAR AND TEAR ON THE VEHICLES.
 - SHORTER TRIP TIME FROM THE LAST PICK-UP POINT TO THE LANDFILL SITE AND BACK.

D. WASTE HAULAGE ASPECTS - SITE F

1. Do you have any general concerns regarding haulage of waste to a landfill site located at Site F?
 - CONCERNS ARE GENERALLY THE SAME AS THOSE FOR THE EXISTING SITE (I.E. DISTANCE).
 - OPERATING COSTS ARE NOT EXPECTED TO BE ANY DIFFERENT.

E. GENERAL

1. How would you feel about the establishment by the Region of specific, designated haulage routes?
 - TOWN OF MILTON WOULD WANT TO COMMENT ON ANY PROPOSED ROUTES.
 - RESTRICTIONS FROM BRANT ST. NOT A GOOD IDEA - HWY. 5 IS A PREFERRED ROUTE BECAUSE THE LOWER SPEED LIMIT RESULTS IN SAFER DRIVING CONDITIONS FOR THE DRIVERS - Q.E.W. IS NOT A DESIRED ROUTE BECAUSE TRAFFIC FLOW IS CONSIDERABLY FASTER.
2. The existence of transfer stations and container stations in the Region influences haulage characteristics and travel patterns. Do you have any general (or specific) comments regarding the use of container stations or transfer stations?
 - A TRANSFER STATION FOR MILTON MUNICIPAL WASTE WOULD BE BENEFICIAL FROM A TRANSPORTATION POINT OF VIEW IF SITE F WERE SELECTED BECAUSE DRIVERS WOULD NOT BE REQUIRED TO DRIVE ALL THE WAY TO THE LANDFILL SITE.
3. Do you have any other comments?
 - NO COMMENTS.



REGIONAL MUNICIPALITY OF HALTON

LANDFILL TECHNICAL STUDY - TRANSPORTATION ASSESSMENT

LANDFILL CUSTOMER SURVEY

NAME OF CUSTOMER:	LEAVER MUSHROOMS
PERSON INTERVIEWED:	MR. STAN PRICE
POSITION/TITLE OF PERSON INTERVIEWED:	DISPATCHER
INTERVIEWER:	H. VAN BEILEN
DATE OF INTERVIEW:	OCTOBER 1, 1985

Giffels Associates Ltd.



LEAVER MUSHROOMS

HAULER PROFILE

Leaver Mushrooms is a large mushroom growing and canning operation located in Milton near the community of Campbellville. Plant operations generate a considerable amount of heavy agricultural waste. Until recently, this waste has been hauled by company vehicles to the landfill site on a daily basis. Recently a private contractor was hired to take over the haulage operations and the company is presently in the process of changing over the operations

A. PICK-UP AREAS/SOURCE OF WASTE DELIVERED TO THE PRESENT LANDFILL SITE

1. Where are your major customers/main collection areas located?
(Refer to Map)
 - LEAVER MUSHROOMS IS THE ONLY COLLECTION POINT. IT IS LOCATED ON GUELPH LINE ABOUT 4 KM SOUTH OF CAMPBELLVILLE.
2. How does the source of waste (i.e. pickup locations) vary during the week? month? year?
 - SOURCE DOES NOT VARY
3. What type(s) of waste(s) is collected? residential (); industrial (); commercial (); construction (); agricultural (X); other ()
 - PRIMARILY MUSHROOM STEMS.
 - SOME PAPER WASTE.
4. How do you expect the pick-up areas/sources of waste to change in the future? Are there any trends apparent?
 - A PRIVATE CONTRACTOR HAS JUST BEEN HIRED TO HAUL ALL THE WASTE - HE IS APPARENTLY NOT USING THE HALTON SITE FOR DUMPING, ALTHOUGH THIS IS NOT CONFIRMED.

B. EXISTING HAULAGE CHARACTERISTICS TO THE PRESENT LANDFILL SITE

1. What is the principal route of travel from your major customers/collection areas to the existing landfill site in Burlington?
 - SOUTH ALONG GUELPH LINE TO HWY. 5, WEST TO BRANT STREET, SOUTH TO N. SERVICE ROAD TO LANDFILL SITE.

LEAVER MUSHROOMS (Cont'd)

2. How flexible are the drivers' routes? Are they left up to the individual or are they instructed to use a specific route?
 - DRIVERS USE ONE ROUTE ALL THE TIME.
3. Are there any problems, difficulties or concerns with existing roads that are used as haulage routes? Any safety concerns? (e.g. road and intersection conditions, area of traffic congestion, pedestrian conflicts). Do you have any comments about possible changes that could improve haulage conditions to the existing landfill site? (road improvements, signing, speed limits, on-site conditions, etc.)
 - NO PROBLEMS, CONCERNS, COMMENTS
4. Is the return route from the landfill site essentially the same as the arrival route?
 - SAME
5. What is the average trip time from the last pick-up location to the landfill site along the major haulage route? What are the average speeds of travel?
 - 1/2 HOUR, ONE WAY.
 - AVERAGE ABOUT 60 KM/HR.
6. What is the average manoeuvre/dump time at the landfill site?
0-5 min. (); 5-10 min. (); 10-15 min. ();
greater than 15 min. ()
 - AVERAGE 1/2 HOUR
7. What type(s) of vehicle(s) is used to haul waste? Do you have information on gas usage (ie. miles/gallon)? What is the average load size? How many people per vehicle? Diesel or gas vehicles? Do trucks have back-up warning signals? Do trucks have tailgates?
 - TRUCKS WITH 'ROLL-OFF' BINS - 21' X 8' X 4-1/2' BINS (COVERED).
 - DIESEL, 5-6 MPG.
 - 10-13 TONNES/LOAD.
 - ONE DRIVER.
 - NO BACK-UPS SIGNALS.
 - BINS HAVE DOORS THAT ARE HINGED ON THE SIDE.

LEAVER MUSHROOMS (Cont'd)

8. Where are the haulage vehicles stored at the end of the day?
 - AT THE PROCESSING FACILITY ITSELF (ON GUELPH LINE, 3-1/2 MILES SOUTH OF HWY. 401).
9. How many individual vehicle trips do you average per day? week? month? year?
 - 1-2 TRIPS/DAY, 8-9 TRIPS/WEEK.
10. Any general comments with respect to hauling waste to the existing landfill site in Burlington? (eg. safety, convenience, trends).
 - GOOD OPERATION AT THE EXISTING SITE - NO PROBLEMS.

C. WASTE HAULAGE ASPECTS - SITE D

1. Do you have any general concerns or comments regarding haulage of waste to a landfill site located at Site D?
 - NOT WITH REGARDS TO TRANSPORTATION.

D. WASTE HAULAGE ASPECTS - SITE F

1. Do you have any general concerns regarding haulage of waste to a landfill site located at Site F?
 - NO PROBLEMS OR CONCERNS WITH REGARDS TO TRANSPORTATION.

E. GENERAL

1. How would you feel about the establishment by the Region of specific, designated haulage routes?
 - IT WOULD DEPEND ON THE ROUTE SELECTED.
2. The existence of transfer stations and container stations in the Region influences haulage characteristics and travel patterns. Do you have any general (or specific) comments regarding the use of container stations or transfer stations?
 - NO CONCERNS OR COMMENTS.
3. Do you have any other comments?
 - LEAVER MUSHROOMS HAS JUST TRANSFERRED TO A PRIVATE HAULER FOR WASTE HAULAGE AND DISPOSAL.

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REGIONAL MUNICIPALITY OF HALTON

LANDFILL TECHNICAL STUDY - TRANSPORTATION ASSESSMENT

LANDFILL CUSTOMER SURVEY

NAME OF CUSTOMER: TRICIL LIMITED

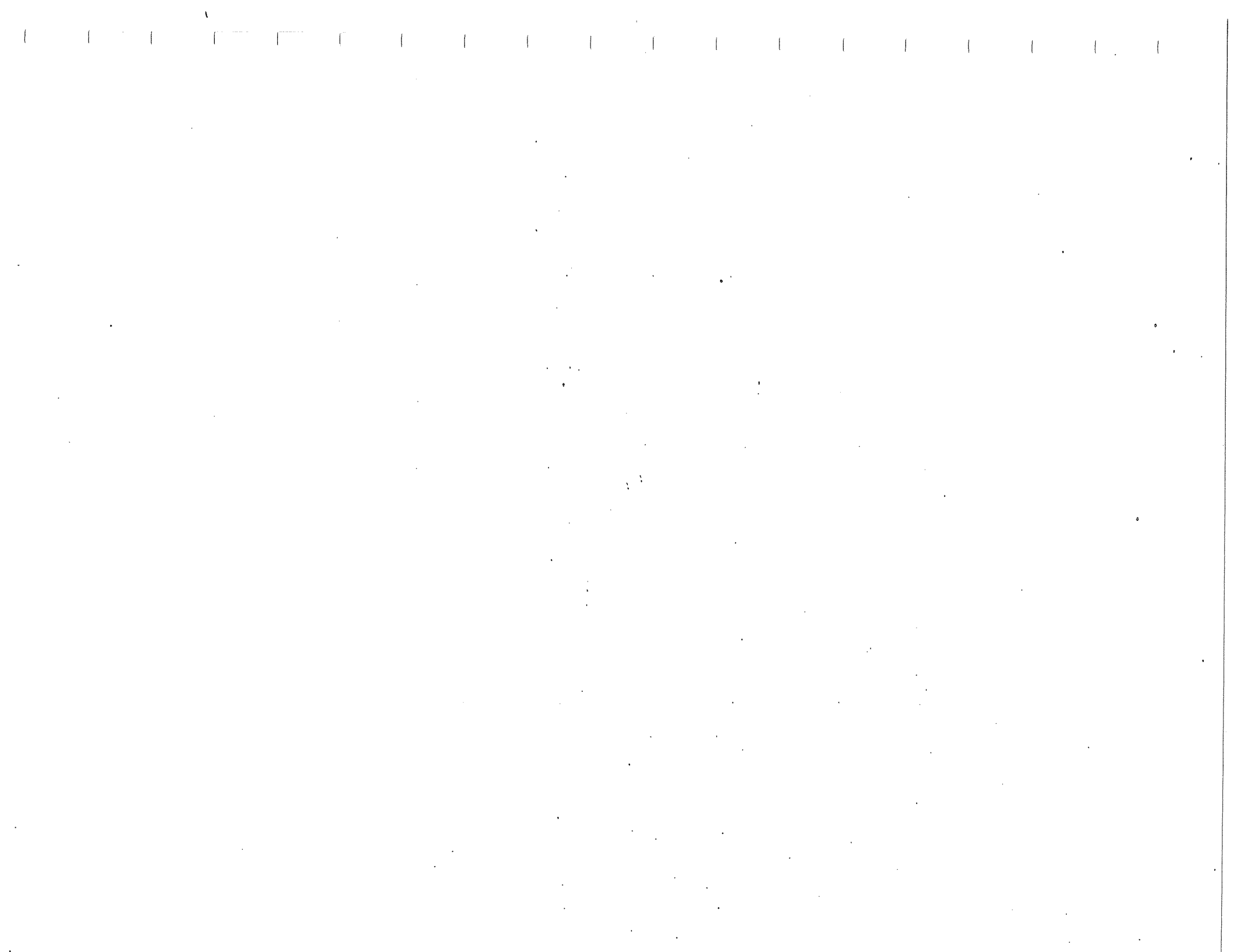
PERSON INTERVIEWED: R. N. REILLY (Input from driver: Randy Gill)

POSITION/TITLE OF
PERSON INTERVIEWED: MANAGER, WESTERN ONTARIO DISTRICT,
SOLID WASTE DIVISION

INTERVIEWER: H. VAN BEILEN

DATE OF INTERVIEW: OCTOBER 1, 1985

Giffels Associates Ltd.



TRICIL LIMITED

HAULER PROFILE

Tricil Limited is a private waste disposal company operating out of Hamilton on Brockley Drive. The majority of their customers are located in the industrial zones near the Q.E.W. in Oakville and Burlington.

A. PICK-UP AREAS/SOURCE OF WASTE DELIVERED TO THE PRESENT LANDFILL SITE

1. Where are your major customers/main collection areas located?
(Refer to Map)
 - PRIMARILY INDUSTRIAL/COMMERCIAL AREAS ON EITHER SIDE OF THE Q.E.W. IN BURLINGTON.
 - TO A SLIGHTLY LESSER EXTENT, THE SAME AREA IN OAKVILLE.
2. How does the source of waste (i.e. pickup locations) vary during the week? month? year?
 - COMMERCIAL/INDUSTRIAL PICK-UP LOCATIONS ARE FAIRLY CONSTANT THROUGHOUT THE YEAR.
 - SITES CHANGE ON A FAIRLY REGULAR BASIS AND SLOW DOWN SOMEWHAT IN OVERALL ACTIVITY DURING WINTER MONTHS.
3. What type(s) of waste(s) is collected? residential (); industrial (X); commercial (X); construction (X); agricultural (); other ()
 - CONSTRUCTION WASTE TO A SMALLER EXTENT.
 - CONVENTIONAL COMMERCIAL-INDUSTRIAL SOLID WASTE.
4. How do you expect the pick-up areas/sources of waste to change in the future? Are there any trends apparent?
 - NO MAJOR CHANGES APART FROM NORMAL BUSINESS EXPANSION.

B. EXISTING HAULAGE CHARACTERISTICS TO THE PRESENT LANDFILL SITE

1. What is the principal route of travel from your major customers/ collection areas to the existing landfill site in Burlington?
 - FROM OAKVILLE AND EAST BURLINGTON, DRIVERS TAKE THE Q.E.W. TO PLAINS TO BRANT TO N. SERVICE ROAD TO THE SITE.
 - FROM OAKVILLE, ACCESS TO THE Q.E.W. IS MADE USUALLY FROM BRONTE ROAD.
 - IN WEST BURLINGTON, Q.E.W. IS GENERALLY AVOIDED AND DRIVERS GO RIGHT TO PLAINS ROAD.
 - GENERALLY Q.E.W. IS USED AS MUCH AS POSSIBLE BECAUSE IT'S FASTER.
2. How flexible are the drivers' routes? Are they left up to the individual or are they instructed to use a specific route?
 - DRIVERS HAVE SET, FIXED ROUTES BASED ON CUSTOMER LOCATIONS.
 - THEY GO THE THE Q.E.W. AFTER THE LAST CUSTOMER.
3. Are there any problems, difficulties or concerns with existing roads that are used as haulage routes? Any safety concerns? (e.g. road and intersection conditions, area of traffic congestion, pedestrian conflicts). Do you have any comments about possible changes that could improve haulage conditions to the existing landfill site? (road improvements, signing, speed limits, on-site conditions, etc.)
 - PROBLEMS WITH EXITING LANDFILL SITE DUE TO HEAVY TRAFFIC ON N. SERVICE ROAD - PEAK TIMES ARE AROUND 8.00 A.M., 11.00 A.M. - 1.00 P.M., AND AROUND 3.00 P.M. - TRAFFIC SIGNALS WOULD IMPROVE THE SITUATION.
 - NO PROBLEMS ENTERING THE SITE.
4. Is the return route from the landfill site essentially the same as the arrival route?
 - NORMALLY THE SAME.
 - TO THE PLANT, TRUCKS WOULD TAKE KING RD., TO PLAINS RD. TO THE Q.E.W. TO STONEY CREEK.

TRICIL LIMITED (Cont'd)

5. What is the average trip time from the last pick-up location to the landfill site along the major haulage route? What are the average speeds of travel?
 - GENERALLY ABOUT 1/2 HOUR FROM OAKVILLE.
 - 15 MINUTES TO 1/2 HOUR FROM BURLINGTON, DEPENDING ON LOCATION.
6. What is the average manoeuvre/dump time at the landfill site? 0-5 min. (); 5-10 min. (); 10-15 min. (); greater than 15 min. (X)
 - 20-30 MINUTES; PRESENTLY THE 1.8 KM DISTANCE FROM THE SCALES TO THE WORKING FACE ADDS TIME.
7. What type(s) of vehicle(s) is used to haul waste? Do you have information on gas usage (ie. miles/gallon)? What is the average load size? How many people per vehicle? Diesel or gas vehicles? Do trucks have back-up warning signals? Do trucks have tailgates?
 - FRONT-END LOADING AND ROLL-OFF TRUCKS.
 - AVERAGE ABOUT 1.9 KM/L OR 5.4 MPG.
 - FRONT-END LOAD IS 9 TONNES (COMPACTED), ROLL-OFF LOAD IS 2-1/2 TONNES.
 - ONE PERSON/VEHICLE.
 - BACK-UP WARNING ALARMS ARE PRESENT.
 - ROLL-OFF BINS HAVE SIDEWAYS OPENING DOORS, FRONT-END BINS HAVE HYDRAULICALLY OPERATED TAIL GATES.
8. Where are the haulage vehicles stored at the end of the day?
 - STORED AT PLANT (151 BROCKLEY DRIVE, HAMILTON)
9. How many individual vehicle trips do you average per day? week? month? year?
 - FRONT-END LOADING TRUCKS AVERAGE 3 TO 4 TRIPS/DAY.
 - ROLL-OFFS HAVE GREATER VARIATION DEPENDING ON HOW QUICKLY THE BINS ARE FILLED, AVERAGE 5-10 TRIPS/DAY.
10. Any general comments with respect to hauling waste to the existing landfill site in Burlington? (eg. safety, convenience, trends).
 - GOOD SITE.

C. WASTE HAULAGE ASPECTS - SITE D

1. Do you have any general concerns or comments regarding haulage of waste to a landfill site located at Site D?
 - WOULD RESULT IN A LONGER HAUL FROM MOST PICK UP AREAS.
 - TRAVEL TIME MAY BE GREATER BECAUSE OF DISTANCE FROM THE Q.E.W.

D. WASTE HAULAGE ASPECTS - SITE F

1. Do you have any general concerns regarding haulage of waste to a landfill site located at Site F?
 - NO CONCERNS.

E. GENERAL

1. How would you feel about the establishment by the Region of specific, designated haulage routes?
 - DEPENDS ON WHAT THE ROUTES ARE - IF ROUTES DON'T RESTRICT OR HAMPER ACCESS TO CUSTOMERS, NO MAJOR PROBLEM.
2. The existence of transfer stations and container stations in the Region influences haulage characteristics and travel patterns. Do you have any general (or specific) comments regarding the use of container stations or transfer stations?
 - TRANSFER STATIONS ARE EASIER ON EQUIPMENT BECAUSE THEY AVOID HAVING TO DRIVE ALL THE WAY TO THE DUMP WORKING FACE.
 - SHOULD HAVE STATION IN OAKVILLE - THERE ARE THREE IN HAMILTON WHICH COMPRESS GARBAGE INTO 25 TONNE TRACTOR TRAILER LOADS.
3. Do you have any other comments?
 - NONE.

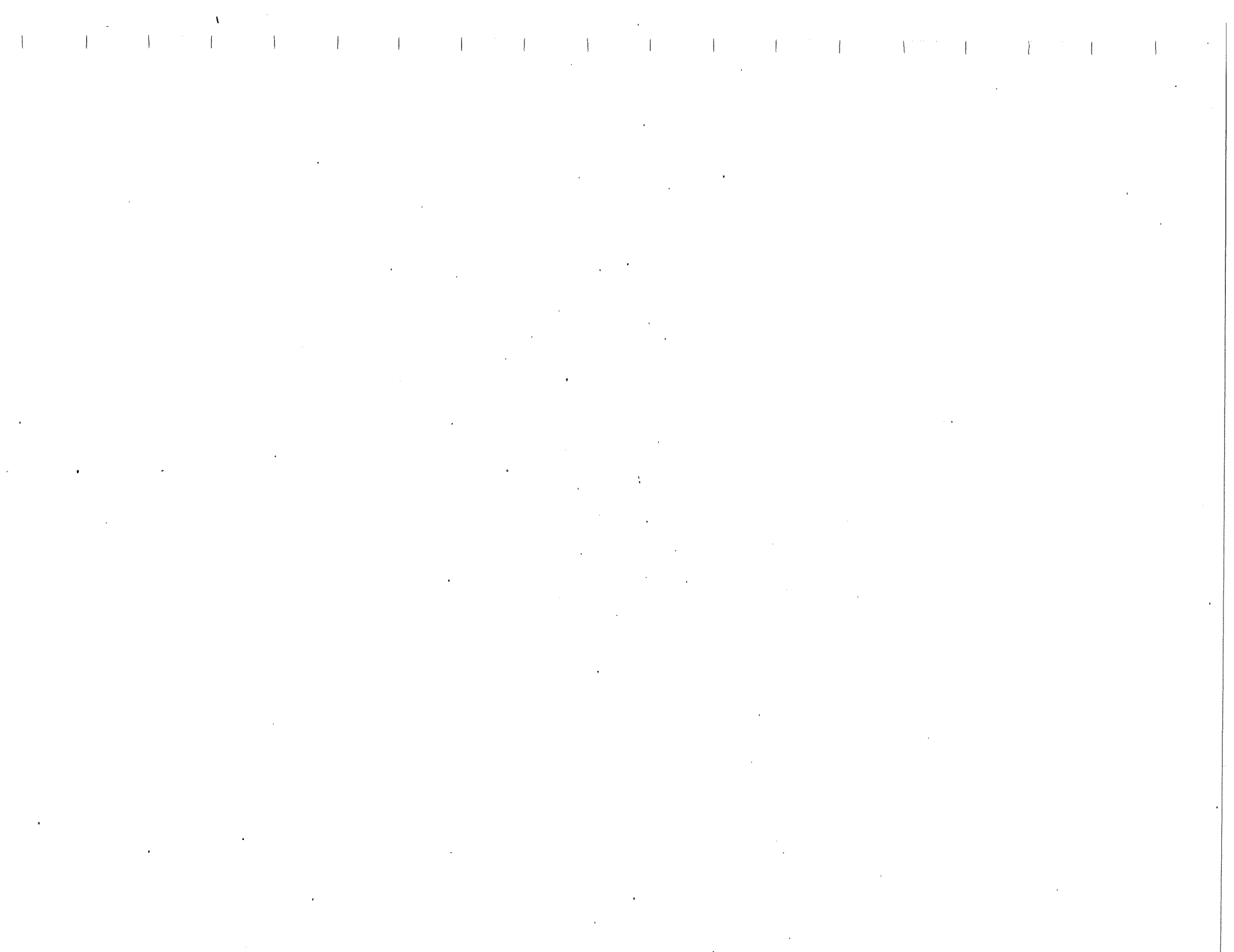
REGIONAL MUNICIPALITY OF HALTON

LANDFILL TECHNICAL STUDY - TRANSPORTATION ASSESSMENT

LANDFILL CUSTOMER SURVEY

NAME OF CUSTOMER: TOWN OF HALTON HILLS
PERSON INTERVIEWED: MR. BOB AUSTIN, P. ENG.
POSITION/TITLE OF
PERSON INTERVIEWED: TOWN ENGINEER
INTERVIEWER: P. MACLEOD/H. VAN BEILEN
DATE OF INTERVIEW: JANUARY 16, 1986

Giffels Associates Ltd.



TOWN OF HALTON HILLS

HAULER PROFILE

Domestic waste haulage within the Town of Halton Hills is co-ordinated by the Engineering Department located on Trafalgar Road north of Maple Avenue. The Town has its own vehicles which service the urban areas of Acton and Georgetown. These areas are divided into four specific zones, each of which is serviced on a particular day of the week. Most commercial and industrial waste generators are not serviced by the Municipality. All collected wastes are delivered directly to the transfer station in Georgetown.

A. PICK-UP AREAS/SOURCE OF WASTE DELIVERED TO THE PRESENT LANDFILL SITE

1. Where are your major customers/main collection areas located?
(Refer to Map)
 - WITHIN THE URBAN AREAS OF GEORGETOWN AND ACTON
2. How does the source of waste (i.e. pickup locations) vary during the week? month? year?
 - DIFFERENT COLLECTION AREAS FOR EACH DAY OF THE WEEK (SEE MAP)
 - RESIDENTIAL PICKUP IN GEORGETOWN IS ON TUESDAYS, THURSDAYS AND FRIDAYS AND IN ACTON ON WEDNESDAYS
3. What type(s) of waste(s) is collected? residential (X); industrial (); commercial (); construction (); agricultural (); other ()
 - RELATIVELY SMALL AMOUNT OF COMMERCIAL AND INDUSTRIAL WASTE
4. How do you expect the pick-up areas/sources of waste to change in the future? Are there any trends apparent?
 - URBAN GROWTH IN THE FORM OF AN INDUSTRIAL PARK AND RESIDENTIAL DEVELOPMENT IS ANTICIPATED TO AS FAR SOUTH AS 10 SIDE ROAD BETWEEN 8TH LINE AND 10TH LINE.

B. EXISTING HAULAGE CHARACTERISTICS TO THE PRESENT LANDFILL SITE

1. What is the principal route of travel from your major customers/ collection areas to the existing landfill site in Burlington?
 - ALL REFUSE IS DELIVERED TO THE TRANSFER STATION IN GEORGETOWN.
 - TRANSFER STATION ENTRANCE IS OFF ARMSTRONG AVENUE.
 - TO GET TO THE GEORGETOWN TRANSFER STATION, TRUCKS FROM ACTON WILL USE HWY. 7.
 - WITHIN GEORGETOWN TRUCKS WILL ACCESS ARMSTRONG FROM EITHER MOUNTAINVIEW OR SINCLAIR FURTHER SOUTH.
 - THE TRANSFER STATION IS VERY RARELY NOT IN OPERATION; HOWEVER, IF IT IS SHUT DOWN, MUNICIPAL VEHICLES ACCESS THE REGIONAL LANDFILL IN BURLINGTON VIA TRAFALGAR ROAD, HWY. 5, BRANT ST., AND THE NORTH SERVICE ROAD.
2. How flexible are the drivers' routes? Are they left up to the individual or are they instructed to use a specific route?
 - FROM ACTON, DRIVERS' ROUTES ARE GENERALLY FIXED ALONG HWY. 7.
 - WITHIN GEORGETOWN, ROUTES ARE MORE FLEXIBLE - MOUNTAINVIEW CAN BE ACCESSED FROM A RIGHT TURN FROM MAPLE AVE. OR A LEFT TURN FROM GUELPH ST. - SINCLAIR AVE. IS ALSO FREQUENTLY USED TO ACCESS ARMSTRONG AVE. FROM AREAS TO THE SOUTH.
3. Are there any problems, difficulties or concerns with existing roads that are used as haulage routes? Any safety concerns? (e.g. road and intersection conditions, area of traffic congestion, pedestrian conflicts). Do you have any comments about possible changes that could improve haulage conditions to the existing landfill site? (road improvements, signing, speed limits, on-site conditions, etc.)
 - RESIDENTS ON MOUNTAINVIEW RD. IN THE VICINITY OF ARMSTRONG AVE. HAVE EXPRESSED TRAFFIC CONCERNS REGARDING TRUCK TRAFFIC.
 - SIGNALS ARE TO BE INSTALLED AT THE INTERSECTION OF MAPLE AVE. AND MOUNTAINVIEW RD.
 - THE PRESENT LOCATION OF THE TRANSFER STATION IS A GOOD ONE.
4. Is the return route from the landfill site essentially the same as the arrival route?
 - NOT APPLICABLE.

Town of Halton Hills (Cont'd)

5. What is the average trip time from the last pick-up location to the landfill site along the major haulage route? What are the average speeds of travel?

- NOT APPLICABLE.
6. What is the average manoeuvre/dump time at the landfill site?
0-5 min.(); 5-10 min. (); 10-15 min. ();
greater than 15 min. ()

- NOT APPLICABLE.
7. What type(s) of vehicle(s) is used to haul waste? Do you have information on gas usage (ie. miles/gallon)? What is the average load size? How many people per vehicle? Diesel or gas vehicles? Do trucks have back-up warning signals? Do trucks have tailgates?

- FOUR ONE-MAN PACKERS FOR RESIDENTIAL WASTE AND ONE TWO-MAN REAR LOADER FOR COMMERCIAL WASTE - ALL ARE DIESEL.

- LOAD AVERAGE IS 6 TONNES FOR ONE-MAN PACKER AND 5 TONNES FOR TWO-MAN PACKER.
8. Where are the haulage vehicles stored at the end of the day?

- TRUCKS ARE STORED AT THE WORKS YARD ON TRAFALGAR RD. NORTH OF MAPLE AVE.
9. How many individual vehicle trips do you average per day? week? month? year?

- TOWN TRUCKS DON'T UTILIZE THE SITE ON MONDAYS - TUESDAY THROUGH FRIDAY, EACH AVERAGES ABOUT TWO TRIPS PER DAY.
10. Any general comments with respect to hauling waste to the existing landfill site in Burlington? (eg. safety, convenience, trends).

- WHEN THE TRANSFER STATION IS NOT IN OPERATION, TAKING TRUCKS DIRECTLY TO BURLINGTON IS A CONCERN FROM THE POINT OF VIEW OF TIMING AND SAFETY.

C. WASTE HAULAGE ASPECTS - SITE D

1. Do you have any general concerns or comments regarding haulage of waste to a landfill site located at Site D?

X - MAINTAINING A TRANSFER STATION WITHIN GEORGETOWN WILL BE NECESSARY IF THE LANDFILL WERE LOCATED AT SITE D.

X - SITE D WOULD AFFECT LEFERINK TRANSPORTATION COSTS - ANY ADJUSTMENTS THAT THEY WOULD BE REQUIRED TO MAKE WOULD INDIRECTLY AFFECT HALTON HILLS.

Town of Halton Hills (Cont'd)

D. WASTE HAULAGE ASPECTS - SITE F

1. Do you have any general concerns regarding haulage of waste to a landfill site located at Site F?

 - MAINTAINING A TRANSFER STATION WITHIN GEORGETOWN WILL BE NECESSARY IF THE LANDFILL WERE LOCATED AT SITE F.

E. GENERAL

1. How would you feel about the establishment by the Region of specific, designated haulage routes?

- NOT APPLICABLE.

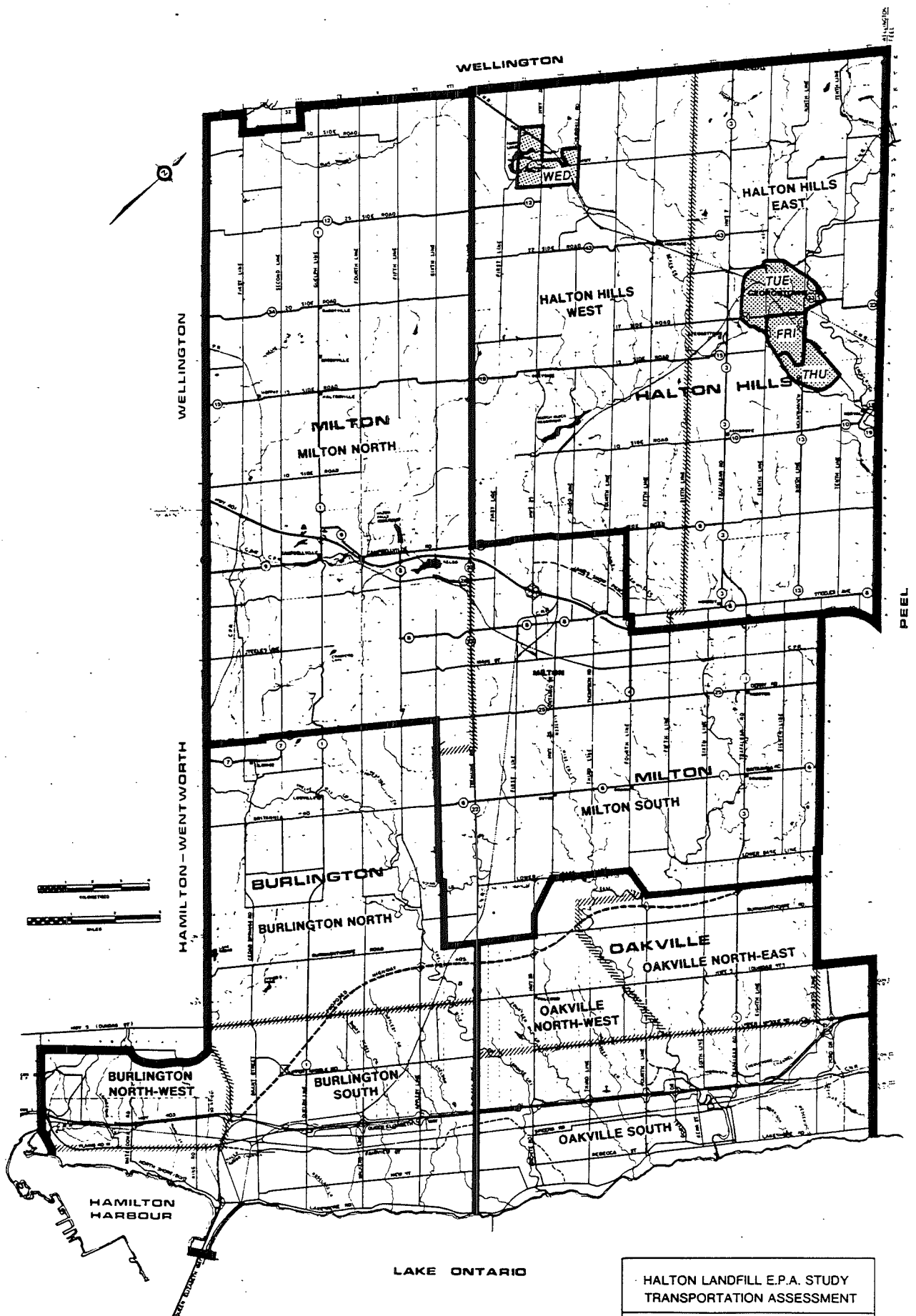
2. The existence of transfer stations and container stations in the Region influences haulage characteristics and travel patterns. Do you have any general (or specific) comments regarding the use of container stations or transfer stations?

- THE TRANSFER STATION IN GEORGETOWN SERVES A VERY IMPORTANT FUNCTION.

3. Do you have any other comments?

- A LANDFILL SITE LOCATED ANYWHERE SOUTH OF STEELES AVE. WILL NECESSITATE THE PRESENCE OF A TRANSFER STATION WITHIN THE TOWN OF HALTON HILLS.

- THE TIME SAVINGS ARISING FROM THE USE OF A LOCAL TRANSFER STATION ALLOWS FOR INCREASED CREW AVAILABILITY FOR DIFFERENT TASKS - ALSO, A LOCAL TRANSFER STATION REDUCES ROADSIDE DUMPING AND THE ASSOCIATED CLEAN-UP COSTS.



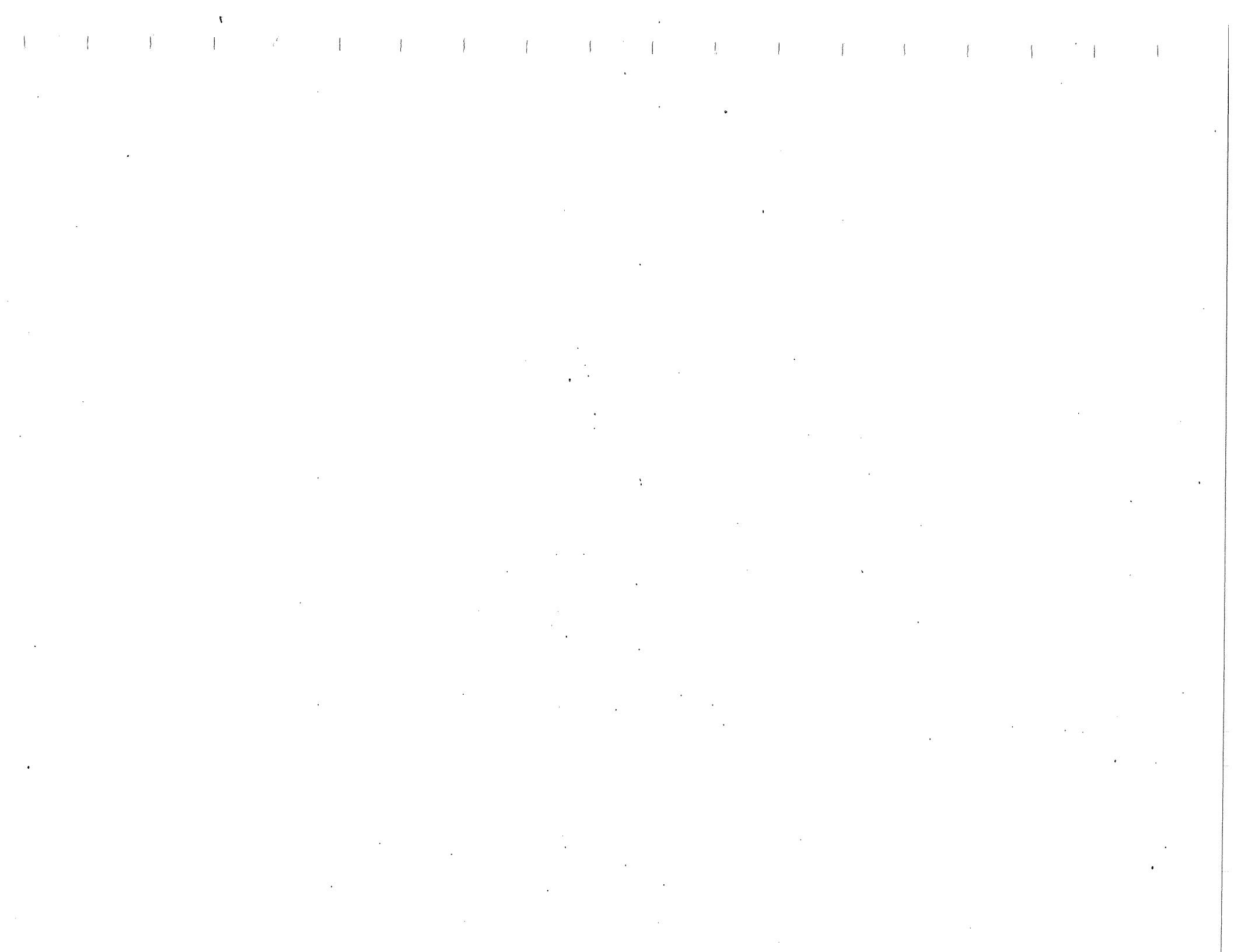
HALTON LANDFILL E.P.A. STUDY TRANSPORTATION ASSESSMENT

HALTON HILLS COLLECTION AREAS

Offshore Associates Limited
Consulting Engineers and Architects

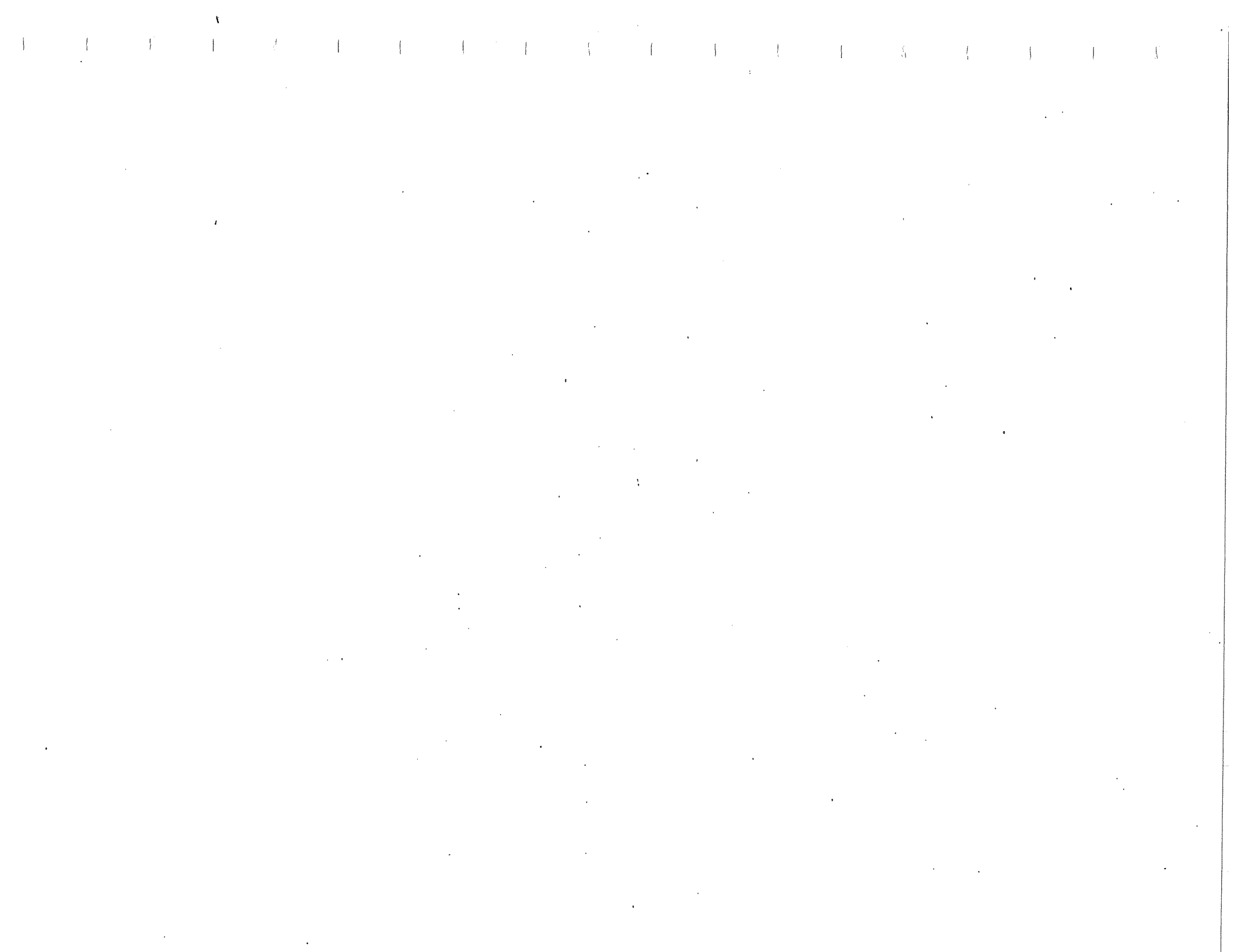
NOVEMBER, 1985

Exhibit No. /



APPENDIX C

ACCIDENT EXPERIENCE RECORDS



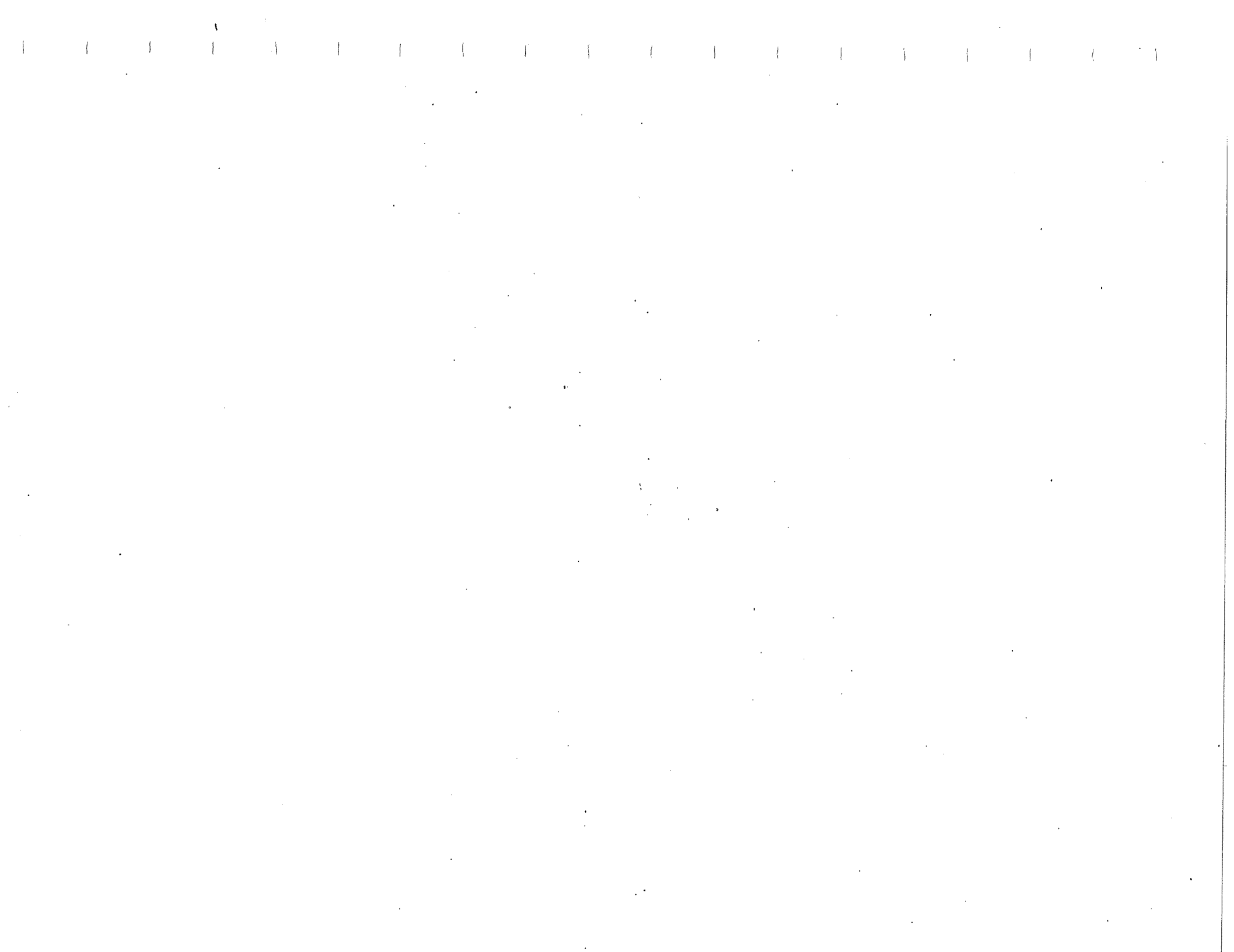
BACKGROUND-ACCIDENT EXPERIENCE RECORDS

The following traffic accident information has been summarized from police accident records. Motor vehicle collisions recorded during the period 1982 to 1984 have been assessed for the following road sections:

1. Brant Street: Plains Road to Highway 5
2. Plains road: Q.E.W. to Brant Street
3. North Service Road: Brant Street to Waterdown Road.

For each road, the accidents are summarized into the following categories:

- Date
- Day of the week
- Location
- Distance (relative to the location)
- Time of the day
- Light condition
- Road surface condition
- Number of fatalities
- Number of injuries (including degree of severity)
- Property damage (\$)
- Number of vehicles involved
- Travel direction of vehicles involved.



ROADWAY ANALYZED: BRANT ST.
DATE: 1984 05 04 DAY: Mon LOCATION:
DISTANCE/#: 2100 Brant TIME OF DAY: 1050 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 7000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 07 09 DAY: Mon LOCATION: N Service Road
DISTANCE/#: 100 km N. TIME OF DAY: 1742 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 110.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 07 05 DAY: Thur LOCATION: Havendale
DISTANCE/#: north TIME OF DAY: 1915 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 1300.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: WB/SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 08 01 DAY: Wed LOCATION: Mt Forest
DISTANCE/#: 15 m north TIME OF DAY: 0130 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 8000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 07 21 DAY: Sat LOCATION: N Service Road
DISTANCE/#: 50 m south TIME OF DAY: 2140 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 0
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 09 03 DAY: Mon LOCATION: Amherst Hgts
DISTANCE/#: 100 m S. TIME OF DAY: 1140 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 5500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 10 09 DAY: Wed LOCATION: N Service Road
DISTANCE/#: 20 m south TIME OF DAY: 1510 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal PROPERTY DAMAGE: (\$) 5500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 10 09 DAY: Tues LOCATION: Upper Middle
DISTANCE/#: 30 m south TIME OF DAY: 1217 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal PROPERTY DAMAGE: (\$) 3500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/SB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 08 30 DAY: Thur LOCATION: Ester
DISTANCE/#: 20 m south TIME OF DAY: 1141 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor, 1 minimal PROPERTY DAMAGE: (\$) 2800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 11 11 DAY: Sun LOCATION:
DISTANCE/#: 1284 Brant TIME OF DAY: 2042 LIGHT CONDITION: dar
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minor PROPERTY DAMAGE: (\$) 21000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 11 28 DAY: Wed LOCATION: Havendale
DISTANCE/#: 40 m north TIME OF DAY: 1215 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1300.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 11 20 DAY: Tues LOCATION: N Service Road
DISTANCE/#: 250 m N. TIME OF DAY: 1600 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 2000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: rear end

SUMMARY OF VEHICLE ACCIDENTS ON BRANT STREET (1982-1984)

Page No. 3

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 06 15 DAY: Fri LOCATION: N Service Road
DISTANCE/#: 30 m south TIME OF DAY: 1900 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 850.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 07 26 DAY: Thur LOCATION: Upper Middle
DISTANCE/#: 100 m N TIME OF DAY: 1820 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 0
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 12 24 DAY: MON LOCATION:
DISTANCE/#: 1284 Brant TIME OF DAY: 2000 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 02 24 DAY: Fri LOCATION: Upper Middle.
DISTANCE/#: 100 m S TIME OF DAY: 2249 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 950.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 03 05 DAY: Mon LOCATION:
DISTANCE/#: 2300 Brant TIME OF DAY: 1730 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 125.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 02 02 DAY: Thur LOCATION: Mt Forest
DISTANCE/#: 20 m south TIME OF DAY: 0210 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 150.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 01 05 DAY: Thur LOCATION: Tyandaga
DISTANCE/#: 20 m south TIME OF DAY: 1855 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: ice snow NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal PROPERTY DAMAGE: (\$) 4500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 01 05 DAY: Thur LOCATION: Faversham
DISTANCE/#: 30 m north TIME OF DAY: 1915 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1700
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: BRANT ST.
DATE: 1984 01 06 DAY: Fri LOCATION: Leighland
DISTANCE/#: 20 m north TIME OF DAY: 1525 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 12 22 DAY: Thur LOCATION: Ester
DISTANCE/#: 100 m S TIME OF DAY: 2337 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2100
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 12 25 DAY: Sun LOCATION: Ester
DISTANCE/#: 161 m S. TIME OF DAY: 0225 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: snow NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 10000
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/SB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 12 20 DAY: Tues LOCATION: Mt Forest
DISTANCE/#: 102 m N. TIME OF DAY: 0857 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 1300
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 11 22 DAY: Tues LOCATION: Tyandaga
DISTANCE/#: 90 m north TIME OF DAY: 0800 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 620
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: NB/NB/SB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 11 22 DAY: Tues LOCATION: Amherst
DISTANCE/#: 200 m S. TIME OF DAY: 0945 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 2700
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 11 11 DAY: Fri LOCATION:
DISTANCE/#: 1069 Brant TIME OF DAY: 2100 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2500
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: single

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 10 23 DAY: Sun LOCATION: Dundas Street
DISTANCE/#: 100 m S. TIME OF DAY: 0940 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor, 2 minimal PROPERTY DAMAGE: (\$) 7500
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/NB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 09 DAY: Tues LOCATION: Dundas Street
DISTANCE/#: 100 m S. TIME OF DAY: 2130 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1200
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 09 16 DAY: Fri LOCATION: Mt Forest
DISTANCE/#: 20 m north TIME OF DAY: 2000 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1400
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 06 19 DAY: Sun LOCATION: Churchill
DISTANCE/#: 80 m north TIME OF DAY: 2135 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: NO. OF FATALITIES: 0
NO. OF INJURIES: 1 major, 2 minor PROPERTY DAMAGE: (\$) 6000
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: SB/NB/NB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 06 24 DAY: Fri LOCATION: Upper Middle Rd
DISTANCE/#: 310 m N. TIME OF DAY: 1850 LIGHT CONDITION: day
ROAD SURFACE CONDITION: NO. OF FATALITIES: 1
NO. OF INJURIES: 1 major, 2 minor PROPERTY DAMAGE: (\$) 2500
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: NB/SB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 05 21 DAY: Sat LOCATION: N Service Road
DISTANCE/#: 50 m south TIME OF DAY: 0030 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 04 09 DAY: Sat LOCATION: N Service Road
DISTANCE/#: 200 m S. TIME OF DAY: 1910 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 1150.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: NB/SB/NB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 02 17 DAY: Thur LOCATION: W Brant Plaza
DISTANCE/#: TIME OF DAY: LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2800
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: WB/NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 03 11 DAY: Fri LOCATION: Dundas Street
DISTANCE/#: 23 m south TIME OF DAY: 1545 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 01 25 DAY: Tues LOCATION: Greenbank
DISTANCE/#: 12 m south TIME OF DAY: 0845 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: BRANT ST.
DATE: 1983 01 14 DAY: Fri LOCATION: Upper Middle
DISTANCE/#: 25 m north TIME OF DAY: 0855 LIGHT CONDITION: day
ROAD SURFACE CONDITION: ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1500
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: BRANT ST.
DATE: 1982 12 31 DAY: Fri LOCATION:
DISTANCE/#: 2201 Brant TIME OF DAY: 1115 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 600
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/NB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: BRANT ST.
DATE: 1982 12 08 DAY: Wed LOCATION: Leighland
DISTANCE/#: 5 m north TIME OF DAY: 1850 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 2500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/SB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: BRANT ST.
DATE: 1982 12 02 DAY: Thur LOCATION: Faversham
DISTANCE/#: 25 m north TIME OF DAY: 1559 LIGHT CONDITION: dusk
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: BRANT ST.
DATE: 1982 11 24 DAY: Wed LOCATION: Plains Road
DISTANCE/#: 90 m north TIME OF DAY: 1115 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 600.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: angle

SUMMARY OF VEHICLE ACCIDENTS ON BRANT STREET (1982-1984)

Page No. 8

ROADWAY ANALYZED: BRANT ST.
DATE: 1982 11 15 DAY: Mon LOCATION: Leighland
DISTANCE/#: 20 m south TIME OF DAY: 0750 LIGHT CONDITION: day
ROAD SURFACE CONDITION: ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 400.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: BRANT ST.
DATE: 1982 11 14 DAY: Sun LOCATION: Upper Middle
DISTANCE/#: 100 m S. TIME OF DAY: 1100 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 250.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL:
TYPE OF ACCIDENT: turning

ROADWAY ANALYZED: BRANT ST.
DATE: 1982 10 31 DAY: Sun LOCATION: Tyandaga
DISTANCE/#: 325 m N. TIME OF DAY: LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 6000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: BRANT ST.
DATE: 1982 10 07 DAY: Thur LOCATION: Havendale
DISTANCE/#: 5 m north TIME OF DAY: 2100 LIGHT CONDITION: dar
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 3 minimal PROPERTY DAMAGE: (\$) 5400.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/SB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: Brant St
DATE: 1982 08 25 DAY: Wed LOCATION:
DISTANCE/#: 1077 Brant TIME OF DAY: 1648 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 4000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: turning

ROADWAY ANALYZED: Brant St
DATE: 1982 09 17 DAY: Fri LOCATION: U Brant Plaza
DISTANCE/#: TIME OF DAY: 1400 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 900.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 07 08 DAY: Thur LOCATION: Dundas Street
DISTANCE/#: 150 m S. TIME OF DAY: 1840 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1982 07 28 DAY: Wed LOCATION:
DISTANCE/#: 2138 Brant TIME OF DAY: LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 2250.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: NB/NB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 06 18 DAY: Fri LOCATION: Mt Forest
DISTANCE/#: 50 m north TIME OF DAY: 1850 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 0
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 05 08 DAY: Sat LOCATION: Tyandaga
DISTANCE/#: 20 m north TIME OF DAY: 1220 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2500.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 05 04 DAY: Tue LOCATION: Upper Middle
DISTANCE/#: 500 m S. TIME OF DAY: 2015 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 0
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: Brant St
DATE: 1982 05 08 DAY: Sat LOCATION: Havendale
DISTANCE/#: 15 m north TIME OF DAY: 1755 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 400.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 04 03 DAY: Sat LOCATION: Beaufort
DISTANCE/#: 100m N. TIME OF DAY: 1905 LIGHT CONDITION: dar
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1150.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 01 24 DAY: Sun LOCATION: Havendale
DISTANCE/#: 300 m N. TIME OF DAY: LIGHT CONDITION: day
ROAD SURFACE CONDITION: loose snow NO. OF FATALITIES: 0
NO. OF INJURIES: 1 major PROPERTY DAMAGE: (\$) 100.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1982 02 15 DAY: Mon LOCATION:
DISTANCE/#: 2062 Brant TIME OF DAY: 1845 LIGHT CONDITION: dus
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1900
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/SB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: Brant St
DATE: 1982 02 13 DAY: Sat LOCATION:
DISTANCE/#: 1077 Brant TIME OF DAY: 1855 LIGHT CONDITION: dar
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal PROPERTY DAMAGE: (\$) 500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1982 02 03 DAY: Wed LOCATION: Ester
DISTANCE/#: 35 m south TIME OF DAY: 1308 LIGHT CONDITION: day
ROAD SURFACE CONDITION: loose snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 750
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1982 01 16 DAY: Sat LOCATION: Plains
DISTANCE/#: 27 m north TIME OF DAY: 1152 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet slush NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 135
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: angle

SUMMARY OF VEHICLE ACCIDENTS ON BRANT STREET (1982-1984)

Page No. 11

ROADWAY ANALYZED: Brant St
DATE: 1982 01 12 DAY: Fri LOCATION: Upper Middle
DISTANCE/#: 200 m N. TIME OF DAY: 1755 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 1500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 01 04 DAY: Mon LOCATION: U Brant Plaza
DISTANCE/#: TIME OF DAY: 1500 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 01 13 DAY: Wed LOCATION: Plains Road
DISTANCE/#: 300 m N. TIME OF DAY: 0845 LIGHT CONDITION: day
ROAD SURFACE CONDITION: ice NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal, 2 minor PROPERTY DAMAGE: (\$) 4000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/NB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: Brant St
DATE: 1983 10 31 DAY: Mon LOCATION: Cavendish
DISTANCE/#: intersctn. TIME OF DAY: 1330 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: turning mvmt

ROADWAY ANALYZED: Brant St
DATE: 1983 01 19 DAY: Sat LOCATION: Cavendish
DISTANCE/#: intersctn. TIME OF DAY: 1500 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minor PROPERTY DAMAGE: (\$) 2200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 08 20 DAY: Fri LOCATION: Cavendish
DISTANCE/#: intersctn. TIME OF DAY: 2135 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1200
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: turning mvmt

ROADWAY ANALYZED: Brant St
DATE: 1982 02 14 DAY: Sun LOCATION: Cavendish
DISTANCE/#: intersctn. TIME OF DAY: 0010 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: loose snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1600
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: turning mvmt

ROADWAY ANALYZED: Brant St
DATE: 1982 11 16 DAY: Tues LOCATION: Cavendish
DISTANCE/#: intersctn. TIME OF DAY: 2205 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/EB
TYPE OF ACCIDENT: turning mvmt

ROADWAY ANALYZED: Brant St
DATE: 1982 02 11 DAY: Thur LOCATION: Cavendish
DISTANCE/#: intersctn. TIME OF DAY: 0800 LIGHT CONDITION: day
ROAD SURFACE CONDITION: packed snw NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 11 25 DAY: Sun LOCATION: Greenbank
DISTANCE/#: intersctn. TIME OF DAY: 0930 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 12 02 DAY: Sun LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 1240 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/WB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: Brant St
DATE: 1984 08 18 DAY: Sat LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 0030 LIGHT CONDITION: dar
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal PROPERTY DAMAGE: (\$) 600.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/WB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1984 12 29 DAY: Sat LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 1040 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 600.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/WB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1984 05 18 DAY: Fri LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 1758 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 08 22 DAY: Wed LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 1851 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 4000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1984 07 07 DAY: Sat LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 1300 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1984 08 28 DAY: Tues LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 1330 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/SB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1984 08 21 DAY: Tues LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 2100 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 09 09 DAY: Sun LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 1910 LIGHT CONDITION: dusk
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 550.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 08 16 DAY: Thur LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 0150 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: slush NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 250.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1984 03 30 DAY: Thur LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 1045 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1984 03 10 DAY: Sat LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 2105 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 3500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1983 04 01 DAY: Fri LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 0020 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 750.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1983 05 13 DAY: Fri LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 1250 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 3 minimal PROPERTY DAMAGE: (\$) 1050
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1983 09 16 DAY: Fri LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 0815 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2600
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1983 09 09 DAY: Fri LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 1740 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 300.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1983 03 22 DAY: Tues LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 2230 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: loose snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 600.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1983 01 20 DAY: Thur LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 2000 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1600.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1983 01 06 DAY: Thur LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 0811 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 700
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 08 28 DAY: Sun LOCATION: Upper Middle Rd
DISTANCE/#: intersctn. TIME OF DAY: 0315 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2500
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1982 07 18 DAY: Sun LOCATION: Upper Middle Rd
DISTANCE/ #: intersctn. TIME OF DAY: 0908 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 5 minimal PROPERTY DAMAGE: (\$) 10000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: Brant St
DATE: 1982 07 09 DAY: Fri LOCATION: Upper Middle Rd
DISTANCE/ #: intersctn. TIME OF DAY: 1510 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2800
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/NW
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 06 11 DAY: Fri LOCATION: Upper Middle Rd
DISTANCE/ #: intersctn. TIME OF DAY: 0930 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 05 19 DAY: Wed LOCATION: Upper Middle Rd
DISTANCE/ #: intersctn. TIME OF DAY: 1428 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 800.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: Brant St
DATE: 1982 05 01 DAY: Sat LOCATION: Upper Middle Rd
DISTANCE/ #: intersctn. TIME OF DAY: 0940 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 550.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 01 16 DAY: Sat LOCATION: Upper Middle Rd
DISTANCE/ #: intersctn. TIME OF DAY: 2230 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: snow ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2500.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1984 11 04 DAY: Sun LOCATION: Havendale
DISTANCE/#: intersctn. TIME OF DAY: 1735 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 0
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/WB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1984 01 11 DAY: Wed LOCATION: Havendale
DISTANCE/#: intersctn. TIME OF DAY: 0055 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3100.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1984 01 11 DAY: Wed LOCATION: Havendale
DISTANCE/#: intersctn. TIME OF DAY: 1305 LIGHT CONDITION: day
ROAD SURFACE CONDITION: snow ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1250.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/SB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1982 07 03 DAY: Sat LOCATION: Havendale
DISTANCE/#: intersctn. TIME OF DAY: 2345 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 0
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1984 07 05 DAY: Thur LOCATION: Faversham
DISTANCE/#: intersctn. TIME OF DAY: 2100 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/SB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1982 08 19 DAY: Wed LOCATION: Faversham
DISTANCE/#: intersctn. TIME OF DAY: 1619 LIGHT CONDITION: day
ROAD SURFACE CONDITION: snow ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 08 19 DAY: Thur LOCATION: Faversham
DISTANCE/#: intersctn. TIME OF DAY: 1030 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 300.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1984 11 06 DAY: Tues LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 1420 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 10 29 DAY: Mon LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 1200 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 2900.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1984 12 01 DAY: Sat LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 1110 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 4000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/SB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1984 01 05 DAY: Thur LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 1840 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: loose snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 500.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1983 10 22 DAY: Sat LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 1700 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 850
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/SB
TYPE OF ACCIDENT: approaching

SUMMARY OF VEHICLE ACCIDENTS ON BRANT STREET (1982-1984)

Page No. 19

ROADWAY ANALYZED: Brant St
DATE: 1983 09 29 DAY: Thur LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 1705 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1983 09 16 DAY: Fri LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 1500 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 11000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/SB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: Brant St
DATE: 1983 08 31 DAY: Wed LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 2110 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor, 4 minimal PROPERTY DAMAGE: (\$) 6400.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/WB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1983 08 08 DAY: Mon LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 2141 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1983 07 30 DAY: Sat LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2500.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: Brant St
DATE: 1983 05 15 DAY: Sun LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 0110 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: Brant St
DATE: 1983 01 15 DAY: Sat LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 0935 LIGHT CONDITION: day
ROAD SURFACE CONDITION: slush NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 400.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 08 23 DAY: Mon LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 1915 LIGHT CONDITION: dusk
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 1050
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1982 05 15 DAY: Sat LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 0120 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 3500.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1982 03 25 DAY: Fri LOCATION: Amherst Heights
DISTANCE/#: intersctn. TIME OF DAY: 0800 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 09 03 DAY: Mon LOCATION: Ester Drive
DISTANCE/#: intersctn. TIME OF DAY: 0102 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 11 10 DAY: Sat LOCATION: Ester Drive
DISTANCE/#: intersctn. TIME OF DAY: 1450 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1050
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1984 02 28 DAY: Tues LOCATION: Ester Drive
DISTANCE/#: intersctn. TIME OF DAY: 1540 LIGHT CONDITION: day
ROAD SURFACE CONDITION: loose snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: Brant St
DATE: 1984 03 24 DAY: Sat LOCATION: Ester Drive
DISTANCE/#: intersctn. TIME OF DAY: 0105 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 5000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: Brant St
DATE: 1983 11 09 DAY: Wed LOCATION: Ester Drive
DISTANCE/#: intersctn. TIME OF DAY: 1930 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 major PROPERTY DAMAGE: (\$) 300.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: WB/SB/EB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1983 05 25 DAY: Wed LOCATION: Ester Drive
DISTANCE/#: intersctn. TIME OF DAY: 1230 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 02 28 DAY: Sun LOCATION: Ester Drive
DISTANCE/#: intersctn. TIME OF DAY: 0530 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 6000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1984 04 07 DAY: Sat LOCATION: Churchill Ave
DISTANCE/#: intersctn. TIME OF DAY: 0120 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 4000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 04 06 DAY: Tues LOCATION: Churchill Ave
DISTANCE/#: intersctn. TIME OF DAY: 0040 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: loose snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 400.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: Brant St
DATE: 1984 06 23 DAY: Sat LOCATION: Bluefields
DISTANCE/#: intersctn. TIME OF DAY: 2215 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/NB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1984 10 06 DAY: Sat LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1140 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 1600.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: Brant St
DATE: 1984 10 17 DAY: Wed LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1800 LIGHT CONDITION: dusk
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 2000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1984 10 03 DAY: Wed LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1445 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 09 25 DAY: Tues LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1800 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 10000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/NB
TYPE OF ACCIDENT: angle

SUMMARY OF VEHICLE ACCIDENTS ON BRANT STREET (1982-1984)

Page No. 23

ROADWAY ANALYZED: Brant St
DATE: 1984 05 11 DAY: Fri LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1600 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 6000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 08 08 DAY: Wed LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1830 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 4000.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: WB/WB/WB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1984 05 22 DAY: Tues LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 0827 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal, 1 minor PROPERTY DAMAGE: (\$) 1100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 03 21 DAY: Wed LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 2005 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor, 1 minimal PROPERTY DAMAGE: (\$) 3500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 02 26 DAY: Sun LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1045 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 475.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/WB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1982 01 08 DAY: Fri LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1528 LIGHT CONDITION: day
ROAD SURFACE CONDITION: packed snw NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 0
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SE
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: Brant St
DATE: 1982 02 05 DAY: Fri LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1750 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: snow slush NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/NB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1982 03 13 DAY: Sat LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 0115 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minor PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1982 05 13 DAY: Thur LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1150 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 400.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1982 09 13 DAY: Mon LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 0745 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1350.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1982 12 02 DAY: Thur LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1530 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal, 1 minor PROPERTY DAMAGE: (\$) 6000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/NB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1983 05 28 DAY: Sat LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 0210 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3500.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St
DATE: 1983 06 08 DAY: Wed LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1041 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 2800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/EB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1983 07 29 DAY: Fri LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 0843 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 600.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1983 07 31 DAY: Sun LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1409 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/NB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: Brant St
DATE: 1983 12 21 DAY: Wed LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1330 LIGHT CONDITION: day
ROAD SURFACE CONDITION: packed snw NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1983 12 22 DAY: Thur LOCATION: Mount Forest
DISTANCE/#: intersctn. TIME OF DAY: 1515 LIGHT CONDITION: day
ROAD SURFACE CONDITION: slush NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 07 16 DAY: Mon LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 2255 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 10500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/Sb
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 01 26 DAY: Thur LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 1520 LIGHT CONDITION: day
ROAD SURFACE CONDITION: slush NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1850.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1984 12 12 DAY: Wed LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 0930 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1984 12 06 DAY: Thur LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 1105 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1984 11 09 DAY: Fri LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 1645 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1984 10 07 DAY: Sun LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 1635 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1984 10 03 DAY: Wed LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 1915 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 600.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1983 12 02 DAY: Mon LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 0910 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 3100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1983 11 30 DAY: Wed LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 1955 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 3 minor PROPERTY DAMAGE: (\$) 9000.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: NB/EB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St
DATE: 1983 10 31 DAY: Mon LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 1105 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1983 07 15 DAY: Fri LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 1914 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal PROPERTY DAMAGE: (\$) 4000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1983 06 21 DAY: Tues LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 2000 LIGHT CONDITION: dusk
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/SB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St
DATE: 1983 05 29 DAY: Sun LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 2110 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/WB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: Brant St
DATE: 1983 04 12 DAY: Tues LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 0010 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1983 03 21 DAY: Mon LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 1232 LIGHT CONDITION: day
ROAD SURFACE CONDITION: loose snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: Brant St
DATE: 1983 01 07 DAY: Fri LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 0950 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minor PROPERTY DAMAGE: (\$) 1500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1984 12 24 DAY: Fri LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 1300 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 2100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1982 12 15 DAY: Wed LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 1700 LIGHT CONDITION: dusk
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 1750.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St
DATE: 1982 11 28 DAY: Sun LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 1745 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: angle

SUMMARY OF VEHICLE ACCIDENTS ON BRANT STREET (1982-1984)

Page No. 29

ROADWAY ANALYZED: Brant St
DATE: 1982 08 27 DAY: Wed LOCATION: North Serv Rd
DISTANCE/#: intersctn. TIME OF DAY: 1015 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: Brant St.
DATE: 1982 09 08 DAY: Wed LOCATION: N Service Road
DISTANCE/#: intersectn TIME OF DAY: 1430 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 3700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/NB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: Brant St.
DATE: 1982 06 25 DAY: Fri LOCATION: N Service Road
DISTANCE/#: intersectn TIME OF DAY: 1545 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 06 26 DAY: Sat LOCATION: N Service Road
DISTANCE/#: intersectn TIME OF DAY: 2345 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 1
NO. OF INJURIES: 2 major, 1 minor PROPERTY DAMAGE: (\$) 7000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1982 06 22 DAY: Tue LOCATION: N Service Road
DISTANCE/#: intersectn TIME OF DAY: 1700 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 06 01 DAY: Tues LOCATION: N Service Road
DISTANCE/#: intersectn TIME OF DAY: 1210 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 900.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: SB/SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 06 01 DAY: Tues LOCATION: N Service Road
DISTANCE/#: intersectn TIME OF DAY: 1700 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 05 22 DAY: Sat LOCATION: N Service Road
DISTANCE/#: intersectn TIME OF DAY: 1615 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 2100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 05 18 DAY: Tues LOCATION: N Service Road
DISTANCE/#: intersectn TIME OF DAY: 2320 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 5 minimal PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1982 04 16 DAY: Fri LOCATION: N Service Road
DISTANCE/#: intersectn TIME OF DAY: 1515 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 900.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/SB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St.
DATE: 1982 02 19 DAY: Fri LOCATION: N Service Road
DISTANCE/#: intersectn TIME OF DAY: 1810 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: slush NO. OF FATALITIES: 0
NO. OF INJURIES: 3 minor PROPERTY DAMAGE: (\$) 2200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1982 01 22 DAY: Fri LOCATION: N Service Road
DISTANCE/#: intersectn TIME OF DAY: 0350 LIGHT CONDITION: day
ROAD SURFACE CONDITION: slush NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 500.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: Brant St.
DATE: 1983 05 25 DAY: Wed LOCATION: Leighland Road
DISTANCE/#: intersectn TIME OF DAY: 1640 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 3 minimal, 1 major PROPERTY DAMAGE: (\$) 5200.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: SB/SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1983 03 27 DAY: Sun LOCATION: Leighland Road
DISTANCE/#: intersectn TIME OF DAY: 0134 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 3700.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1983 02 11 DAY: Fri LOCATION: Leighland Road
DISTANCE/#: intersectn TIME OF DAY: 1825 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 15000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 12 23 DAY: Thur LOCATION: Leighland Road
DISTANCE/#: intersectn TIME OF DAY: 1330 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 4000.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: EB/SB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St.
DATE: 1982 11 04 DAY: Thur LOCATION: Leighland Road
DISTANCE/#: intersectn TIME OF DAY: 1813 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 4300.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 09 30 DAY: Thur LOCATION: Leighland Road
DISTANCE/#: intersectn TIME OF DAY: 1530 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 08 27 DAY: Fri LOCATION: Leighland Road
DISTANCE/#: intersectn TIME OF DAY: 2300 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St.
DATE: 1982 01 13 DAY: Wed LOCATION: Leighland Road
DISTANCE/#: intersectn TIME OF DAY: 1015 LIGHT CONDITION: day
ROAD SURFACE CONDITION: slush NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/WB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St.
DATE: 1984 06 13 DAY: Wed LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0740 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1984 08 21 DAY: Tues LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1550 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 3500.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: SB/SB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1984 12 05 DAY: Wed LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 2305 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: loose snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 700.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: WB/SB/WB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St.
DATE: 1984 12 11 DAY: Tues LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1805 LIGHT CONDITION: dusk
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1400.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1984 05 28 DAY: Mon LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1123 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St.
DATE: 1984 06 01 DAY: Fri LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0940 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 400.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1984 04 18 DAY: Tues LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0120 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 7500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1984 03 04 DAY: Sun LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0200 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 950.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1984 02 22 DAY: Wed LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 2140 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal PROPERTY DAMAGE: (\$) 50.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1984 02 04 DAY: Sat LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0222 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 300.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1984 01 20 DAY: Fri LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1200 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 900.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St.
DATE: 1984 01 23 DAY: Mon LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1515 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 540.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: WB/WB/WB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1984 01 19 DAY: Thur LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1840 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 350.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: SB/NB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1983 10 23 DAY: Fri LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0920 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 major PROPERTY DAMAGE: (\$) 1800.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: pedestrian

ROADWAY ANALYZED: Brant St.
DATE: 1983 09 17 DAY: Sat LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0045 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal, 1 minor PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1983 10 05 DAY: Wed LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1115 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1983 08 24 DAY: Wed LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1610 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1400.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: EB/EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1983 06 26 DAY: Sun LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0920 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal, 1 minor PROPERTY DAMAGE: (\$) 8000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Brant St.
DATE: 1983 06 25 DAY: Sat LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1445 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1983 06 03 DAY: Fri LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1725 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/WB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1983 06 20 DAY: Mon LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1645 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal PROPERTY DAMAGE: (\$) 225.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1983 06 02 DAY: Thur LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 2330 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1200.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: Brant St.
DATE: 1983 05 29 DAY: Sun LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1430 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 650.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: EB/EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1983 05 22 DAY: Sun LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0025 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1983 05 12 DAY: Thur LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1300 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2300.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1983 04 27 DAY: Wed LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0813 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 750.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1983 03 25 DAY: Fri LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1945 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal PROPERTY DAMAGE: (\$) 500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1983 03 05 DAY: Sat LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1630 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 2 major PROPERTY DAMAGE: (\$) 11700.
NO. OF VEHICLES: 5 DIRECTION OF TRAVEL: WB/SB/3-EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1983 02 18 DAY: Fri LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1655 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 7000.
NO. OF VEHICLES: 4 DIRECTION OF TRAVEL: 4-EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1983 02 11 DAY: Fri LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0815 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 900.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1983 01 08 DAY: Sat LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1040 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 11 17 DAY: Wed LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0920 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 350.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 12 10 DAY: Fri LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1220 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 4100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 11 12 DAY: Fri LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1633 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1982 10 20 DAY: Wed LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1246 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1800.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: EB/EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 10 12 DAY: Tues LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1110 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 10 08 DAY: Fri LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0650 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1400.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1982 10 13 DAY: Wed LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1154 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 900.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/NB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St.
DATE: 1982 08 31 DAY: Tues LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1825 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1300.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 08 14 DAY: Sat LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1110 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 06 19 DAY: Sat LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 2110 LIGHT CONDITION: dusk
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 3 minimal PROPERTY DAMAGE: (\$) 3500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/SB
TYPE OF ACCIDENT: turning movemnt

ROADWAY ANALYZED: Brant St.
DATE: 1982 05 20 DAY: Thur LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1721 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1982 04 30 DAY: Fri LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1150 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NE/NB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 04 13 DAY: Tues LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1710 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/WB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: Brant St.
DATE: 1982 04 15 DAY: Thur LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 1600 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 410.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SE
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Brant St.
DATE: 1982 01 15 DAY: Fri LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0355 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal PROPERTY DAMAGE: (\$) 900.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Brant St.
DATE: 1982 01 21 DAY: Thur LOCATION: Plains Road
DISTANCE/#: intersectn TIME OF DAY: 0915 LIGHT CONDITION: day
ROAD SURFACE CONDITION: loose snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 400.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 01 24 DAY: Tues LOCATION: King Rd
DISTANCE/#: 100 m east TIME OF DAY: 0915 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: EB
TYPE OF ACCIDENT: single

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 02 02 DAY: Thur LOCATION: King Rd
DISTANCE/#: 1 km east TIME OF DAY: 0345 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2500.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 02 15 DAY: Wed LOCATION: King Rd
DISTANCE/#: 600 m west TIME OF DAY: 0740 LIGHT CONDITION: day
ROAD SURFACE CONDITION: ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/WB
TYPE OF ACCIDENT: passing

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 03 02 DAY: Fri LOCATION: Waterdown
DISTANCE/#: 50 m east TIME OF DAY: LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 0
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: EB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 03 08 DAY: Thur LOCATION: Waterdown
DISTANCE/#: 250 m east TIME OF DAY: 0930 LIGHT CONDITION: day
ROAD SURFACE CONDITION: snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 6500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 03 11 DAY: Sun LOCATION: King Road
DISTANCE/#: 600 m west TIME OF DAY: 1100 LIGHT CONDITION: day
ROAD SURFACE CONDITION: snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 5000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: EB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 03 11 DAY: Sun LOCATION: Waterdown
DISTANCE/#: 70 m east TIME OF DAY: 0235 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1400.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: single

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 05 15 DAY: Sun LOCATION: King Road
DISTANCE/#: 30 m east TIME OF DAY: 1624 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 07 17 DAY: Tues LOCATION: King Road
DISTANCE/#: 400 m east TIME OF DAY: 2010 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 2800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/WB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 07 30 DAY: Mon LOCATION: Brant Street
DISTANCE/#: 200 m west TIME OF DAY: 1710 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal PROPERTY DAMAGE: (\$) 1700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 06 25 DAY: Mon LOCATION: Waterdown Road
DISTANCE/#: 600 m east TIME OF DAY: 0850 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 2500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/WB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 08 30 DAY: Thur LOCATION: King Road
DISTANCE/#: 500 m west TIME OF DAY: 1710 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1700.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: EB/EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 11 17 DAY: Sat LOCATION: King Road
DISTANCE/#: 1 km west TIME OF DAY: 1620 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minimal PROPERTY DAMAGE: (\$) 13000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/EB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 12 10 DAY: Mon LOCATION: King Road
DISTANCE/#: 300 m west TIME OF DAY: 0710 LIGHT CONDITION: dawn
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 1100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 12 11 DAY: Tues LOCATION:
DISTANCE/#: # 201 TIME OF DAY: 0715 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/WB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 08 27 DAY: Fri LOCATION: King ROAD
DISTANCE/#: 500 m west TIME OF DAY: 0005 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1500.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 12 28 DAY: Fri LOCATION: Kerns Road
DISTANCE/#: 300 m west TIME OF DAY: 0730 LIGHT CONDITION: dawn
ROAD SURFACE CONDITION: ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 300.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 01 29 DAY: Sat LOCATION: King Road
DISTANCE/#: 200 m east TIME OF DAY: 0850 LIGHT CONDITION: day
ROAD SURFACE CONDITION: ice NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 4000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: EB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 02 14 DAY: Mon LOCATION: King Road
DISTANCE/#: 500 m west TIME OF DAY: 2105 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 3700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 03 27 DAY: Sun LOCATION: Waterdown Road
DISTANCE/#: 1 km east TIME OF DAY: 1140 LIGHT CONDITION: day
ROAD SURFACE CONDITION: slush NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 500.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 10 25 DAY: Tues LOCATION: King Road
DISTANCE/#: 20 m west TIME OF DAY: 1700 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 300.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 11 16 DAY: Wed LOCATION: Kerns Road
DISTANCE/#: 300 m west TIME OF DAY: 0845 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/WB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 12 28 DAY: Wed LOCATION: King Road
DISTANCE/#: 50 m west TIME OF DAY: 1000 LIGHT CONDITION: day
ROAD SURFACE CONDITION: snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: single

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 12 28 DAY: Wed LOCATION: Waterdown Road
DISTANCE/#: 100 m east TIME OF DAY: 2350 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: slush NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 4000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/SE
TYPE OF ACCIDENT: angle

SUMMARY OF VEHICLE ACCIDENTS ON NORTH SERVICE RD (1982-1984) Page No 5

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 12 25 DAY: Sun LOCATION: King Road
DISTANCE/#: 500 m west TIME OF DAY: LIGHT CONDITION: dark
ROAD SURFACE CONDITION: snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 04 18 DAY: Mon LOCATION: Kerns Road
DISTANCE/#: 500 m west TIME OF DAY: 1740 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 500.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: EB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 04 30 DAY: Sat LOCATION: King Road
DISTANCE/#: 1 km west TIME OF DAY: LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: SB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 11 18 DAY: Fri LOCATION:
DISTANCE/#: # 151 TIME OF DAY: 0855 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2000.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: EB/EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 06 28 DAY: Tues LOCATION:
DISTANCE/#: # 201 TIME OF DAY: 0800 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 11 02 DAY: Wed LOCATION:
DISTANCE/#: # 151 TIME OF DAY: 1820 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 4000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: turning

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 02 07 DAY: Sun LOCATION: King ROAD
DISTANCE/#: 800 m west TIME OF DAY: 0200 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1400.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 11 26 DAY: Fri LOCATION: Landfill Access
DISTANCE/#: TIME OF DAY: 1500 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: turning

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 01 11 DAY: Mon LOCATION: Kerns Road
DISTANCE/#: 200 m west TIME OF DAY: 0750 LIGHT CONDITION: dawn
ROAD SURFACE CONDITION: snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/EB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 01 22 DAY: Fri LOCATION: Brant Street
DISTANCE/#: 500 m west TIME OF DAY: 2115 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 600.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: EB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 02 20 DAY: Sat LOCATION: King Road
DISTANCE/#: 500 m east TIME OF DAY: 1945 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2050.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/EB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 03 04 DAY: Thur LOCATION: Waterdown Road
DISTANCE/#: 500 m east TIME OF DAY: 2035 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: slush NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 6000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 05 30 DAY: Sun LOCATION: King Road
DISTANCE/#: 12 m west TIME OF DAY: 1230 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 11000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EE/WB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 04 11 DAY: Sun LOCATION: King Road
DISTANCE/#: 1.5 m east TIME OF DAY: 1445 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 2 major, 1 minor PROPERTY DAMAGE: (\$) 7000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/EB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 01 22 DAY: Fri LOCATION: King Road
DISTANCE/#: 500 m west TIME OF DAY: 1150 LIGHT CONDITION: day
ROAD SURFACE CONDITION: slush NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: EB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 07 27 DAY: Tues LOCATION: King Road
DISTANCE/#: 15 m west TIME OF DAY: 2100 LIGHT CONDITION: nigh
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 600.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 09 12 DAY: Sun LOCATION: Kerns Road
DISTANCE/#: 200 m east TIME OF DAY: 0158 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 major, 2 minor PROPERTY DAMAGE: (\$) 9000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 10 14 DAY: Thur LOCATION: Brant Street
DISTANCE/#: 200 m west TIME OF DAY: 1725 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 400.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EE/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 10 23 DAY: Sat LOCATION: Kerns Road
DISTANCE/#: 50 m east TIME OF DAY: 0030 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 2000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 10 01 DAY: Fri LOCATION: Kerns Road
DISTANCE/#: 300 m west TIME OF DAY: 0200 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 10000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: EB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 11 15 DAY: Mon LOCATION: Brant Street
DISTANCE/#: 300 m west TIME OF DAY: 0815 LIGHT CONDITION: day
ROAD SURFACE CONDITION: ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 11 10 DAY: Sat LOCATION: Kerns Road
DISTANCE/#: intersectn TIME OF DAY: 2155 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 major PROPERTY DAMAGE: (\$) 4800.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: turning

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 01 08 DAY: Sun LOCATION: Kerns Road
DISTANCE/#: intersectn TIME OF DAY: 0430 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: snow NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 200.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 08 10 DAY: Wed LOCATION: Kerns Road
DISTANCE/#: intersectn TIME OF DAY: 1525 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 150.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 06 16 DAY: Thur LOCATION: Kerns Road
DISTANCE/#: intersectn TIME OF DAY: 0830 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 5700.
NO. OF VEHICLES: 4 DIRECTION OF TRAVEL: NB/WB/2-SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 07 09 DAY: Fri LOCATION: Kerns Road
DISTANCE/#: intersectn TIME OF DAY: 0650 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 03 09 DAY: Tues LOCATION: Kerns Road
DISTANCE/#: intersectn TIME OF DAY: 1756 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/SB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 08 14 DAY: Tues LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: 0045 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1500
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/WB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 11 26 DAY: Mon LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: 9840 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 1150.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/NB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 09 09 DAY: Tues LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: 1949 LIGHT CONDITION: dusk
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 6000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 06 29 DAY: Fri LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: 1645 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 2300.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: WB/WB/WB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 02 02 DAY: Thur LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: 2312 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2300.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/EB
TYPE OF ACCIDENT: turning

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 01 10 DAY: Tues LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: 1510 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/SB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 08 11 DAY: Thur LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: 1415 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 600.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: turning

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 06 25 DAY: Mon LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: 1625 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 2 minor PROPERTY DAMAGE: (\$) 9000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 04 11 DAY: Mon LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: 1535 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 125.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/SB
TYPE OF ACCIDENT: turning

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 06 10 DAY: Thur LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: 0825 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 4700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/EB
TYPE OF ACCIDENT: turning

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 07 10 DAY: Sat LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: 0915 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 07 02 DAY: Fri LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 2 major, 2 minimal PROPERTY DAMAGE: (\$) 8200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/WB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 11 30 DAY: Tues LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/NB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 11 28 DAY: Sun LOCATION: King Road
DISTANCE/#: intersectn TIME OF DAY: 1620 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 650.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/NB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 05 24 DAY: Sun LOCATION: Waterdown Road
DISTANCE/#: intersectn TIME OF DAY: 0708 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: SB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1984 09 01 DAY: Sat LOCATION: Waterdown Road
DISTANCE/#: intersectn TIME OF DAY: 1545 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/NB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 11 24 DAY: Thur LOCATION: Waterdown Road
DISTANCE/#: intersectn TIME OF DAY: 1110 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/SB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1983 05 16 DAY: Thur LOCATION: Waterdown Road
DISTANCE/#: intersectn TIME OF DAY: 2300 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/WB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: N. Serv.Rd
DATE: 1982 06 22 DAY: Tues LOCATION: Waterdown Road
DISTANCE/#: intersectn TIME OF DAY: 0615 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 300.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/SE
TYPE OF ACCIDENT: angle

SUMMARY OF VEHICLE ACCIDENTS ON PLAINS ROAD (1982-1984) Page No. 1

ROADWAY ANALYZED: Plains Rd
 DATE: 1984 02 13 DAY: Mon LOCATION: Brant Street
 DISTANCE/#: east TIME OF DAY: 1205 LIGHT CONDITION: day
 ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
 NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1500.
 NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
 TYPE OF ACCIDENT: side swipe

ROADWAY ANALYZED: Plains Rd
 DATE: 1984 12 28 DAY: Fri LOCATION: Brant Street
 DISTANCE/#: 600 m east TIME OF DAY: 0040 LIGHT CONDITION: dark
 ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
 NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3100.
 NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: EB
 TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Plains Rd
 DATE: 1984 03 18 DAY: Sun LOCATION: Brant Street
 DISTANCE/#: 30 m east TIME OF DAY: 0300 LIGHT CONDITION: dark
 ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
 NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1100.
 NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: NB/EB
 TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Plains Rd
 DATE: 1984 07 19 DAY: Thur LOCATION: Queensway
 DISTANCE/#: 100 m west TIME OF DAY: 1500 LIGHT CONDITION: day
 ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
 NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2250.
 NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
 TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Plains Rd
 DATE: 1983 11 02 DAY: Wed LOCATION: Brant Street
 DISTANCE/#: 100 m east TIME OF DAY: 1820 LIGHT CONDITION: dark
 ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
 NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1400.
 NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/WB
 TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Plains Rd
 DATE: 1983 11 02 DAY: Wed LOCATION: Brant Street
 DISTANCE/#: 100 m east TIME OF DAY: 1830 LIGHT CONDITION: dark
 ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
 NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2400.
 NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: WB/WB/WB
 TYPE OF ACCIDENT: rear end

SUMMARY OF VEHICLE ACCIDENTS ON PLAINS ROAD (1982-1984)

Page No. 2

ROADWAY ANALYZED: Plains Rd
DATE: 1983 12 15 DAY: Thur LOCATION:
DISTANCE/#: 2201 Plns. TIME OF DAY: 0050 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 5000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Plains Rd
DATE: 1983 12 12 DAY: Mon LOCATION:
DISTANCE/#: 1134 Plns. TIME OF DAY: 1721 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/EB
TYPE OF ACCIDENT: approaching

ROADWAY ANALYZED: Plains Rd
DATE: 1983 12 28 DAY: Wed LOCATION: Brant Street
DISTANCE/#: 400 m east TIME OF DAY: 0936 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet slush NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/WB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Plains Rd
DATE: 1983 11 11 DAY: Fri LOCATION: CN railway
DISTANCE/#: railway TIME OF DAY: 1850 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1600.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Plains Rd
DATE: 1983 11 11 DAY: Fri LOCATION: CN railway
DISTANCE/#: railway TIME OF DAY: 1853 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: ice NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 1800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Plains Rd
DATE: 1983 09 30 DAY: Fri LOCATION: E of Queensway
DISTANCE/#: QEW TIME OF DAY: 2215 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 major PROPERTY DAMAGE: (\$) 2000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: single vehicle

SUMMARY OF VEHICLE ACCIDENTS ON PLAINS ROAD (1982-1984)

Page No. 3

ROADWAY ANALYZED: Plains Rd
DATE: 1983 09 09 DAY: Fri LOCATION:
DISTANCE/#: 2211 Plns. TIME OF DAY: 2300 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: NB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Plains Rd
DATE: 1983 08 15 DAY: Mon LOCATION:
DISTANCE/#: 2177 Plns. TIME OF DAY: 1945 LIGHT CONDITION: dusk
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minor PROPERTY DAMAGE: (\$) 1700.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Plains Rd
DATE: 1983 08 04 DAY: Thur LOCATION: Brant
DISTANCE/#: 30 m east TIME OF DAY: 1310 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1800.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/EB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Plains Rd
DATE: 1983 05 02 DAY: Sun LOCATION:
DISTANCE/#: 1400 Plns. TIME OF DAY: LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 500.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Plains Rd
DATE: 1983 02 12 DAY: Sat LOCATION: QEW
DISTANCE/#: QEW TIME OF DAY: 0040 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: packed snw NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 3000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Plains Rd
DATE: 1982 11 04 DAY: Thur LOCATION: Brant
DISTANCE/#: 100 m east TIME OF DAY: 1630 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 600.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: single vehicle

ROADWAY ANALYZED: Plains Rd
DATE: 1982 11 15 DAY: Mon LOCATION: Brant
DISTANCE/#: 400 m east TIME OF DAY: 0845 LIGHT CONDITION: dat
ROAD SURFACE CONDITION: ice NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 800.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: EB/EB/EB
TYPE OF ACCIDENT: angle.

ROADWAY ANALYZED: Plains Rd
DATE: 1982 11 04 DAY: Thur LOCATION: Brant Street
DISTANCE/#: 100 m east TIME OF DAY: 1635 LIGHT CONDITION: dusk
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 200.
NO. OF VEHICLES: 3 DIRECTION OF TRAVEL: WB/WB/WB
TYPE OF ACCIDENT: rear end

ROADWAY ANALYZED: Plains Rd
DATE: 1982 10 26 DAY: Tues LOCATION:
DISTANCE/#: 2177 Plns. TIME OF DAY: 1600 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1300.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/WB
TYPE OF ACCIDENT: turning

ROADWAY ANALYZED: Plains Rd
DATE: 1982 09 28 DAY: Tues LOCATION:
DISTANCE/#: 2011 Plns. TIME OF DAY: 1658 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 2100.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB/EB
TYPE OF ACCIDENT: turning

ROADWAY ANALYZED: Plains Rd
DATE: 1982 09 23 DAY: Thur LOCATION:
DISTANCE/#: 1240 Plns. TIME OF DAY: 0230 LIGHT CONDITION: dark
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 225.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: WB
TYPE OF ACCIDENT: reversing

ROADWAY ANALYZED: Plains Rd
DATE: 1982 07 27 DAY: Tues LOCATION: Brant Street
DISTANCE/#: 30 m east TIME OF DAY: 2117 LIGHT CONDITION: dar
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 600.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: EB
TYPE OF ACCIDENT: single vehicle

SUMMARY OF VEHICLE ACCIDENTS ON PLAINS ROAD (1982-1984)

Page No. 5

ROADWAY ANALYZED: Plains Rd
DATE: 1982 05 14 DAY: Fri LOCATION: Brant Street
DISTANCE/#: 18 m east TIME OF DAY: 0915 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1000.
NO. OF VEHICLES: 1 DIRECTION OF TRAVEL: EB
TYPE OF ACCIDENT: single vehicle

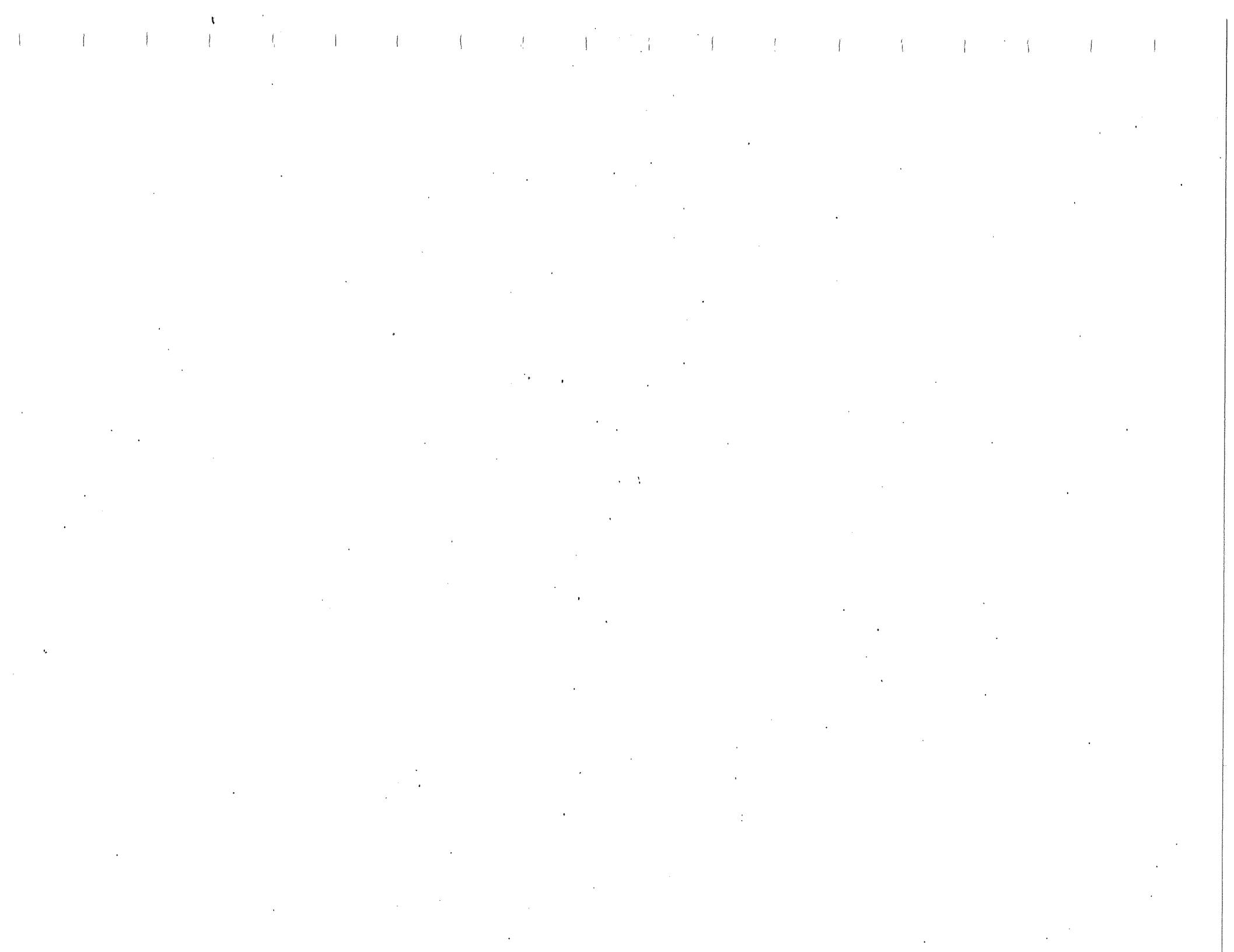
ROADWAY ANALYZED: Plains Rd
DATE: 1982 05 22 DAY: Sat LOCATION: Police Station
DISTANCE/#: TIME OF DAY: 1701 LIGHT CONDITION: day
ROAD SURFACE CONDITION: wet NO. OF FATALITIES: 0
NO. OF INJURIES: 0 PROPERTY DAMAGE: (\$) 1250.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: SB/WB
TYPE OF ACCIDENT: angle

ROADWAY ANALYZED: Plains Rd
DATE: 1982 04 13 DAY: Tues LOCATION: Queensway
DISTANCE/#: 140 m west TIME OF DAY: 1245 LIGHT CONDITION: day
ROAD SURFACE CONDITION: dry NO. OF FATALITIES: 0
NO. OF INJURIES: 1 minimal PROPERTY DAMAGE: (\$) 2200.
NO. OF VEHICLES: 2 DIRECTION OF TRAVEL: EB/EB
TYPE OF ACCIDENT: rear end

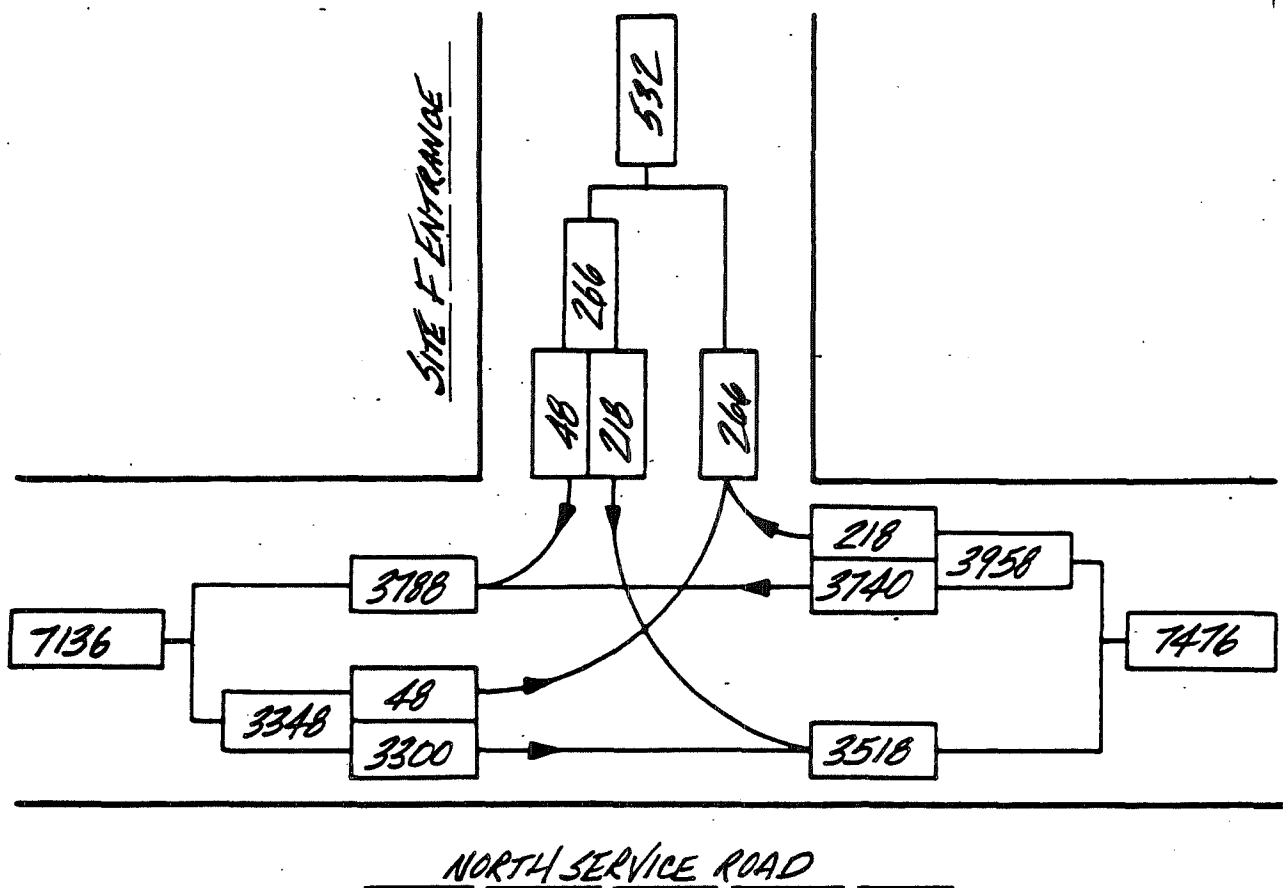


APPENDIX D

TRAFFIC FLOW DIAGRAMS



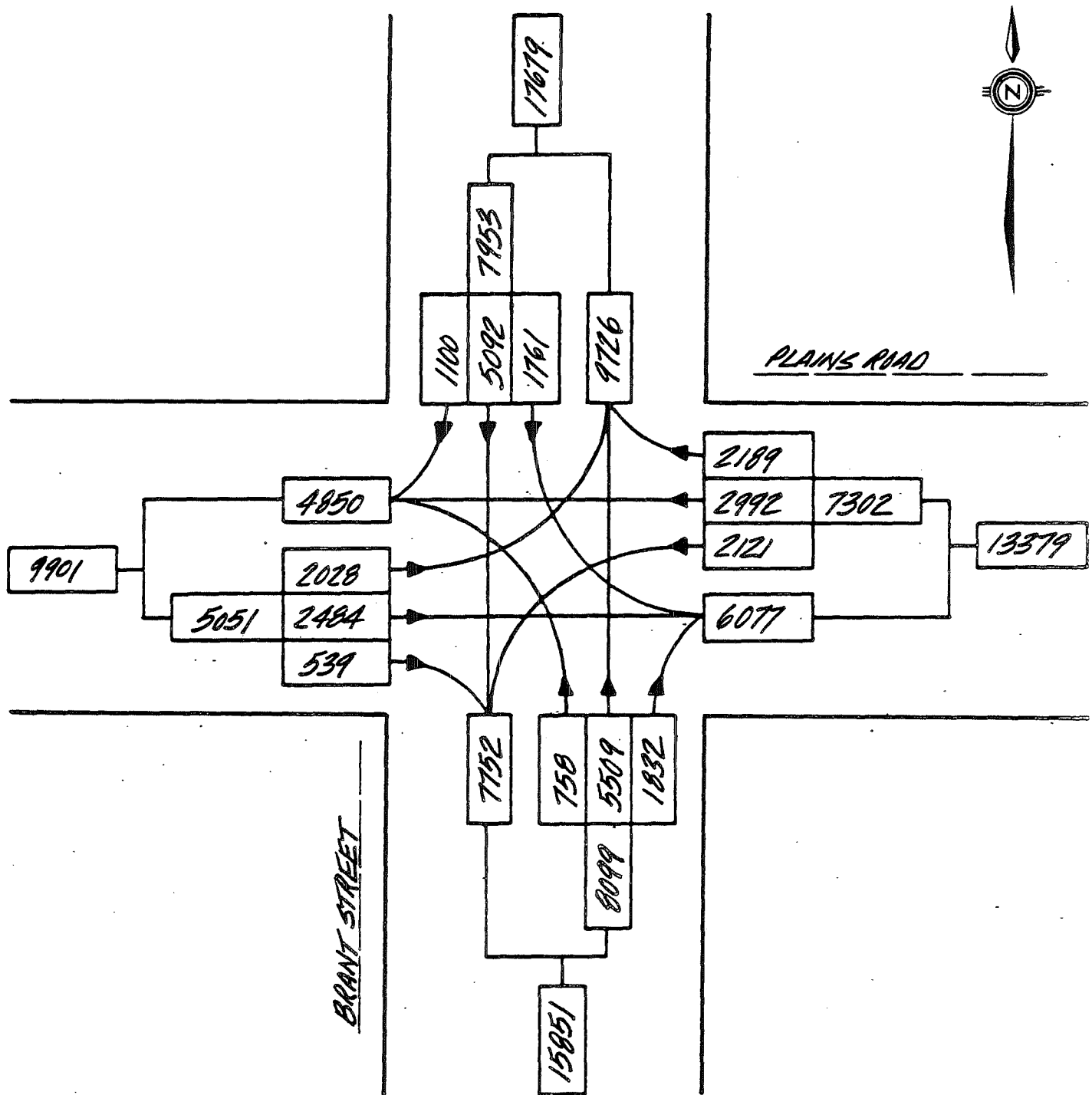
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION NORTH SERVICE ROAD / SITE F ENTRANCE

DATE PROJECTED 1996 TIME PERIOD 8 HOUR

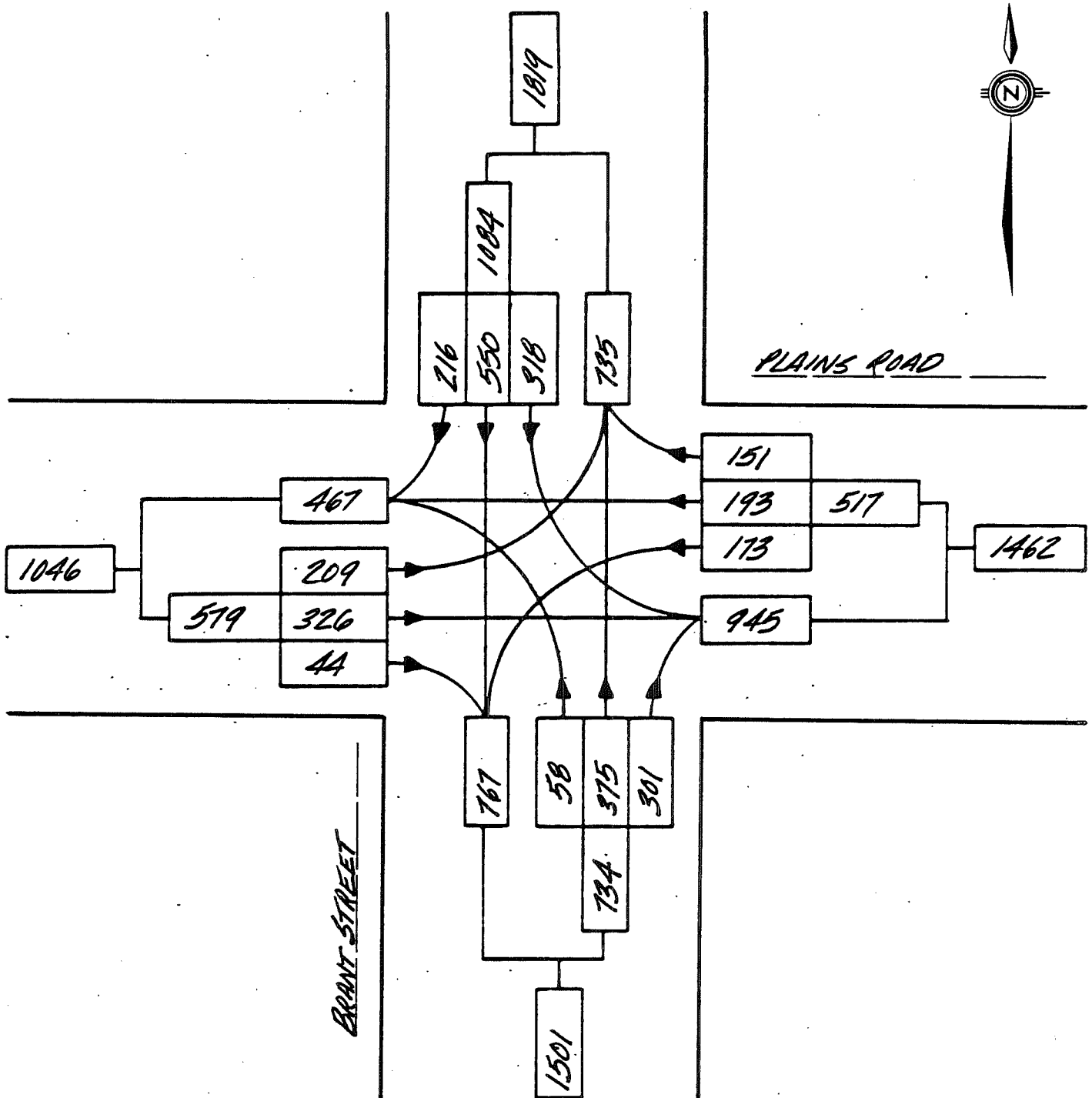
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION BRANT STREET / PLAINS ROAD

DATE TUESDAY SEPT. 17, 1985 TIME PERIOD 12 HOUR (7:00 A.M. - 7:00 P.M.)

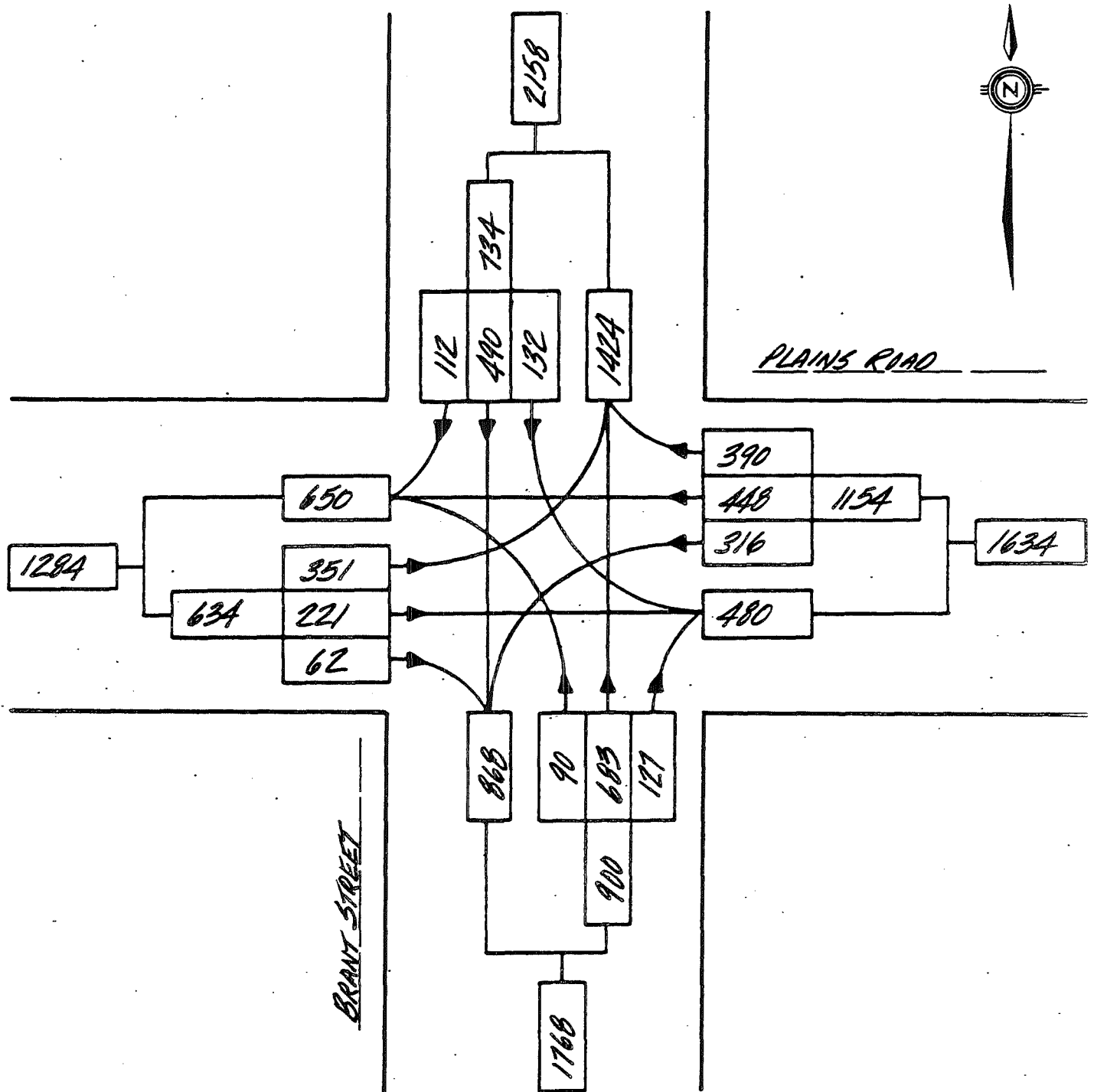
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION BRANT STREET / PLAINS ROAD

DATE TUESDAY SEPT. 17 / 1985 TIME PERIOD A.M. PEAK HOUR (7:45 TO 8:45)

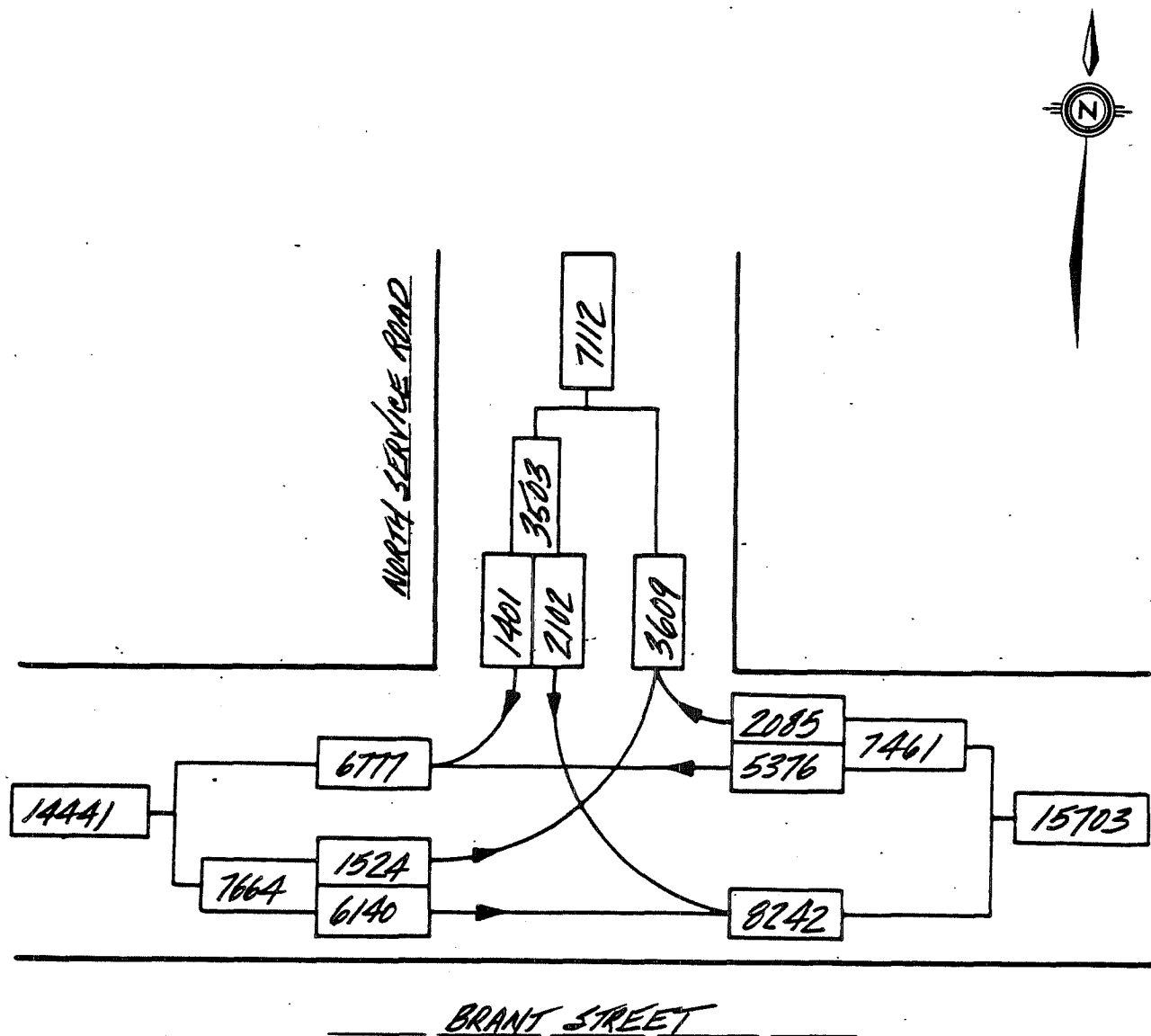
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION BRANT STREET / PLAINS ROAD

DATE TUESDAY SEPT. 17, 1985 TIME PERIOD P.M. PEAK HOUR (4:00 TO 5:00)

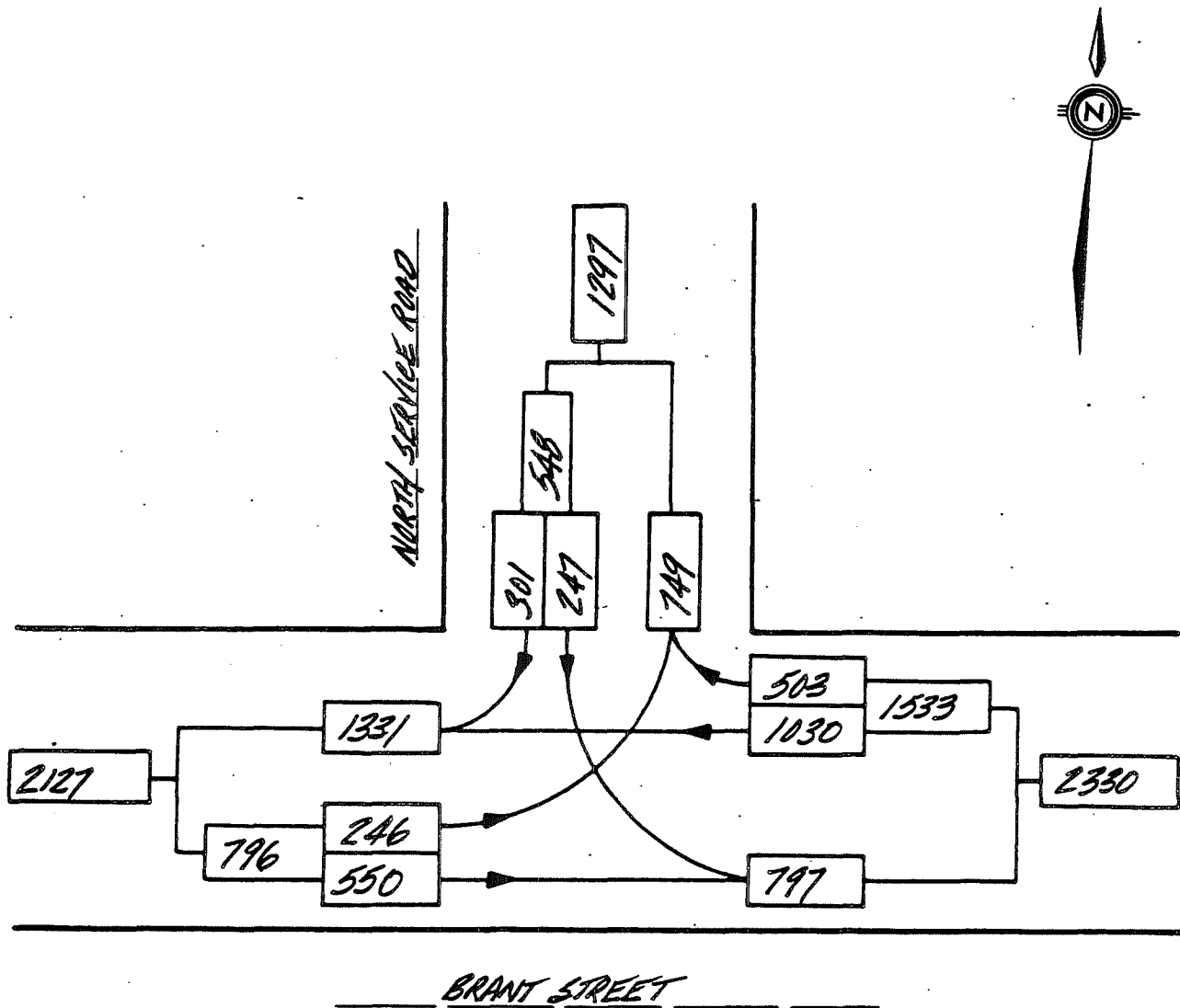
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION BRANT STREET / NORTH SERVICE ROAD

DATE TUESDAY SEPT. 17, 1985 TIME PERIOD 8 HOUR

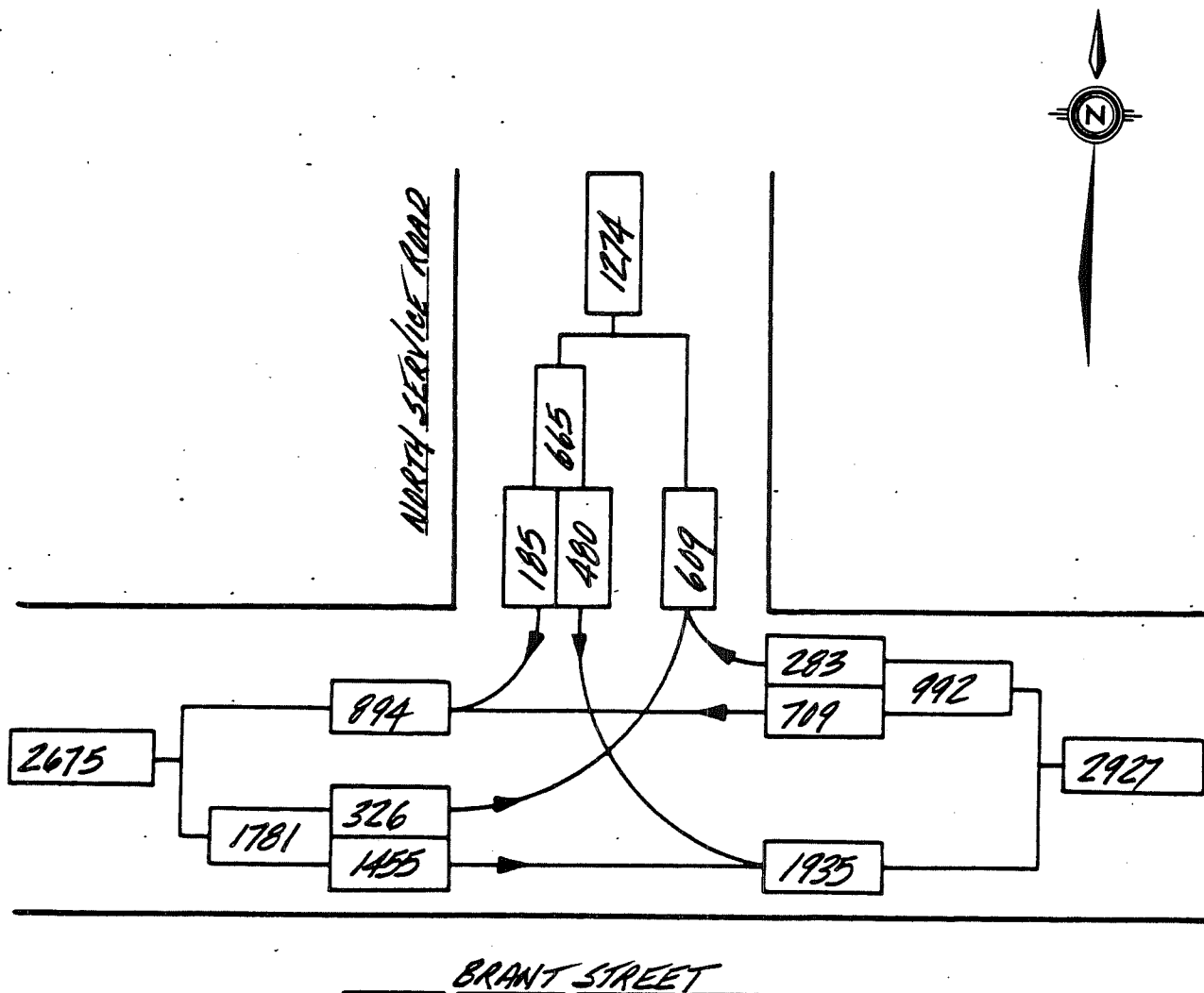
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION BRANT STREET / NORTH SERVICE ROAD

DATE TUESDAY SEPT. 17, 1985 TIME PERIOD A.M. PEAK HOUR (7:45 TO 8:45)

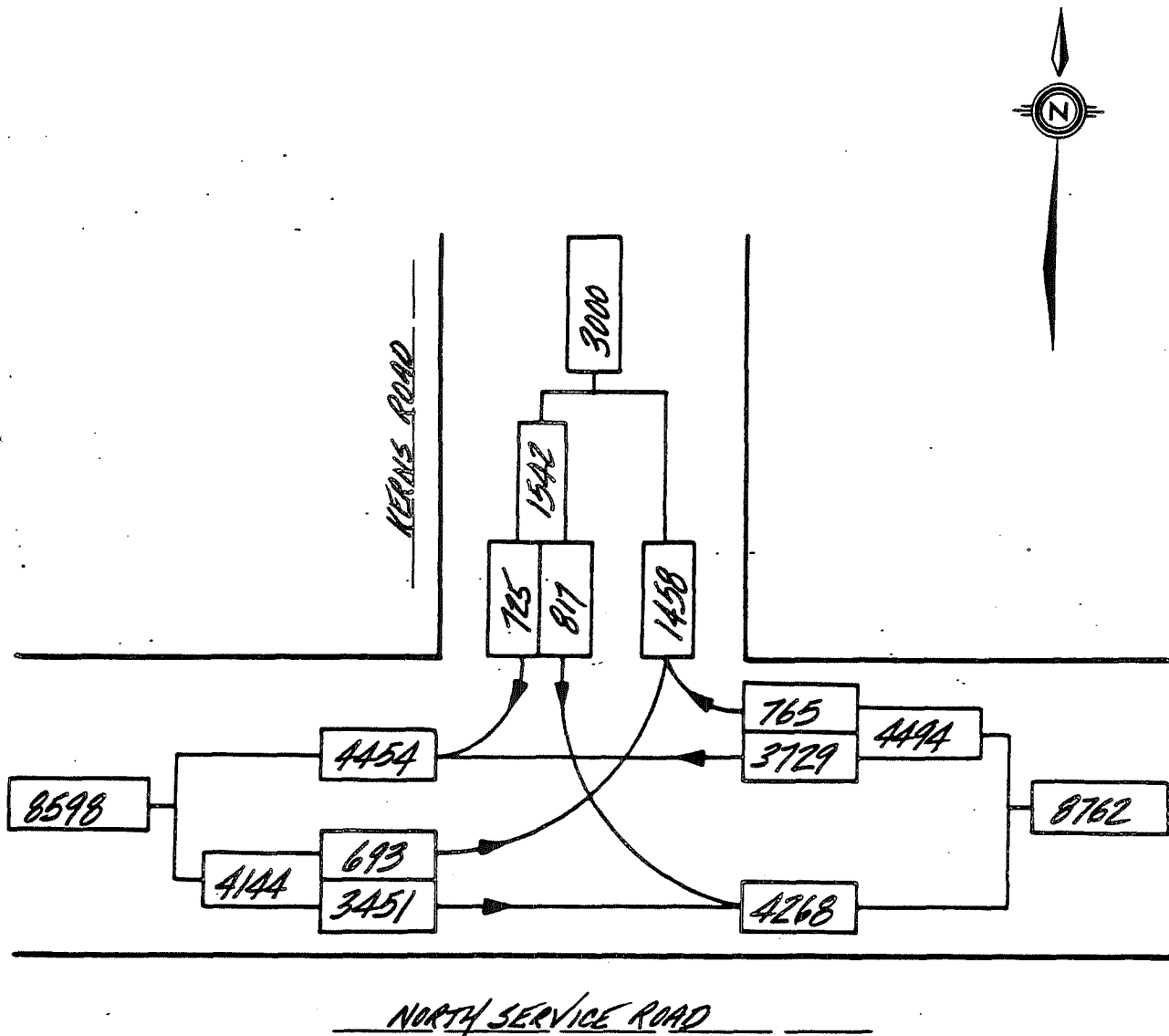
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION BRANT STREET / NORTH SERVICE ROAD

DATE TUESDAY SEPT. 17, 1985 TIME PERIOD P.M. PEAK HOUR (4:30 TO 5:30)

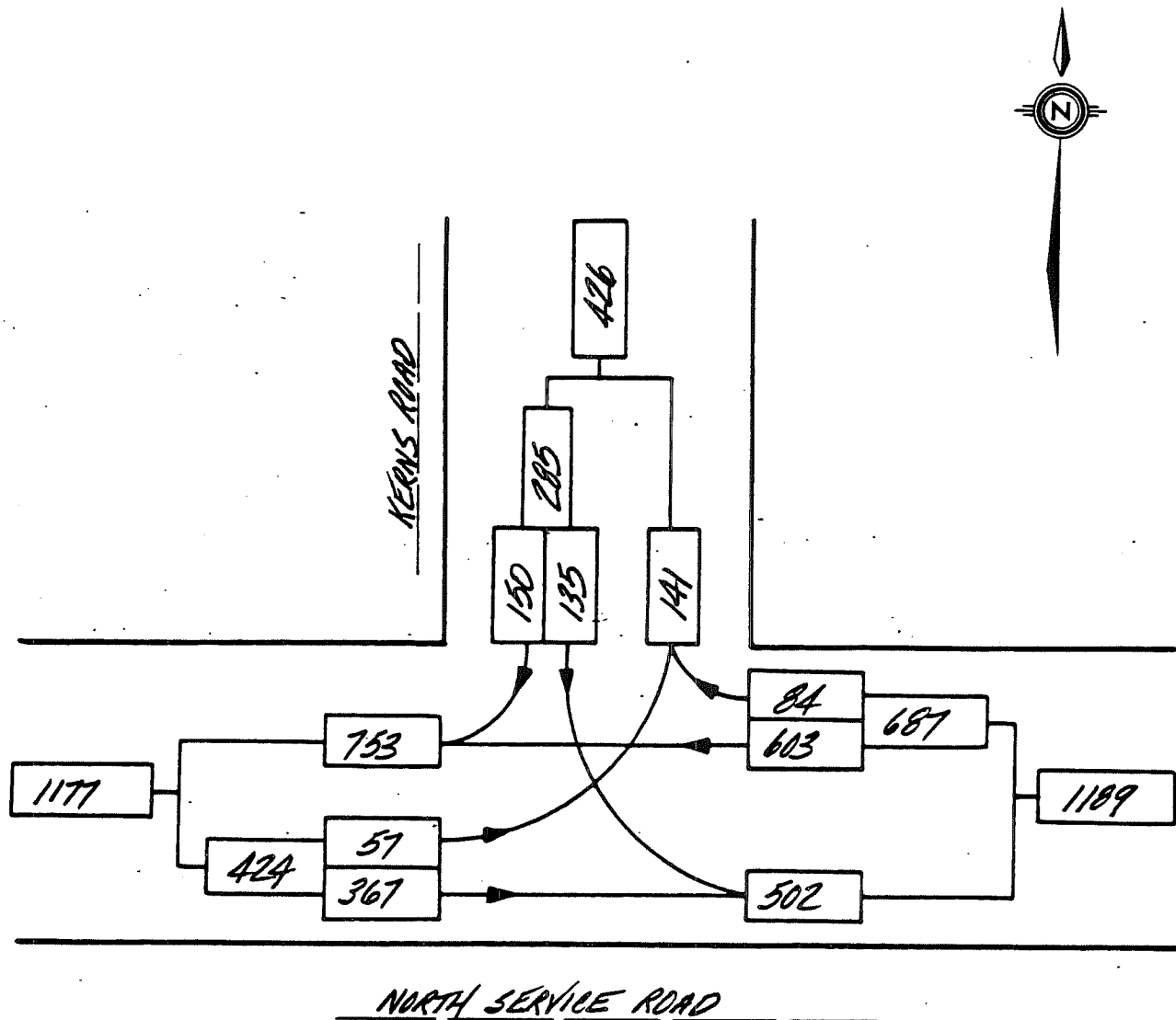
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION NORTH SERVICE ROAD / KERNS ROAD

DATE OCTOBER 8, 1985 TIME PERIOD 8 HOUR

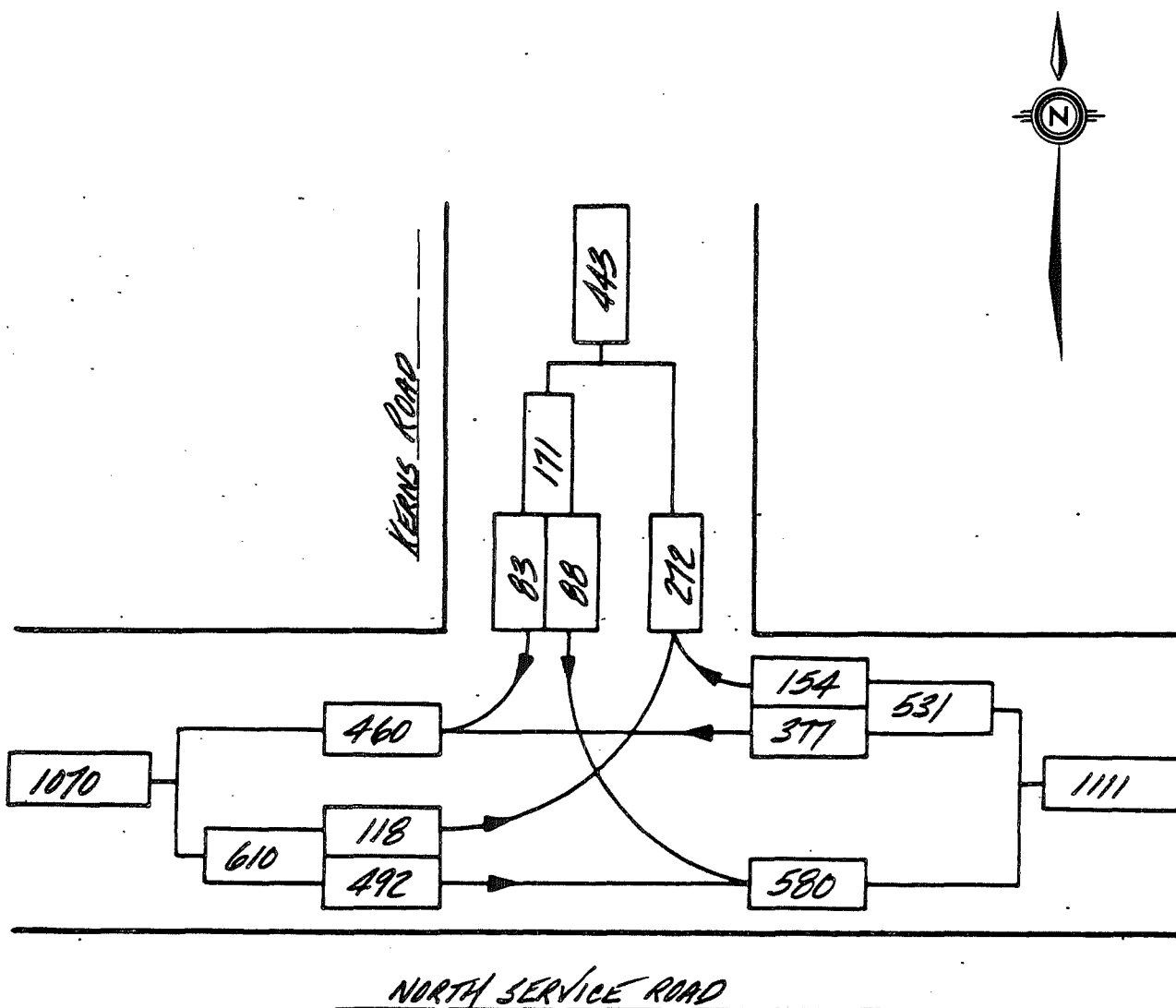
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION NORTH SERVICE ROAD / KERNS ROAD

DATE TUESDAY OCT. 8, 1985 TIME PERIOD A.M. PEAK HOUR (7:45 TO 8:45)

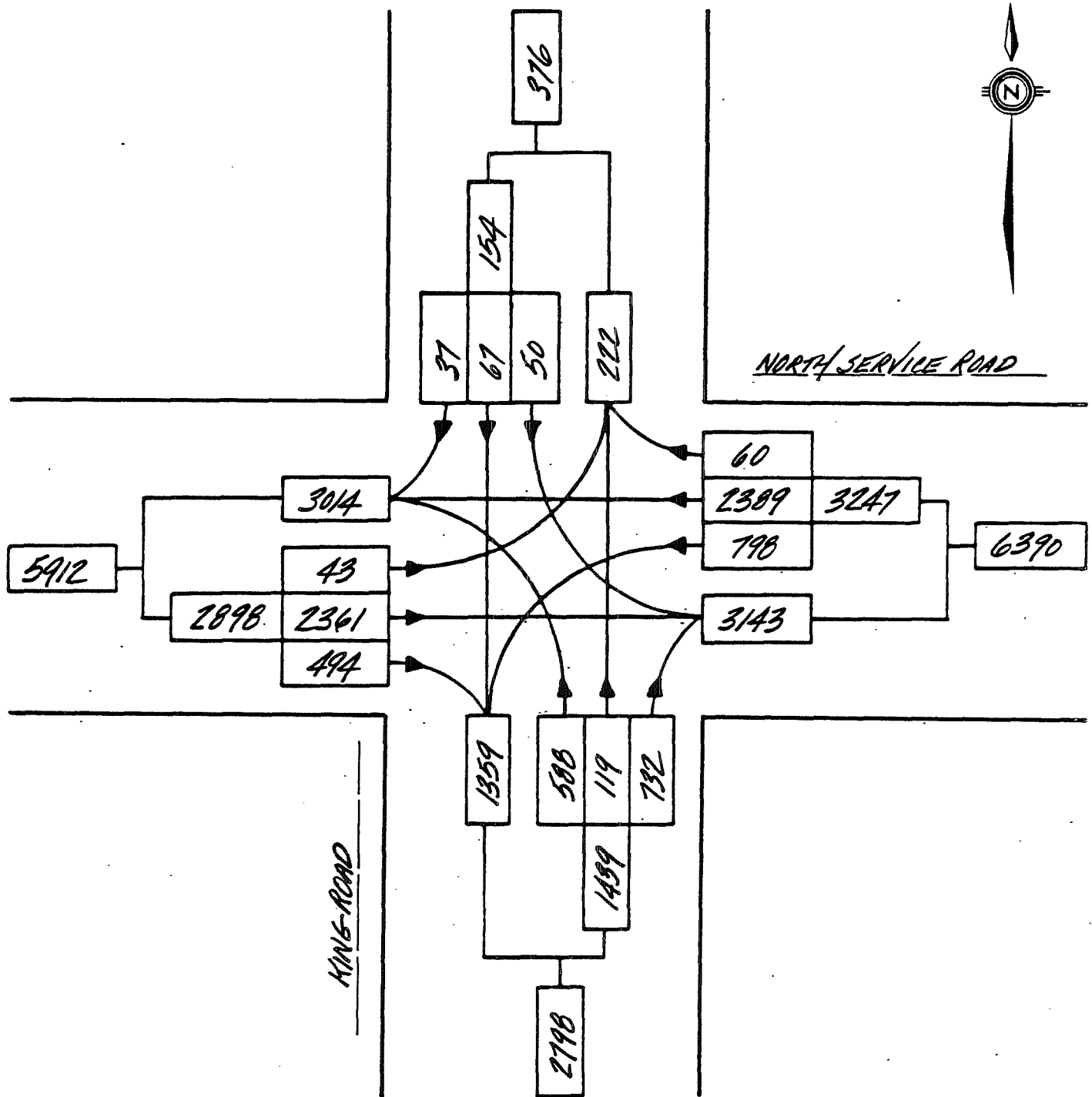
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION NORTH SERVICE ROAD / KERNS ROAD

DATE TUESDAY OCT. 8, 1986 TIME PERIOD P.M. PEAK HOUR (4:45 TO 5:45)

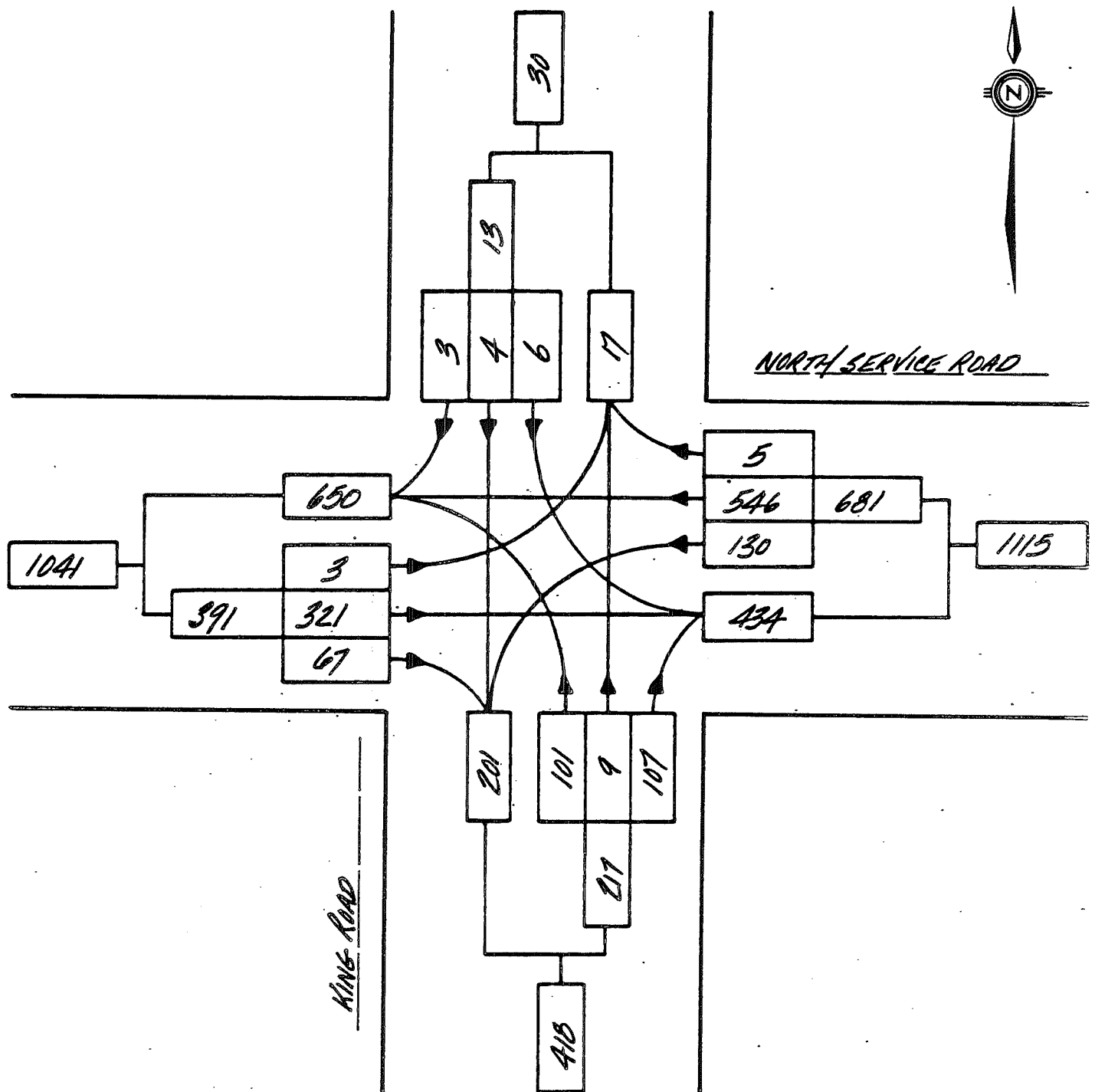
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION NORTH SERVICE ROAD / KING ROAD

DATE WEDNESDAY SEPT. 11, 1985 TIME PERIOD 8 HOUR

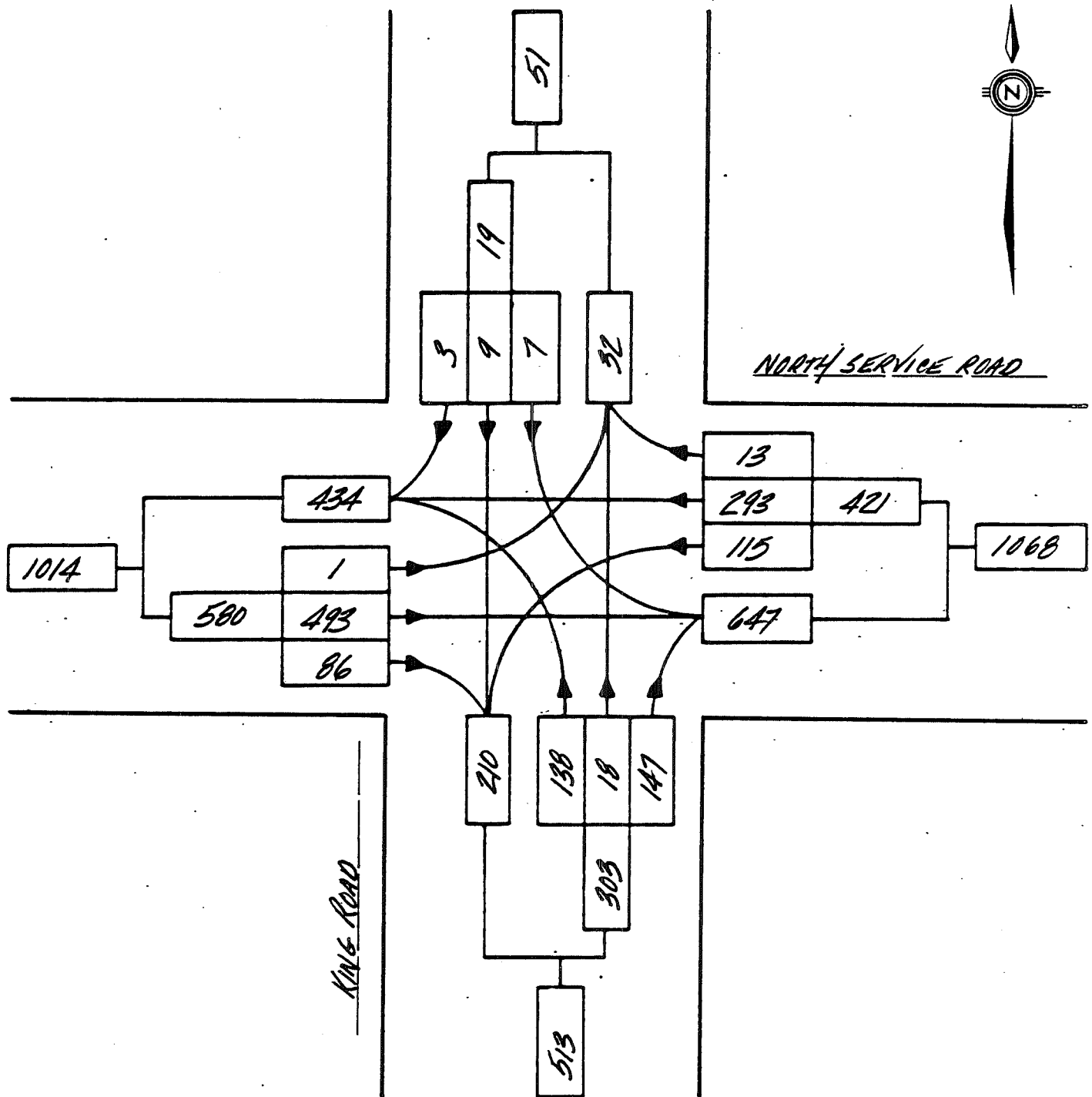
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION NORTH SERVICE ROAD / KING ROAD

DATE WEDNESDAY SEPT. 11, 1985 TIME PERIOD A.M. PEAK HOUR (7:45 TO 8:45)

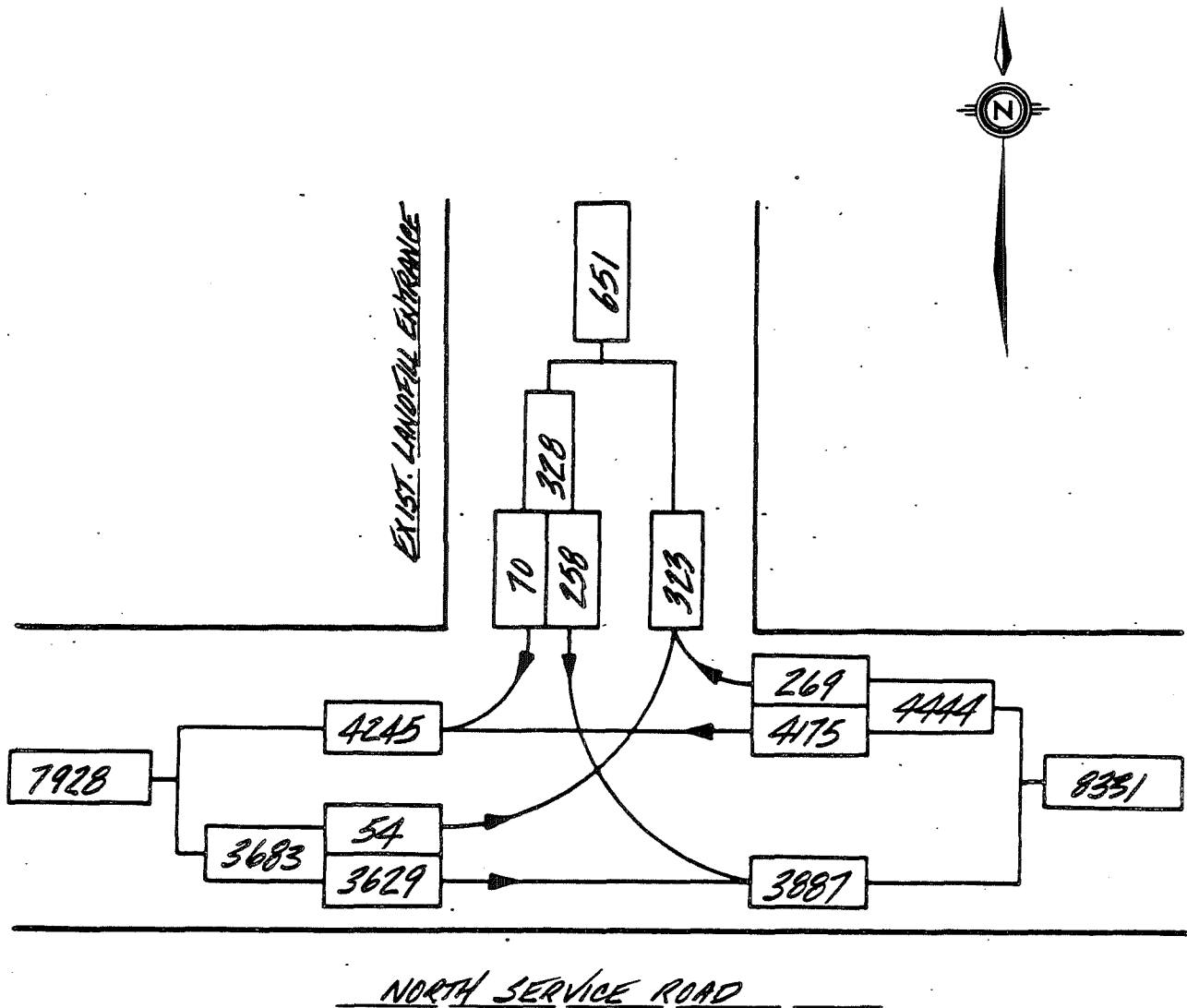
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION NORTH SERVICE ROAD / KING ROAD

DATE WEDNESDAY SEPT. 11, 1986 TIME PERIOD P.M. PEAK HOUR (4:30 TO 5:30)

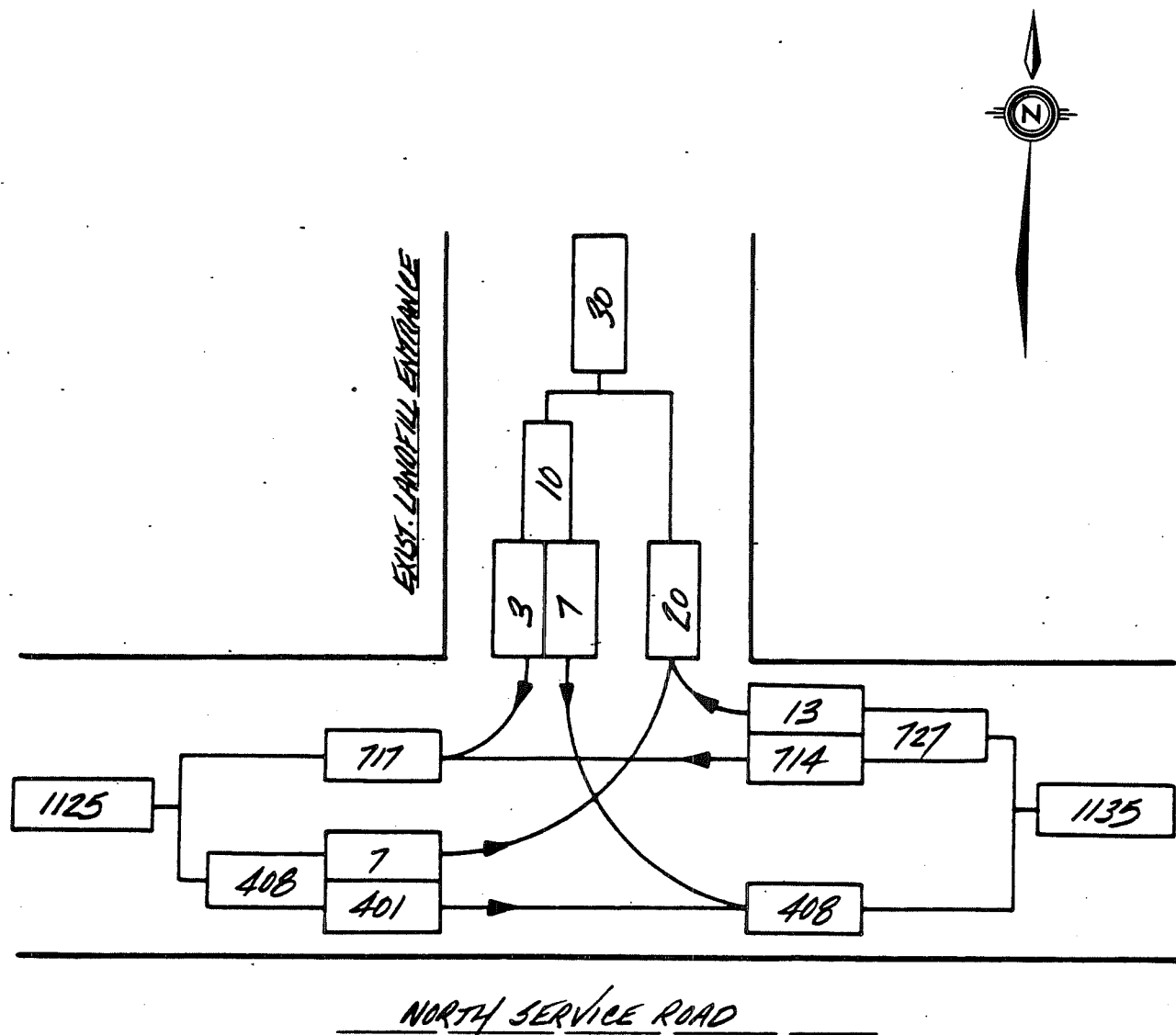
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION NORTH SERVICE ROAD / EXISTING LANDFILL SITE ENTRANCE

DATE WEDNESDAY SEPT. 18, 1985 TIME PERIOD 12 HOUR (7:00 AM TO 7:00 P.M.)

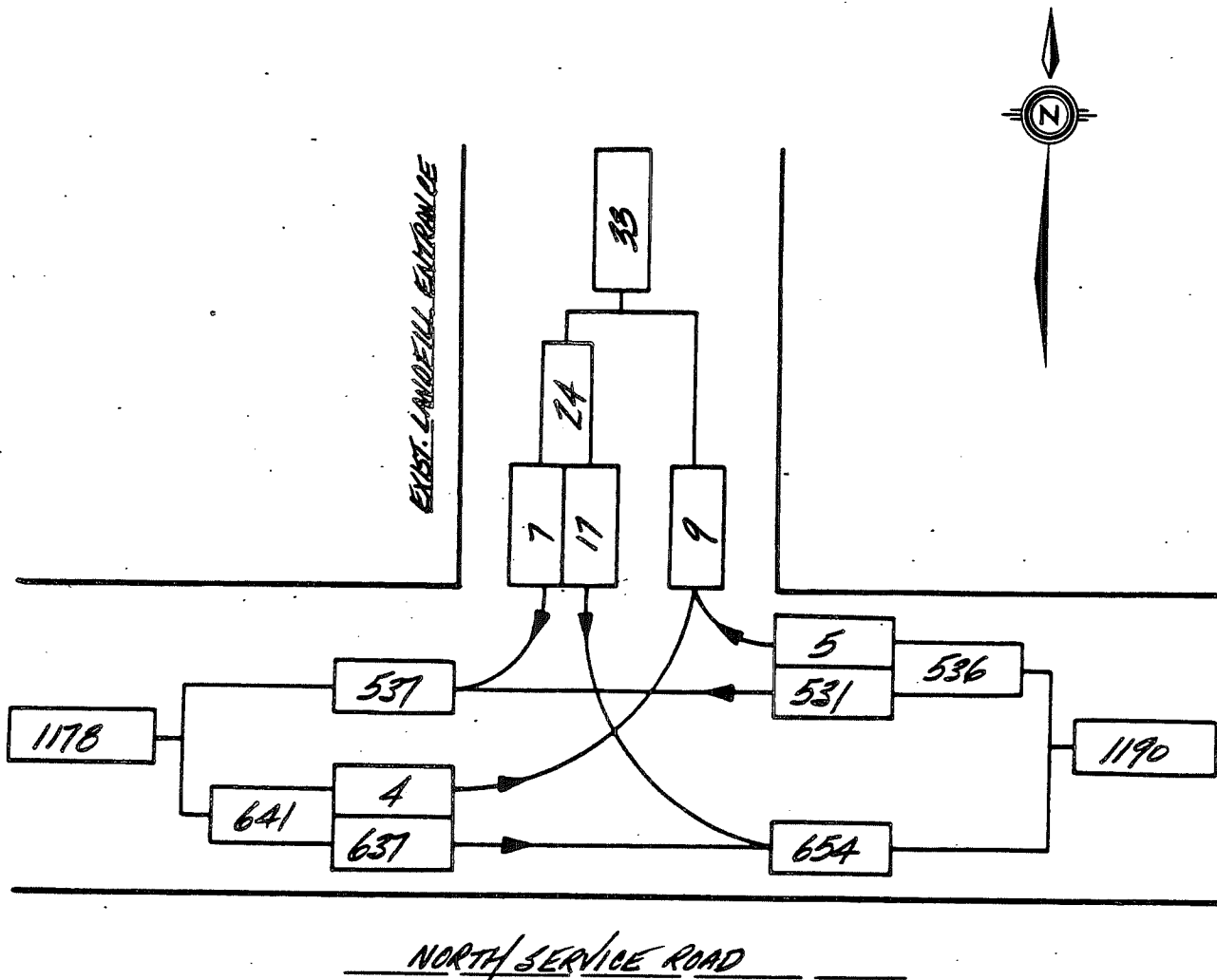
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION NORTH SERVICE ROAD / EXISTING LANDFILL SITE ENTRANCE

DATE WEDNESDAY SEPT. 18, 1985 TIME PERIOD A.M. PEAK HOUR (7:30 TO 8:30)

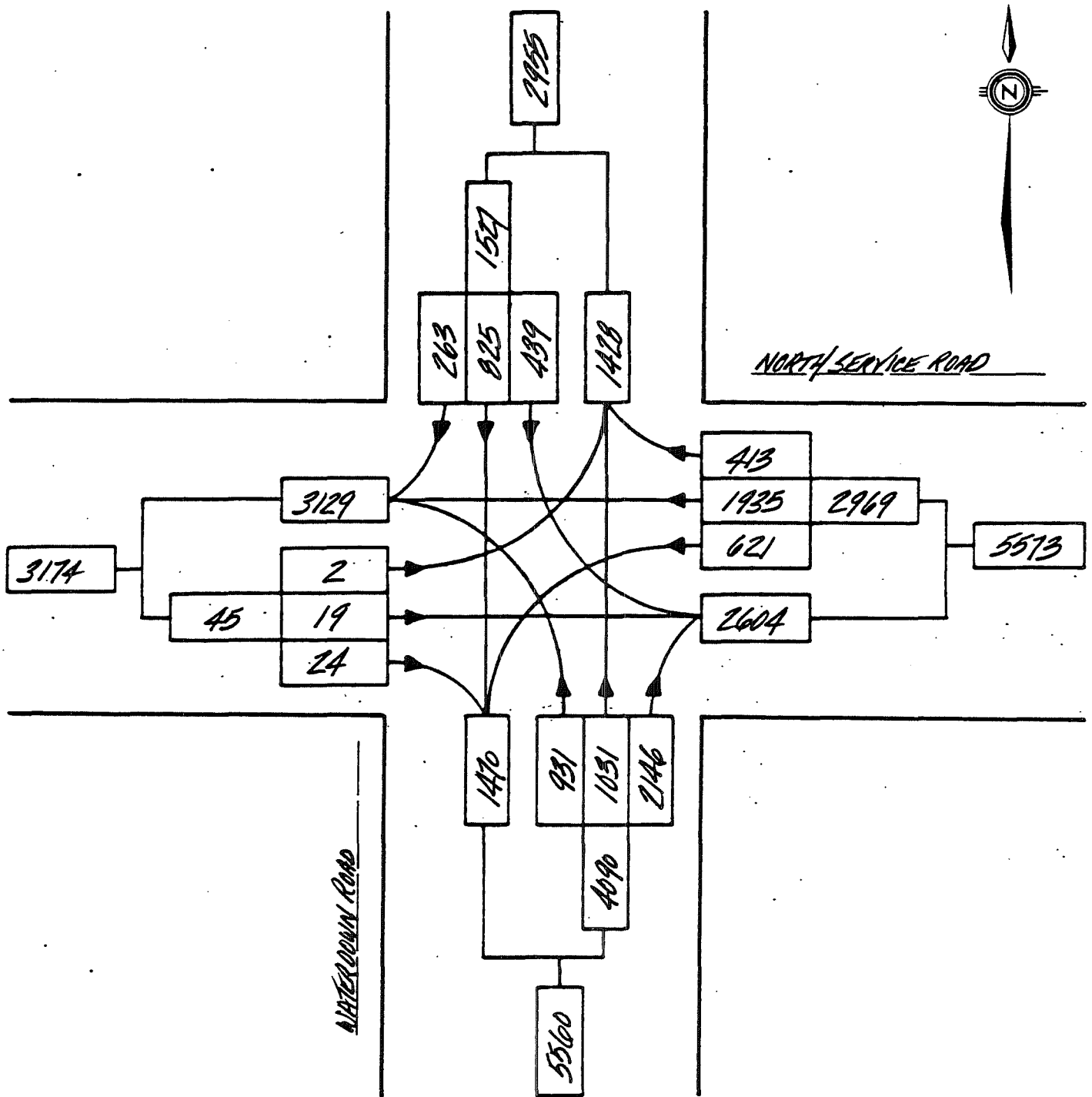
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION NORTH SERVICE ROAD / EXISTING LANDFILL SITE ENTRANCE

DATE WEDNESDAY SEPT. 18, 1985 TIME PERIOD P.M. PEAK HOUR (4:45 TO 5:45)

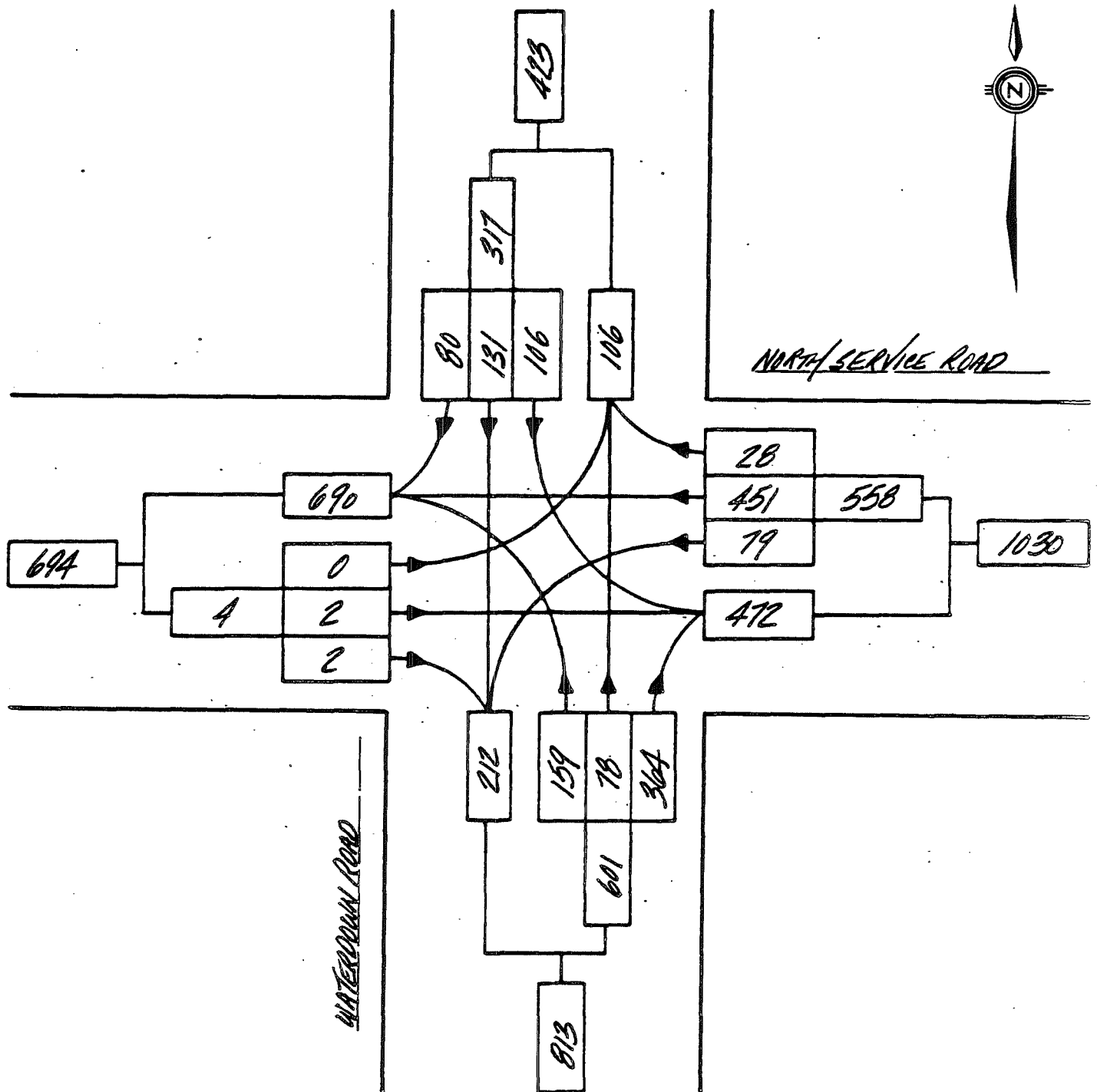
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION NORTH SERVICE ROAD / WATERDOWN ROAD

DATE WEDNESDAY SEPT. 11, 1985 TIME PERIOD 8 HOUR

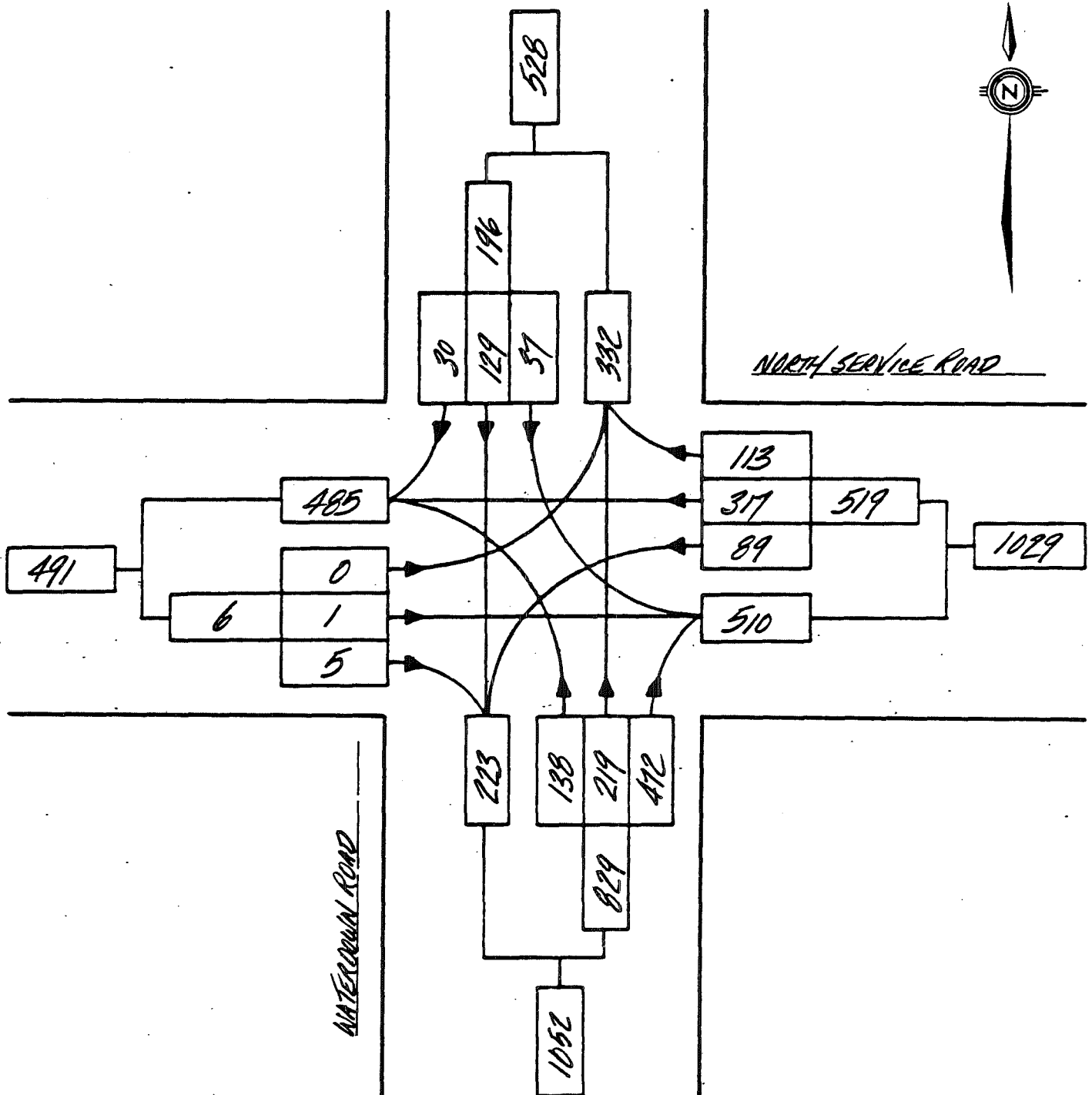
DIRECTIONAL TRAFFIC FLOW DIAGRAM



INTERSECTION NORTH SERVICE ROAD / WATERDOWN ROAD

DATE WEDNESDAY SEPT. 11, 1985 TIME PERIOD A.M. PEAK HOUR (7:30 TO 8:30)

DIRECTIONAL TRAFFIC FLOW DIAGRAM

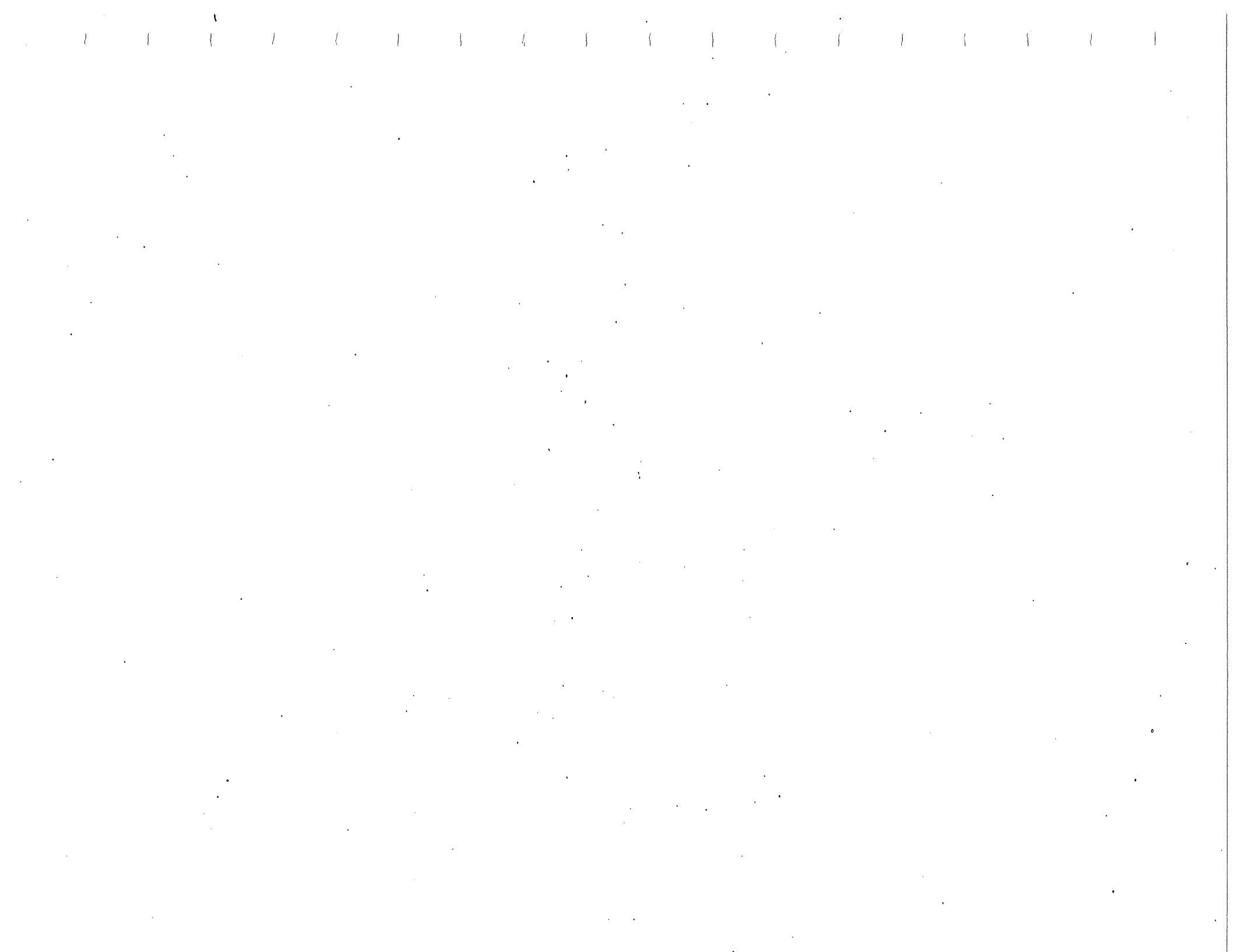


INTERSECTION NORTH SERVICE ROAD / WATERDOWN ROAD

DATE WEDNESDAY SEPT. 11, 1985 TIME PERIOD P.M. PEAK HOUR (4:30 TO 5:30)

APPENDIX E

REFERENCES



LIST OF REFERENCES

1. Town of Halton Hills, Transportation Study Final Report, June 1985, DeLCan.
2. Halton Region, Functional Classification Plan of Major Roads and Right of Way Plan of Major Roads, Proposed Amendment No. 9 to the Official Plan for the Halton Planning Area, June 1985.
3. Halton Region, Road Needs Summary Report (1985 Update), December 1985, Totten Sims Hubicki Associates.
4. Ministry of Transportation and Communications, Preliminary Design Report Highway 403 From Freeman Interchange Easterly to Highway 403/Oakville Link, July 1983 and Addendum May 1984, MTC Central Region Planning and Design Office.
5. Ministry of Transportation and Communications, Environmental Assessment Report (Stage 2 and Stage 3) Queen Elizabeth Way - Burlington to Hamilton, May 1982, MTC Central Region Planning and Design Office and McCormick & Rankin.
6. Halton Region, Transportation Assessment - Environmental Assessment Report (Phase 2, Stage 2C), June 1985, Giffels Associates Limited.
7. Ministry of Transportation and Communications, Geometric Design Standards for Ontario Highways.
8. Halton Region, E.P.A. Review of Waste Quantity Projection, February 1986, C.N. Watson and Associates Limited.
9. City of Burlington, Upper Middle Road/Highway 403 Interchange Study, September 1983, Read, Voorhees and Associates and Institute of Environmental Research.

