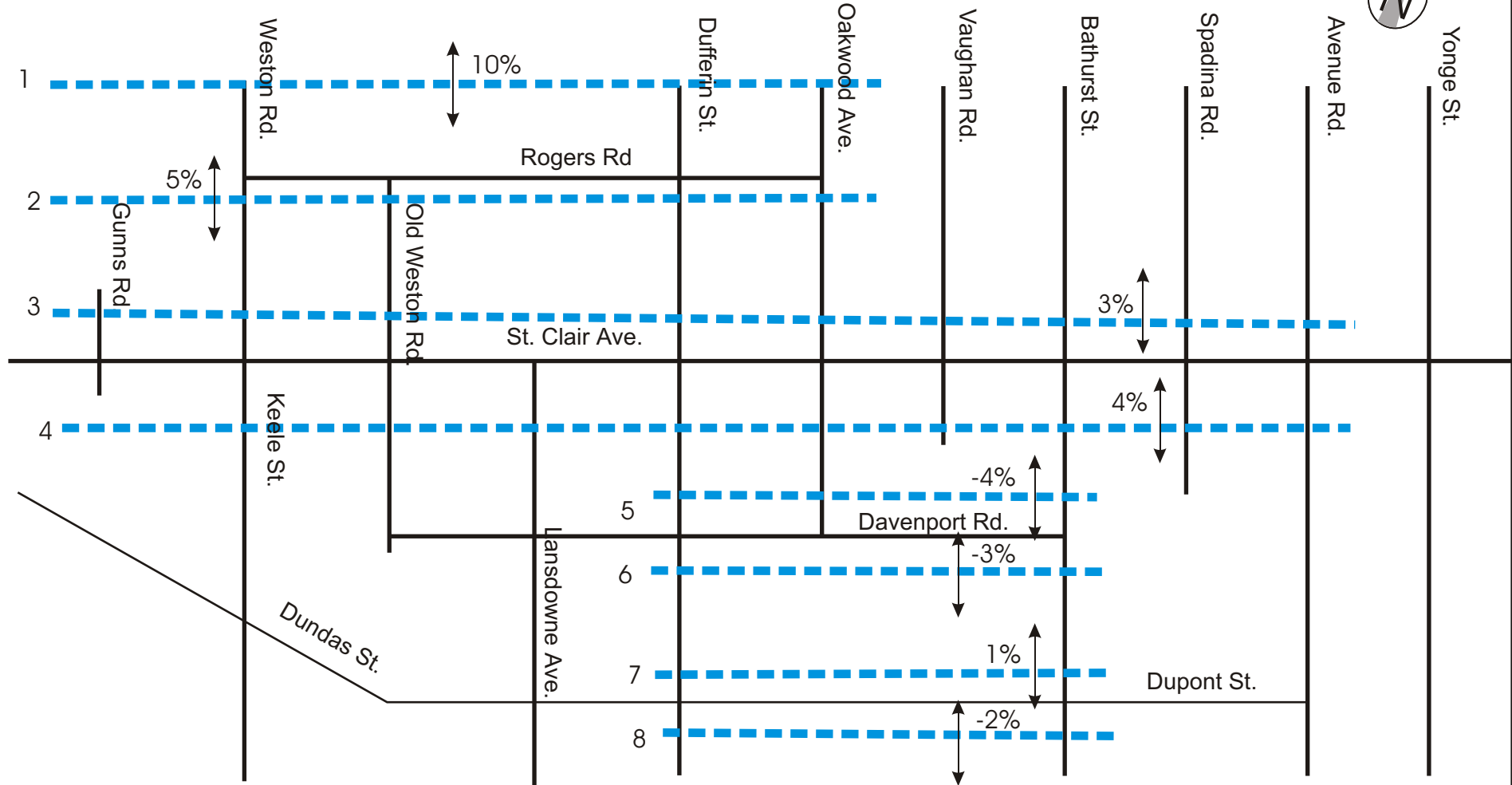


# St. Clair Avenue West Transit Improvements Class Environmental Assessment

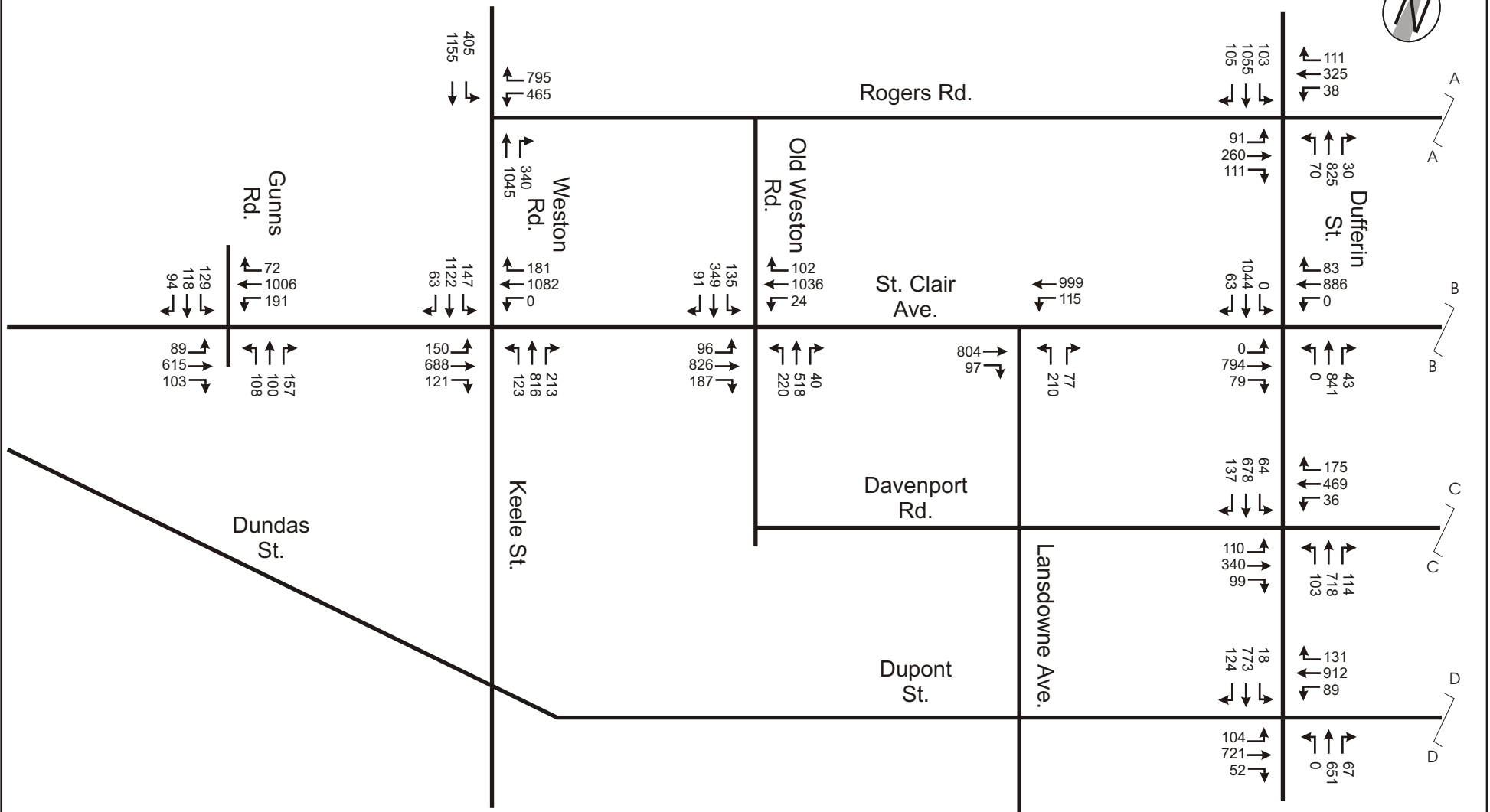


## LEGEND

- Screenline
- $X\%$  Difference between Projected 2021 and 2001 Volumes

**FIGURE 5.3.4.1**  
**Screenline Analysis**  
**Projections of Growth in Travel Demand**  
**(Do Nothing Alternative)**

St. Clair Avenue West Transit Improvements Class Environmental Assessment



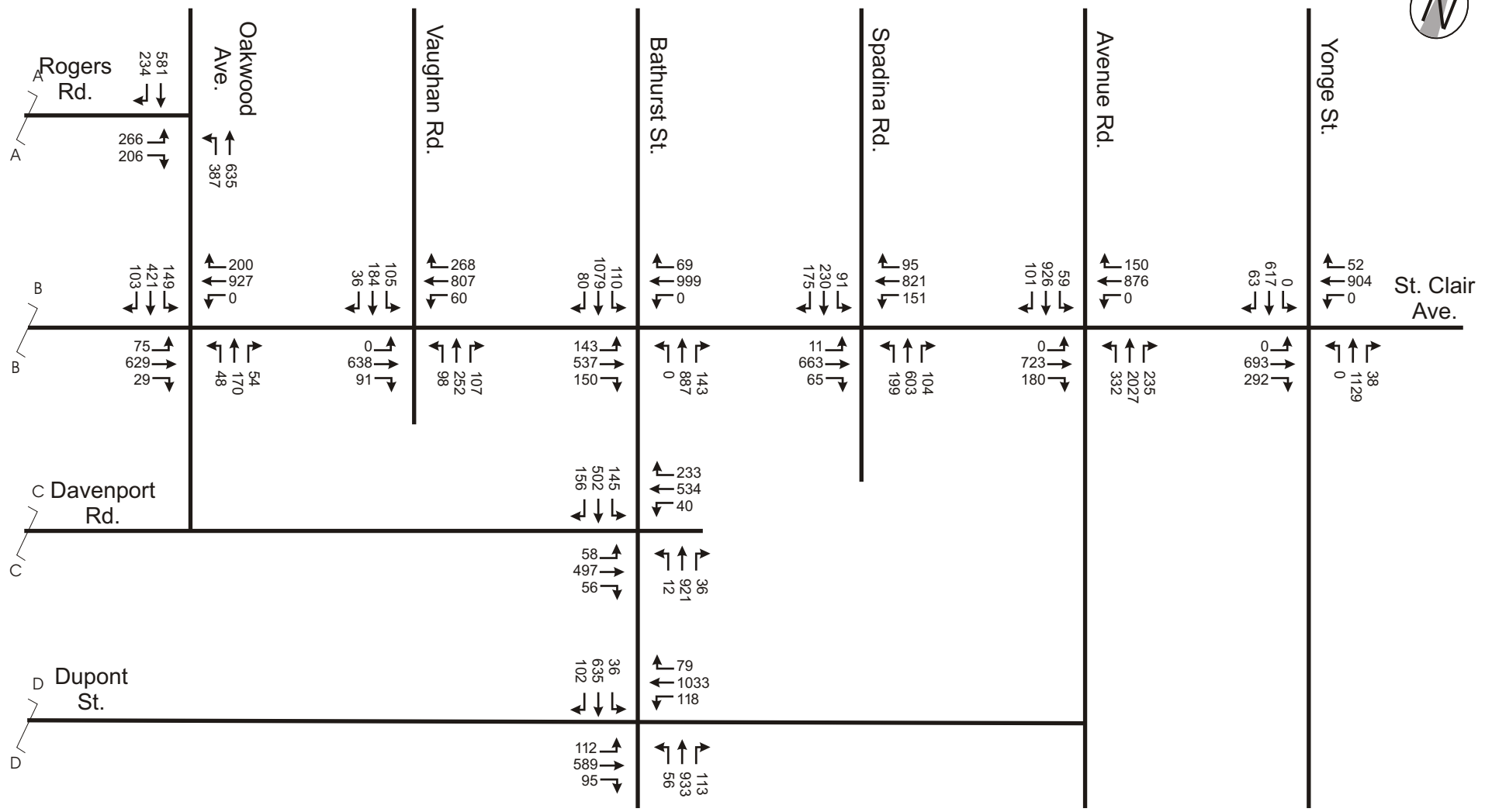
**FIGURE 5.3.4.2**  
**Projected 2021 P.M. Peak Hour Volumes**  
**St. Clair Avenue West**  
**West of Dufferin St.**  
**(Do Nothing Alternative)**

**LEGEND**

XX - P.M. Peak Hour Volumes



# St. Clair Avenue West Transit Improvements Class Environmental Assessment



## LEGEND

XX - P.M. Peak Hour Volumes



**FIGURE 5.3.4.3**  
**Projected 2021 P.M. Peak Hour Volumes**  
**St. Clair Avenue West**  
**East of Dufferin St.**  
**(Do Nothing Alternative)**

- St. Clair Avenue at Avenue Road.

These are the key intersections that will define the traffic capacity of St. Clair to a large degree, based on the analysis of existing conditions. The following is a list of assumptions for the analysis:

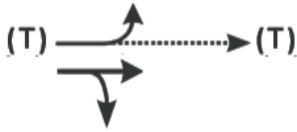
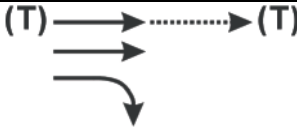
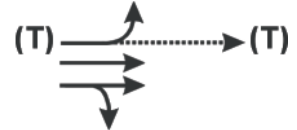
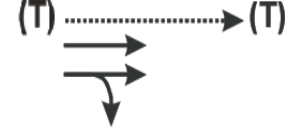

- The cycle lengths were kept between 80 and 90 seconds, a reasonable range for urban conditions, intended to handle traffic and pedestrian needs;
- A realistic saturation flow rate of 1,450 vehicles per hour (vph) was used for vehicle travel lanes shared with transit, based on TTC experience;
- A base saturation flow rate of 1,650 vehicles per hour (vph) was used along St. Clair Avenue for lanes not shared with the streetcars. The City of Toronto proposed the base saturation flow rate based on a high pedestrian activity environment;
- A base saturation flow rate ranging from 1,650 to 1,900 vehicles per hour (vph) was used for lanes not shared with transit at the intersections of St. Clair Avenue at Weston Road and St. Clair Avenue at Old Weston Road. The saturation flow rates at these intersections were increased because the pedestrian activities are not high.

The analysis results are shown in **Figure 5.4.1**. From the analysis it is clear that growth via auto-based travel cannot be readily accommodated at some key intersections. There is limited right-of-way to increase capacity for auto travel. The increased traffic is expected to use alternative routes (neighbourhood streets). The growth of neighbourhood traffic (13 to 56 percent) shown in Figure 5.3.3.2.3 indicate that the neighbourhood traffic is projected to grow at a higher rate than traffic along major roadways in the study area (1 to 18.5 percent).

## 5.5 Summary of Future Baseline Conditions

The conventional intersection capacity analysis and the microsimulation of traffic conditions at the future horizon both show that traffic operations will deteriorate. Traffic demand is expected to grow to a level, which is difficult to accommodate at the current level of vehicle occupancy and modal split. The analysis indicates that traffic demands growth would result in greater traffic infiltration in adjacent neighbourhoods. Transit level of service would also be affected by the growth in traffic, resulting in poorer service to riders. That would discourage people from using transit, which is counter to the City's Official Plan policy. This reinforces the conclusion that transit improvement is needed on St. Clair Avenue.

**Figure 5.4.1 P.M. Peak Hour Intersection Analysis Results – Do Nothing Alternative**

				Analysis – Level of Service (V/C Ratio)				
	Geometry Description	Platform Location	Peak Period Lanes	Avenue Road	Bathurst Street	Dufferin Street	Old Weston Road	Keele Street
A1	No LT restriction, thru and LT on track lane	Near					D (0.84)	E (0.91) <sup>(2)</sup>
A2	Prohibit LT (peak) (allow thru traffic to use track lane)	Far				C (0.78)		
A3	Track lane – SC + LT only (no thru traffic on track lane)	Far			F (1.03) <sup>(1)</sup>			
A4	A3 with peak LT prohibition	Far		F (1.01)				
A5	Transit only using track lane No thru, no left any time	Far			F (1.03) <sup>(1)</sup>			

(1) EB approach based on A3 geometry and WB approach based on A5 geometry.  
 (2) WB LT are prohibited in the p.m. peak hour.

