

**Rank #1 – Highest Priority Intersection**

**Sheppard Avenue East and Ambrose Road/Provost Drive**

Located in the North York District, it is the first signalized intersection on Sheppard Avenue East that is west of Leslie Street. A mixed-use medical centre is located on the north east corner, retail is located on both southern corners, and significant new multi-unit residential developments are being built south of Sheppard Avenue. There are two bus stops at this intersection.

**Discussion of Issues**

8 of the 9 pedestrian collisions were a result of improper driving or a failure to yield to pedestrians by drivers turning left or right. 3 of the collisions were southbound left turns not yielding to pedestrians or making improper turns.

The elderly demand score is fairly high at 3.25 out of a maximum of 5.

**Options**

*Immediate*

- Move the east leg crosswalk closer to the intersection (about 3 metres west) so that pedestrians crossing are more visible to southbound left turning vehicles, and re-align the curb ramps with the crosswalk.
- Review solid or more visible (wider 20 cm) double skip lines for left turning vehicles (southbound and northbound), thereby making a channel to guide left turning drivers to stay in their turning lane.
- Provide minimum walk times when the signal is actuated by vehicles on Ambrose Rd/Provost Dr so that pedestrians are not caught in the intersection and to provide turning vehicles (from Ambrose / Provost) with more time for turns (thereby reducing the potential for impatient or rushed turning movements).

*Medium- or Longer-Term*

- Reduce the turn radius at the south-west corner to guide and slow down right-turning vehicles (2 of the 9 pedestrian collisions were by inattentive drivers turning right on this corner), which also increases the visibility of pedestrians on this corner to drivers and reduces the crossing distance for pedestrians on the south leg.
- Extend the centre median into the intersection with level walking surface and zebra markings to guide and slow down left turning vehicles, and to provide pedestrians with some protection if they are caught in the middle of the intersection.



Estimated Costs	Funding Source (Operating/Capital)
Immediate	\$4,500
Medium- to Longer-Term	\$10,000 (estimate)

## Rank #2 – Highest Priority Intersection

### St.Dennis Drive and Deauville Lane

Located in the North York District, this intersection is just east of Don Mills Road and just south of Eglinton Avenue East. Land-use in the area is low to mid-rise residential, with a public library and community centre located at the south west corner of the intersection. There are three transit stops at this intersection as shown in the image below.

### Discussion of Issues

5 of the 7 collisions were due to failure to yield to pedestrians by left turning vehicles (onto east and north legs).

Right turn channel at the south west corner is not required and creates more conflicts between pedestrians and vehicles in addition to extending the crossing distance for pedestrians.

All collisions occurred during November, December and January, majority of which were during the afternoon peak hour and rainy conditions.

Automobile volumes on Deauville Lane are well below capacity provided (about 150 thru vehicles per peak hour compared to the approach capacity of 1,500). The excess capacity may be contributing to the speeding behaviour of drivers on this local street.

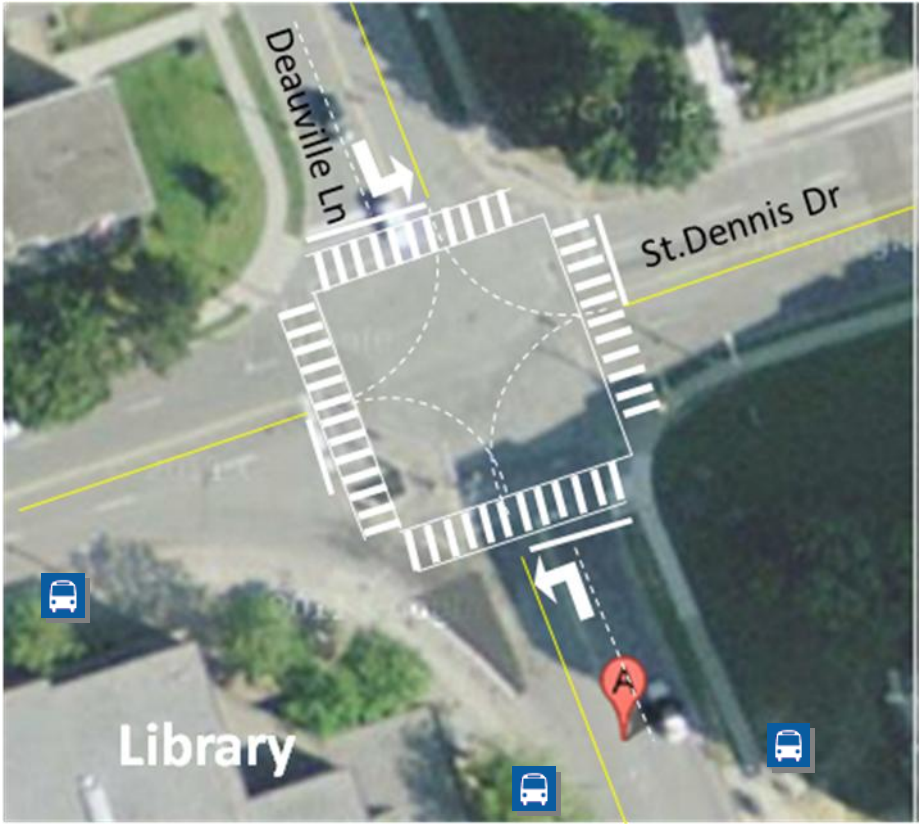
### Options

#### *Immediate*

- Paint zebra markings and a stop bars on all four legs to make the pedestrian crossing more visible.
- Provide minimum walk times for north-south crossings when the signal is actuated by vehicles on Deauville Lane (82 pedestrians during morning peak hour).
- Review wider skip lines (20cm wide) for left turning movements to better guide turning vehicles.
- Delineate left turn lane at the northbound and southbound approaches for vehicular safety so drivers can see whether a vehicle is intending to turn, and also to ensure vehicles are turning from the proper lane which improves road safety overall.

#### *Medium- or Longer-Term*

- Eliminate pork chop on the south west corner.
- Consider alternative users of the excess capacity by re-purposing one lane of traffic in each direction on St.Dennis such as for on-street parking, etc...
- Review the turning radii of the corners to see if there is potential for reducing one or more of the radii;
- Consider researching and piloting anti-skid pavement surface.



Estimated Costs	Funding Source (Operating/Capital)
Immediate	\$8,800
Medium- to Longer-Term	TBD.



Pedestrian Safety – City of Toronto’s 10 Priority Intersections

Rank #3 – Highest Priority Intersection

Steeles Avenue East and Ashcott Street

Located in the Scarborough District this is the only intersection on Steeles Ave between Midland Ave and Brimley Rd. The land use around the intersection is single family residential at the north east and south west corners, and low density retail at the other two corners. There are two bus stops located at this intersection.

Discussion of Issues

Collisions occurred due to failure to yield to pedestrians by left turning vehicles onto the east leg, failure to yield by drivers for right turns onto the south and west legs, and pedestrians getting hit by thru traffic in the east-west direction. Left turn incidences have occurred in the morning when drivers are turning into the direction of the sun. A common theme is driver from residential neighbourhood rushing to make the light to turn onto the arterial.

Options

- Immediate
• Paint zebra markings and a stop bars on all four legs and bring closer to the intersection.
• Install "push button" signs for pedestrian-actuated signal buttons (based upon new designs currently being developed), making them more visible.
• Install "Turning Traffic Must Yield to Pedestrians" signs to remind drivers to pay attention to pedestrians crossing.
Medium- or Longer-Term
• Explore the safety impacts of moving the bus stop to the far side, so that pedestrians/transit users' visibility is not reduced by the sharp angle of the morning sun for southbound left turning vehicles.
• If bus stop cannot be moved, consider a morning prohibition for southbound left turns (7am to 10am) when the sun is an obstruction.
• Pilot and evaluate a Leading Pedestrian Interval for the north-south crossing to eliminate conflicts for right-turning vehicles not yielding to E-W crossing pedestrians during their walk phase. This should be combined with a "No Right Turn on Red" regulation for northbound right turn movement.
• Trim/carve the curb to align north west corner ramp with east-west crosswalk.



Estimated Costs	Funding Source (Operating/Capital)
Immediate	\$7,000
Medium- to Longer-Term	TBD



**Pedestrian Safety – City of Toronto’s 10 Priority Intersections**

**Rank #4 – Highest Priority Intersection**

**Neilson Road and Mclevin Avenue**

Located in the Scarborough District this is a relatively wide intersection with residential apartment buildings at the north west corner, a medical centre at the northeast corner, and shopping mall at the south east corner. Two bus stops are located at this intersection.

**Discussion of Issues**

4 of the 6 collisions were left turns (onto Neilson Rd) due to failure by drivers to yield to pedestrians.  
The total number of collisions from 2007-2011 was 78 for all collision types including vehicle-to-vehicle, and a large number occurred during left turn movements.  
The elderly demand score is very high at 4.5 out of a maximum of 5.

**Options**

*Immediate*

- Repaint zebra markings where missing.
- Extend the centre medians on the north and south legs farther into the intersection with a level walking surface and zebra markings. This would guide left turning vehicles to make turns at tighter angles and slow down and notice the pedestrians. The median will also make pedestrians more visible to turning vehicles.
- Review reducing the turning radius on the south east corner with the medical centre.
- If reducing the radius is not an option, provide more walk crossing time (using 0.9m/s design walking speed) given the high seniors score.

*Medium- or Longer-Term*

- Monitor and consider a fully-protected left turn signal in the east-west direction, which would require a redesign and reconstruction of the intersection.



Estimated Costs	Funding Source (Operating/Capital)
Immediate	\$8,000
Medium- to Longer-Term	TBD





**Pedestrian Safety – City of Toronto’s 10 Priority Intersections**

**Rank #5 – Highest Priority Intersection**

**St. Clair Avenue and Brimley Road**

Located in the Scarborough District this is the first major intersection north and west of Kingston Road. There is a medical centre located at the south east corner and a high school farther south on Brimley Road. There are six transit stops at this intersection.

**Discussion of Issues**

Unlike most other intersections majority of incidents occurred while vehicles were driving straight through the intersection.

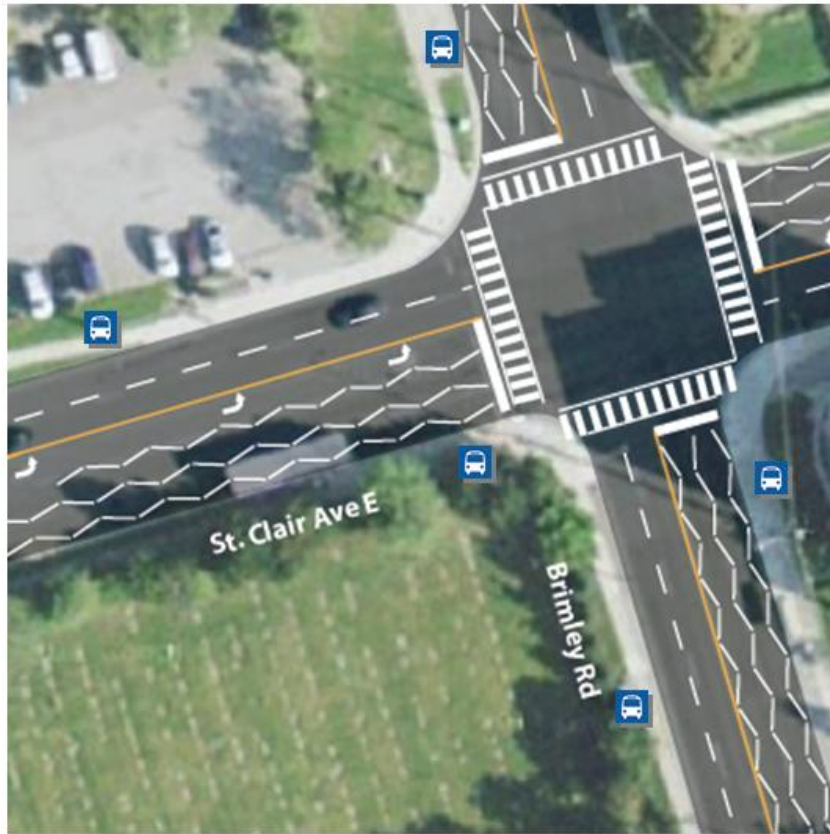
The intersection capacity is well above current demand, which may contribute to speeding as the current thru volumes are between only 25% to 33% of the capacity provided.

The elderly demand score is high at 4 out of a maximum of 5.

**Options**

*Immediate*

- Install “Turning Traffic Must Yield to Pedestrians” signs to remind drivers of pedestrians crossing.
- Review alternate pavement marking designs for increasing attentiveness and reducing speed. Note that zig zag markings are used frequently in the UK and have been tested by Ottawa and Virginia’s Department of Transportation



Estimated Costs	Funding Source (Operating/Capital)
Immediate	\$10,000

## Rank #6 – Highest Priority Intersection

Roncesvalles and Fermanagh Ave/Hight Park Blvd has recently been re-designed, and therefore no new interventions are being proposed at this time.

## Rank #7 – Highest Priority Intersection

### Steeles Avenue East and Strawberry Hills Drive

Located in the Scarborough District this is the only intersection on Steeles Ave between Brimley Rd and McCowan Rd. The land use around the intersection is mainly single family residential with a small plaza at the north east corner. Two transit stops are located at this intersection.

### Discussion of Issues

All 7 of the collisions were due to failure to yield by drivers or careless driving, 4 of which were caused by southbound left turning drivers. All of the left turn collisions were in the morning when the sun may be an obstruction. 4 out of 7 pedestrians were over 55 years old.

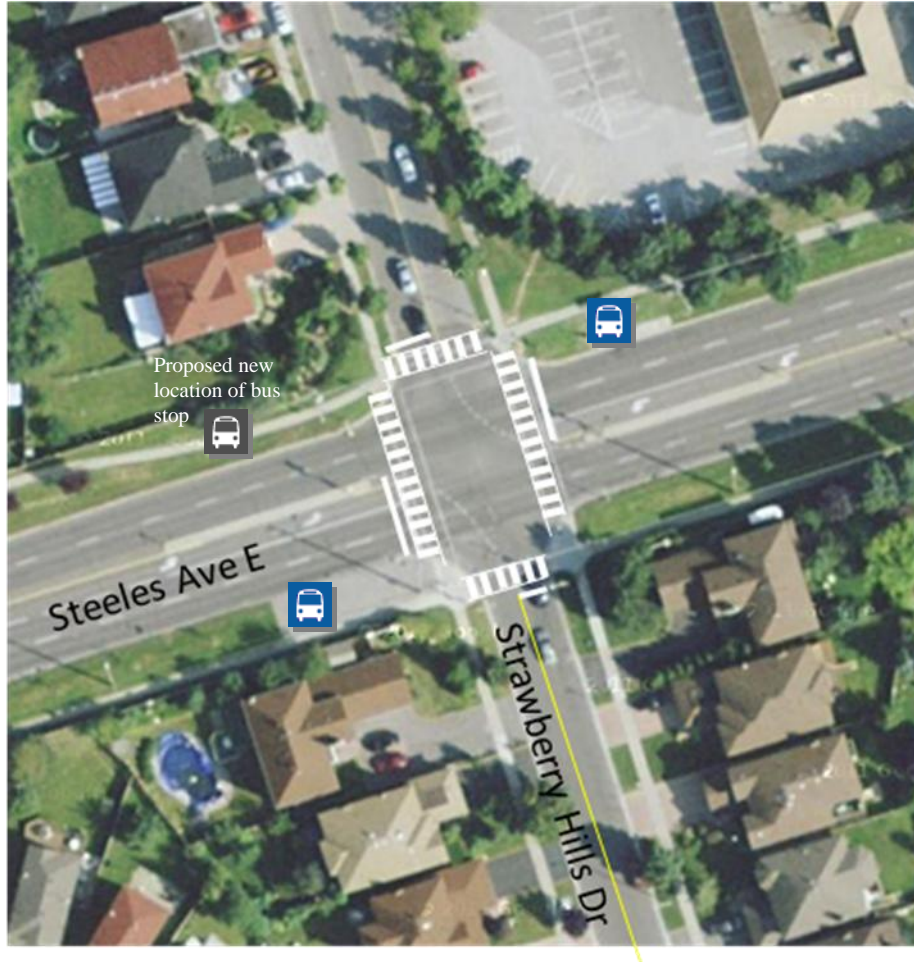
### Options

#### *Immediate*

- Paint zebra markings and a stop bars on all four legs to make the pedestrian crossing more visible.
- Move the westbound bus stop west to the far side of the intersection to reduce conflicts between vehicles and transit users on the east leg (in direction of the morning sun).
- If the bus stop cannot be moved, implement a prohibition on southbound left turns from 7am to 10am (when sun is an obstruction).
- Review providing minimum walk times for north-south crossings when the signal is actuated by vehicles on Strawberry Hills Blvd/Hillcroft Dr so no pedestrians are caught in the middle of the intersection.

#### *Medium- or Longer-Term*

- Trim/carve the curb in order to align north west and north east corner ramps with north-south crosswalk.
- Monitor the intersection and consider a Leading Pedestrian Interval if the other interventions are not improving pedestrian safety and there are continued incidences.



Estimated Costs	Funding Source (Operating/Capital)
Immediate	\$7,500
Medium- to Longer-Term	TBD

## Rank #8 – Highest Priority Intersection

### Rexdale Boulevard and Queens Plate Drive

This intersection is located in the Etobicoke District. The Woodbine Racetrack is located to the south of intersection, a 15-story residential building at the north west corner and a gas station and shopping centre at the north east corner of the intersection. Two transit stops are located at this intersection.

### Discussion of Issues

5 of the 6 incidents occurred in the E-W thru movement.

The pedestrian signal crossings times have not been updated to the new City standards. This means pedestrians do not have adequate time to safely cross north-south.

The south leg of the intersection does not provide a pedestrian crossing signal for east-west crossings due to inadequate space for provision of a crosswalk.

There are 4 approach lanes in the eastbound and westbound direction, providing excess capacities that are well above the current vehicular demand, which may contribute to speeding as the current thru volumes are only about 30% of the capacity provided.

### Options

#### *Immediate*

- Upgrade pedestrian crossing time based on current City standards (1 m/s for Combined Walk and Flashing Don't Walk).
- Add zebra markings and stop bar to all pedestrian crossings and ensure they are close to the intersection so pedestrians are visible to drivers.
- Install “push button” signs (that are being developed) to make the pedestrian-actuated signal button more visible.



Estimated Costs	Funding Source (Operating/Capital)
Immediate	\$6,000

## Rank #9 – Highest Priority Intersection

### Wilson Avenue and Allingham Gardens / King High Avenue

This is a T-intersection located on Wilson Avenue west of Bathurst Street in the North York District. The land use around the area is a mix of commercial and residential buildings. Two transit bus stops are located at this intersection.

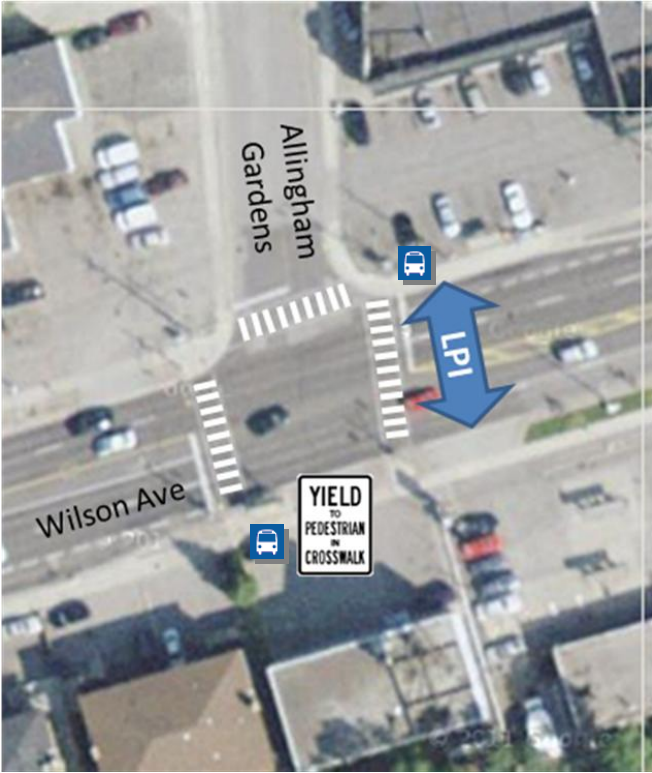
### Discussion of Issues

4 of the 7 collisions were due to failure to yield / careless driving in the southbound left turns direction, where the pedestrian was crossing with the walk signal. Southbound drivers rushing to make the light from a residential street on to a major arterial is a common theme.

### Options

#### *Immediate*

- Install “Turning Traffic Must Yield to Pedestrians” sign to remind left-turning drivers of pedestrians crossing
- Pilot Leading Pedestrian Interval in north-south direction to give pedestrians a headstart into the intersection so they are visible to drivers.
- Provide minimum walk times when the signal is actuated by vehicles on Allingham Gardens so that pedestrians are provided with adequate crossing opportunities and to provide turning vehicles (from Allingham Gardens) with more time for turns (thereby reducing the potential for impatient or rushed turning movements).



Estimated Costs	Funding Source (Operating/Capital)
Immediate	\$5,500





**Pedestrian Safety – City of Toronto’s 10 Priority Intersections**

**Rank #10 – Highest Priority Intersection**

**Keele Street and Annette Street**

Located on the border of Etobicoke District and Toronto and East York District, this is a skewed intersection, with Annette Street running diagonally. There are mixed use retail and residential buildings located at the southwest and northeast corner, a church at the southeast corner and a Canada Post building at the northwest corner. There are five transit stops located at this intersection.

**Discussion of Issues**

5 of the 6 collisions occurred due to failure to yield to pedestrians by left turning vehicles (onto north and south legs), 4 of which occurred during the morning peak hours.

The poor geometry of intersection makes it challenging, however, as it is quite costly to realign the intersection.

The elderly demand score is very high at 4.5 out of a maximum of 5.

**Options**

*Immediate*

- Provide a protected or a fully protected left turn signal for eastbound and westbound directions during the morning peak hour which would address the pattern of collisions.
- Explore refreshing or painting wider (20 cm) skip lines for left turning vehicles in order to channelize and guide left turning vehicles to stay in their lane.



Estimated Costs	Funding Source (Operating/Capital)
Immediate	\$6,500