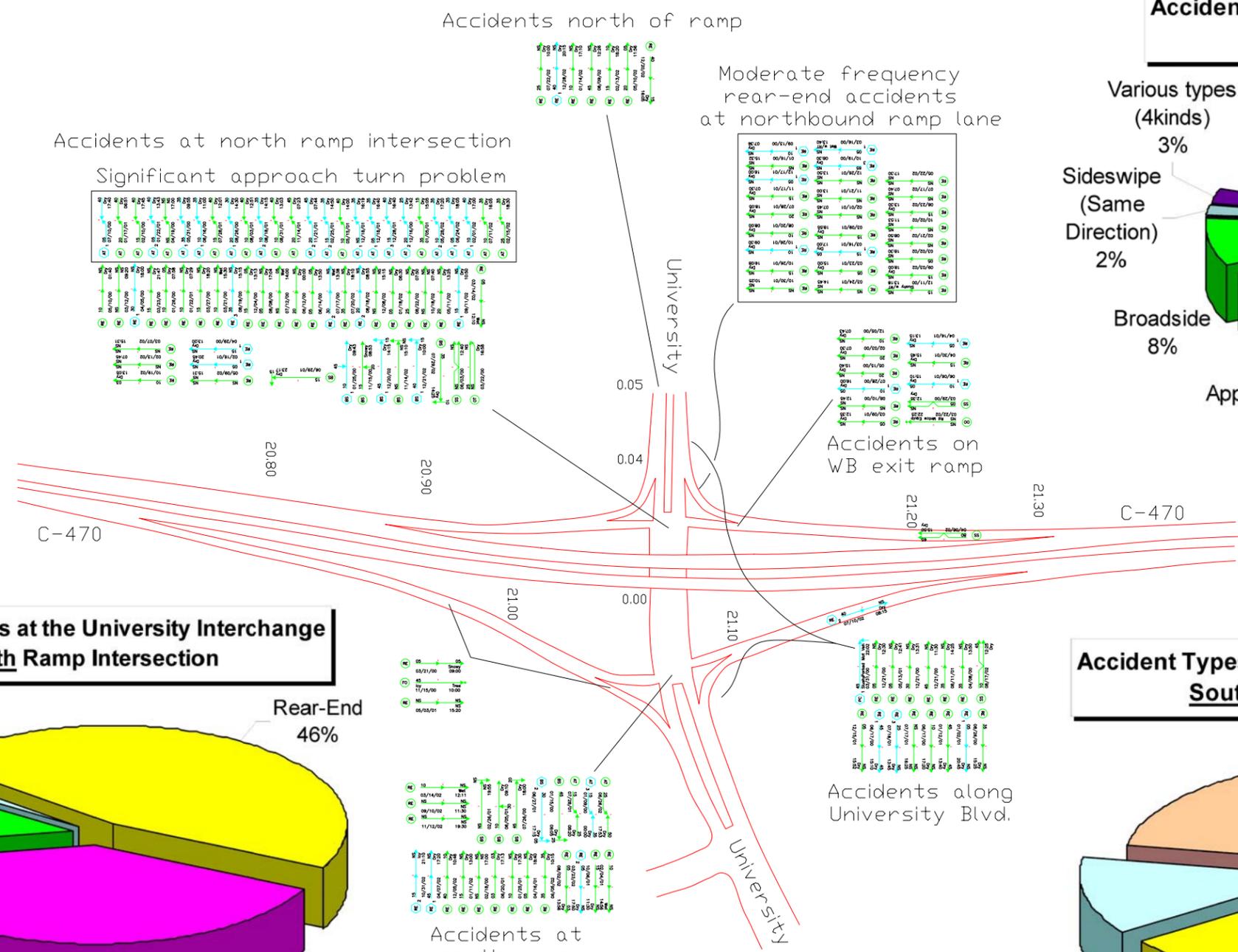
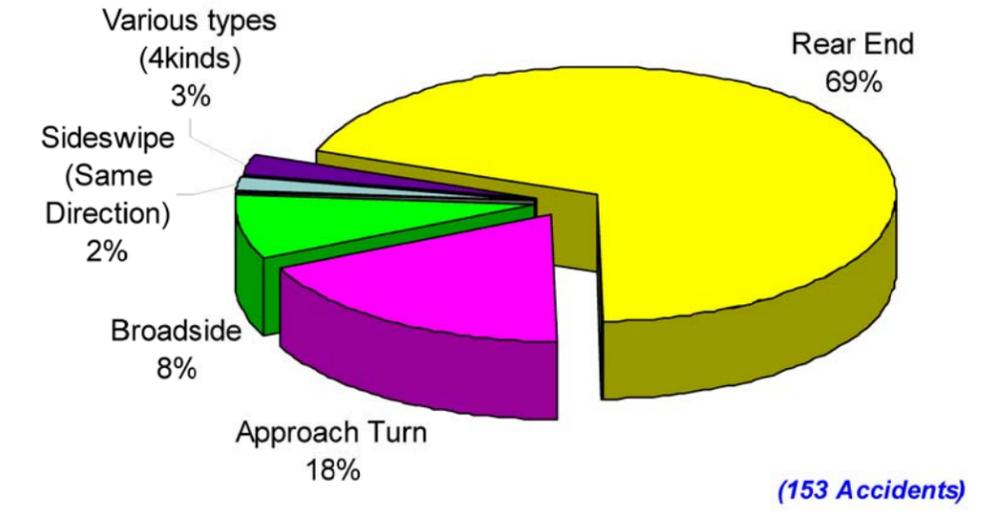


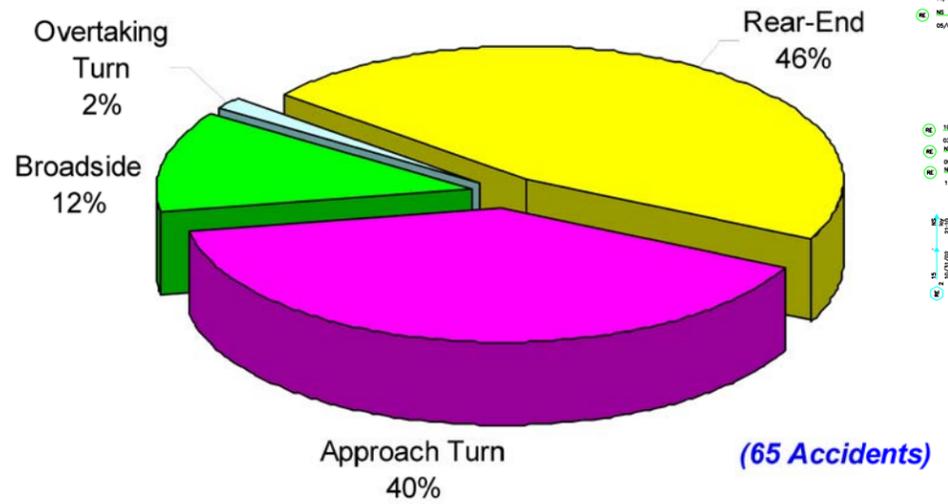
C-470 & University Blvd. Interchange



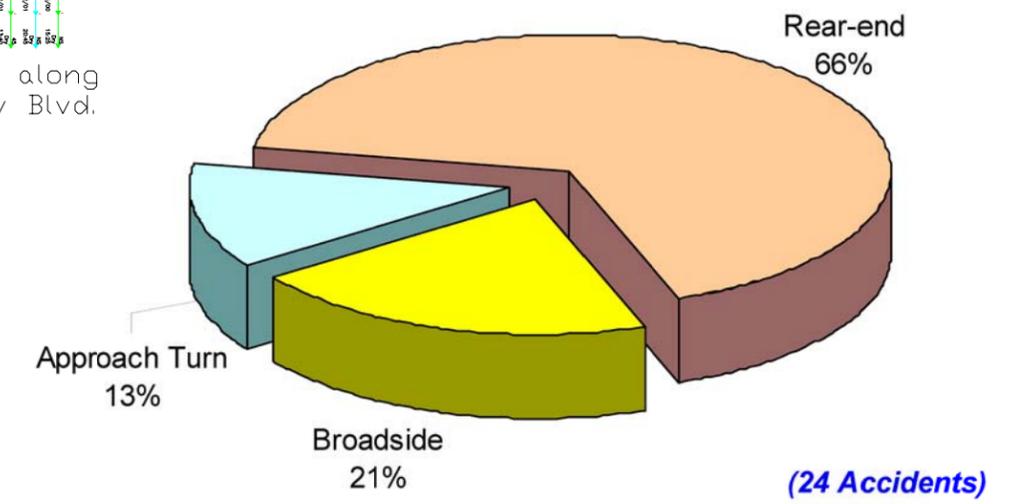
**Accident Types at the University Interchange
Ramps & crossroad only**



**Accident Types at the University Interchange
North Ramp Intersection**



**Accident Types at the University Interchange
South Ramp Intersection**



Accidents north of ramp

Moderate frequency rear-end accidents at northbound ramp lane

Accidents at north ramp intersection

Significant approach turn problem

University

Accidents on WB exit ramp

Accidents along University Blvd.

Accidents at south ramp intersection

C-470 and Quebec St. Interchange

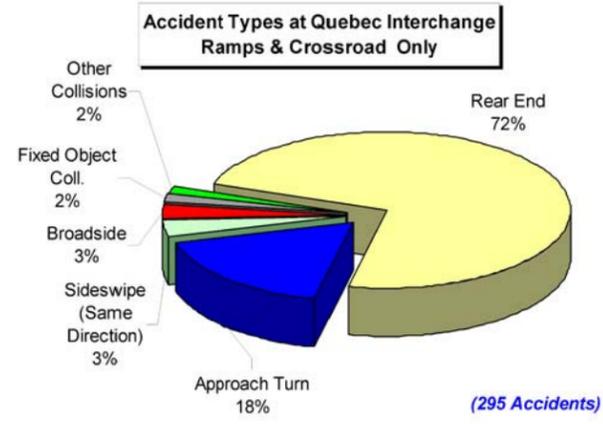
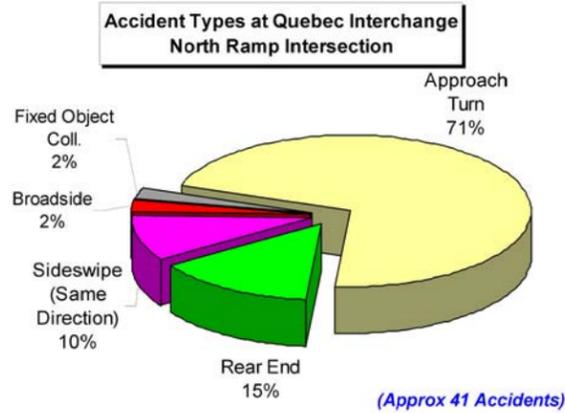
An accident diagram and charts showing the accident type distribution profile for the interchange intersections as well as the ramps and cross road is shown on the following page.

The north ramp intersection at this interchange was experiencing significant approach-turn collision frequency involving northbound vehicles on Quebec St. turning left in front of southbound through vehicles on Quebec. Presently, this left turn movement includes double left turn lanes and protected/permitted signal intervals. Consideration may be given to implementing a fully protected left turn scheme at this intersection.

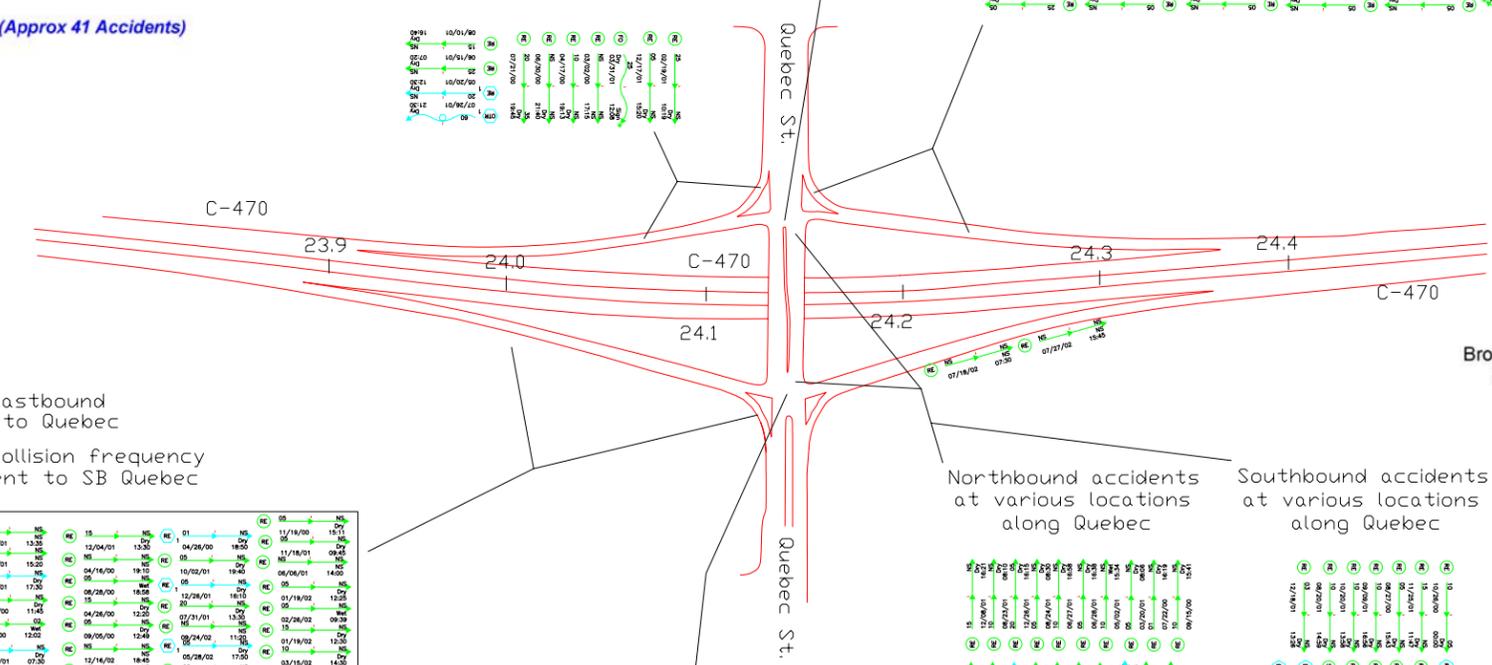
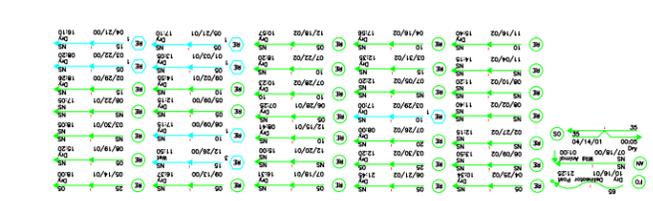
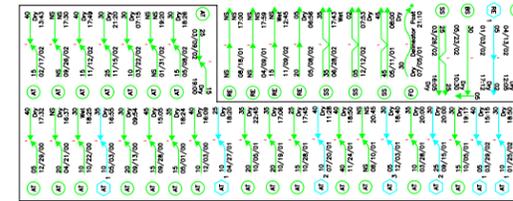
At both north and south ramp intersections we note rear-end collisions occurring in the channelized right turn lanes. Extension of the right turn acceleration lanes, particularly the eastbound to southbound movement at the south intersection, may help moderate this type of collision.

This interchange also experiences a fairly high number of rear-end crashes along Quebec St. itself. Again, periodic congestion may be a contributing factor to this condition. Options for capacity improvement and peak hour delay mitigation at this interchange should be investigated in concert with other potential major improvement construction.

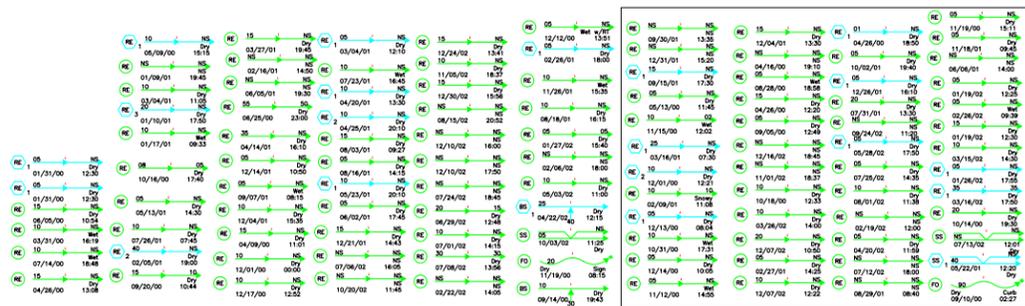
C-470 & Quebec St. Interchange



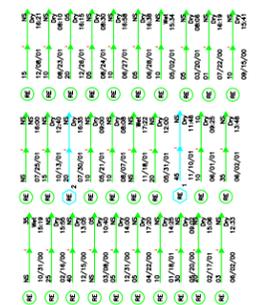
Accidents at north ramp intersection
Significant approach turn collision frequency at intersection



Accidents on eastbound C-470 exit ramp to Quebec
Significant rear-end collision frequency at right turn movement to SB Quebec



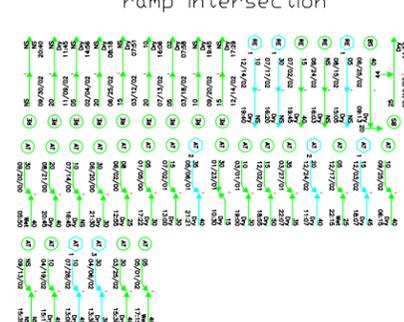
Northbound accidents at various locations along Quebec



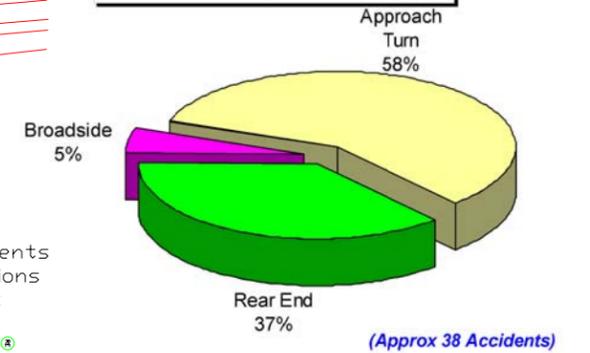
Southbound accidents at various locations along Quebec



Accidents at south ramp intersection



Accident Types at Quebec Interchange South Ramp Intersection



C-470 and Yosemite St. Interchange

An accident diagram as well as charts showing the accident type distribution profile for the interchange intersections and the ramps and cross road is shown on the following page.

The Yosemite St. interchange did not exhibit unusual accident frequency during the study period, recording approximately 51 collisions. Rear-end crashes were most common accounting for 50% of the total followed by approach turn crashes at 25% of the total. Most of the approach turn collisions take place at the north ramp intersection as occasional northbound vehicles turning left to enter the westbound C-470 on-ramp are struck by southbound through traffic on Yosemite. At present crash frequencies, countermeasures addressing this accident type may not be strongly recommended. The safety performance of this interchange, however, should be monitored for unusual increases in accident occurrence as traffic volume increases.