

Evaluation Matrix - Pedestrian Crossing Diffley Road (CSAH 30)

Measures	Traffic Control Alternatives				Notes
	Signalized Intersection		Roundabout		
New User Comfort Level	Provides pedestrian with crossing phase. Signals are commonly understood.	Good	Educational outreach needed to ensure roundabout navigation is understood.	Fair	Based on public outreach there are concerns with pedestrians crossing at a roundabout. Education and enforcement will aim to address these comments.
Addresses Heavy Southbound Right Turn Conflict	Vehicles are turning during green light which conflicts with the pedestrian walk phase.	Poor	Crosswalks are set back from the roundabout which simplifies decision making and increases the visibility of pedestrians	Good	
Pedestrian-Vehicle Conflict Points	6 conflict points	Poor	2 conflict points	Good	<p>Conflict points are locations where a pedestrian path crossing the roadway intersects with a vehicles path.</p>
Crossing Distance/Number of Lanes	64 ft crossing (one stage) / 4 lanes	Poor	16 ft crossing (two stages) / 1 lane per stage, 2 lanes total	Good	<p>Both options assume lane reduction along Diffley Rd.</p>
Pedestrian Crash Data		Poor	87% Fewer Pedestrian Injury Crashes at Roundabouts than Signals	Good	Preliminary Findings by MnDOT in an addendum to "A Study of Traffic Safety at Roundabouts in Minnesota - August 2018"
Vehicle Speed along Diffley Rd at Crossing	10-45 mph	Poor	15-20 mph	Good	<p>Slower vehicle speeds give drivers and pedestrians to react increasing the survival rate in a vehicle-pedestrian crash</p> <p>1/10 pedestrians survive when hit by a vehicle at 40 mph</p> <p>9/10 pedestrians survive when hit by a vehicle at 20 mph</p>
Driver Yielding to Pedestrians	85% of drivers yield to pedestrians at signalized intersections	Good	83% of drivers yield to pedestrians at single lane roundabouts	Good	<p>Yield rates are from the National Cooperative Highway Research Program (NCHRP) Report 572, "Roundabouts in the United States".</p> <p>Even if vehicles do not yield to pedestrians as they should, a pedestrian is only anticipated to wait on average for 14 seconds to cross Diffley Rd at Daniel Dr before finding an adequate gap in traffic to safely cross.</p>