

Cook Road/Illinois Avenue & Mansfield-Lucas Road Intersection Improvements

Alternatives Comparison Matrix			
Criteria	Single Lane Roundabout	Traffic Signal	No Improvements
Construction Costs	\$1.7 M	\$0.5 M	N/A
Safety Benefits	High	Moderate	None
Average Delay (LOS*)	A	C	E / F
Right-of-Way (Permanent)	0.01	0.00	0
Right-of-Way (Temporary)	0.13	0.00	0
Right-of-Way (Owners Impacted)	3	0	0
Environmental Impacts	Low	Low	None
Preferred Alternative	Feasible	Feasible but Not Preferred	Not Preferred

***Level of Service (LOS)** is a measure of performance used to analyze intersections and assign a quality level (A-F). This is based on criteria including intersection capacity, vehicle speed, traffic density, and traffic congestion.

A – Minimal delays.

B – Low levels of delay and queuing.

C – Intermittently vehicles wait through more than one signal cycle; occasionally backups may develop. Traffic flow is still stable and acceptable.

D – Delays at intersections may become extensive, but enough cycles with lower demand occur to permit periodic clearance, preventing backups.

E – Traffic fills intersection capacity; long queues and delays; many vehicles need to wait through more than one green indication.

F – Traffic demand exceeds capacity of intersection; very long queues and delays; most vehicles need to wait through more than one green indication.