12.0 SUMMARY TABLE: COMPARISON OF ALTERNATIVES

Tables 13 and 14 list established community objectives and compare the signal and roundabout alternatives in terms of their differences in achieving community objectives. Education and public acceptance are very needful with roundabouts.

Table 13: City of Neenah Transportation and Community Objectives

COMMUNITY OBJECTIVE	SIGNAL SYSTEM	ROUNDABOUT SYSTEM
Mobility/Delay	Peak hour delay averaging 20 to 50 seconds per vehicle. Off peak delays similar to current system. Queues spill overlap upstream intersections.	Peak hour delay less than 15 seconds per vehicle. Off peak delay 3 seconds. Queue spillbacks do not overlap adjacent intersections.
Safety	Crash patterns and severities similar to current signal system. Protected left turn phase may reduce crashes 25% at Winneconne Avenue-Green Bay Road intersection.	Estimated 39% crash reduction 75% injury crash reduction 90% serious and fatal reduction
Convenience	Requires median on Green Bay Road from Winneconne Avenue to Fox Point.	U-turns allow greater flexibility in route choice.
Preserve Community Character	Requires wider roadways	Requires wider intersections
Access Control	Median on Green Bay Road from Winneconne Avenue to Fox Point would restrict commercial access.	U-turn capability enables right-in-right-out access, and use of narrow medians to lessen the impact of mid-block access control.
Pedestrian/Non-Motorized Paths	Requires wider roads with longer crosswalks than existing. Bike crossing and left turn movements not accommodated under actuated control.	Reduces vehicle speed and median crossing refuges reduces ped crossing distances Will require education and guidance
Encourage Transit	Similar to existing.	U–turns let buses reverse route without leaving the roadway. Enables transfer stops on public right-of-way, with access to sidewalks.
Positive Community Image	Similar to existing.	Eliminates overhead signal clutter Provides space for landscaping, sculpture, and welcome symbols.
Business Environment / Viability	Similar to existing.	Improves auto access to adjacent commercial parcels. Improves aesthetics. Improves pedestrian access.
Develop Tourism Potential	Increases traffic capacity	Increases traffic capacity. Beautifies community. Provides distinctive entrance.
Beautify Entry Commercial Districts	Decorative paving materials possible	Decorative paving materials possible. Eliminates overhead signals. Provides landscaping locations. Potential civic feature.

Table 14: Fox Cities MPO Transportation Objectives

COMMUNITY OBJECTIVE	SIGNAL SYSTEM	ROUNDABOUT SYSTEM
Integrated Planning	Evaluation meets criteria	Evaluation meets criteria
Maximum System Effectiveness for all Residents	Less safe for all pedestrians May require push-button actuation. Audible signals possible.	Shorter crossing distances - splitter islands provide refuge. Safer for all pedestrians. Requires education and guidance. Poses challenges for blind pedestrians but audible crosswalk signals possible if visually disabled are identified.
Efficient Street and Highway System.	Higher traffic delay. Meets WisDOT Design Standards. No change in access control Signal coordination problems due to close intersection spacing.	Lower Traffic delay. Meets WisDOT Design Standards. U-Turns allow median access control. No signal coordination problems.
Safety	The Winneconne Avenue signals has an elevated rate of crashes and injuries.	Superior safety performance Driver education is essential
Minimum Environmental Disruption	Little potential aesthetic improvement. Higher emissions due to higher traffic. Noise level higher due to higher traffic volume and similar traffic pattern. Paved area and pollutant runoff similar to roundabout alternative. Decorative paving materials possible	Allows boulevards, berms, and landscaping on central islands Reduces air pollution ~50% due to reduced idling and acceleration. Improved pedestrian facilities and transit options improve mode choices. Less braking and acceleration noise.
Compatibility with Land Use Pattern (Integration of transportation and land use).	New median restricts access between Winneconne Avenue and Fox Point.. Requires more travel lanes. Reduces space available for use of right-of way by other modes. Less travel delay during construction. Restrictions to access near signals. Minimum signal spacing requirements must be met.	Improves access to targeted development areas on Green Bay Road Rd. Eliminates need for additional lanes. Saves space for bikes and improves ped. access to commercial area. Higher inconvenience during construction. Fewer restrictions for access.
Conservation of Energy	Vehicles consume more fuel due to higher idling time, stopping, and acceleration. Traffic interruptions waste fuel.	Approximately 50% less point source energy consumption. Layout promotes walking and transit. Fewer traffic interruptions.
Multimodal Interaction	No change in Truck Routes. No improvement for Bus Transit. Longer pedestrian crossings. Emergency pre-emption equipment required.	No change in Truck Routes. Greater flexibility for bus routing. Better bus/pedestrian coordination. Shorter/safer pedestrian crossings. Reduces pedestrian conflicts. Improved pedestrian routes within and through the commercial area. No pre-emption equipment required.