BENEFITS OF CFI

Efficient traffic flow
- Reduced number of traffic signal phases, delay times, and queue lengths
- Improved level of service at the intersection
- Relief to entire system by reducing overall network delay
- Provides for more continuous movements

Safety improvements
- Eliminates the conflict between left-turning and oncoming traffic at the MAIN Intersection
- Fewer conflict points
- Potential to decrease congestion-related collisions as a result of reduced "stop-n-go" conditions
- Clear lines of sight

Reduction in pollution & fuel use
- Reduced congestion and delay associated with the CFI results in less fuel consumption and fewer vehicle emissions

Smaller design footprint
- Less right-of-way required than a grade-separated alternative

Cost savings
- Less costly than grade-separated alternatives

Community benefits
- More aesthetically pleasing than a grade-separated alternative

Any questions or comments regarding the Continuous Flow Intersection being evaluated as part of the Randall Road Improvements Study may be directed to:

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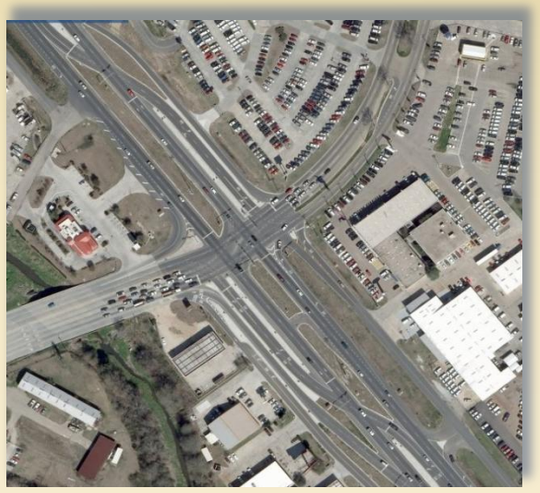
www.randallroad.info

Continuous Flow Intersections

What You Need To Know



Two-Leg CFI at Siegen Lane & US61/Airline Highway in Baton Rouge, LA (Source: Google Maps, 2008)

Gateway to McHenry County

www.randallroad.info

Randall Road Improvements Study

INTRODUCTION

The McHenry County Division of Transportation is studying improvements to Randall Road between County Line Road and Ackman Road. The Purpose & Need for the Study is to identify a transportation system improvement that will enhance mobility and local access while addressing safety issues, community values, and minimizing environmental impacts within the Study Area.

The Study includes evaluating improvements to the corridor and several intersections. One major intersection that requires improvements is the Randall Road and Algonquin Road Intersection. The Preferred Alternative for this intersection is a **Two-Leg Continuous Flow Intersection (CFI)**.

ABOUT RANDALL ROAD…

The corridor extends **3.5 miles** along Randall Road through Crystal Lake, Lake in the Hills, and Algonquin, IL. The **existing conditions** of the corridor include:

- Randall Road: Four-lane undivided highway
- **11 intersections** along corridor
- Major intersection at **Randall Road and Algonquin Road**.

Following an extensive alternatives analysis process that included meetings with stakeholders and the public, a **Preferred Alternative** was identified:

- Widen Randall Road to a 6-lane divided roadway
- Implement a Two-Leg **Continuous Flow Intersection** at the Randall Road at Algonquin Road Intersection
- Improvements to other intersections including a Continuous Green T Traffic Signal at the Randall Road at Village Road Intersection
- Access modifications to improve traffic flow and safety

DESCRIPTION

Continuous Flow Intersections (CFI) are a type of intersection that allows left-turning and through traffic to complete their movements simultaneously. This is achieved by having left-turning vehicles cross over oncoming traffic several hundred feet before the MAIN Intersection Traffic Signal. Three individual traffic signals are required: 2 MID-BLOCK Traffic Signals & 1 MAIN Intersection Traffic Signal.

Continuous Flow Intersections have gained support as an Alternative to a traditional signalized intersection and grade-separated intersections. Over 40 CFIs have been constructed worldwide, with a few in the U.S. and the majority in Mexico. Within the U.S., the State Departments of Transportation in New Jersey, Maryland, Louisiana, Utah, and Missouri have constructed CFIs. Ohio, Arkansas, and Texas are currently evaluating CFIs.

FEATURES

MAIN Intersection Traffic Signal - - - - - - - - - -

- Left-turning and through movements operate simultaneously
- Through traffic is does not have to stop for turning vehicles at the MAIN Intersection Traffic Signal

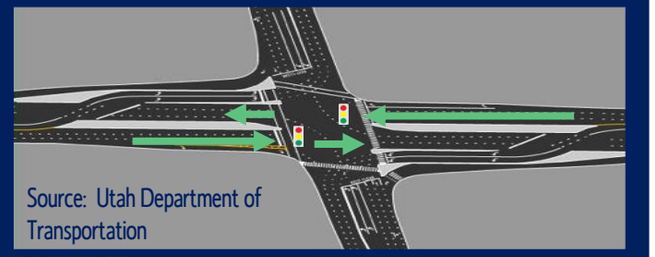
MID-BLOCK Traffic Signals - - - - - - - - - - - - -

- Used to cross left-turning traffic over to the opposite side of oncoming traffic

LEFT TURN Bays -

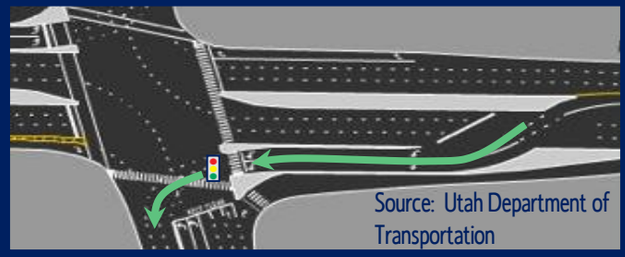
- Situated at the MID-BLOCK & MAIN Intersection Traffic Signals

NAVIGATING A CFI



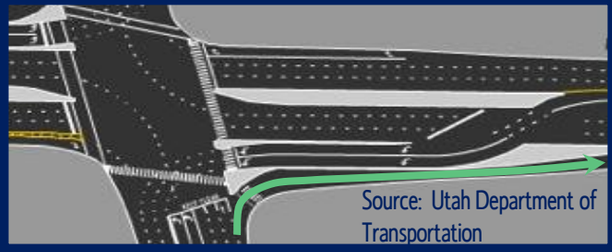
THROUGH Movement:

- Separated from left & right turn lanes using concrete barriers or traffic island
- Does not stop for left-turning vehicles at MAIN Intersection Traffic Signal
- Through traffic proceeds into intersection at the same time as opposing left turning traffic without stopping



LEFT TURNS:

- Wait several hundred feet behind the MAIN Intersection Traffic Signal at the MID-BLOCK Traffic Signal
- Left-turning vehicles cross over oncoming traffic and hold in the left turn bay
- Left-turning vehicles can complete their turn onto the cross street upon green light



RIGHT TURNS:

- Enter right turn bays and complete turning maneuver into a designated acceleration lane
- Designated acceleration lanes merge with cross street traffic upstream of the MID-BLOCK Traffic Signal