

| | |
|---|--|
| To: McHenry County Division of Transportation | |
| From: Julie Hoberg, Michelle Link | Project: Randall Road Improvements Study |
| CC: file | |
| Date: 03-31-2008 | Job No: 52986-040 |

RE: Alternative Packages to be analyzed in Level 3. Detailed Evaluation

The purpose of this memo is to define the improvements included in each of the Alternative Packages that will be analyzed in Level 3. Detailed Evaluation. The Alternatives consist of combinations of the best performing options (Arterials, Intersections, and Pedestrian/Bicycle) from the Level 2. Comparative Evaluation.

Alternative 1

Six Lanes

Intersections with Randall Road (in order from south to north):

- County Line Road: No improvements anticipated (project omission, intersection addressed with the Algonquin Commons and Galleria developments)
- Harnish Drive: No improvements anticipated (project omission, intersection addressed with the JC Penny development)
- Bunker Hill Road: Additional Turning Lanes
- Stonegate Road: Eliminate Access
- Algonquin Road: Modified Diamond Interchange (SPUI)
- Acorn Lane/Polaris Drive: Modify access based on space allowable from improvements to Algonquin Road
- Miller Road: Additional Turning Lanes
- Village Road: Close Access and divert traffic to Angela Lane through Carlemont Drive
- Angela Lane: Additional turning lanes and signalize (with a traditional traffic signal application)
- Alexandra Lane: Close Access and divert traffic to Angela Lane through Carlemont Drive
- Ackman Road: No improvements anticipated (project omission, intersection being addressed with the Rakow Road Improvements Study)

Alternative 1b*

Same as Alternative 1 with the following Pedestrian/Bicycle Options:

- Multiuse path along the east and west sides of Randall Road
- An underpass at the Woods Creek culvert and an overpass at the parks (Richard Taylor Park to Ken Carpenter Park), Miller Road, near Jacobs High School/Algonquin Library, and near Angela Lane

*Alternative 1b is being evaluated to develop an understanding of the additional impacts the pedestrian/bicycles options will have on any particular alternative. These options may be added to any of the alternatives; however, we will initially evaluate it with only Alternative 1. Based on agency support, funding, and potential impacts the pedestrian/bicycle options may be modified or eliminated from consideration. For example, the multiuse path may be recommended as a sidewalk or for only one side of Randall Road. Also, instead of implementing and designing all of the underpass/overpasses, one or two locations may be chosen.

Alternative 2

Six Lanes/HOV, 4 general purpose lanes and 2 high occupancy vehicle (HOV) lanes

Intersections with Randall Road (in order from south to north):

- County Line Road: No improvements anticipated (project omission, intersection addressed with the Algonquin Commons/Galleria/JC Penny developments)
- Harnish Drive: No improvements anticipated (project omission, intersection addressed with the JC Penny development)
- Bunker Hill Road: Additional Turning Lanes
- Stonegate Road: Eliminate Access
- Algonquin Road: Grade Separated Turning Movements
- Acorn Lane/Polaris Drive: Modify access based on space allowable from improvements to Algonquin Road
- Miller Road: Additional Turning Lanes
- Village Road: Close Access and divert traffic to Angela Lane through Carlemont Drive
- Angela Lane: Additional turning lanes and signalize (with the continuous Green-T application)
- Alexandra Lane: Close Access and divert traffic to Angela Lane through Carlemont Drive
- Ackman Road: No improvements anticipated (project omission, intersection being addressed with the Rakow Road Improvements Study)

Alternative 3

Six Lanes

Intersections with Randall Road (in order from south to north):

- County Line Road: No improvements anticipated (project omission, intersection addressed with the Algonquin Commons/Galleria/JC Penny developments)
- Harnish Drive: No improvements anticipated (project omission, intersection addressed with the JC Penny development)
- Bunker Hill Road: Additional Turning Lanes
- Stonegate Road: Additional Turning Lanes and Signalize
- Algonquin Road: Additional Turning Lanes
- Acorn Lane/Polaris Drive: No improvements anticipated (No-action)
- Miller Road: Additional Turning Lanes
- Village Road: Convert to Right-in/Right-out intersection
- Angela Lane: Additional Turning Lanes and signalize (with a traditional traffic signal application)
- Alexandra Lane: Convert to Right-in/Right-out intersection
- Ackman Road: No improvements anticipated (project omission, intersection being addressed with the Rakow Road Improvements Study)

The Preferred Alternative will be either one of the above alternatives (Alternative 1, Alternative 1b, Alternative 2, or Alternative 3) or a combination of the alternatives. In addition to Alternative 1, Alternative 1b, Alternative 2, and Alternative 3, several other options will be evaluated in more detail, separate from the alternatives. A continuous flow intersection (CFI) will be analyzed operationally for comparison purposes to a conventional intersection at the intersection of Randall Road and Algonquin Road. Village Road, Angela Lane, and Alexandra Lane will be evaluated using different option scenarios to verify the proposed configurations will properly handle future traffic volumes. In addition, Randall Road at County Line Road, Harnish Drive, and Ackman Road will be analyzed operationally to verify their existing designs will be able to properly handle future traffic volumes.