



## Willow Road Phase I Study Technical Advisory Committee (TAC) TAC #1 Meeting Summary

Date: October 12, 2010  
Time: 8:30 a.m. to 11:30 a.m.  
Place: Glenview Police Department, Community Room  
Attendance: See Sign-in Sheet at the end of the Meeting Summary

IDOT is conducting Phase I planning studies along Willow Road from Waukegan Road (IL 43) to the Edens Expressway (I-94). As a follow up to the September 15, 2010 CAG Meeting #5, IDOT convened a smaller working group to further discuss the technical analyses prepared as part of the study. This group consisted of Village professional staff; Northfield and Glenview's engineering consultants; a CMAP representative, and IDOT project team members.

The purpose of Technical Advisory Committee (TAC) is to provide a forum for continued technical review and discussions of the reports and data previously presented at CAG meetings. The meeting provides a forum for the village's engineering consultants and professional staff to engage in a technically focused discussion with IDOT's project team. In addition it provides an opportunity for village professional staff to become more informed about the study so that they can provide support to their Village's CAG members. The TAC #1 meeting agenda provided time for discussion of the following topics.

- Draft Crash and Traffic Analysis
- Draft Travel Pattern Analysis
- Draft Physical Inventory of Infrastructure Elements
- Draft Purpose and Need Statement Outline

A draft version of the *Disposition of Comments Received for Crash and Traffic Analyses* was distributed to the TAC for reference during the discussions.

### Draft Crash and Traffic Analysis Discussion

IDOT provided an overview of their disposition to comments to the TAC. IDOT responded to technical comments from the Villages' consultants and staff. Following the meeting, the Disposition of Comments was revised to incorporate additional changes resulting from the technical discussions. Some of the key dispositions discussed at the meeting are provided below.

- Q: The Village of Northfield requested clarification on Willow Road ranking within the statewide safety average? Does IDOT compile a ranking for projects not included within the Five Percent Report? Since Willow Road is not considered a Five Percent Location, is there a benefit/cost process to determine if improvements should be made along Willow Road.
- A: IDOT responded that there were only 432 five percent intersection (out of 48,000 locations) and 855 miles (out of >16,000 miles) that have been identified statewide in the *2009 Five Percent Report* intersections analyzed. This does not mean that other important safety issues do not exist statewide or on Willow Road. Rather, the *Five Percent Report* prioritizes projects for special Federal safety funding. Other state and Federal funding is used for the safety concerns across the state, which are not identified as five percent locations.

On Willow Road, with the overall average of 3 injury crashes per month and an over representation of Type B injury crashes, further consideration is warranted.

- Q: Northfield's consultant asked how the Willow Road segments ranked in relationship to the *Five Percent Report*.
- A: IDOT explained that this type of analysis does not have any bearing on the process and is simply not done. There are safety issues along Willow Road that need to be addressed. No additional analyses will be performed.

- Q: Northfield's consultant asked if there were other locations in the nearby area that were compared to Willow Road's safety performance.
- A: Illinois practice is to compare the roadway's safety experience to the statewide averages based on similar facility types. Limiting the comparisons to a few regional roadways is not recommended based on the professional industry standard practices, as the data set would not be large enough to provide meaningful results.
- Q: Village of Northfield requested clarification on how IDOT establishes their priorities for infrastructure improvements? It seems that a lot of money is being invested into a small section of roadway. What factors are used to determine IDOT's priority system?
- A: Problems have been identified along Willow Road. A roadway may be considered for improvements if it is performing worse than it should.
- Q: Village of Northfield asked why I-94 mainline crashes were included in the Study Area totals. Northfield's consultant proposed separating out all I-94 mainline crashes that occurred outside influence of Willow Road (greater than 250 ft from edge of pavement along Willow Road)
- A: IDOT agreed to separate the I-94 mainline crashes from the total # of crashes; thereby reducing the total # within project study area by 106 crashes, and the rear end crashes by 63. The crashes along and within the influence of the ramp terminals (within 250 ft of Willow Road) will continue to be included in the total number of crashes for the study area. However, crashes occurring outside the influence of the ramp terminals will be included with the mainline crashes. This agreed to modification will reduce the total number of crashes occurring per month from 17 to 16. Several tables within the crash analysis report will be updated to separate out these crashes.
- Q: There was discussion on the crash data collected on I-94 mainline lanes and interstate ramps. In previous CAG meetings and review documents, Northfield's consultants had stated 75% of total crashes and 71% of rear end crashes occurred in 4 lane sections of Willow Road, of which crashes on I-94 mainline lanes and interstate ramps were incorrectly included in their calculations.
- A: IDOT responded to Northfield's consultant's comments regarding this item, by providing corrected versions of Northfield's crash tables with the I-94 crash data properly separated out for comparison of crashes occurring within the existing 2 lane versus 4 lane pavement limits of Willow Road. The corrected percentages of total and rear end crashes are presented in IDOT's disposition of comments document and were presented at the TAC meeting. IDOT stated at the meeting 50% rear end and 54% total crashes occur on 4 lane sections of Willow Road versus the 2 lane section.
- Q: Northfield wanted clarification why the fact that Willow Road is a partial interchange isn't included as a deficiency in the reports?
- A: This is noted in the Physical Inventory. To the extent possible, text will be clarified.
- Q: Village of Northfield believes the crash report seems to be over emphasizing where crashes occur, and not where they don't. Report appears to be cherry-picking negative things that occurred. Northfield's consultant recommended that the crash analysis be re-written to emphasize the locations that are performing well, in addition to those performing poorly.
- A: The purpose of the Crash Analysis is to document what happened within a study area, not what didn't happen. It is a summary of the crash occurrences along Willow Road during the study period.
- Q: There were several questions from the Village of Northfield about the methodology used to develop existing traffic (days traffic counted, signal timings, 24-hour counts vs. 12-hour counts and calibration of the model).
- A: The project team described the process used to prepare existing traffic. This included obtaining signal timings at each intersection from cabinets, field studies for calibrating model including saturated flow rates and lane utilization, and balancing of traffic. The capacity analyses were adjusted to use the appropriate arrival type (typically type 3).

This adjustment had minimal effect on the level of service at each intersection. The greatest change was at Three Lakes/Fox Meadow Drive where the overall level of service improved from LOS C to LOS B.

The project team counted traffic at 15-minute intervals over a 12-hour period, and field measured saturation flow rates and lane utilization percentages, which is state of the practice. Additional studies were not required to "validate" or "calibrate" the analysis. The Highway Capacity Software is an accepted analysis tool used by the traffic engineering profession. Saturation flow rate calculations were attached to the dispositions and will be provided in the final report.

- Q: Village of Northfield's consultants asked questions about the traffic forecasts and disputed CMAP's growth projections. Mr. Bova explained his research that showed a reduction in VMT from 2003 to 2009 and that if projected to 2030, VMT would decrease.
- A: IDOT noted that the 1998 Willow Road ADT of 37,200 provided by Northfield's consultant (Table 1) was not a misprint. In addition, the consultant's table states a 2009 projected ADT of 31,700. IDOT noted that this is an existing count, not a projection. In terms of the overall network, there are many factors affecting the variability in the IDOT traffic volumes used for AADT maps, including nearby construction, capacity improvements, fuel prices, and economic cycles. The important point to remember is that these IDOT published AADT's are not used for project design, and are not used by CMAP as a primary basis for their modeling and forecasting. Rather, these published AADT's are part of a broader, statewide data collection effort that is intended to provide a statewide average for vehicle miles of travel, which is tracked by the Federal Highway Administration. Nonetheless, the historical Willow Road data is actually consistent with our findings, and show a 17% increase over a 19-year period. This fact, in addition to using state of the practice analyses, tools and techniques, supports our conclusion that the forecasted 14% average increase in traffic is reasonable.

IDOT discussed Mr. Bova's statement that VMT was decreasing based on his research. IDOT explained that the 6-year sample size used by Mr. Bova was too small for extrapolation and ended in 2009, during one of the worst recessions in recent history.

CMAP explained that their forecasting tool is based on a number of growth factors, and is not an extrapolation of past growth. The general trend is that as development grows, so does traffic. Economic downturns interject into these patterns. It was also noted that past performance is not an indicator for future growth.

Following the discussion of historical AADT data of Willow Road and the 2030 traffic projections between the Village of Northfield's consultant (Cooper Engineering) and IDOT staff, Glenview's consultant, Baxter and Woodman (Hausmann), commented on the existing traffic data and existing capacity of Willow Road within the study limits. When discussing the projected 2030 traffic of Willow Road, Mr. Hausmann noted the existing traffic data collected in 2009 shows the existing Willow Road, most notably the two lane pavement sections between Sunset Ridge Road and Northfield Road/Old Willow Road intersections, does not provide capacity to meet existing (2009) traffic demands. Baxter and Woodman commented improvement to Willow Road is warranted by the analysis of existing traffic data and the existing capacity of Willow Road.

- Q: IDOT provided an explanation to the Village of Northfield's written comments asking how Roadway Classification for Willow Road was established.
- A: Willow Road is a Class II Roadway based on the Highway Capacity Manual's Exhibits 10-3 and 10-4. The memo, attached to the Cooper Civil Engineering Ltd. disposition explained that Willow Road's functional category designation is a Principal Arterial and its design category is either Suburban or Intermediate. Based on this, Willow Road is correctly classified as a Class II Roadway.

Q: Village of Winnetka noted that a Tech Memo prepared by TranSystems regarding the Classification included a table that identified Willow Road as an SRA for 23 miles from Sheridan Road in Winnetka through Algonquin Road in Inverness. Mr. Saunders noted the eastern limit should be corrected.

A: IDOT will revise the limits to U.S. Route 14 on the west to I-94 on the east in the Village of Winnetka, for a distance of 15 miles.

Refer to the updated DRAFT *Disposition of Comments Received for the Crash and Traffic Analyses*, distributed to CAG Members on October 19, 2010.

#### Travel Pattern Discussion

The Travel Pattern Analysis presentation given at CAG Meeting #5 was given to the TAC.

Q: Regarding the traffic analysis zones (TAZ), the Village of Northfield's consultant asked if it was possible to determine travel demand by community.

A: It was explained that the TAZ were divided into non-jurisdictional zones. However, the TAZ closest to Willow Road would include trips with an origin or destination within the Village of Northfield.

#### Physical Inventory

Provided a general overview of the project's physical features within the study area and presented initial findings.

Q: There was a general question from the Village of Glenview about how infrastructure improvements were identified within IDOT's Multi-Year Program. Did this include cost for replacing structures?

A: IDOT explained that the Multi-Year Program's Willow Road estimate was a "place-holder" within the program for improvements associated with Willow Road. Cost estimates would be prepared as part of the alternatives evaluation process and refined as the study progresses.

Comment: Localized flooding was discussed. It was agreed that flooding along Willow Road occurs within swales and up to the shoulders but does not encroach on roadway. During a recent storm event, Northfield stated if water was  $\frac{1}{4}$ " higher, it would have encroached onto the pavement. Northfield noted that Willow Road was briefly closed, but this was due to debris along the roadway and not due to flooding.

There was a comment that any underpass would have the potential to be flooded.

#### Purpose and Need

No comments at this time

#### Next Steps

There was a discussion about continuing Technical Advisory Committee meetings for the Willow Road Phase I Study. It was agreed that this forum would be beneficial to the project and should continue.

The Village of Northfield proposed having their consultants participate at CAG meetings. There were concerns raised that this would limit the time intended for CAG members to voice their opinions. Village of Glenview offered that since data has been introduced, their CAG members would be willing to meet more regularly to keep the process moving forward.



**Attendance Roster**

**Technical Committee Meeting #1**

Willow Road Study: Illinois Route 43 to Interstate 94  
 October 12, 2010; 8:30 a.m. to 12:00 p.m.  
 Glenview Police Department's Community Room, 2500 E. Lake Street

Name (Please Print)	Address	Phone Number	Email Address	Representing	Add to Mailing List?
1 PETE HARMET	Zip	( )		Self <input type="checkbox"/> Other: IDOT	Yes <input type="checkbox"/> No <input type="checkbox"/>
2 Chuck Stenzel	Zip	( )		Self <input type="checkbox"/> Other: TransSystems	Yes <input type="checkbox"/> No <input type="checkbox"/>
3 Kathy Meyerkord	Zip	( )		Self <input type="checkbox"/> Other: TransSystems	Yes <input type="checkbox"/> No <input type="checkbox"/>
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10 Clair Bozic	Zip	(312) 386-8744	CBOZIC@CMAP.ILLINOIS.GOV	Self <input type="checkbox"/> Other: CMAP	Yes <input type="checkbox"/> No <input type="checkbox"/>



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10	Zip	( )		Self <input type="checkbox"/> Other:	Yes <input type="checkbox"/> No <input type="checkbox"/>