

# McHenry County Blog



## Citizens' Group Attacks Continuous Flow Intersection on Randall Road

Posted on 05/12/2014 by Cal Skinner

The following analysis of the Continuous Flow Intersection McHenry County is contemplating building at the intersection of Randall and Algonquin Roads was prepared by Citizen Advocates for Public Accountability:

### Highway Robbery

#### CAPA Position Paper on the Randall Road Phase II Engineering Project

The McHenry County Transportation Committee has proposed spending \$135 million to retrofit three and a half miles of Randall Road, from Ackman to County Line, with frontage roads, and to change the intersection of Randall Road and Algonquin Road with a new type of left turn lane known as a Continuous Flow Intersection. This project is known as the "Randall Road Phase II Engineering project." To date, \$15 million has already been approved by the County Board for engineering and "public education" for this project.

Citizen Advocates for Public Accountability ("CAPA") has reviewed the proposed \$135 million Randall Road Phase II Engineering project. We oppose the project and recommend that the County Board expend no funds at this time for the Project and postpone any permanent decision for at least two years. We conclude that:

- The population projections, which are the single most fundamental justification for the project, have been drastically incorrect, making reliance on them preposterous.
- There is no objective traffic evidence that there is a significant problem to be solved.
- The project is unreasonably expensive for a County of our size.
- The project is unreasonably expensive for the amount of road it seeks to "improve".
- The project is likely to cause considerable damage to the existing and future commercial development on Randall Road.

#### Faulty Population Projections

With regard to the first and most important point, faulty population projections, the County does not propose this project because of an existing problem, but because of a problem they think might happen many years in the future IF population increases dramatically. As there is no significant problem at the present time, and as

the time frame for the project is only two years, **there is no need to expend funds now – there is plenty of time to wait to see if the County's projections are accurate.**

The entire Randall Road project is predicated upon population projections prepared by the Chicago Metropolitan Agency for Planning ("CMAP"). From page 40 of the McHenry County 2040 Transportation Plan:

"Based on population and employment forecasts provided by CMAP and current travel patterns, the demand model created by Civiltech Engineering, Inc. was used to measure the County's roadway system's ability to accommodate increases in traffic volumes. The forecasted year used for the modeling was the year 2030."

**If the population projections are wrong, then there is no justification for the project,** and CMAP's projections are dramatically at odds with the recent history of both the County and the country. CMAP projects that the population of the County will increase substantially over the next twenty-six years. From page 29 of the McHenry County 2040 Transportation Plan:

"The Chicago Metropolitan Agency for Planning (CMAP) makes population and employment forecasts in the Chicago region for transportation planning purposes. CMAP forecasts have proven to be within 10% of the actual census for McHenry County. By 2040, CMAP forecasts the population of McHenry County will be approximately 525,000."

Stating that "CMAP forecasts have proven to be within 10%" is false. The 1995 projection in the County 2010 Transportation Plan, made by CMAP's predecessor, NIPC, was off by 22%. The 2007 forecast was off by more than 7% over just a three year time frame.

In 2007, CMAP forecast a growth rate of 2.50% per year between 2007 and 2010. In fact, the population of McHenry County was actually decreasing at that time, and has decreased in every year since then.

More important, **it is the accuracy of the rate of growth that is critical and to focus on the overall accuracy for one three-year period is purposely misleading.**

**In short, CMAP's forecast of the growth rate over just a three-year was off by more than 100%! It didn't even have the right sign, meaning it was positive while growth was negative!** If CMAP can't even get the sign right over a four-year period, if they project growth when in fact there was reduction, how much faith – and taxpayer money – should be placed in their forecasts?

Population forecasting has, historically, been highly inaccurate, even at the national level and by as well respected an institution as the Census Bureau. In December 2012, the U.S. Census Bureau noted on its blog:

"The U.S. population is projected to grow at a slower pace over the coming years than was projected four years ago.... What difference does four years make? The population projections are based on assumptions about the future levels of fertility, mortality, and international migration that are based on past trends. The new series of projections incorporates data that are more recent on births, deaths, and net international migration. "

The Census Bureau's former projected annual growth rate was 0.88%; the new projected annual growth rate is 0.65%. This resulted in a difference in projected population of over 39 million, a full 9% lower than the

earlier projection.

Yet despite the Census Bureau's own humility about the accuracy of long-term projections, over the next 27 years, and despite a projected growth rate of only 0.65% annually, **the CMAP forecast underlying the Randall Road project concludes that the population in McHenry County would increase by 2.00% per year, or more than three times the rate the Census Bureau projects** the national population will grow. In fact, CMAP's interim projections indicate **an annual growth rate between 2020 and 2030 over 3.0% per year!**

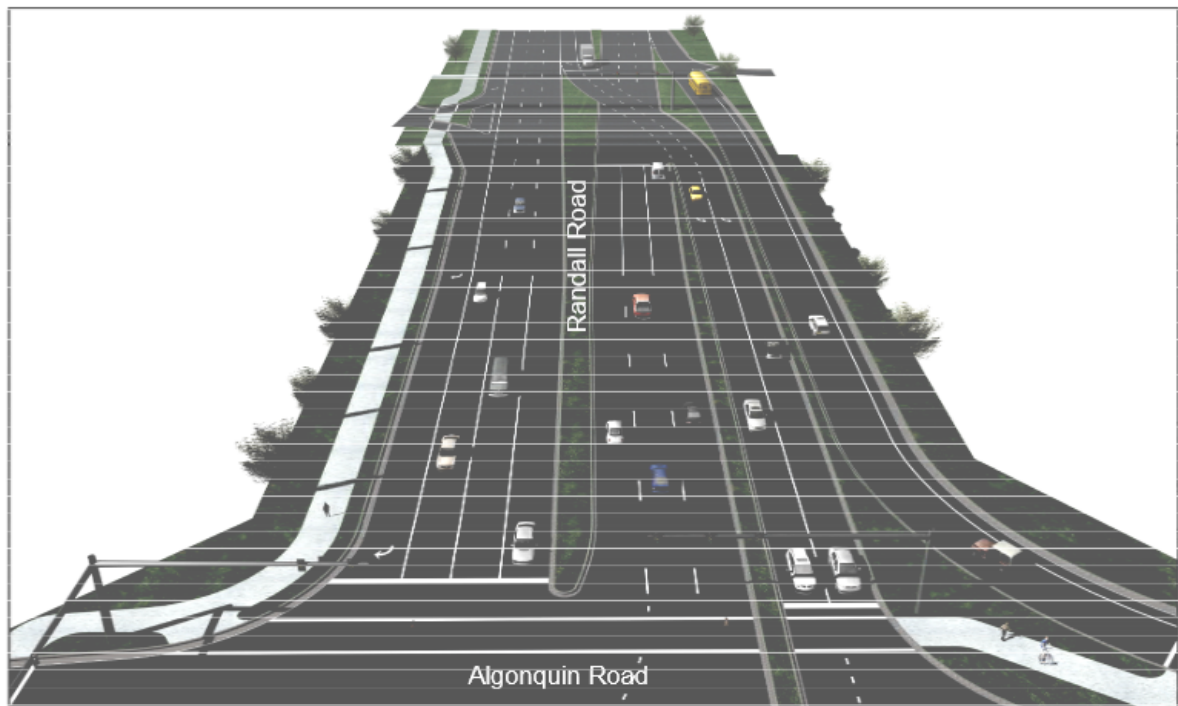
And CMAP confidently makes this forecast, without regard to the fact that **population in McHenry County has been decreasing in every year since the 2010 Census**. The Census Bureau's 2013 estimate of McHenry County's population is 307,409, down 320 from the 2012 estimate and down 1,451 since the 2010 Census.

In fact, the change in the population trend has become so apparent that net migration out of McHenry County was the subject of a front page story in Crain's Chicago Business on April 21, 2014.

There is no justification for expending this much money at this time on the basis of projections that even the best professionals know are dubious. The County has plenty of time to see what transpires before they need to spend money.

### **Lack of Objective Traffic Evidence**

With regard to the second point, the lack of objective traffic evidence that there is a problem, the only word we can use is "stunned".



## Continuous Flow Intersection at Algonquin Road Intersection Looking North Along Randall Road

*Looking north on Randall with a Continuous Flow Intersection.*

The County Transportation Division claims that it currently takes twelve minutes to drive from Ackmann Road to County Line Road on Randall Road. How did they determine this? The most obvious way would be to get in a car and actually drive this section of road, preferably several times and several different times of day, during the week and on weekends.

The County Transportation Division didn't do this. In fact, they have NEVER done this. In short, while objective evidence would have been extremely easy to gather, they have NEVER gathered this evidence, not now and not historically. In other words, the Transportation Division has no direct evidence that travel time on Randall Road has increased over the years. As a result, they are forced to use a "model", a very new model that has never actually been tested to prove whether or not its projections are accurate. Spending \$135 million when there is no time pressure to proceed, on the basis of an untested "model", is the height of imprudence.

The only objective piece of evidence the County Transportation Division DOES have is average daily traffic volumes, **which show there has been NO increase in the area of Randall Road near Algonquin Road over the last ten years:**

- In 2003, the traffic count was 35,000 to 39,300 vehicles per day.
- In 2013, the traffic count was 34,972 to 38,650 vehicles per day.

In other words, over a ten-year period when the population in the County grew by an estimated 12%, traffic on Randall Road did not increase at all. This is important because population is the main input for the "model" that the County uses to project travel time. In short, **the only historical evidence we have casts serious doubt on the model's efficacy.**

In summary, with regard to the most important simple issue concerning traffic on Randall Road – how long does it actually take to get from Point A to Point B – the County Transportation Division has no actual direct evidence, now or historically, and the only historical evidence they have indicates traffic has not increased with population, contrary to the model they use to justify the project.

### **Project Cost Relative to Population**

The current estimate of the project cost is \$135 million, including the \$4.5 million authorized and approved in 2006 and the recent \$15 million authorized and approved by an 8-12 vote by the County Board.

According to the U.S. Census Bureau, the number of households in McHenry County in 2010 was 109,000.

That means this one stretch of road improvement, three and a half miles, is expected to cost more than \$1,200 for every single household in McHenry County!

This is an unbelievably high cost for one, short project, representing a fraction of the County's total roads, and we doubt that many County residents would find \$1,200 worth of benefit in this project.

The cost is simply outrageous relative to the population being served.

Consider the cost of this project from a different perspective: In the coming fiscal year, the City of Crystal Lake will provide all the typical municipal services to its citizens, including police protection, fire protection, street maintenance, water and sewer service, parks, and a range of other services. Crystal Lake will undertake sixteen separate capital projects for the water system, including a new well, as well as other capital projects, including street improvements. Yet the entire budget for Crystal Lake for the coming fiscal year is \$91 million.

So for two-thirds of what the County wants to spend to "fix" just three and a half miles of road, the City of Crystal Lake can operate for a full year, including funding numerous capital projects. In this context, does the Randall Road project not seem to be excessively expensive?

### **Project Cost Relative to Project Scope**

CAPA does not think the traffic on Randall Road is so heavy that any significant change in the road is warranted. Nor do we think that population is likely to grow so rapidly that a major project will be warranted in the near future. Further, **if evidence arises that contradicts these conclusions, there will be sufficient time then to undertake improvements then.** In short, no construction needs to be undertaken at this time.

Having said all this, it is still worth commenting on the price tag of the proposed project per se.

In simple terms, how much should a project of this scope reasonably be expected to cost?

The American Road & Transportation Builders Association says that the average cost to add two lanes to an existing highway is \$4-5 million per mile in urban areas. The County intends to add four lanes of frontage road. Assuming an average of \$4.5 million per mile for two lanes, the entire cost of frontage road on each side of Randall Road for the entire three and a half miles might be expected to cost \$32 million.

According to the engineers with whom we have spoken and an examination of historical costs of the continuous flow intersections (CFIs) that have been built, a reasonable estimate for the cost of this aspect of the project is \$3-\$5 million.

So the total cost of such a project, if it were warranted, might reasonably be \$37 million to \$42 million.

The County proposes to spend \$135 million on their plan for Randall Road.

By any objective standard, the County's proposal seems to be a gold-plated solution to a non-existent problem.

### **No Evaluation by County of Economic Impact**

Easy access to businesses from traffic going both directions is a basic consideration of any retailer, and the businesses located along Randall Road have expressed grave concern about the damage the project would cause to their businesses both during construction and thereafter. These concerns must not be dismissed out of hand or taken lightly. In fact, Crystal Lake and Lake in the Hills expressed concern over this issue long before the plan was completed.

Yet we were astounded to learn that **the County had performed absolutely no study of the economic impact of the proposed changes to Randall Road**, including the use of a Continuous Flow Intersection. The engineers with whom we have spoken indicate that a CFI is inappropriate for an area with a high volume of commercial development.

Such a study is not within the professional expertise of highway engineers at the Transportation Division, but SOMEONE at the County should have sought to evaluate formally the potential effect of the changes on commerce before deciding to proceed with this project.

No one did.

No study was undertaken despite strenuous objections by the municipalities through which the project runs. Crystal Lake made their objections known. And Lake in the Hills has declared that it expects to lose millions of dollars in sales taxes if the Randall Road project takes considerable right of way and restricts traffic flow into the various shopping centers from both directions. Since then, of course, numerous letters have appeared from local business people declaring their intent NOT to build along this corridor specifically because of the proposed project.

In addition to the loss of sales taxes, there is the potential for the loss of hundreds of area jobs.

That the County deliberately neglected to perform such an economic analysis, especially when the issue was strongly urged on them by the municipalities affected by the project, indicates to us this was a purposeful omission. We cannot help but suspect the worst.

We STRONGLY urge the County to consider the economic impact of ANY change in Randall Road both during construction and after before deciding to spend any of the taxpayers' money on this project.

### **CONCLUSION**

As noted at the beginning of this paper, Citizen Advocates for Public Accountability opposes spending any money at this time on the proposed \$135 million Randall Road Phase II Engineering project. Our position can be summarized in the answers to four questions:

**Question 1: Does the evidence support spending \$135 million to change Randall Road?**

Answer: No. The evidence indicates that no change is warranted and, in fact, that the cost is excessive and the damage to the local economy substantial. In particular, the population projections which are the sole basis for the project are so suspect that no credence should be given to them.

**Question 2: Is there a downside to waiting?**

No. There is no problem that warrants spending \$135 million any time soon. The "problem", if it occurs is several years away, and the solution will take no more than two years to implement. So if evidence eventually emerges confirming a trend of above average population and traffic growth, there will be plenty of time to undertake this project then.

**Question 3: Is there a downside to proceeding with the project now?**

Yes, there are huge downsides. If the projections of population growth turn out to be wrong, the County risks wasting \$135 million of the taxpayers' money, more than \$1,200 for every family in the County, not to mention the potential loss of jobs and sales tax revenues. Proceeding with the project at this time is the height of imprudence.

**Question 4: If there is a problem, is the proposed solution the right solution?**

No. The evidence indicates (1) that a CFI is the wrong solution to any "left-turn" problem in an area of high commercial development, (2) that there is no established need for miles of frontage roads, and (3) that the total project cost is unreasonably high – three or four times too high – relative to the population being served and to the amount of road being fixed.

Posted in [Algonquin Road, CFI, Citizen Advocates for Public Accountability, Continuous Flow Intersection, McHenry County Board., McHenry County Department of Transportation, Randall Road](#)  
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