



## Citizens for Appropriate Transportation

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**This letter is intended for inclusion in the Public Record**

August 18, 2010

Illinois Dept. of Transportation  
c/o Mr. Mark Peterson and Mr. Peter Harmet  
201 West Center Court  
Schaumburg, IL 60196

### **SUBJECT: Draft Purpose and Need Statement**

Dear Mr. Peterson and Mr. Harmet:

Thank you for the opportunity to comment on the "Draft Outline for the Purpose and Need Statement." We appreciate the opportunity to express our concerns because we believe the Purpose and Need Statement does not account for all of them.

Most fundamentally, the Draft Outline simply enumerates deficiencies in the existing road network. This is very different than outlining project goals, as was done by the Corridor Advisory Group and Task Force as described later in this letter.

We grouped our comments into ten categories:

1. FHWA requires a balanced approach that should be reflected in the Purpose and Need Statement.
2. The Purpose and Need Statement should recognize all reasonable solutions.
3. The Purpose and Need Statement should provide sufficient detail to allow a meaningful comparison of alternative solutions.
4. IDOT's Phase 1 Study is a decision-making and a learning process.
5. Travel time to work and other destinations is part of the problem.
6. IDOT should pay more attention to land use impacts.
7. IDOT should consider additional criteria.

8. IDOT wants to build a consensus.
9. It is hard to measure some impacts.
10. The Context Solutions Process should lead to solutions that are in harmony with Corridor communities.

**1. FHWA requires a balanced approach that should be reflected in the Purpose and Need Statement.**

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FHWA Policy says, “*alternative courses of action be evaluated and decisions be made in the best overall public interest based upon a **balanced consideration** of the need for safe and efficient transportation, of the social, economic and environmental impacts of the proposed transportation improvement; and of national, State, and local environmental protection goals.*” 23 CFR § 771.105(b) (emphasis added)

IDOT’s draft Needs Summary document (July 2010) says, “*The Purpose and Need should address transportation issues. Environmental and cost considerations are part of the alternatives evaluation process.*”<sup>1</sup> This approach is not “balanced” and it does not adequately consider “the social, economic, and environmental impacts.”

IDOT should use the Purpose and Need Statement in six different ways in the Phase 1 Study. The Purpose and Need Statement should

1. Describe the problems and answer the question, “Why is the project needed?”
2. Answer the question, “What are the purposes of the project?”
3. Provide clear guidance to those who will be generating alternative solutions intended to get us from where we are now to where we want to be in the future.
4. Help identify the data sets required because IDOT will need at least one data set for each evaluation criterion.
5. Help us evaluate how well each alternative solution meets the evaluation criteria because the Recommended Solution should be the solution that best meets the evaluation criteria.
6. Help build consensus.

IDOT is preparing an **Environmental** Impact Statement (EIS) (emphasis added), so just addressing transportation issues excludes important elements.

IDOT’s is doing a Phase 1: Engineering and **Environmental** Study (emphasis added), which clearly suggests the need for both engineering and environmental studies.

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<sup>1</sup> IDOT, “I-290 Phase I Study – Needs Summary Points,” July 2010, Page 1.

FHWA Policy says, “Measures necessary to mitigate adverse impacts be incorporated into the action.” 23 CFR § 771.105(d)

## **2. The Purpose and Need Statement should recognize all reasonable solutions.**

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Multimodal solutions work better than single mode solutions.

Every factor that has a bearing on the decision about which alternative solution is best should be included in the evaluation criteria.

Slide #31 in IDOT’s July 22, 2010 presentation on Purpose and Need has a bullet point that says, “Written broadly enough to consider a range of potential solutions.”

### **a. IDOT’s Mission Statement suggests a multimodal approach.**

IDOT’s Mission Statement says, “We provide safe, cost-effective transportation for Illinois in ways that enhance the quality of life, promote economic prosperity, and demonstrate respect for our environment.”<sup>2</sup> IDOT’s Mission Statement uses the word “transportation.” It does not use the word “highways.” It recognizes the need to address economic and environmental issues.

### **b. Phase 1 Study Problem Statement says I-290 is a multimodal corridor.**

The Problem Statement developed for the IDOT’s Phase 1 Study starts with, “The I-290 study area is a multimodal corridor with a complex network of roadway, public transit, freight railroad, and non-motorized facilities and services that is a critical component of the local and regional transportation system.”

Excluding improvements to the CTA Blue Line and Metra’s commuter rail lines does not comply with the Problem Statement, and excludes important elements that are part of prudent, feasible, and reasonable alternatives.

FHWA Policy says, “In order to ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the action evaluated in each EIS or finding of no significant impact (FONSI) shall:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope;
2. Have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made; and
3. Not restrict consideration of alternatives or other reasonably foreseeable transportation improvements.” 23 CFR § 771.11(f)

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<sup>2</sup>Illinois Department of Transportation, “IDOT Highway Traffic Noise Assessment Manual, Mission Statement, revised 2007.

One lesson learned from the Hillside Strangler improvements is traffic congestion moved east. The Eisenhower Expressway routinely has traffic backups where it connects to the Kennedy and Dan Ryan Expressways. In addition, the Eisenhower Expressway ends at the traffic light at Wells Street. It follows that widening the Eisenhower Expressway from Mannheim Road to Austin Boulevard will move congestion east of Austin and increase the delays that occur near the University of Illinois at Chicago.

We repeat once again our concern that the study area should extend east to the Chicago loop in order to capture these impacts and allow for a more appropriate and holistic solution.

If IDOT plans to follow a tiered approach by developing initial alternatives, then weeding out poor alternatives to arrive at a set of good alternatives evaluated in detail, FHWA Policy says, “*The second tier would address site-specific details on project impacts, costs, and mitigation measures.*” 23 CFR § 771.111(g)

**3. The Purpose and Need Statement should provide sufficient detail to allow a meaningful comparison of alternative solutions.**

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IDOT has done extensive analysis of motor vehicle crashes and roadway capacity. Without equivalent analyses of accidents and capacity on both the CTA Blue Line and Metra, it will not be possible to compare multimodal solutions. Excluding accident and capacity analysis for the CTA and Metra suggests a predisposition to a roadway alternative.

***a. There is no accident analysis for either the CTA Blue Line or Metra.***

One way to reduce accidents is to encourage people to shift from driving on the expressway to riding the CTA Blue Line or one of the Metra commuter rail lines (UP-W, BNSF, and MD-W). This assumes the accident rates are lower on the Blue Line and Metra than they are on the expressway. Without accident data and analysis for rail transit modes, IDOT cannot compare multimodal options in terms of safety.

In his presentation at the July 22, 2010 meeting, Jeff Shaw from the FHWA displayed a slide titled “Overview of Traffic Safety.” He identified three factors in traffic safety:

1. Roadway Factors
2. Driver Factors
3. Vehicle Factors

IDOT only has control over roadway factors, limiting its ability to reduce accidents effectively.

***b. There is no capacity analysis for either the CTA Blue Line or Metra.***

IDOT has done extensive analysis of roadway capacity. The Technical Memorandum on Existing Roadway Operations (July 2010) summarizes the results of the capacity analysis. The Technical Memorandum labeled Appendix

E (July 2010) on Existing Roadway Operations has more than 500 pages of printouts from the Highway Capacity Software (HCS).

IDOT has said there is unused capacity on the CTA Blue Line, but there is no analysis of the capacity of the CTA Blue Line or Metra Commuter Lines. Without capacity data for transit modes, IDOT cannot compare multimodal alternatives.

The CTA Blue Line has a ridership imbalance. CTA Ridership Statistics for 2008 and 2009 show far more riders on the O'Hare Branch than on the Forest Park Branch. Empty seats on the Forest Park Branch do not generate fare revenues. Alternatives for the Eisenhower Transportation Corridor that increase ridership on the Forest Park Branch would serve West Cook Counties better and make the CTA Blue Line more efficient. Further, the O'Hare Branch of the Blue Line has 16 stations, but the Forest Park Branch has 12 stations. The CAT June 2010 Issue Brief has more details. It is on the CAT web site at [www.CitizensForAppropriateTransportation.org](http://www.CitizensForAppropriateTransportation.org), under Issue Briefs.

***c. There is no person capacity analysis.***

There are at least two measures of capacity – vehicles per hour and persons per hour. IDOT has done extensive analysis of vehicles per hour, but very little on persons per hour. To compare expressway improvements with rail transit alternatives in a fair manner, persons per hour is a much better measure than vehicles per hour.

**4. IDOT's Phase 1 Study is a decision-making and a learning process.**

Two processes should take place during the Phase 1 Study. The first is the process that leads to a Preferred Alternative. The second is a process where IDOT and stakeholders learn from the work done during the Phase 1 Study. Both processes are important and help build a consensus for projects that will require substantial funding.

***a. Decision-Making Process***

The chevron diagram IDOT shows at each CAG/TF Meeting illustrates the decision-making process intended to lead to a Preferred Alternative and an Environmental Impact Statement. We support this process, but have specific concerns with how IDOT is carrying it out as described in this letter.

***b. Learning Process***

IDOT's "I-290 Phase I Study – Needs Summary Points" clearly says the document is a draft outline and invites comments, but makes no mention of opportunities to revise Purpose and Need as lessons are learned. This is a deficiency.

**1) Guidance from the Federal Highway Administration (FHWA) recognizes the learning process.**

FHWA says, “*The purpose and need section of the project may, and probably should, evolve as information is developed and more is learned about the project and the corridor.*”<sup>3</sup>

FHWA then provides an example relevant to the Eisenhower Transportation Corridor. FHWA says, “*For example, assume that the only known information with regard to purpose and need is that additional capacity is needed between points x and y. At the outset, it may appear that commuter traffic to a downtown area is the problem and only this traffic needs to be served. A wide range of alternatives may meet this need. As the studies progress, it may be learned that a shopping center, university, major suburban employer, and other traffic generators contribute substantially to the problem and require transportation service. In this case, the need is further refined so that not only commuter trips but also student, shopping, and other trips will be accommodated.*”<sup>4</sup>

**2) The process should be iterative.**

As stakeholders learn lessons during the Phase I Study, at least three things should happen.

1. IDOT should revise the Purpose and Need Statement.
2. IDOT should revise alternatives to accomplish the objectives better.
3. IDOT should reevaluate the alternatives.

In the Study Process Diagram (the chevron), IDOT suggests a learning process, but not for all three points listed above.

Social scientist and MIT Professor Donald A. Schon concluded that competent professionals engage in a dialogue with the projects they work on.<sup>5</sup> This dialogue is not the same as two people having a dialogue. Rather, it is a learning experience for the professional. As an engineer, architect, or city planner works with a site and sketches out various options, he or she reflects on what works and what does not work. In effect, the site is teaching the practitioner what types of solutions work and what types of solutions do not work. This teaching only takes place if the practitioner is open to learning. Schon calls this “reflection in action.”

We suggest IDOT express willingness to revised Purpose and Need as lessons are learned.

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<sup>3</sup> U.S. Department of Transportation, Federal Highway Administration, “‘Purpose and Need’ in Environmental Documents,” September 18, 1990, Page 3.

<sup>4</sup> Ibid, Page 3.

<sup>5</sup> Donald A. Schon, “The Reflective Practitioner – How Professionals Think in Action,” 1983, Page viii.

## **5. Travel time to work and other destinations is part of the problem.**

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Although there is expressway congestion, congestion is not the problem. The problem is the time it takes people to make trips, especially home-to-work trips. In addition, consistent travel times on the expressway are difficult to achieve, because congestion, weather conditions, incidents, pavement conditions, impediments to traffic flow, and driver familiarity with the roadway affect travel times.

There are at least three strategies to reduce travel time.

1. Increase capacity
2. Decrease demand
3. Combination of both

The CTA web site for the Red Line Extension Project identifies “to reduce travel times to jobs for Far South Side and South Suburban residents” as part of the Purpose and Need Statement. Travel time is measurable and is a better criterion than congestion.

## **6. IDOT should pay more attention to land use impacts.**

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Transportation is not an end by itself. Land use and transportation interact closely with each other. A major change in the transportation system will cause changes in land use. Similarly, a major change in land use will cause changes in the transportation network. When properly designed, major transportation improvements can have positive effects on the social, economic, and environmental conditions in the corridor. Major roadways provide mobility for people and goods, and they provide access to places. Mobility clearly affects the choices we make about where to live, work, shop, and carry out other activities.

One major reason to create the Chicago Metropolitan Planning Agency (CMAP) was to integrate land use and transportation planning.

There is a fundamental problem with how we plan for transportation and land use. Regional and state agencies (CMAP, IDOT, RTA, CTA, Metra, and PACE) do most of the major transportation planning. Local agencies do much of the land use planning.

The RTA’s Cook-DuPage Corridor Study represents one way to deal with this fundamental problem. RTA’s Recommendations include both road and transportation projects. In addition, the RTA included Supporting Recommendations to integrate transportation and land use planning both regionally and locally.

CMAP’s Go To 2040 Plan represents a second way to deal with this fundamental problem. In their Draft Go To 2040 Plan, CMAP made a deliberate decision to prepare a policy plan, rather than a project-based plan. Transit works better when the density of development is enough to generate riders, so the Go To 2040 Draft Plan recommends higher density near transit stations.

**7. IDOT should consider additional criteria.**

Both the RTA’s Cook-DuPage Corridor Study and IDOT’s Problem Statement developed last Fall and earlier this year, contain or suggest criteria that are not included in IDOT’s Needs Summary Points July 2010 document.

We have listed criteria included or suggested by the RTA’s Corridor Study in the table below. The first two columns (Criteria and Unit of Measure) are self-explanatory. The third column (Positive / Negative) requires some explanation. The word “Positive” means the higher the impact score, the better. The word “Negative” means the lower the impact score, the better. For example, the criterion “Increase access to Employment Center jobs” as measured by number of jobs is Positive. Given two alternative solutions, the one with the higher number of jobs is better for this criterion. Similarly, air pollution and noise pollution are Negative, because the less air and noise pollution, the better. The words “Positive” and “Negative” do not have any moral or ethical implication.

<b>Criteria</b>	<b>Unit of Measure</b>	<b>Positive / Negative</b>
Increase person capacity (roadway and transit)	Persons per hour in one direction (roadway and transit)	P
Increase access to Employment Center jobs	Nr of jobs within Employment Centers that are within ½ mile radius of a transit stop or station	P
Increase connectivity between employment centers and residential locations of significant existing and future origin density	Sum of existing and future work trip origins that connect with the identified Corridor employment centers	P
Reduce travel times in the I-290 Corridor (eastbound and westbound) for auto and transit users	Travel Time (minutes)	N
Reduce the number of transfers	Nr of trips that require transfers	N
Increase access to employment not located in employment centers	Nr of jobs not within Corridor Employment Centers that are within ½ mile of a transit stop or station	P
Increase use of travel management techniques for auto and transit users	Nr of Transportation System Management (TSM) and Travel Demand Management (TDM) techniques used to reduce travel times	P

*Comments on the Draft Purpose and Need Statement*

Reduce disruption of existing communities	Nr of communities that are disrupted or further disrupted by proposed transportation improvements	N
Reduce household relocation	Nr of households relocated	N
Reduce business relocation	Nr of businesses relocated	N
Reduce at-grade railroad crossing	Nr of at-grade railroad crossings	N
Enhance economic development / redevelopment opportunities	Acres of development or redevelopment sites within ½ mile of a transit stop or station or a point of access to a new or improved roadway	P
Reduce land acquisition	Acres of land to be acquired for transportation purposes	N
Reduce loss of tax revenues from property acquisition	\$	N
Increase transit access for communities with low auto ownership rates	Nr of households that do not own an automobile plus number of households with two or more adults and one automobile within ½ mile of a transit stop or station	P
Increase transit access for low income households	Nr of low income households within ½ mile of a transit stop or station	P
Reduce air pollution	Parts per million for ozone	N
Reduce noise pollution	dBA and L <sub>eq</sub> (h)	N
Reduce adverse impacts to wetlands and floodplains	Acres of wetlands and floodplains within 100 feet of a major capital project's alignment	N
Reduce adverse impacts to historic properties and open space	Length (feet) of transportation option running through or adjacent to a park or public open space (acres)	N
Reduce construction cost	\$	N
Reduce operating costs	\$	N
Reduce maintenance costs	\$	N

**8. IDOT wants to build a consensus.**

At the March 5, 2010 meeting, IDOT recognized the importance of fairness by providing a definition of “consensus,” which says, “*Consensus is defined as,*

*‘When a majority of the stakeholders agree on a particular issue, while the remainder of the stakeholders agrees its input has been heard and duly considered and that the process as a whole was fair.’”*

During the early stages of the Phase 1 Study, IDOT asked members of the Corridor Advisory Group and Task Forces to develop a Problem Statement, which appears in its entirety below.

*“The I-290 study area is a multimodal corridor with a complex network of roadway, public transit, freight railroad, and non-motorized facilities and services that is a critical component of the local and regional transportation system. Improved mobility, modal options, connectivity (north-south and east-west), and integration of transportation and land use are desired to support urban reinvestment, access to jobs, livable communities, and physical community cohesion. Study area roadway related issues include traffic congestion on the Eisenhower Expressway and arterial roads, infrastructure condition, safety, truck traffic, and the resultant noise and air pollution. Public transit related issues include lack of modal choices, connectivity, reverse commute options, access, speed of service, and infrastructure condition. Improved connectivity, accessibility, safety, and suitability of pedestrian and bicycle facilities are study area non-motorized transportation related issues.*

*The existing built environment presents significant challenges in improving the corridor’s transportation elements. Sustainable solutions to transportation problems need to be developed, while avoiding, minimizing, and mitigating impacts to the surrounding environment, including disproportionate social and economic effects on minority and low-income populations. These solutions need to be cost-effective and may require substantial funding. The solutions also need to be coordinated with all modes, promote economic development, and be integrated with community land use plans. Stakeholder participation in arriving at workable and effective solutions is a fundamental part of the process.”<sup>6</sup>*

- The Problem Statement recognizes there is a multimodal corridor, but IDOT fails to consider transit modes (CTA and Metra) in their crash and capacity analyses.
- The Problem Statement says, *“integration of transportation and land use are desired to support urban reinvestment, access to jobs, livable communities, and physical community cohesion.”*
- The Problem Statement talks about noise and air pollution, but IDOT wants to consider environmental issues later.
- The Problem Statement talks about sustainable solutions, environmental impacts, and disproportionate social and economic effects on minority and low-income populations.

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<sup>6</sup> IDOT’s Presentation to CAG/TF on May 24, 2010.

- The Problem Statement says, “*The solutions also need to be coordinated with all modes, promote economic development, and be integrated with community land use plans.*”
- The Problem Statement says support, “*livable communities,*” “*physical community cohesion,*” and “*sustainable solutions*” so the Purpose and Need should reflect these ideas.

In sum, this Problem Statement is a far more appropriate draft Purpose and Needs Statement than the Draft Outline we have been asked to review.

### **9. It is hard to measure some impacts.**

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Although we support the idea of quantifiable / measurable needs, it is hard to measure some impacts. This raises the question of whether IDOT will exclude some important impacts because they are hard to measure.

### **10. The Context Solutions Process should lead to solutions that are in harmony with Corridor communities.**

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Architect Joan L. Suchomel says, “*Transportation systems shape the urban environment, affecting community cohesion, land use, environmental quality and the overall quality of life in a community. Transportation decisions cannot be separated from community values and public policy. The point of CSD (Context-Sensitive Design) is to satisfy not just the user of the road, but also the community it impacts. A roadway must be safe for both the user and the community; be in harmony with the community; and preserve environmental, scenic, aesthetic, historic, and natural resource values of the area. It should cause minimal disruption and add lasting value to the community.*”<sup>7</sup>

Context-Sensitive Solutions can produce better results. Context-Sensitive Design “*is a collaborative approach to developing transportation facilities that fit their physical settings, and preserve neighborhood recreation, scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility.*”<sup>8</sup>

When the state designed the expressway in the 1950’s, the State of Illinois and Oak Park negotiated four compromises in the design.

1. Construct the expressway one level below grade through Oak Park
2. Make the corridor narrower by using center ramps instead of side ramps at Austin and Harlem
3. Design for future ramps, if needed, at East Avenue instead of constructing ramps at the outset
4. Vary the width of the corridor to reduce land acquisition

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<sup>7</sup> “Context Sensitive Design, Designing with the Community,” Joan L. Suchomel, Citizens for Appropriate Transportation, Issue Brief 10: April 2003.

<sup>8</sup> Ibid.

*Comments on the Draft Purpose and Need Statement*

Every community has some unique features. Use of the Context Solutions process should recognize this.

Thanks again for the opportunity to provide comments. If you need further information, please feel free to contact either or both of us by telephone or e-mail. We look forward to the rest of the Phase 1 Study.

Sincerely,

**Citizens for Appropriate Transportation**

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*IDOT Study\CAT Ltr to IDOT August 2010*

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