

## CASE STUDY IN SUSTAINABILITY:

### Creating the Illinois Livability and Sustainable Transportation (I-LAST) Tool

#### Overview

While there was increasing interest in sustainable transportation from different organizations within Illinois late last decade, there was no comprehensive guide to aid transportation infrastructure practitioners making decisions at the project level. In addition, there were an increasing number of new materials and practices being used in the field but no central repository that could serve as a manual for practitioners to learn about sustainable transportation practices. The American Council of Engineering Companies – Illinois (ACEC-IL), recognized this gap and, together with the Illinois Department of Transportation (IDOT) and Illinois Road and Transportation Builders Association (IRTBA), formed a Joint Sustainability Group and began developing a document that would be useful for transportation infrastructure practitioners.

Using the New York State DOT GreenLites document as a model, the Joint Sustainability Group spent over two years creating the I-LAST Rating System and Manual. The result is a living document with 153 detailed guidelines and specifications in eight categories of sustainable practices that can be tailored to the needs of an individual transportation project. A number of projects have begun using the tool and are documenting their sustainable transportation practices.

The Joint Sustainability Group established several goals to guide the direction of the program including:

- Developing a project-oriented “Rating System and Guide” that is useful for practitioners in the transportation field
- Creating a simple tool that is quick and easy to use on a broad range of projects
- Creating a catalogue of sustainable transportation planning practices and tracking new techniques and ideas for improving transportation project delivery
- Providing an effective way to evaluate how sustainable a project is during each phase of development

#### Approach

In order to create a tool that is useful for transportation practitioners working in the field, many stakeholders were involved in the process to create the rating system and guide. ACEC-Illinois and IDOT spearheaded the initiative and worked with IRTBA and other stakeholders. A key group of volunteers were responsible for identifying, discussing, and framing the rating system and categories. The Joint Sustainability Group consulted different expert groups on the details and categories that were pertinent to their respective fields, which included designers, planners, engineers, members of the construction sector, and suppliers in the transportation industry.

#### Participating Organizations

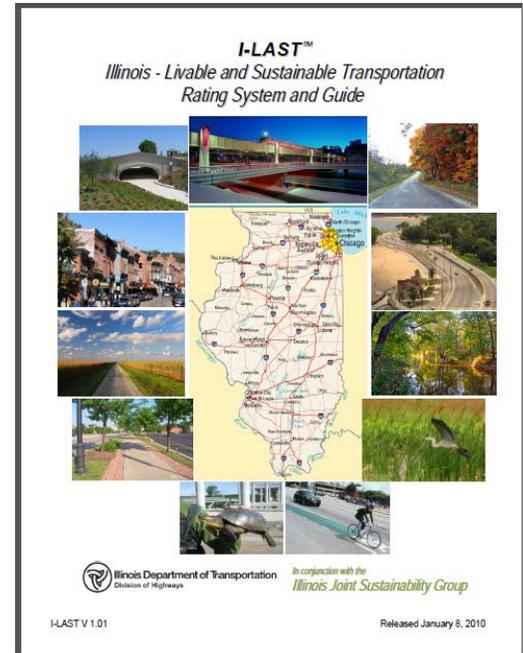
- American Council of Engineering Companies-Illinois
- Chicago Gateway Green
- Illinois Road and Transportation Builders Association
- Illinois Asphalt Paving Association
- American Concrete Paving Association
- Illinois Landscape Contractors Association
- Midwest Ecological Landscaping Association

#### Outcomes and Next Steps

After almost three years of collaboration, the Joint Sustainability Group created a manual January 2010 that serves as both a rating system and a guide for livable and sustainable transportation infrastructure. There are eight categories under which points are awarded including:

- *Planning* – This category includes 10 items that cover context sensitive solutions and land use/community planning considerations.
- *Design* – Context sensitive designs and alignment selection are subcategories in this section, which include concrete design choices, like providing 100 foot buffer to resources, as well as broader design decisions such as avoiding impacts to socioeconomic resources.

- *Environmental* – Concepts that go above and beyond the basic environmental requirements fall under this category including habitat fragmentation and restoring wildlife, noise abatement, and consideration of the tree and plants communities within project right-of-ways.
- *Water Quality* – The three subcategories in this section include reducing impervious areas, stormwater treatment, and other construction practices to protect water quality.
- *Transportation* – This category includes over two dozen individual items that cover traffic operations, transit, and bicycle and pedestrian facility considerations.
- *Lighting* – Retrofit or alternative lighting options are divided into two categories: reducing electrical consumption and reducing stray light.
- *Materials* – As the broadest category, this category includes over two dozen specifications covering recycled or salvaged materials, permitting local byproducts to be reused, and protection of (top)soil.
- *Innovation* – Up to three points are given for experimenting with new features that promote more sustainable practices.



Each category has several subcategories, each of which includes a number of potential sustainable action items that can be included in a transportation project. To more accurately assess the sustainable nature of a given project, an initial screening of the project involves deciding which specifications and details are pertinent. Each item is assigned a maximum potential number of points (1, 2, or 3) that add up to the overall sustainability rating of the project.

The Joint Sustainability Group is in the process of adding a new Construction Addendum, drafted by IRTBA's Green Council, to I-LAST that reflects needs and challenges during the implementation phase. The Group is also revisiting the guide to evaluate completed projects and to update sections to be more representative of the level of effort given to making a project sustainable. Future efforts will integrate relatively newer sustainable innovations in the transportation industry that did not exist during the creation of I-LAST but should be included as new best practices. This growing repository captures lessons learned and serves to bring sustainable practices to transportation projects.

### Lessons Learned

According to stakeholders, the process of creating the I-LAST Rating System and Guide was a good learning experience for everyone involved. Developing the tool necessitated attention to the details and individual sustainable action items in each category and stimulated thoughtful discussion over the weight that particular items should possess and how best to compare a diverse set of sustainable practices. In a wider context, the overall impact of the rating system has been to serve as an inventory of best practices and to provide a simple framework for evaluating different scales and phases of transportation projects.

Having many opportunities for involvement during the creation of I-LAST helped to engage stakeholders and fostered a strong sense of buy-in to the program. Furthermore, consulting practitioners from every phase of a transportation project led to a rating system that reflects the needs and perspectives of the people who would be using the guide. The manual was created by volunteers and not funded by a particular agency or grant. This approach led these volunteers to take ownership of the results of the program and to apply it to their work in the field.

### Additional Resources

- Download the I-LAST Rating System and Guide: <http://www.dot.il.gov/green/documents/I-LASTGuidebook.pdf>
- Contact: <http://dot.state.il.us/green/people.html>