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# Expanding Service Learning Models in Transportation

OTREC-ED-09-03 September 2009

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## EXPANDING SERVICE LEARNING MODELS IN TRANSPORTATION

### **Final Report**

## **OTREC-ED-09-03**

by Robert Parker, AICP Bethany Johnson, AICP University of Oregon

for

Oregon Transportation Research and Education Consortium (OTREC) P.O. Box 751 Portland, OR 97207



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This OTREC education project links experiential education with local transportation planning through a collaborative partnership between the University of Oregon, the Lane Transit District, and the cities of Eugene and Springfield. The Community Planning Workshop (CPW) is an experiential/service learning program affiliated with the Department of Planning, Public Policy and Management at the University of Oregon. Through this service learning program, graduate students learn professional planning skills while assisting communities in actual planning and policy projects.					
The project results include: (1) the completion of the following six deliverables: EmX Evaluation Framework Document, EmX Stakeholder Perceptions Document, Bus Rapid Transit Case Studies Document, Business Survey Report, Fairmount Neighborhood Survey Report, EmX Website Evaluation, and (2) the development of a rich, cross-disciplinary, experiential learning opportunity that could be replicated in other universities					
Recognizing the need to create a vehicle to share the results of this project, CPW created a website targeted to communities and universities. Community members, city staff, and/or university faculty can go to this site and download the documents to use as an example for their own community, or download CPW's service learning curriculum. This website will host all deliverables from University of Oregon OTREC projects related to service learning.					
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## **EXECUTIVE SUMMARY**

This OTREC *education* project links experiential education with local transportation planning through a collaborative partnership between the University of Oregon, Lane Transit District (LTD) and the cities of Eugene and Springfield. The Community Planning Workshop (CPW) is an experiential learning program affiliated with the Department of Planning, Public Policy and Management at the University of Oregon. Through this service learning program, graduate students learn professional planning skills while assisting communities in actual planning and policy projects.

The CPW student team completed five deliverables for this project: (1) Stakeholders Perception Document; (2) Evaluation Framework Document; (3) Case Study Document; (4) Business Survey Report; and (5) Fairmount Neighborhood Report. In addition to the deliverables, this project facilitated the development of a rich, cross-disciplinary, experiential learning opportunity that could be replicated at other universities.

Recognizing the need to create a vehicle to catalogue and disseminate the results of this project, CPW created a website targeted to communities and universities. Community members, city staff, and/or university faculty can go to this site and download the plan to use as an example for their own community, or download information about CPW's service learning curriculum and/or a case study about lessons learned from this project. The website can be accessed at cscotrec.uoregon.edu.

This project involved a variety of people: Approximately 30 stakeholders, including city staff, LTD staff, policymakers, community leaders and transportation experts, provided input in the development of the deliverables. Seven university graduate students and one undergraduate student conducted background research, focus groups and interviews, and wrote the deliverables.

Each of the project deliverables furthers OTREC priorities and goals for *education* projects, and will build support for innovative methods of teaching in the field of transportation study.

## **1.0 BACKGROUND AND OBJECTIVES**

Community planning researchers across the United States are identifying "automobile dependence as one of the greatest challenges facing cities at the beginning of the 21st century" (as cited in Balsas, Cervero, 1997; Kay, 1997; Newman & Kenworthy, 1999; Pucher, 2000; Balsas, 2001) due to its contribution to traffic congestion, construction and maintenance costs, urban sprawl, and environmental degradation.<sup>1</sup> Increasing public transportation has been demonstrated to be an effective means of reducing the negative consequences of automobile reliance while enhancing the livability of communities.

In their attempt to increase viable and efficient public transportation options, the communities of Eugene and Springfield, OR, have integrated a bus rapid transit system into their regional transportation plan (TransPlan). Lane Transit District (LTD) began operating the first route in the system, the Emerald Express (EmX), in 2007 and it has consistently operated above expected capacity. As LTD and the community look to expand the system to meet the needs of the greater community, it is important for LTD to understand the communities' perspectives on the planning and implementation process as well as define evaluation criteria that would be useful in improving future lines.

LTD partnered with Community Planning Workshop (CPW), a service and experiential learning program at the University of Oregon, to help develop an evaluation framework for the EmX as well as better understand community perceptions about it. In addition to the long-term benefits for the LTD and the community, this project provided graduate students a multidisciplinary experiential learning opportunity that helped develop the skills needed for a career in transportation planning.

Educators have long worked to find pedagogical approaches that yield the best educational results. This is particularly true in the planning disciplines, where there is an ongoing dialog among academics and practitioners about how to most effectively train aspiring professionals.<sup>3</sup> To provide a mix of academic and practical experience, most academic planning programs include a mixture of theoretical and applied curriculum. The American Planning Association (APA) recognizes this need and, as a result, APA accredited planning programs must have a "practicum" as a key program element. The University of Oregon's CPW provides the "practicum" element for its students through its experiential model.

A unique aspect of this project was the inclusion of Terry Moore, author of the "Land Use-Transportation Connection," on the project team. Mr. Moore taught a one-credit short course on land use and transportation in the winter of 2009, which provided an academic experience to 36 graduate and undergraduate students. Moreover, the class provided a foundation for the students participating on the CPW team. The CPW team also had the opportunity to interact with seasoned transit professionals from LTD and LTD's consultants.

Experiential learning encourages the development of transferable skills (e.g., communicating, problem solving, presenting, working with others) and more reflective practitioners, and results

in a richer, more rewarding educational experience for students.<sup>4</sup> Through facilitating public workshops, collaborating with planning professionals, group work, public presentations, and applied research, students go beyond academic coursework to build the skills demanded by the planning profession. Planning is a practice which is learned by practicing. Service learning provides the opportunity to practice.<sup>5</sup>

Not only did this project provide an educational opportunity for graduate students, but it also provided education for LTD. According to LTD staff, this project provided LTD with public input and involvement that was necessary for the EmX to be successful, but that LTD did not have the time or resources to complete. This project also allowed many of the stakeholders who have participated or should have participated in the EmX planning process to communicate their thoughts and recommendations for how the EmX can succeed. The CPW team then can pass that information on to LTD.

## 2.0 PROJECT DESCRIPTION

Service learning lies at the heart of this project and forms the core of the methodology and project approach. Service learning is a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development.

This project produced five deliverables. The following sections will present the purpose of the deliverable as well as a brief description of the methodologies used to complete the document.

#### 1. Stakeholders Perception Document

This report examines stakeholders' perceptions of LTD's process for the planning, environmental review, construction, and operation of new EmX lines. CPW conducted 29 interviews with community stakeholders (planners, policymakers, LTD staff, business association members, and community leaders); completed two online surveys (one for local businesses and one for a neighborhood association); and facilitated three focus groups (one with LTD staff and two with city staff).

CPW used the information gathered by these methods to create a document that details how community stakeholders perceive the EmX and their past, current and/or future involvement with LTD's bus rapid transit planning process. From these perceptions, CPW created nine recommendations for LTD that could potentially improve its relationship with community members as it plans future lines.

#### 2. Evaluation Framework Document

The primary purpose of this document is to create a framework for future evaluations of the EmX. This framework describes the types of evaluations that LTD could do concerning the success of the EmX bus rapid transit system and looks beyond the core Federal Transit Administration (FTA) requirements. To better understand community perspectives, CPW conducted interviews with community stakeholders to see what they would want evaluated. From their input, CPW created a matrix to clarify what criteria stakeholders want and how they overlap with other stakeholder desires and/or LTD's current evaluation efforts.

The document also provides LTD with a starting point for when it decides to complete a complete outcome evaluation of the EmX. Specifically, it lays out which evaluation criteria are the most important to stakeholders so that LTD can prioritize measuring criteria based on available resources. For selected criteria, CPW collaborated with transportation professionals to offer suggestions to LTD for how to gather criteria.

#### 3. Bus Rapid Transit (BRT) Case Study Document

CPW conducted case studies of five BRT systems in cities throughout the United States in order to better understand BRT and how transit agencies are implementing BRT. CPW analyzed systems in Cleveland, OH; Eugene and Springfield, OR; Honolulu, HI; Kansas City, MO; and Pittsburgh, PA. CPW team members conducted online research and interviews with transit district staff from these cities to create uniform case studies for each of the BRT systems. These case studies were used to inform the students about BRT and how it has succeeded and/or struggled throughout the country.

#### 4. Business Perceptions Report

CPW designed a questionnaire for the Eugene-Springfield business community to gauge what businesses' perceptions of the EmX are and determine what types of information businesses would like to have. The questionnaire also assesses perceptions about local businesses' roles in the EmX public involvement process and what methods of communication are best for engaging with the business community.

CPW distributed the questionnaire through the Eugene and Springfield Chambers of Commerce email list. The results of the questionnaire are summarized in this report and used to inform the Stakeholder Perceptions and Evaluation Framework documents.

#### 5. Fairmount Neighborhood Survey Report

CPW surveyed members of the Fairmount Neighborhood Association to gauge how they participated in and viewed the EmX planning process. The Fairmount Neighborhood group was chosen because of its proximity to and involvement with the current EmX line planning process.

CPW distributed the survey through the Fairmount Neighborhood Association email listserve after attending a neighborhood association meeting. The results of the survey are summarized in this report and used to inform the Stakeholder Perceptions and Evaluation Framework documents.

In addition to the formal deliverables, this grant provided staff time and resources to enhance the CPW class. This class provides students from a variety of disciplines, including city and regional planning, public policy, landscape architecture and environmental studies, the opportunity to work together with city staff and community members in a structured and creative environment.

The CPW class meets three times a week for a total of 4.5 hours. Through structured class sessions led by students and faculty, CPW addresses a broad range of planning topics and skills, such as meeting facilitation, public presentations, and data analysis. CPW has posted the syllabi, class session outlines, assignments, and evaluation tools on the project website so that other faculty can gather ideas for their own service learning classes and projects.

## 3.0 OUTCOME AND RESULTS

#### This project resulted in the following six deliverables:

- **EmX Stakeholders' Perception Document:** This report examines stakeholders' perceptions of LTD's process for the planning, environmental review, construction, and operation of new EmX lines.
- **EmX Evaluation Framework Document:** This document creates a framework for evaluating the EmX. This framework specifies stakeholder goals, evaluation criteria and criteria measures that the LTD could use to evaluate the success of the EmX bus rapid transit system.
- **Bus Rapid Transit Case Study Document:** CPW conducted case studies of five BRT systems in other cities (Cleveland, OH; Eugene and Springfield, OR; Honolulu, HI; Kansas City, MO; and Pittsburgh, PA) throughout the United States in order to better understand BRT and how transit agencies are implementing BRT.
- **Business Perceptions Report:** CPW designed a questionnaire for the Eugene-Springfield business community to gauge what businesses' perceptions of the EmX are and determine what types of information businesses would like to have.
- **Fairmount Neighborhood Survey Report:** CPW surveyed members of the Fairmount Neighborhood Association to gauge how they participated in and viewed the EmX planning process. The Fairmount Neighborhood group was chosen because of its proximity to and involvement with the current EmX line.
- **EmX Website Evaluation:** CPW conducted an assessment of the EmX portion of LTD's website using stakeholder interests as search criteria. This report addresses the website's current strengths and weaknesses and highlights recommendations to improve the website.

# In addition to the six deliverables, this project also contributed to the following, less quantifiable achievements:

#### The development of a rich, cross-disciplinary, experiential learning opportunity

Twenty-one graduate students participated in the CPW class between January and June 2009.Not all of these students worked on developing the deliverables mentioned above; however, they benefited from the enhanced curriculum.

#### Creation of a community dialogue

Many of the city and LTD staff who participated in the LTD focus groups thanked the CPW team for facilitating and scheduling a discussion about how the EmX is perceived by the community and should be evaluated. Currently, LTD has one point person per city (Eugene and Springfield), and this project allowed more potential "point people" to become involved. LTD is already using this strategy for future EmX communication. According to Tom Schwetz, LTD's Director of Planning & Development, LTD organized a meeting with all of the executive directors from the City of Eugene's various planning departments on July 16, 2009, to get all departments affected by LTD (housing, land use, economic development, etc.) involved instead of just the usual one person from Public Works.

**Building collaborations between academia, public-sector organizations and private-sector experts** This project required close and well-managed interactions between the University of Oregon, publicsector organizations (Cities of Eugene and Springfield, LTD) and private-sector experts (Terry Moore – ECO Northwest and Leon Skyles – Leon Skyles and Associates). This collaboration, lead by CPW, gave an important perspective to the project. CPW can be considered an "unbiased" party that has no motivation to promote a positive and/or negative image of the EmX. This allowed CPW to facilitate the interactions between public-sector organizations, community groups, private-sector professionals and other interested parties, and gave many of the participants comfort in believing that their perceptions would be recorded correctly and presented, unbiased, to LTD.

#### **Public Presentations**

March and June 2009, LTD EmX Steering Committee June 2009, LTD Board Meeting

## 4.0 FURTHER ACTIVITIES

LTD has implemented four miles of its BRT system and has 57 miles left to implement the entire system. The findings and recommendations from this project will be used by LTD during its planning and implementation of future BRT lines in Eugene and Springfield.

Tom Schwetz, LTD's Planning & Development Director, said the agency will change its approach to collaboration as a result of this project. Previously, LTD's style was to try not to bother seemingly unaffected stakeholders because of the perception that they were too busy and it was LTD's responsibility to implement the BRT line. This project showed that LTD needs to bring as many people into the process as it can and not rely on its one "conduit into the city" approach. As a result, LTD hosted a meeting with all of the City of Eugene's executive directors to get all departments affected by LTD (housing, land use, economic development, etc) involved.

In addition, LTD will use the evaluation document as a framework for future evaluations, which will most likely be completed over the next five years. The evaluation framework offers improvements for LTD's current evaluation systems (rider surveys, land-use inventories, etc.) as well as providing ideas for evaluations that would satisfy stakeholders but might not be required by law.

CPW plans to maintain a relationship with LTD and the stakeholders involved in this project. CPW will make the reports available to all interested parties through the CPW OTREC website for future reference and use.

### **5.0 REFERENCES**

<sup>1</sup> Balsas, C. "New Directions for Bicycle and Pedestrian Planning Education in the United States." *Planning Practice and Research*, Vol. 17, No. 1, pp. 91-105, 2002.

<sup>2</sup>Frank, L. & Engleke, P. "Multiple Impacts of the Built Environment on Public Health: Walkable Places and the Exposure to Air Pollution." *International Regional Science Review* Vol. 28, Issue 2, pp. 193-216, April 2005.

<sup>3</sup>Seltzer, E.P., and Ozawa, C.P. 2002. "Clear Signals: Moving on to Planning's Promise." *Journal of Planning Education and Research*, 22:77-86, Association of Collegiate Schools of Planning.

<sup>4</sup>Kotval, Z. "Experiential Learning in the Urban Planning Curriculum." *Journal of Geography in Higher Education*, Vol. 27, No. 3, pp. 297-308, Nov. 2003.

<sup>5</sup> Baum, H.S. 1997. "Teaching Practice." *Journal of Planning Education and Research*, 17: 21-29, Association of Collegiate Schools of Planning.



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OTREC is dedicated to stimulating and conducting collaborative multi-disciplinary research on multi-modal surface transportation issues, educating a diverse array of current practitioners and future leaders in the transportation field, and encouraging implementation of relevant research results.