







## STARS & Fourth Plain Transit Improvement Project

### Evaluating Transportation Projects with STARS

**Oregon-Washington APA Conference**  
October 20, 2011










## STARS Performance Dashboard


	No Build	Build
<b>Ridership</b>	+9%	+31%
<b>Travel Time Consistency</b>	-11%	+9%
<b>Peak Corridor Capacity</b>	0	+18%
<b>Greenhouse Gas Emissions</b>	+6%	-7%
<b>Economic Benefit</b>	-\$2m/year	+\$3m/year





STARS & FOURTH PLAIN TRANSIT IMPROVEMENT PROJECT 

## What is STARS?


- Sustainable
- Transportation
- Analysis &
- Rating
- System





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## What is STARS?

- Voluntary, national system for public agencies & private sector consultants
- Helps develop and/or rate:
  - Projects
  - Plans


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## What is STARS?

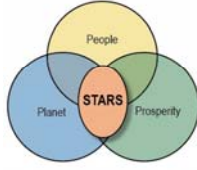
**Designed to:**

- Simplify evaluation & decision-making
- Improve the performance of alternatives
- Highlight alternatives which benefit people, prosperity and planet
- Broaden public support


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## Triple Bottom Line = 3 Dimensional Thinking



How does this impact people?  
 How does this impact prosperity?  
 How does this impact the planet?

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### 3 to 5 Step Process

- Collect Baseline Data & Host Training Workshops
- Backcast objectives: Access, Climate + Energy, Economic
- Evaluate Strategies (certify?)
- **Select Alternatives & Implement (certify?)**
- **Monitor & Improve Performance (certify?)**

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### Analyze Strategies to Achieve Objectives

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### STARS is Modular

- Can use from 1 to 12 credits
- Most credits can stand alone

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### Who Is Developing STARS?

- ☆ North American Sustainable Transportation Council
- ☆ Portland Bureau of Transportation
- ☆ Santa Cruz County Regional Transportation Commission
- ☆ National private sector transportation & green building firms, including PB & CH
- ☆ Academic peer reviewers

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### Where is STARS Being Applied?

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### Fourth Plain STARS Work Plan

**Applies to:**

- Goals & Objectives
- Evaluation Criteria
- Alternatives Development & Analysis
- LPA Selection

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# STARS Plan




## What Is STARS Plan?

- A decision-making tool and sustainability framework for transportation plans
  - Develop goals and objectives
  - Evaluate potential policies and projects
  - Intentionally multi-dimensional in its approach
  - Phase 1 complete in November

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## How is Eugene Using STARS?

- As a tool to identify goals, objectives, and policies for the Eugene TSP, using the triple bottom line approach
- As a framework for engaging key stakeholders and community leaders on the concept of sustainability and sustainable transportation in Eugene


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## Why Use STARS?

- Simplifying and standardizing projects and plans around the "Triple Bottom Line" approach
- Allowing direct comparison of alternatives and projects using Triple Bottom Line metrics
- Identifying "Green Dividend" – money leaving the local economy is retained by reducing fuel spending

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## Why Use STARS?

- Save time and money via simplified process and focused goals and objectives
- Increase healthy transportation: walking, cycling, transit by employees & residents
- Help meet economic, climate, livability and equity goals

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# Fourth Plain Transit Improvement Project

## Transit Project Purpose and Need

- **Capacity issues:**
  - >6,000 rides/day, 30% of total C-TRAN system
  - Overcrowding during much of day
  - Wheelchair/disabled areas frequently filled
- **Poor service reliability:**
  - 30-40% weekday runs are late
- **Continuing increases in delays and travel time:**
  - Travel times up 50% over past 20 years
  - Expected to increase as travel demand grows

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## Fourth Plain Study Area

Top 10 locations by usage: Jantzen Beach and downtown stops are grouped together for this analysis.

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## Alternatives Narrowing Process

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## Survey Information

- **On-Board Survey**
  - Statistically valid, 95% confidence level
  - ~10% of riders surveyed
- **On-Line Survey**
  - Not scientifically valid
  - Completed for project scoping, issues identification
  - >400 responses

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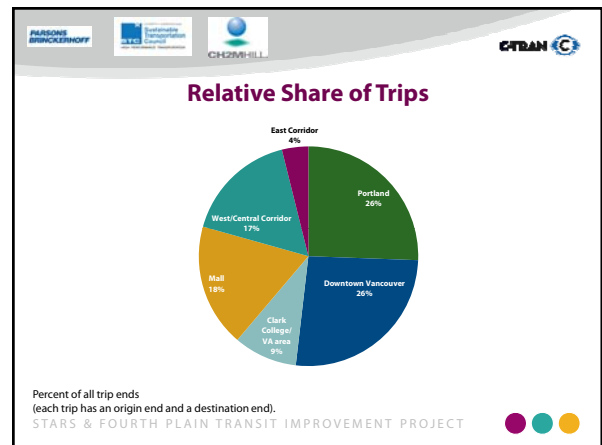
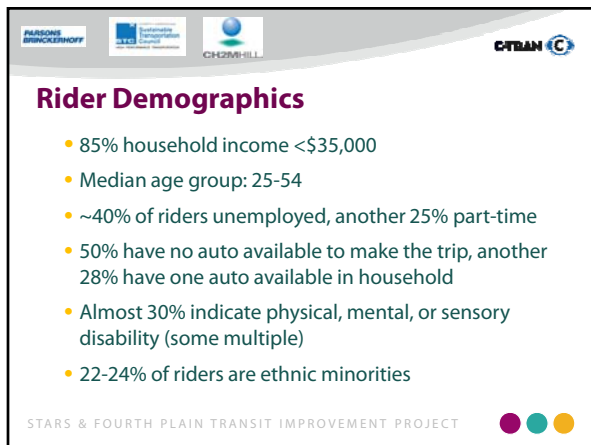
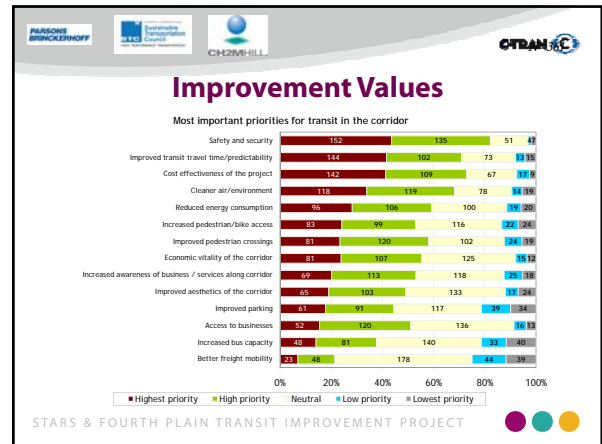
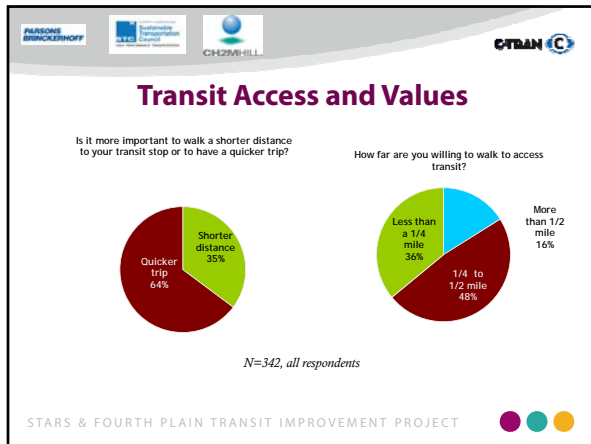
## Transit Use – On-Line Survey

Do you currently ride C-TRAN?

*n*=438

What is your primary mode of transportation through the corridor?

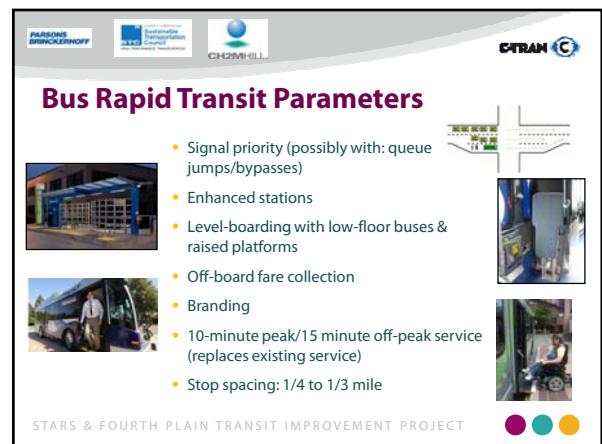
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### BRT LANE OPTIONS

Option	Lane Type	Lane Location	Station Location
A	Mixed traffic - curbside	Curbside	Curbside
B	Mixed traffic - left lane	Left lane	Median
C	BRT lane - centerline	Semi-exclusive (shared with turning vehicles)	Curbside
D	BRT lane - centerline	Exclusive	Curbside
E	BRT lane - centerline	Exclusive transit	Center
F	BRT lane - centerline	Exclusive transit	Median
G	BRT lane - centerline	Exclusive transit	Median

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### Fourth Plain Boulevard Traffic Information

- Current Volumes
  - ADT: 20-25,000
  - Peak hour/peak direction: 800-1,200
  - 60-40 split
  - Truck percentage: 2-3%
- 2035 Volumes
  - ~30-35% higher than existing
  - Split remains similar to today's

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### Transit Information for STARS Exercise

- Current ridership
  - ~ 6,000 riders/day, this part of corridor
  - ~10-15% transit mode share
  - Peak: 9AM to 4PM
  - Evenly split directionally
  - Boardings: Falk-Stapleton ~370/day, Stapleton-Andresen ~ 520/day
- 2035 Volumes
  - ~40-50% higher than existing

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### Getting Started

- Pick a Project Manager (table facilitator)
- Pick Grant Administrator (keep track of costs)
- Determine the BRT lane configuration(exclusive or BAT Lanes)
- Determine the transit frequency (15 minute or 10 minute)

STARS Game: Fourth Plain Transit Improvement Project

Project Manager/Facilitator: \_\_\_\_\_

Grant Administrator: \_\_\_\_\_

Notes: \_\_\_\_\_

Project Information: \_\_\_\_\_

Map to Lane Configuration: \_\_\_\_\_

Exclusive BRT Lane (one-way)		\$2,000
Business Access/Transit (BAT) Lane		\$2,000
Transit Frequency - 15 minutes		\$1,000
Transit Frequency - 10 minutes		\$2,000

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### Who to talk to?

Staff and Role	Contact
<b>Chuck Green</b> , C-TRAN Fourth Plain Project Manager	<a href="mailto:Chuckg@c-tran.org">Chuckg@c-tran.org</a> (360) 906-7362
<b>Peter Hurley</b> , PBOT STARS Program Manager <i>For specific information about STARS, contact Peter.</i> <a href="http://www.GettingAroundPortland.org">www.GettingAroundPortland.org</a>	<a href="mailto:peter.t.hurley@portlandoregon.gov">peter.t.hurley@portlandoregon.gov</a> (503) 823-5007
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