Sustainable Transportation Access Rating System (STARS)

PSU Center for Transportation Studies
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Sustainable Transportation

What’s the Problem?
What is STARS?
How Does STARS Work?
So What?
Status & Next Steps
Q & A
What’s the Problem?

Increasing congestion and delay
Projects too expensive to be funded as planned
Increasing oil dependence and climate pollution
Billions of $ flowing out of our communities for vehicles and petrol
Too many “modal silo” transportation projects

= Unsustainable practice
STARS: Grounded in Sustainability
What is STARS?

Sustainable Transportation Access Rating System

“LEED for Transportation”

Framework for designing and/or rating transportation:
  Projects
  Employer Programs
  Plans

Voluntary, national system for public agencies & private sector consultants
What is STARS?

Performance-based system focused on:
• Access
• Climate + Energy
• Cost Effectiveness

Multimodal: Compares performance across all modal strategies

Full life cycle (unlike other systems)

STARS-Project Under development (“Version 0.95”)
Transform transportation industry practice in order to:

• Improve access for all people
• Cut oil dependence and climate pollution
• Maximize cost effectiveness
• Move toward true sustainability
Who Is Developing STARS?
North American Sustainable Transportation Council

★ CH2M HILL: six Portland staff
★ Parsons Brinckerhoff: Portland, Seattle & San Francisco staff
★ Confluence Planning: Kelly Rodgers
★ ECONorthwest: Terry Moore
★ Bill Creger, David Evans & Associates
★ Nicole Isle, Brightworks
★ Eric Hesse, TriMet
★ Paul Horton, Evergreen State College
★ Peter Hurley, Portland Bureau of Transportation
★ Several peer reviewers (PSU, PDOT, WSDOT)
How Does STARS Work?

Create a Multi-Disciplinary Team
Sustainability Workshop
Goals: Access, Climate + Energy, $
Evaluate Strategies
Select Alternatives
Implement
Monitor Performance
<table>
<thead>
<tr>
<th>Project Phase(s)</th>
<th>Integrative Process</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>IP 1 Comprehensive Project Goals &amp; Objectives (purpose &amp; need)</td>
<td>A 1 Establish Mode Split Goal</td>
</tr>
<tr>
<td></td>
<td>IP 2 Multi-Discipline Project Team</td>
<td>A 2 Evaluate Expanded TDM Strategies</td>
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<tr>
<td></td>
<td>IP 3 Public Stakeholder Engagement</td>
<td>A 3 Evaluate Expanded TSM Strategies</td>
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<tr>
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<td>A 4 Evaluate Expanded Transportation Options</td>
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<td>A 5 Evaluate Expanded Land Use Strategies</td>
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<td></td>
<td></td>
<td>A 6 Implement Expanded Options, TDM, TSM and Land Use Strategies</td>
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<td>A 7 Access Performance</td>
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</tbody>
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Yes ? No

One Star _-_ points, Two Star _-_ points, Three Star _-_ points, Four Star _-_ points
Credit Structure

Five “required” credits
24 optional credits
Not all credits applicable for a project
Credits accrued to earn certification
Certification earned at:
• Completion of evaluation
• Implementation
• Performance: Operations
Status & Next Steps

STARS Pilot Project Application Manual in final editing
First pilot project: Santa Cruz Highway 1
Seeking additional pilot projects
Ongoing credit research
Complete credit development
Develop certification & training
Fall 2011 national roll-out
Develop a project that achieves economic, environmental and social equity goals
Increase the funding competitiveness of a project
Boost the local economy
Increase public engagement & support
Lower project costs
## Economic Benefits

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
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<tbody>
<tr>
<td>Median commute miles per day for 33 most populous US metro areas</td>
<td>24.3</td>
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<tr>
<td>Average daily miles for Portland area commute</td>
<td>20.3</td>
</tr>
<tr>
<td>Miles saved compared to median</td>
<td>2.9B</td>
</tr>
<tr>
<td>Transportation costs saved compared to median</td>
<td>$1.1B</td>
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<tr>
<td>$15 per hour</td>
<td></td>
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<tr>
<td>Estimated value of time spent commuting</td>
<td></td>
</tr>
<tr>
<td>100 million hours less traveled per year</td>
<td>$1.5B</td>
</tr>
<tr>
<td>Total savings per year</td>
<td>$2.6B</td>
</tr>
</tbody>
</table>
So What?
Integrates Strategies to Achieve Goals

Transportation Demand Management (TDM)

Vehicle Capacity (Lanes, Ramps, Intersections)

Transportation System Management (TSM)

Land Use

Transit
With Travel Demand Management
With TDM + TSM
TDM + TSM + LU + Bike/Ped
TDM + TSM + LU + Bike/Ped + Lanes
Before STARS
After STARS
Questions?

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