Adapting Design to Stakeholder Influence

Nolan Lienhart

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Preparing to be influenced...

• **Station Hardening as a case study in balancing stakeholder influence(s)**

• **Promising tools** for assisting stakeholders in effectively influencing transit designers
Challenge of the Designer

- Project Design Criteria & Objectives
- Stakeholder Interests
  - Local Stakeholders
  - The broader public interest
- Physical Constraints & Conditions
- Budget
- Schedule
Station Hardening
Station Hardening

- Follows CPTED Principles
- Fare Zone Definition
- Limited points of entry
- Physical barriers to define boundaries
Proof of payment is required beyond this point
RCW 81.112.220
Ticketed Passengers Only
On The Station Platform

Stay back from platform edge until train comes to a complete stop.
Quedese atrás del borde de la estación hasta que el tren se detenga por completo.

Service assistance animals only
Ningun animal excepto los animales de ayuda de servicio.

No Smoking.
Se prohíbe fumar.

No food or drink. Closed water containers are permitted.
No se permiten alimentos ni bebidas. Solo se permiten contenedores de agua cerrados.

No rollerblading, skateboarding or loitering.
No se permite el uso de patinajes. No se permite vagar.

Use trash container
Use el cubo de basura

Secure bikes at bike racks only
Asegure bicicletas en el estacionamiento de bicicletas.

Arizona Revised Statutes §§ 13-1603, 13-2905, 13-1502, 36-601.01
Columbia River Crossing LRT

• 2.9 mile extension of Portland’s Yellow Line to Vancouver, WA
5th Street Station

Section: 5th Street Station

ram: 5th Street Station
Central Station

Plan: Center platform at Central Station

Elevation 1: Center platform at Central Station
Typical Side Running Station
Typical Side Running Station

Plan: Typical Washington-Broadway side-running station

1. Joint Use Twin Ornamental Light/OCS Pole
2. Ticket Vending Machine, Validator and Canopy
3. Stone Bench w/Wood Slat Seat
4. LRT Shelter
5. Wind Screen
6. Tree Grate
7. Leaning Stone w/Wood Slat Seat
8. Station ID Sign
9. Electrical/Communications Cabinet
10. Emergency Telephone
11. System Map
12. Trash Receptacle
13. Recycling Receptacle
14. Bus Shelter
15. Windscreen w/Seating
16. Granite Paver Strip
17. Brick Paver
18. Leaning Rail
19. Raised Stones
20. Angled Windscreen w/Seating
21. Precast Concrete Tactile Curb
22. Concrete Sidewalk Paving
23. 12" Concrete Curb

Elevation 1: Typical Washington-Broadway side-running station
Transit Advisory Groups

- Design guidelines for the Hayden Island station
- Route for the Vancouver portion of the line
- Design and locations of Vancouver stations
- Guidance on traffic and parking along the Vancouver route
- Park and ride design
Local Public Concerns

• Robust, comfortable sidewalk
• Desire for sidewalk retail and seating
• Appreciation for light, open systems
Broad Public Concern: Safety

- Defined fare zone facilitates enforcement
- Separated zones discourage overflow of loitering
Local Public Concerns

- Robust, comfortable sidewalk
3rd Street – Seattle: After
### Urban Street Fundamentals

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<thead>
<tr>
<th>7.5’ TPZ</th>
<th>10’ TPZ</th>
<th>12.5’ TPZ</th>
<th>15’ TPZ</th>
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<td><strong>2. MIN. HIGH DENSITY RESIDENTIAL OR LOCAL COMMERCIAL</strong></td>
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<td><strong>3. MIN. CBD COMMERCIAL</strong></td>
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<td><strong>4. MAJOR CBD PEDESTRIAN OR TRANSITWAY</strong></td>
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<td><strong>5. CBD MALL</strong></td>
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Pushkorev/MIT – international standards
Transportation Research Board
Local Public Concerns

- Robust, comfortable sidewalk
- Desire for sidewalk retail and seating
Local Public Concerns

• Robust, comfortable sidewalk
• Desire for sidewalk retail and seating
• Appreciation for light, open systems
• Fear of being trapped inside
Local Public Concerns

- Robust, comfortable sidewalk
- Desire for sidewalk retail and seating
- Appreciation for light, open systems
- Fear of being trapped inside
- Inability to maintain landscape
LRT Station Block: Open
LRT Station Block: Hardened
CPTED: FARE ZONE DEFINITION

The Paid-Fare Zone will be defined by a combination of surface paving treatments and intentionally placed transit furnishings. Surface elements will include a strip of dark gray pavers around the outer edge of the Paid-Fare Zone, and red-colored paving on the platform. At the line between the platform and sidewalk, raised stones at varying heights will help to provide vertical definition between the Paid-Fare Zone and the pedestrian through-zone. Between segments of stone, the Paid-Fare Zone will be defined by leaning rails and windscreen placed in line with the dark gray strip to distinguish between the two zones.
Lessons

• Ample use of precedent, site visits and renderings
• Provide opportunities for stakeholders to hear one another, understand varied priorities/concerns
• Be clear about constraints, criteria
Emerging Tools to Influence Planners & Designers
Welcome!

Tell us where you'd like bike share stations and comment on others' recommendations:

1. Click the "Add a Location" button and move the red pin to where you want a station.
2. Click the "Confirm Location" button.
3. Give us more information by creating a station name, providing a description and your name: you must leave a name for your point to appear on the map.
4. You will need to close this window to continue.

Share your station recommendations on Facebook,
Tools to Influence

PDX Bike Share

Director Park

Nolan Lienhart added this point on March 12, 2012 at 12:46 pm

Right at Director Park, just a block south of the MAX line, near several office buildings, restaurants and retail, including the Fox Tower movie theater.

2 comments

Ross

on March 12, 2012 at 1:05 pm

Good spot. Broadway has bike lanes, so it's easy to get to if you are dropping off a bike there.

Nolan Lienhart

on March 12, 2012 at 12:47 pm

Also on a bike route, and one block east of the streetcar line.
End
LRT Station Block - Open
LRT Station Block – Semi-Hardened
LRT Station Block – Semi-Hardened
LRT Station Block – Semi-Hardened
LRT Station Block - Hardened
Light Rail design standards

“Natural Surveillance”: clear sightlines

“Natural Surveillance”: enhanced lighting

Safety, security, hardening