

LEED Silver for Light Rail Stations A Sound Transit Case Study

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Who are we?



- Central Puget Sound's RTA
- Established 1993
- Bus, commuter rail and light rail
- 3 County region
 - Everett, Tacoma, Seattle
 - Bellevue
- ST2: Expanding bus & rail infrastructure; extending light rail by 30+ miles N, S & E

Sustainability = Required

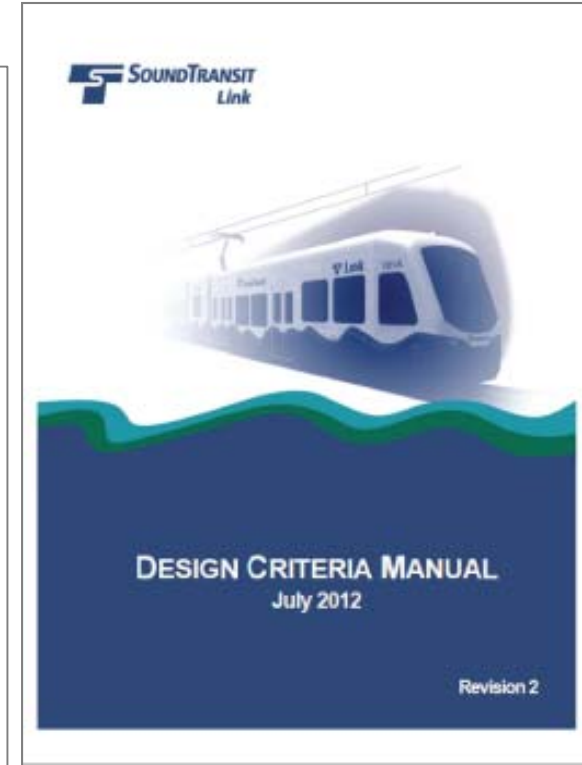
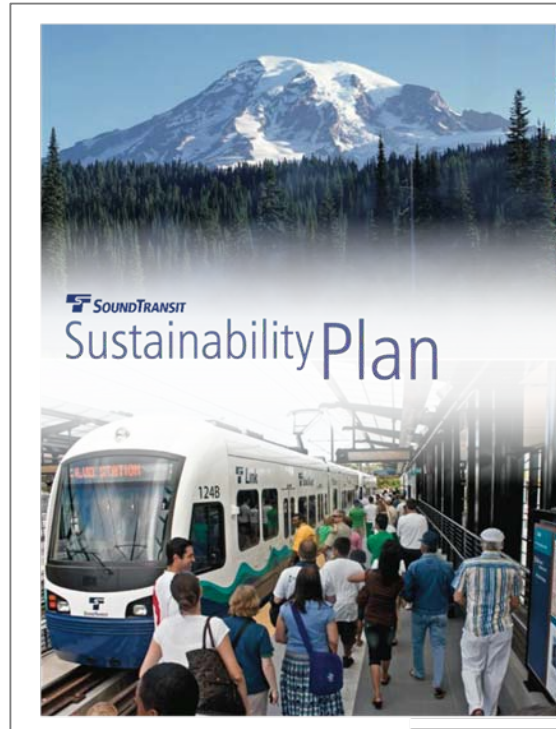
Vision: Sustainability Plan

Implementation:

- Design Criteria Manual
- Project SOW's & Requirements

DCM Sustainability Chapter:

- Environmental Stewardship
- Resource Conservation
- Cost effectiveness – life cycle
- Public education/outreach



Context for Design

Buildings vs. Facilities



Building –
LEED Silver



Facility –
Sustainability
Checklist

Facilities & LEED



Potential barriers to LEED:

- Occupancy requirements
- Few conditioned spaces = few energy efficiency points
- Value of focusing on stations vs. alignment

Community Context

Angle Lake Station

- In City of SeaTac
- 1.6 mile south of SeaTac Airport
- Mountain & Sound views



“Environment in Motion”
station theme

Design Build

RFP

- Minimum required measures
- Additional measures incentivized with scoring

Result

- All proposals = sustainable solutions
 - Amended station footprint
 - Solar power
 - Rainwater capture
 - Sustainable construction



The Proposal



- Winning contractor & VIA Architecture
- LEED Silver certification suggested after contracting
- LEED offered as alternate to assessment studies of additional/optional measures



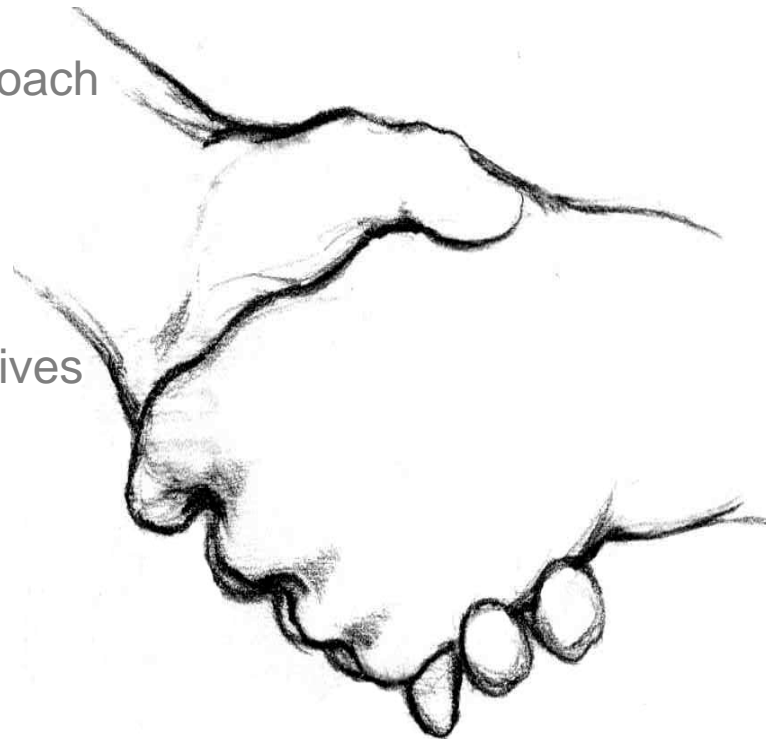
The Proposal – Considerations

- At low/no cost, LEED added:
 - 100% LEDs
 - Envelope insulation
 - M&V Plan for Operations
 - 7% of station energy from Photo Voltaic cells
- Most sustainable feature not captured by LEED = green concrete
- Only new cost = LEED certification and documentation
- Total project costs not increased; reallocated

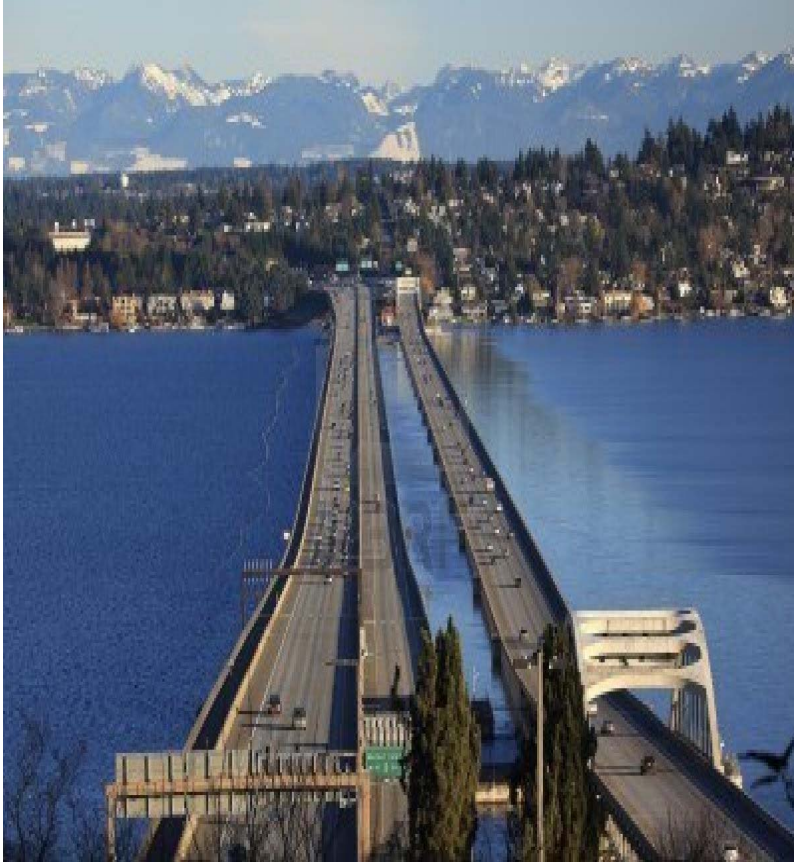


Win-Win for ST and PCL

- Design/Build a potential 1st – LEED Silver open air transit station
- LEED communicates agency sustainability approach
- Improves process
 - Streamlines evaluation
 - Prescriptive guidance for contractor
 - Owner clarity when contractor meets objectives
 - 3rd party certification



Lessons learned



- Our checklist gets us where we want to go
- LEED doesn't necessarily raise cost on D-B projects
- Occupancy requirements may remain a restraining factor
- LEED at Angle Lake = confluence of goals and contracting



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