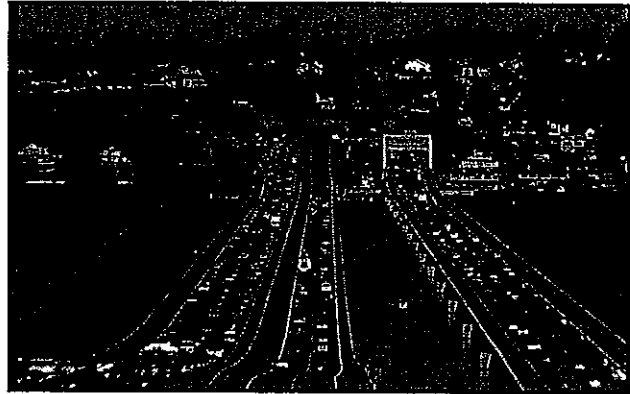


# East Corridor High Capacity Transit Identifying the Mode

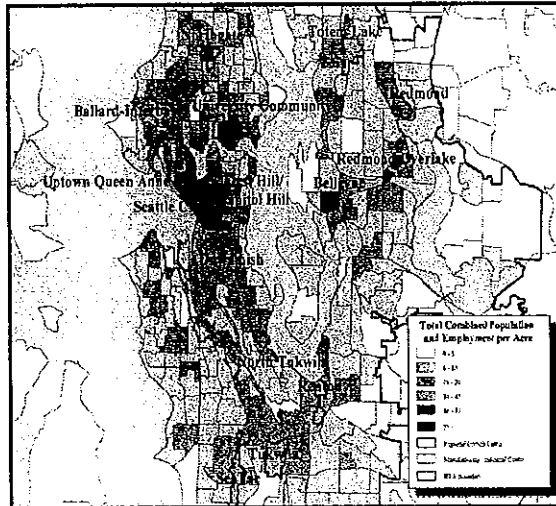


Sound Transit Board  
June 22, 2006

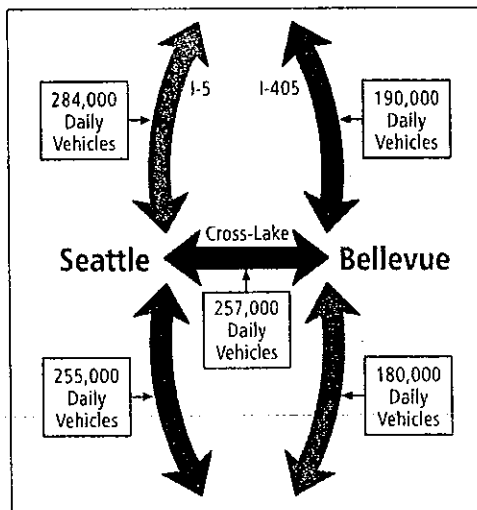
## Planning for the long run

- Long Range Plan envisions HCT in East corridor
- PSRC calls cross-lake corridor most ready for HCT after North corridor
- HCT in East corridor connects region's largest job centers

## Connecting biggest job/housing centers



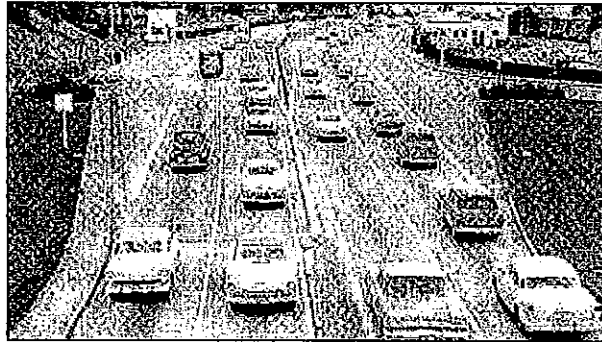
## Meeting I-90 needs



### Future of I-90

- WSDOT: Increasing congestion
- Challenge: maximizing capacity

## Focus on I-90 HCT is not new



I-90 bridge in 1960  
*when studies began & rail construction from  
Seattle to Bellevue was first recommended*

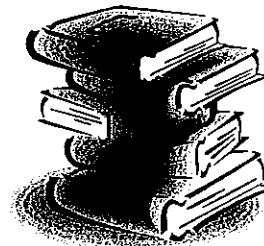
## 40-year body of research & regional actions

**1960s:** Rail first recommended (City of Seattle)

**1970s:** I-90 center lanes designed & committed  
for future transit use (1976 MA)

**1980s:** Numerous studies find rail feasible  
(PSCOG, Metro)

**1990s:** Sound Transit (RTA) formed



## Regional agreements pave the way

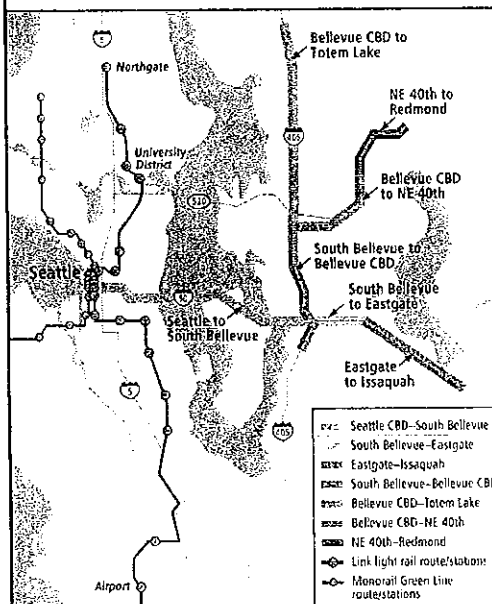
### 1976 Memorandum Agreement:

- *Cities of Bellevue, Mercer Island & Seattle, King County, Metro, State Highway Commission*

### 2004 Amendment to Memorandum Agreement:

- *Cities of Bellevue, Mercer Island & Seattle, King County, Sound Transit & State Transportation Commission*
  - *Ultimate configuration identified as HCT in center lanes w/ HOV in outer lanes*

## Winnowing the alternatives



### 5 modes studied:

- HOV/BRT
- Busway BRT
- Light Rail
- Monorail
- Rail-Convertible BRT

### 3 Eastside branches:

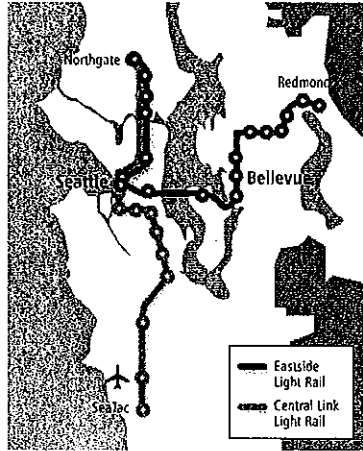
- Seattle - S. Bellevue - Issaquah
- Seattle - Bellevue - Redmond
- Seattle - Bellevue - Totem Lake

### Long Range Plan Update (7/05):

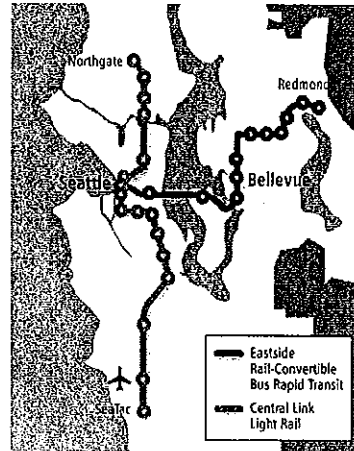
*Board decision to focus on RCBT & Light Rail in Seattle - Bellevue - Overlake -- Redmond branch*

### I-90 planning, traffic studies (05-06)

## Light Rail and Rail-Convertible BRT



**Light Rail**  
(line continues north)



**Rail-convertible bus**  
(requires Seattle transfers)

## Cost (2005 \$)

Light rail (LRT)	Rail convertible bus rapid transit (RCBRT)
<b>TOTAL: \$3.3-\$3.9B (Tunnel)</b>	<b>TOTAL: \$2.9-\$3.4B (Tunnel)</b>
<b>\$3.0-3.4B (Elevated)</b>	<b>\$2.5-\$2.9B (Elevated)</b>
<b>\$1.7- \$2B to Bellevue – (Tunnel)</b>	<b>\$1.5-\$1.8B to Bellevue – (Tunnel option)</b>
<b>\$1.4 - \$1.6B to Bellevue - (Elevated)</b>	<b>\$1.2-\$1.4B to Bellevue - (Elevated)</b>
<b>\$610-\$702M Bellevue-to-Overlake (tunnel)</b>	<b>\$569M-\$654M Bellevue-to-Overlake (tunnel)</b>
<b>\$589-\$678M Bellevue-to-Overlake (elevated)</b>	<b>\$539M-\$620M Bellevue-to-Overlake (elevated)</b>
<b>\$650-\$747M Overlake-to-Redmond</b>	<b>\$614-\$706M Overlake-to-Redmond</b>

## Ridership

Light rail (LRT)	Rail convertible bus rapid transit (RCBRT)
35,000—Redmond-to-Seattle (International District Station)	24,500—Redmond-to-Seattle (near International District Station)

## Travel times

Light rail (LRT)	Rail convertible bus rapid transit (RCBRT)
<ul style="list-style-type: none"> <li>•18 minutes Seattle (International District) to Bellevue Transit Center (BTC)</li> <li>•16 minutes BTC to Redmond</li> <li>•22 minutes BTC to Westlake Center</li> <li>•28 minutes BTC to UW</li> <li>•36 minutes BTC to Northgate</li> </ul>	<ul style="list-style-type: none"> <li>•21 minutes Seattle (International District) to Bellevue Transit Center (BTC)</li> <li>•19 minutes BTC to Redmond</li> <li>•35 minutes BTC to Westlake Center</li> <li>• 41 minutes BTC to UW</li> <li>• 49 minutes BTC to Northgate</li> </ul>

## Benefits

Light rail (LRT)	Rail convertible bus rapid transit (RCBRT)
<ul style="list-style-type: none"> <li>•Exclusive ROW from Eastside to Seattle and airport.</li> <li>•One-seat ride connecting Redmond, Bellevue, Mercer Island, Downtown Seattle, UW and north.</li> <li>•Supports regional long-range transportation and land use plans.</li> <li>•Increases transit reliability, visibility, simplicity.</li> <li>•Increases accessibility to special events.</li> </ul>	<ul style="list-style-type: none"> <li>•Same</li> <li>•Transfer station connects to Central Link in south Downtown Seattle.</li> <li>•Same</li> <li>•Same</li> <li>•Same</li> </ul>

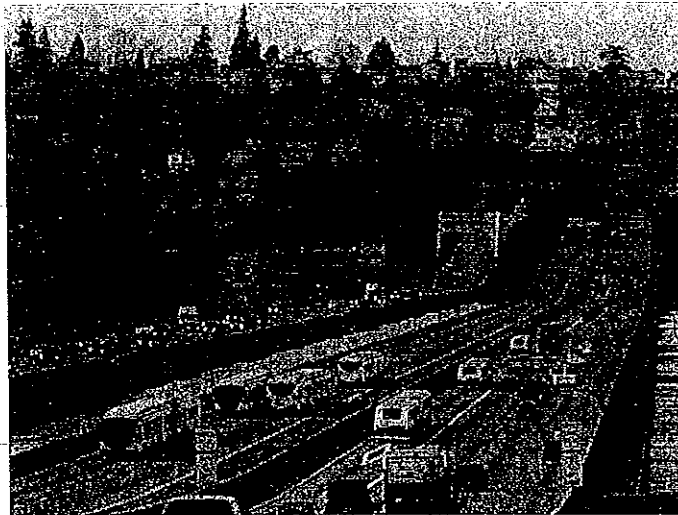
## Conversion to LRT issues

Light rail (LRT)	Rail convertible bus rapid transit (RCBRT)
<p><b>NA</b></p>	<ul style="list-style-type: none"> <li>•Conversion costs estimated \$740-960M (2005 dollars).</li> <li>•Requires closing the HCT guideway for a significant period of time for conversion.</li> <li>•During conversion, BRT riders switch to buses using HOV and general-purpose lanes.</li> <li>•Potential significant impacts to ridership.</li> </ul>

## I-90 HCT – LRT Illustration



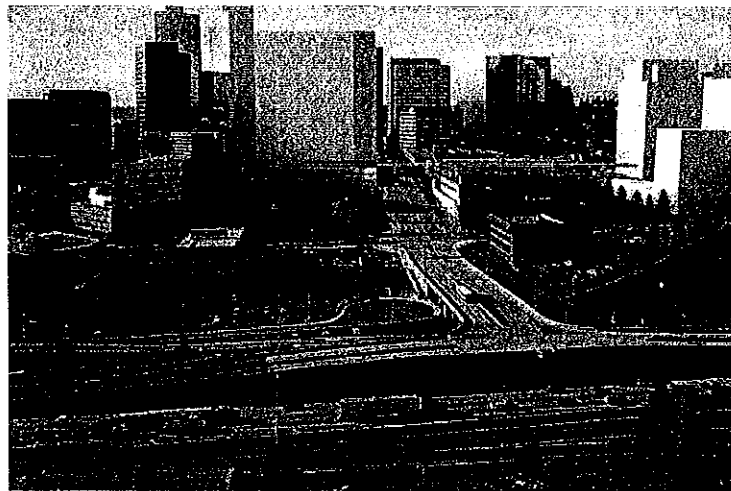
## I-90 HCT – RCBRT Illustration



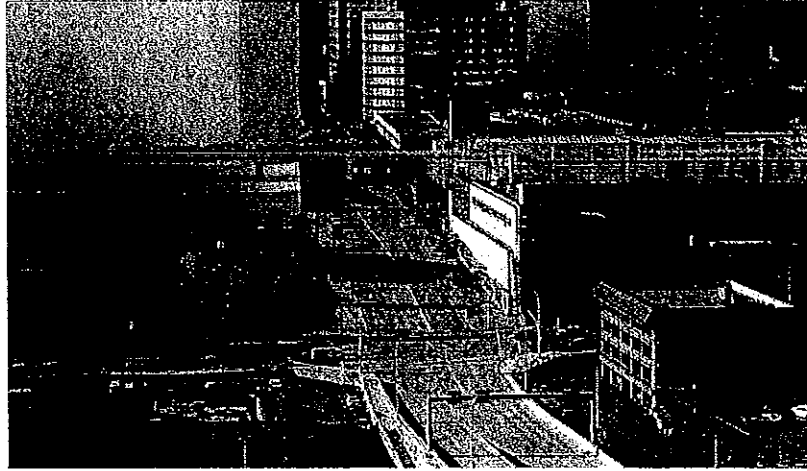
## **Downtown Bellevue Today**



## **Future Downtown Bellevue with LRT**



## **Future Downtown Bellevue with LRT**



## **Downtown Bellevue LRT Tunnel Illustration**



## **South Bellevue RCBRT Illustration**



## **Next Steps**

### **July 13 Board meeting**

- Board to identify preferred transportation mode (LRT or RCBRT) for East Corridor.
- Preferred mode put out for public and agency review with ST2 scenarios.