

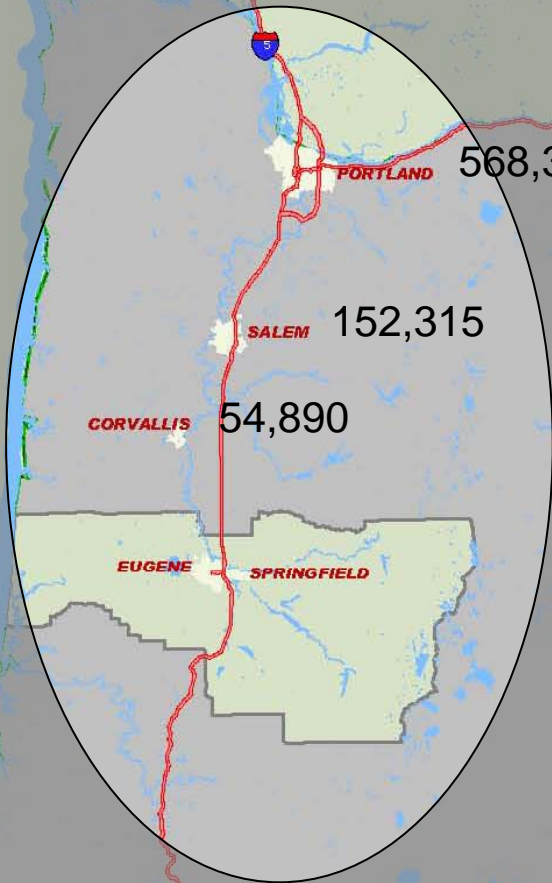
Lane Transit District's EmX Project

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Presentation Outline

- EmX Project Background
- Franklin EmX Corridor
- EmX Experience
- Further Corridors
- Future Enhancements



568,380

152,315

54,890

**Oregon Population:
3,745,455**

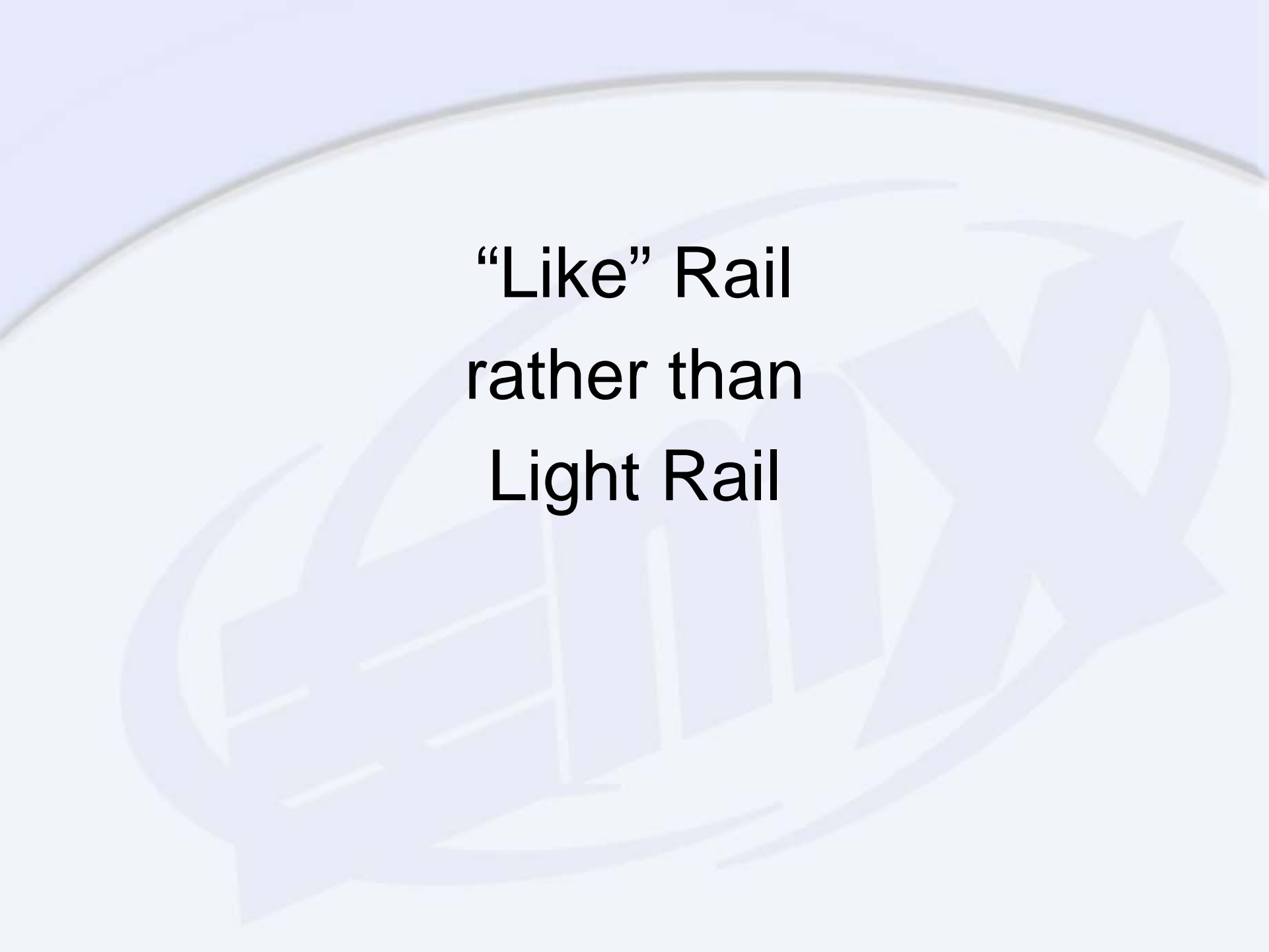
**Willamette Valley Population:
2,621,800**

70% of State



BRT Decision Process

- Need for improved transit service
 - Increased congestion
 - Community desire for higher quality transit
 - State and local mandates
- Options considered
 - Enhanced conventional service
 - Light rail/streetcars
 - BRT
- BRT selected as preferred transit strategy as part of Regional Transportation Plan



**“Like” Rail
rather than
Light Rail**

BRT Objectives

- Create system for the future
 - As much exclusive lane as possible
- Create rail-like image
 - Unique name and identity
 - High quality stations
 - Attractive vehicle
- Ease of use
 - Straight-forward routing
 - High frequency (10 minutes)



a service of
LANE TRANSIT DISTRICT

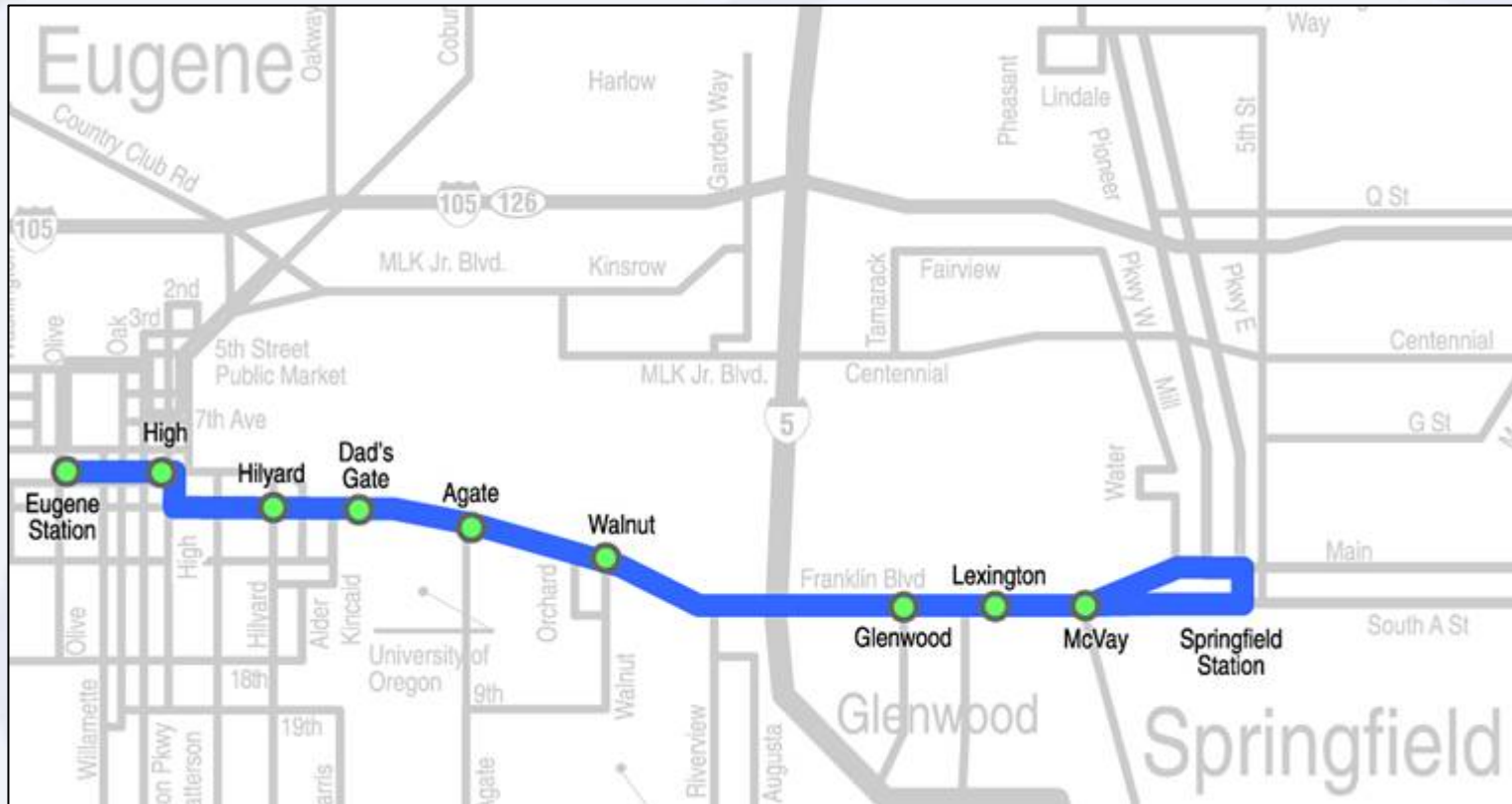
LTD's EmX System

Element	Included	Planned
Exclusive transitways	✓	
Transit Signal Priority	✓	
Wider Stop Spacing	✓	
Near-Level Boarding	✓	
Eliminate On-Board Fare Collection	✓	
Improved Stops and Stations	✓	
Real-Time Passenger Information		✓
Unique Vehicle Design	✓	
Precision Docking		✓
Lane-Keeping System		✓
Unique Identity	✓	

EmX System Map



Franklin EmX Corridor



Project Objectives

- Be competitive with autos
- No increase in auto travel times
- No impact to street trees
- Minimize displacements
- Enhance pedestrian/bicycle facilities
- Enhance corridor and improve landscaping
- Gain approval from all jurisdictions
- 100% Exclusive right-of-way



- | | | |
|---------------------|---|--|
| 1996 | ● | BRT Concept Developed/TAC formed |
| 1997-1999 | ● | BRT Steering Committee/MIS/Outreach |
| 2000 | ● | Draft Environmental Assessment |
| 2001 | ● | Final EA/Local Approval & Engineering |
| 2002-2003 | ● | Vehicle selection |
| 2004 | ● | Groundbreaking/Construction begins |
| 2006 | ● | Vehicle delivery/Operator Training |
| January 2007 | ● | Open for Service |

Corridor Design Process

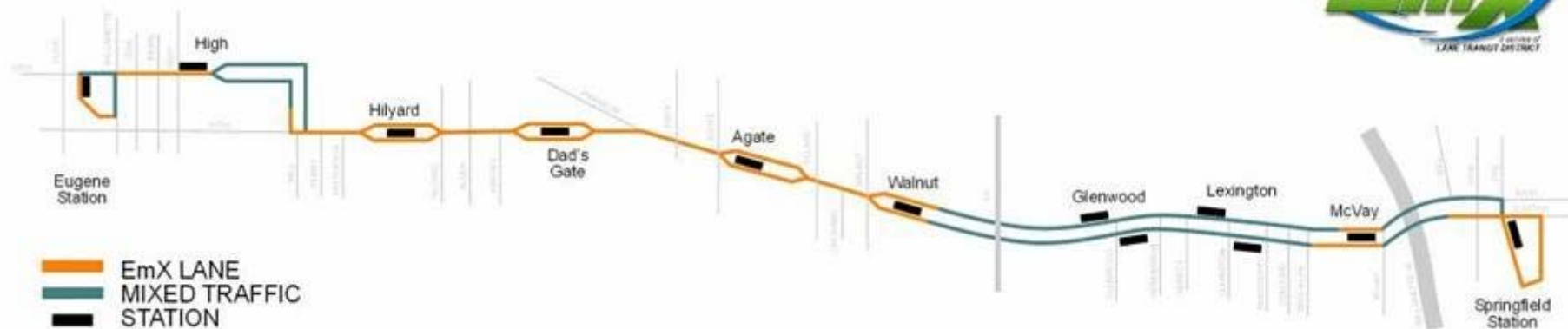
- Divide corridor up
- Develop “seed” ideas
- Meet with every property owner/occupant
- Hold design charettes
- Open houses



Visualizations



FRANKLIN EmX



NOT TO SCALE



Franklin EmX Facts

Dads' Gates Station

- **Four-mile corridor & eight stations**
- **15.5-minute travel time (projected 16-minutes)**
- **\$6 Million per mile (typical LRT is \$50 M per mile)**
- **80% federal discretionary funds**
- **25% of EmX riders are new transit users**
- **Free fare on route (applies to 9% of riders)**
- **Lower operating costs per rider than regular bus**

Roadwork



Franklin Segment



Runway Configurations

- Median, One-way lane – curb separated
- Median, Bi-directional lane – curb separated
- Median, Bi-directional –no barrier
- Curb side, Bi-directional –no barrier
- Curb side, One-way lane - no barrier
- Mixed traffic operation



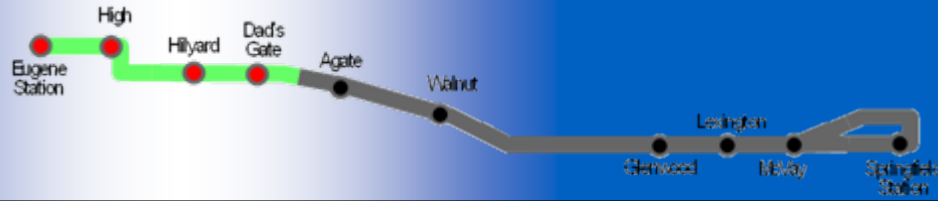
Curbed Transit Lanes





Median traversable
Transit Lane

Roadwork

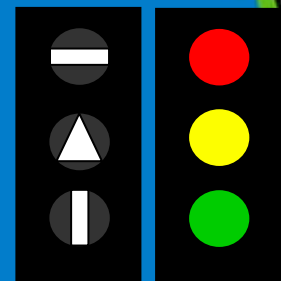


Eugene Segment





Transit Lanes



Traffic Signal Priority



EmX Stations





Stations



Oregon River Sports

3400
RAFTS
CANOES
KAYAKS
CLASSES
GLIDED
TRIPS
RENTALS
REPAIRS



Oregon River Sports

www.oregonriversports.com

Eugene

Glenwood Station

Curb-side
Stations





Single-sided
median Station



**Station approach angle
critical for docking**



Public Art



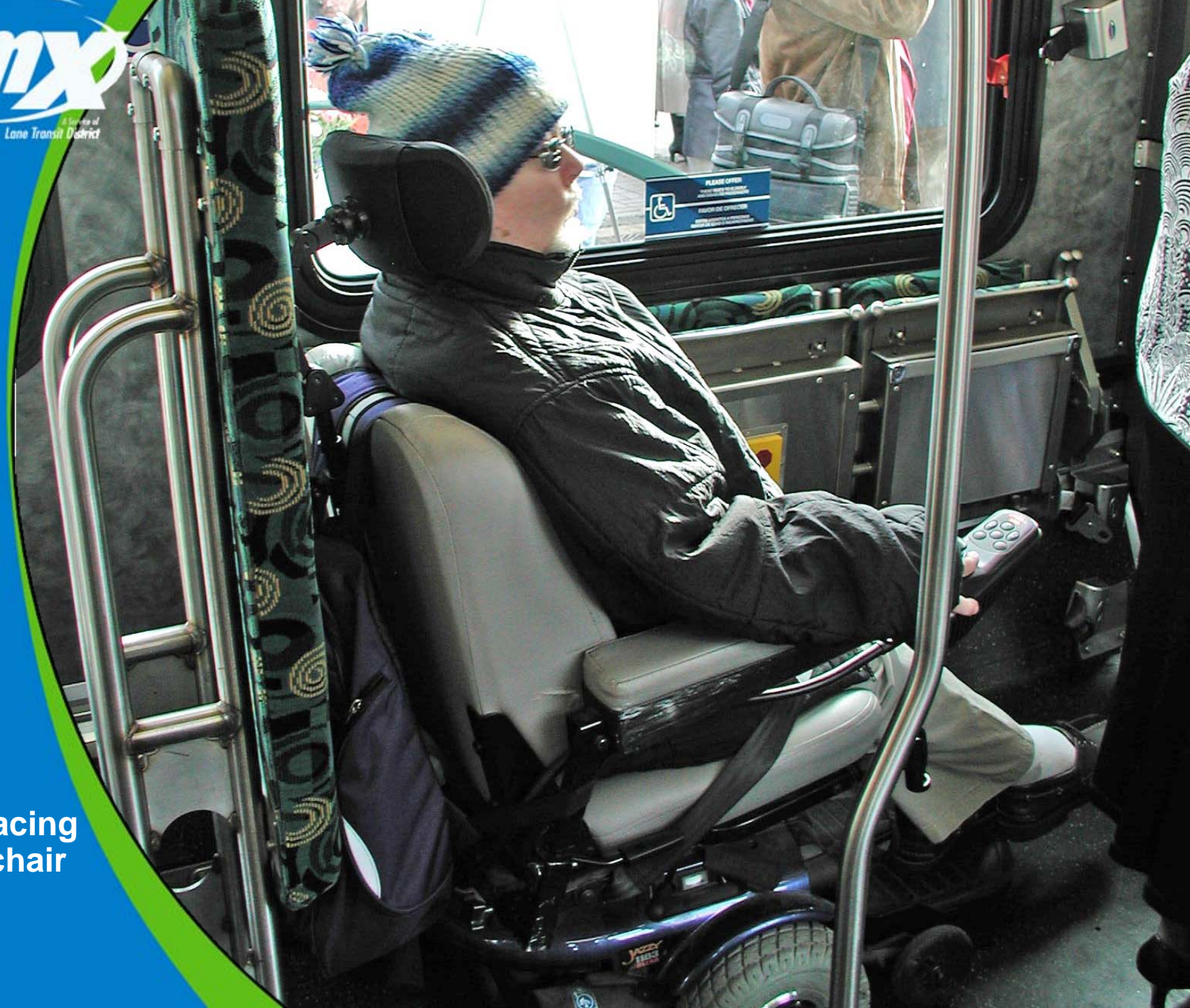
- 63-foot articulated bus
- Domestic manufacturer
- Hybrid-electric propulsion
- Doors on left and right side
- Bikes on board



Vehicle



Vehicle Interior



Rear-Facing
Wheelchair
Bay



Bikes on
Board



Door Lift/Ramps



Real Time
Passenger
Information

Shared lane at intersection





**Shared lane at
intersection**

Agate Station Video

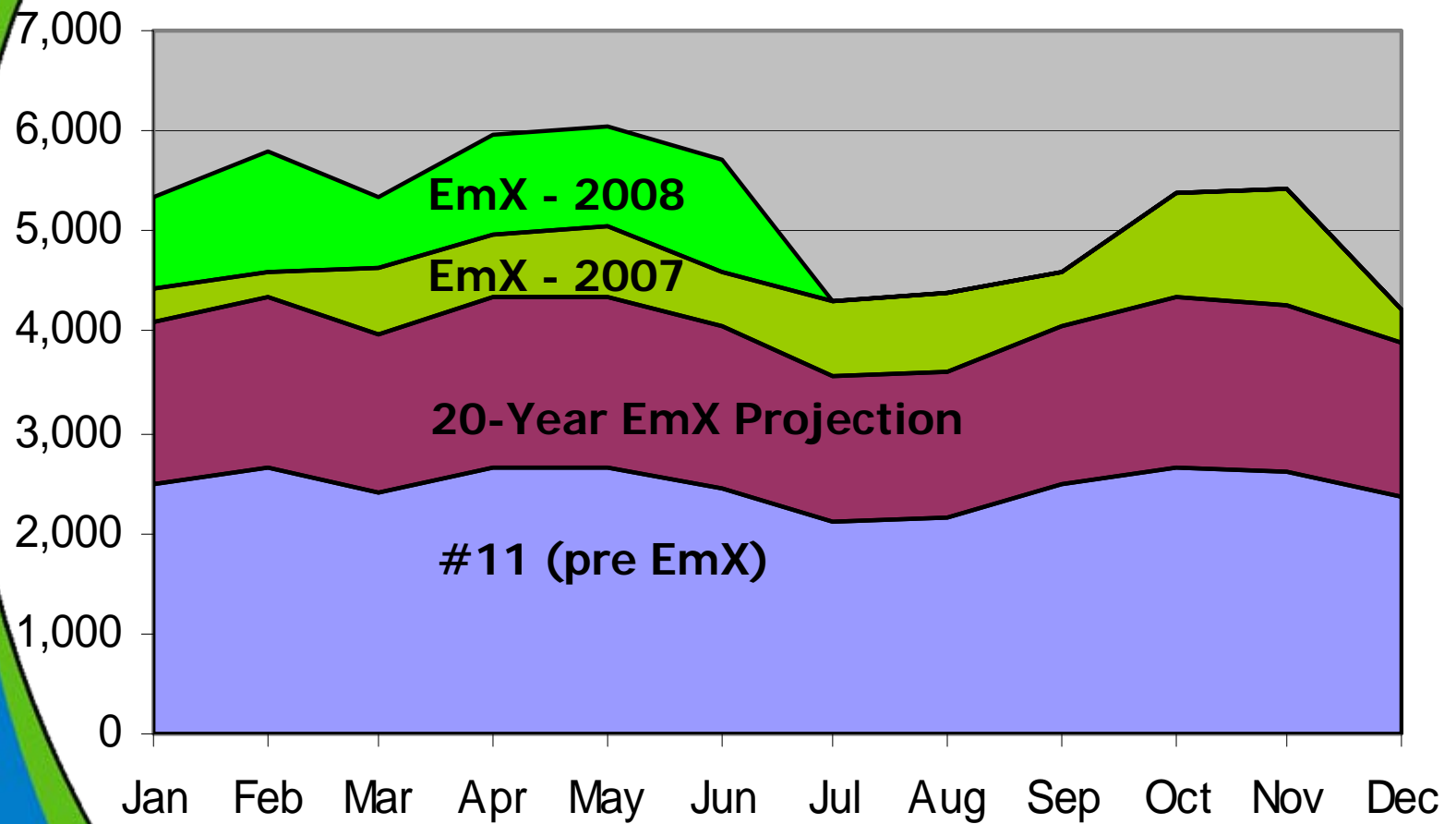


Operations

- Opened January 2007
- Ridership increasing
- Bicycle accommodation
- Wheel chair bay availability / preference
- Customer satisfaction high



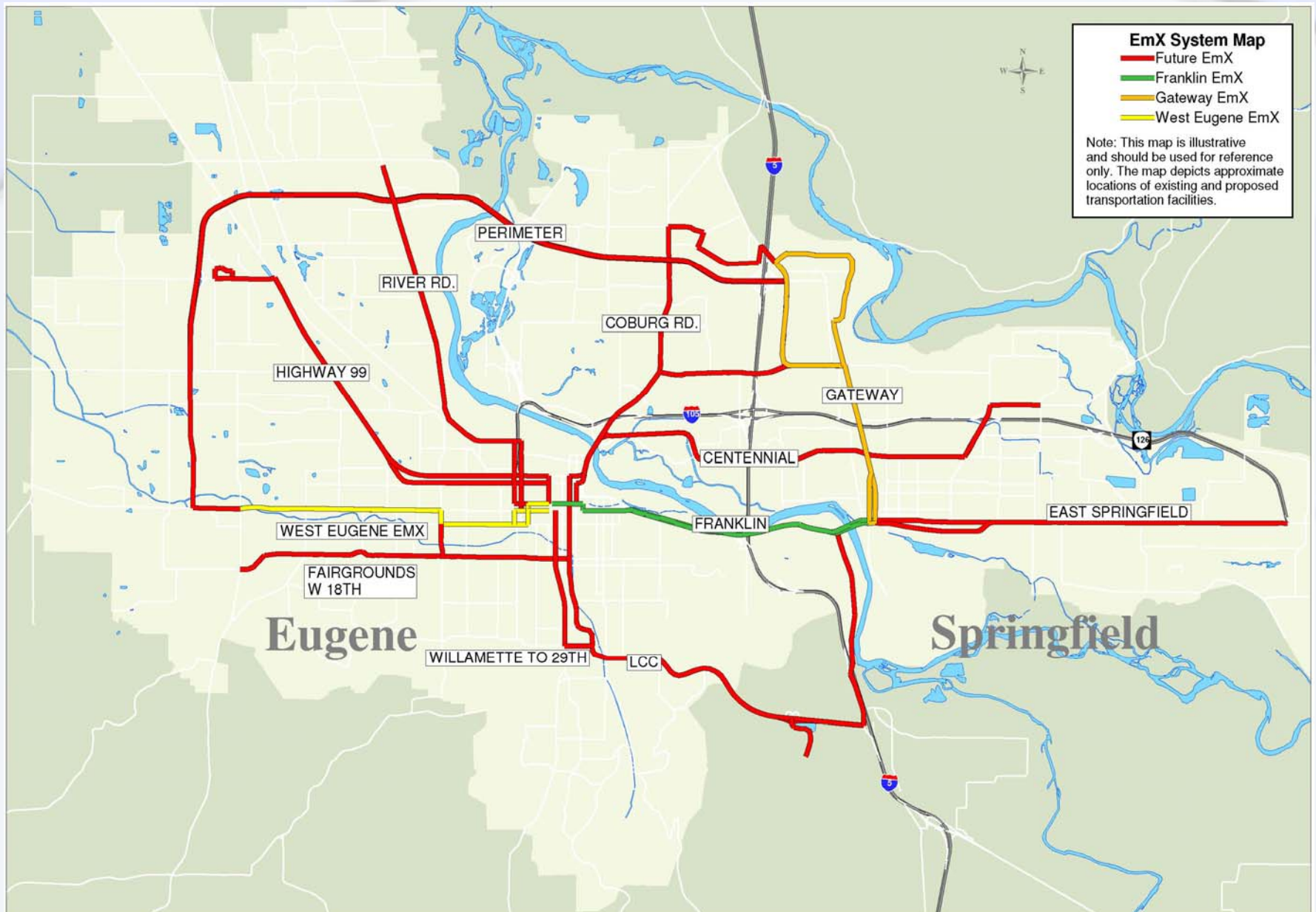
Corridor Ridership (Average Weekday)



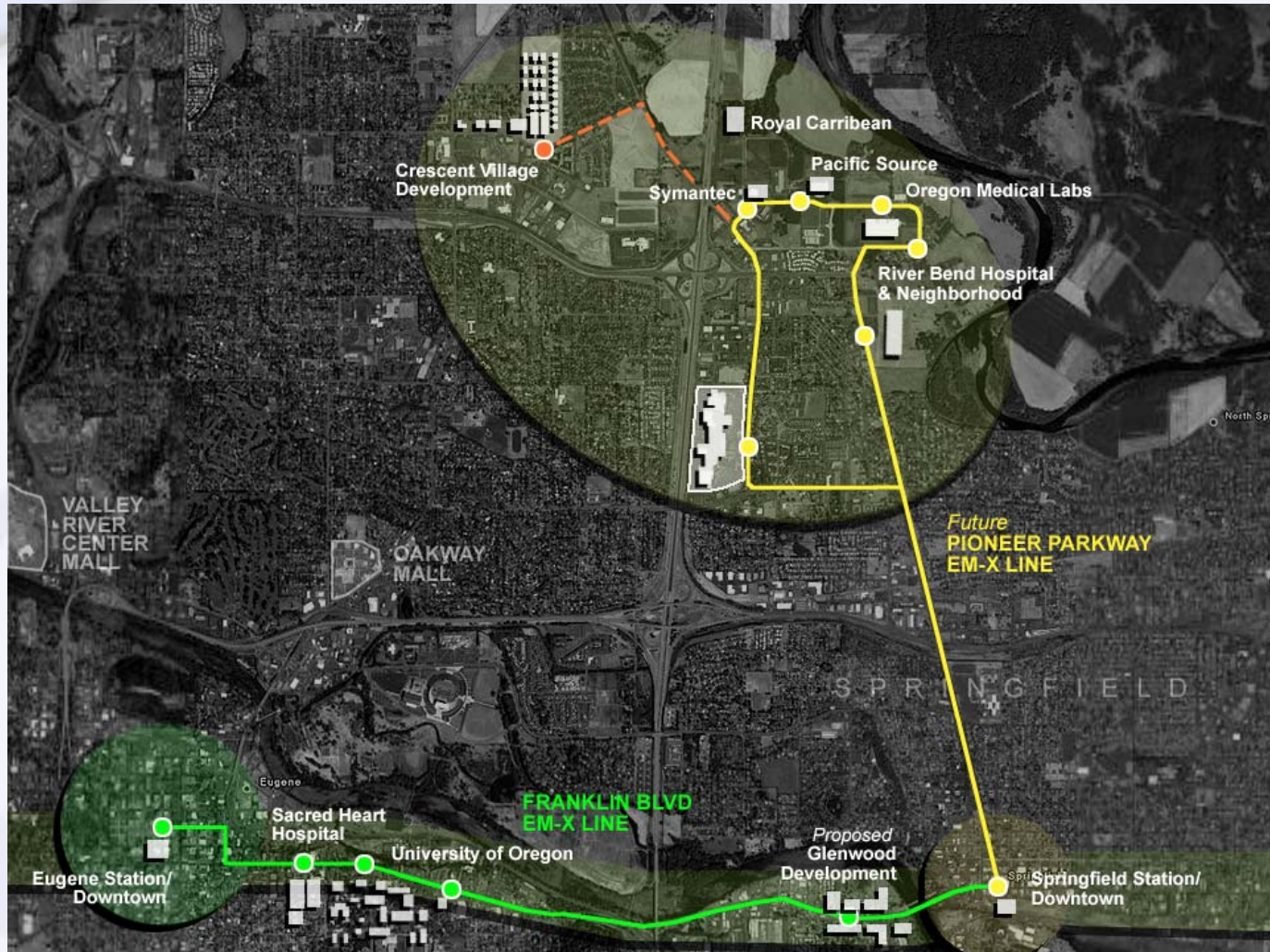
Operations (Continued)

- Vehicle issues
- Driver variability
- Operational changes
- Crashes
- Traffic signal limitations
- Single vs dual EmX lanes
- Community attitude

EmX System Map



Gateway EmX Corridor





2001	●	Corridor Selection
2001- ongoing	●	Public Outreach
Spring 2006	●	LPA Approval
Fall 2006	●	Completed EA/ Public Review
October 2007	●	95% Final Design Complete
Winter 2008	●	Submit for Construction Permits
Spring 2009	●	Start Construction
Fall 2010	●	Open for Service

Pioneer Parkway East (existing)



Pioneer Parkway East (with transit lane)



Pioneer Parkway (existing)



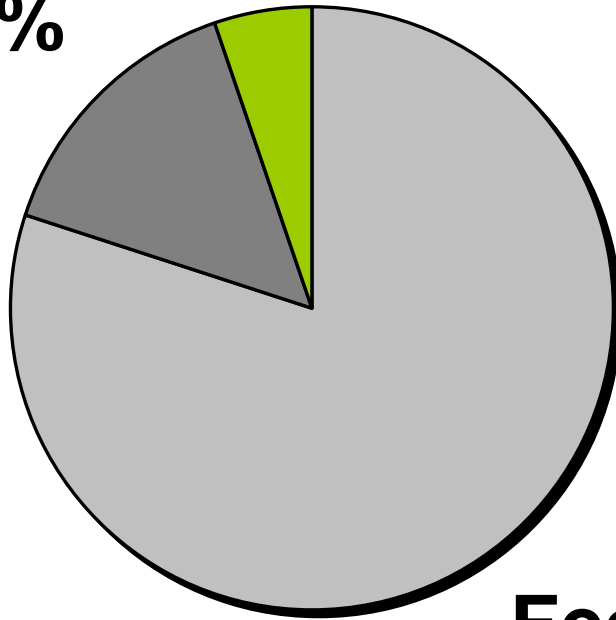
Pioneer Parkway (with transit lanes)





LTD

State
7%
13%



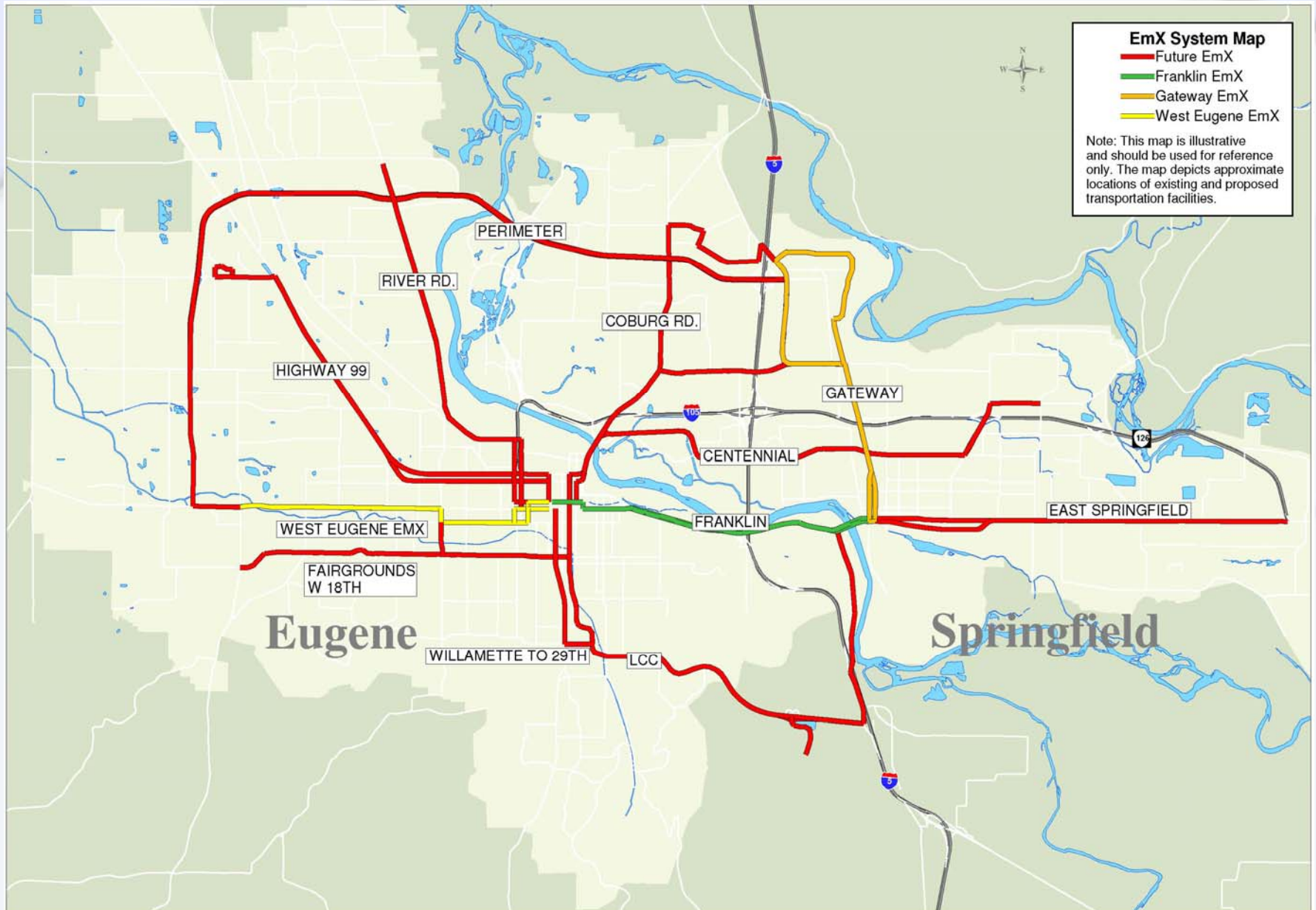
Cost: \$41.3 Million

\$ 33.0 M – Federal
\$ 5.4 M – ConnectOregon
\$ 2.9 M – LTD Match

Federal
80%

Funding

Third EmX Corridor





- Third EmX corridor
- Incorporated into broader transportation study of west Eugene
- Preparing DEIS
- Planned service start 2015

Mechanical



Optical



Magnetic



**Vehicle
Assist and
Automation**

*Lane
Keeping*

*Precision
Docking*

Magnetic Guidance



Conclusions

- Proof of Concept
- Mode less important
- Corridor ridership rather than community size



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