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5-23-2014

# Capturing the Ride: Exploring Low-Density Flexible Transit Alternatives in Salem-Keizer

Darwin Moosavi

*Portland State University*

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# Capturing the Ride: Low-Density Flexible Transit in Salem-Keizer

May 23, 2014

PSU Transportation Seminar

Darwin Moosavi, PSU MURP Candidate



Portland State  
UNIVERSITY



PARADIGM  
PLANNING

CTR

The image features the letters 'CTR' in a large, white, sans-serif font against a teal background. The letters are stylized with rounded terminals. The 'C' is a simple curve. The 'T' has a vertical stem and a horizontal top bar. The 'R' has a vertical stem and a curved bottom arm. The bottom arm of the 'R' extends to the right, ending in a large white circle. On this horizontal line, there is a white silhouette of a bus with three windows and two wheels. To the left of the bus are three horizontal lines of varying lengths, suggesting motion or speed.





PARADIGM  
PLANNING





Salem

*Cherriots*

**SALEM-KEIZER TRANSIT**

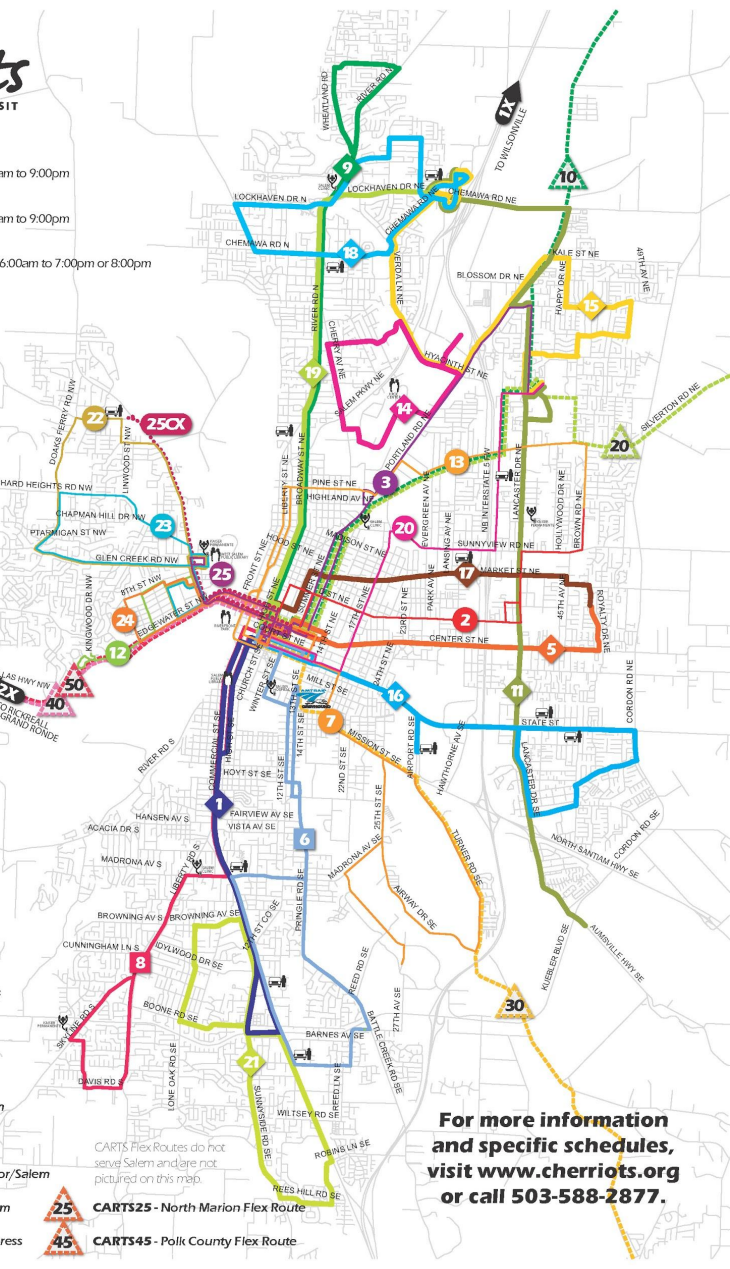


# Cherriots

SALEM-KEIZER TRANSIT

-  **Frequent Service**  
15 or 30 minute service - 6:00am to 9:00pm
-  **Peak Hour Service**  
30 or 60 minute service - 6:00am to 9:00pm
-  **Standard Service**  
30, 60 or 120 minute service - 6:00am to 7:00pm or 8:00pm

-  **1 South Commercial**
-  **2 D St./Brown Rd.**
-  **3 Portland Rd./CCC**
-  **5 Center St.**
-  **6 12th/Battle Creek**
-  **7 Fairview Ind. Park**
-  **8 Liberty Rd. S.**
-  **9 River Rd. N./Parkmeadow**
-  **11 Lancaster Drive**
-  **12 Edgewater Loop**
-  **13 Silverton/Brown Rd.**
-  **14 Cherry Ave./Kroc Center**
-  **15 Keizer Station/CCC**
-  **17 State St.**
-  **16 Market St.**
-  **18 Windsor Is. Loop**
-  **19 River Rd. N./Keizer Station**
-  **20 17th/CCC**
-  **21 Rees Hill Loop**
-  **22 Brush College Loop**
-  **23 Orchard Heights Loop**
-  **24 Edgewater/Downtown**
-  **25 West Salem/Downtown**
-  **25CX Wallace Commuter Express**
-  **1X to Wilsonville**
-  **2X to Grand Ronde**
-  **10 CARTS10 - Woodburn/Salem**
-  **20 CARTS20 - Silverton/Salem**
-  **30 CARTS30 - Canyon Connector/Salem**
-  **40 CARTS40 - Polk County/Salem**
-  **50 CARTS50 - Dallas/Salem Express**
-  **25 CARTS25 - North Marion Flex Route**
-  **45 CARTS45 - Polk County Flex Route**

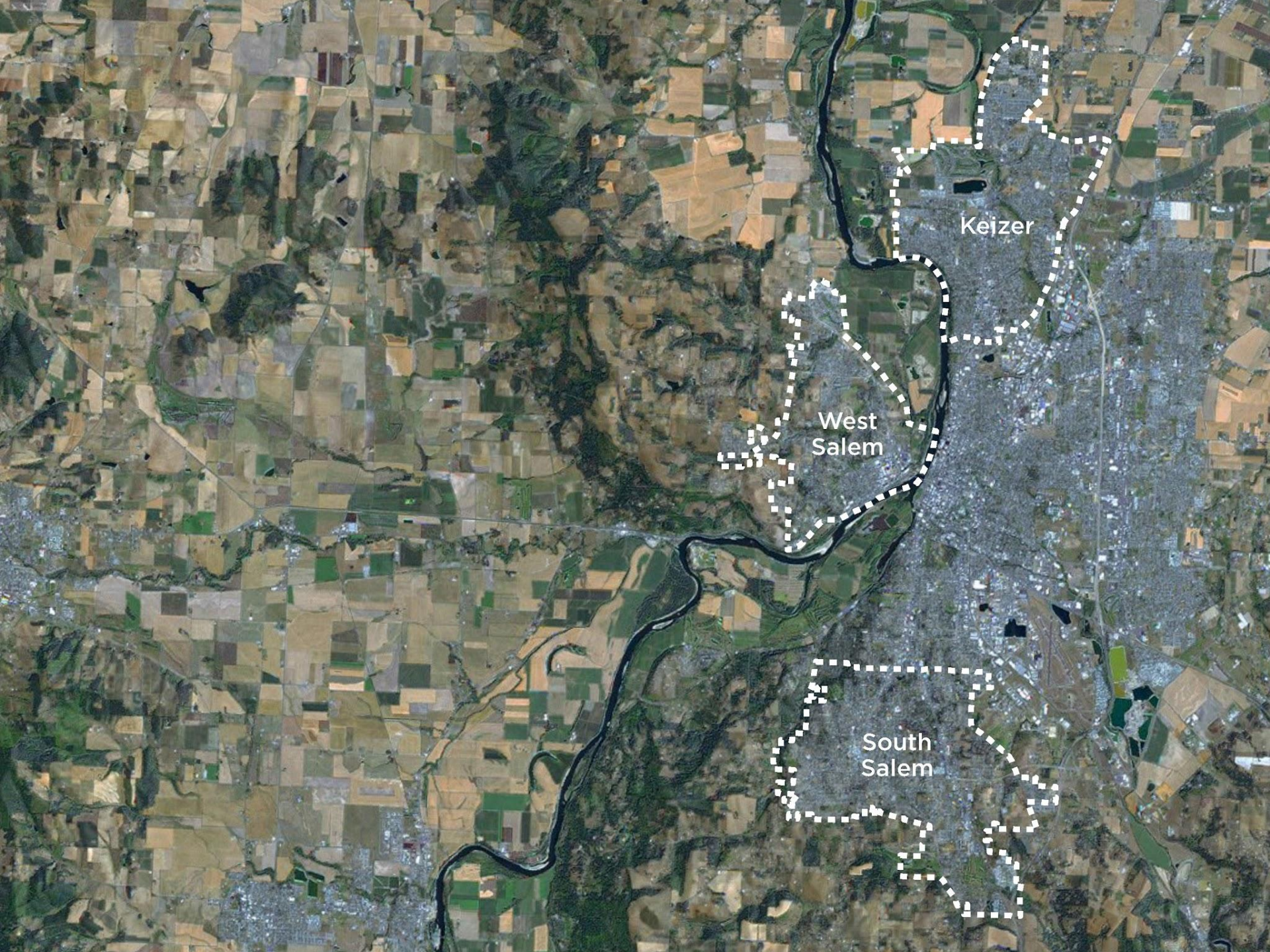


CARTS Flex Routes do not serve Salem and are not pictured on this map.

**For more information and specific schedules, visit [www.cherriots.org](http://www.cherriots.org) or call 503-588-2877.**

**The mission of this project is to allow greater accessibility to transit by expanding coverage with flexible transit solutions, while also ensuring that the needs of transit-dependent populations, seniors, and people with disabilities are accommodated.**





Keizer

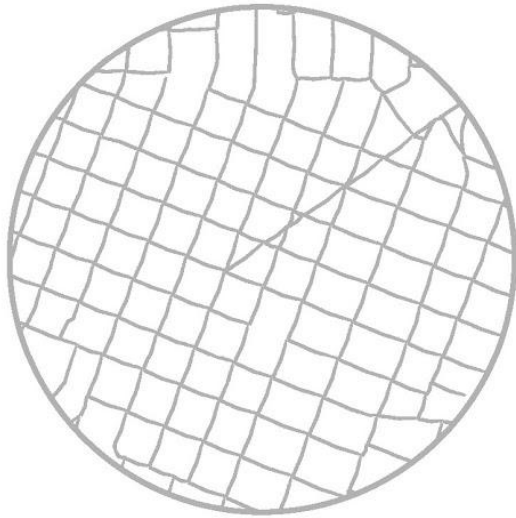
West Salem

South Salem









Downtown



Keizer

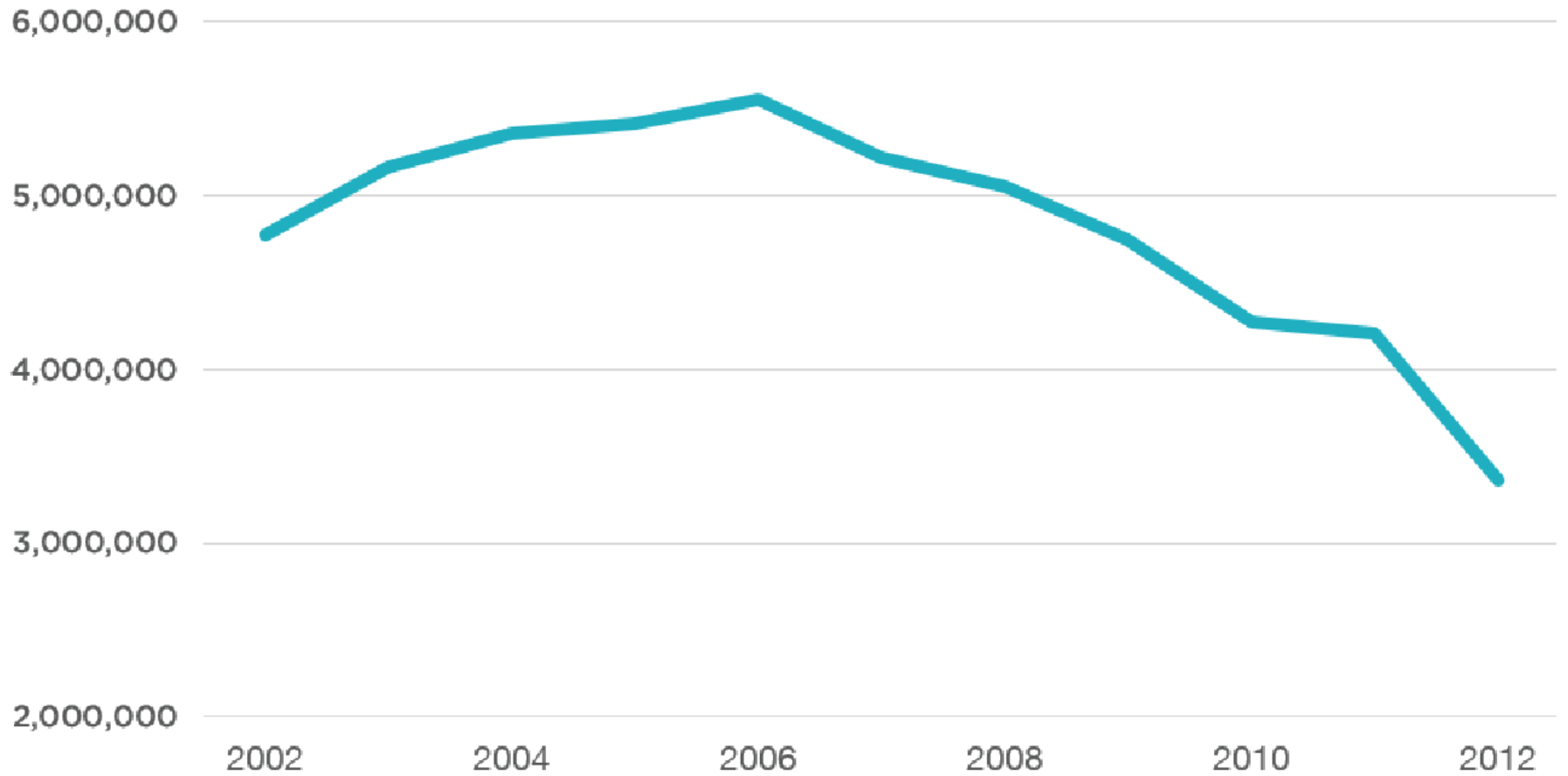


South Salem



West Salem

# Cherriots Ridership 2002-2012





Salem-Keizer  
Region

**Population**

36,402

39,192

20,486

225,933

**Population Density (Per Sq Mile)**

5,135

4,672

3,352

3,719

**Median Household Income**

\$51,708

\$56,520

\$62,668

\$45,837

**Seniors (65 and Over)**

13.5%

14.5%

14.2%

12.4%

**Minority (Non-White)**

25.4%

16.9%

19.6%

31.6%

**Households with No Car**

7.2%

5.4%

6.3%

9%

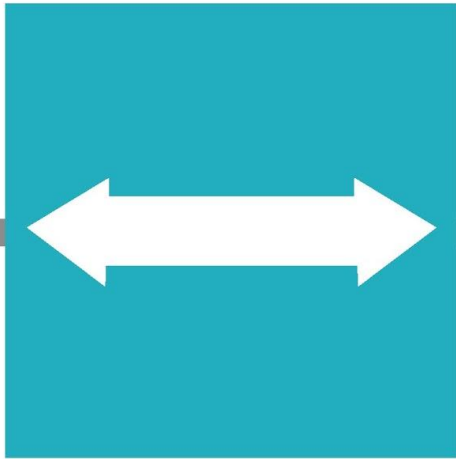
**Families in Poverty**

12.2%

7.7%

8.2%

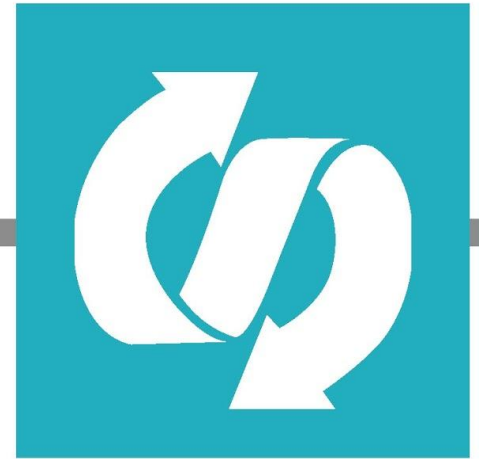
14.7%



FIXED-ROUTE



FLEXIBLE TRANSIT



DEMAND-RESPONSIVE



1

Listen to the community

2

Create comprehensive study

3

Communicate effectively

4

Develop a replicable  
framework

## Information Gathering

I

Community Meetings

Rolling Roadshow

Intercept & Online Surveys

Existing Conditions

Best Practices

## Flexible Transit Types

II

Flexible Types Development

Workshops

Flexible Transit Survey

## Alternatives

III

Alternatives Development

Bus Driver Focus Group

Flexible Transit Open House

Alternatives Online Feedback

## Final Recommendations

IV

Final Recommendations Process



## **DIDN'T HAVE A CHANCE TO ATTEND ONE OF OUR TRANSIT WORKSHOPS THIS MONTH?**

**TAKE OUR SURVEY TO LEARN ABOUT FLEXIBLE BUS SERVICE AND LET US KNOW WHAT YOU THINK!**

What is The Deviator? What about The Hopper? Explore innovative flexible bus options and tell us which bus characteristics would work best for your transportation needs! We are focusing our efforts on learning more from residents of West Salem,

# Website & Facebook





# Neighborhood Meetings





# Rolling Roadshow



# How could transit work better for you?

Help us discover ways to improve bus service in West Salem, South Salem, and Keizer.

We are a group of urban planning graduate students known as Paradigm Planning. Our project, Capturing the Ride, is focusing on these neighborhoods because current service is underperforming. We believe there are ways to improve the system for current bus riders and potential new riders, and we want to hear what you think at our upcoming workshops.



## UPCOMING WORKSHOPS

### Keizer

April 2, 5-7 p.m.  
Keizer Transit Center  
(5860 Keizer  
Station Blvd NE)

### South Salem

April 9, 5-7 p.m.  
South Salem  
Senior Center  
(6450 Fairway  
Ave SE)

### West Salem

April 9, 5-7 p.m.  
Roth's Fresh Market  
(1130 Wallace  
Rd NW)



Take our survey at  
[capturingtheride.com](http://capturingtheride.com)





# Intercept Surveys








[SURVEY PREVIEW MODE] SurveyMonkey Powered Online Survey - Google Chrome

SurveyMonkey, Inc [US] [https://www.surveymonkey.com/s.aspx?PREVIEW\\_MODE=DO\\_NOT\\_USE\\_THIS\\_LINK\\_FOR\\_COL](https://www.surveymonkey.com/s.aspx?PREVIEW_MODE=DO_NOT_USE_THIS_LINK_FOR_COL)



**4. Why do you choose to ride Cherriots over other types of transportation? (Check all that apply)**

- Cost
- Convenience
- Reliable
- No car
- Weather
- Subsidized by work or school
- Other (please specify)

**5. In general, what matters most to you when you ride transit?**

- Frequency
- Convenience (close to home/destinations)
- Reliability (Bus runs on time)
- Clean buses
- Relative cost
- Safety
- Other (please specify)

# Online Survey

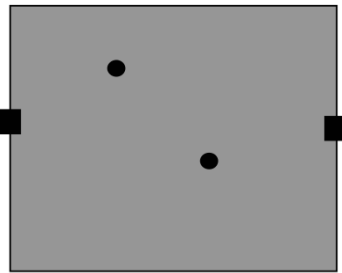
Route Deviation



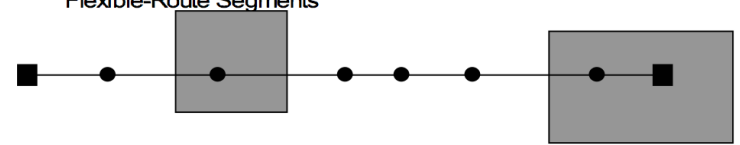
Request Stops



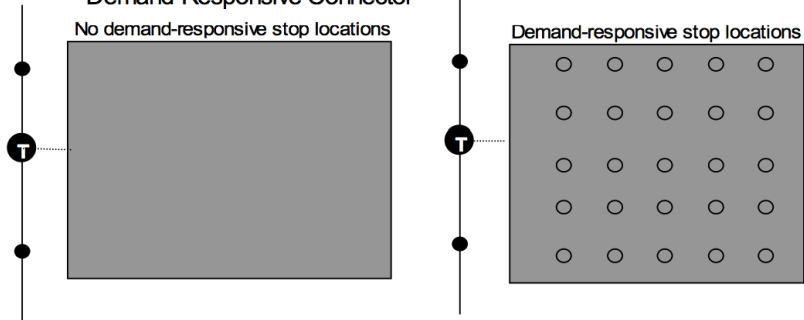
Point Deviation



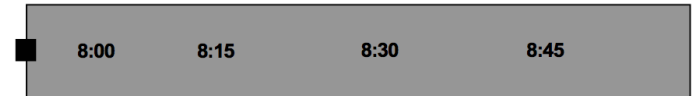
Flexible-Route Segments

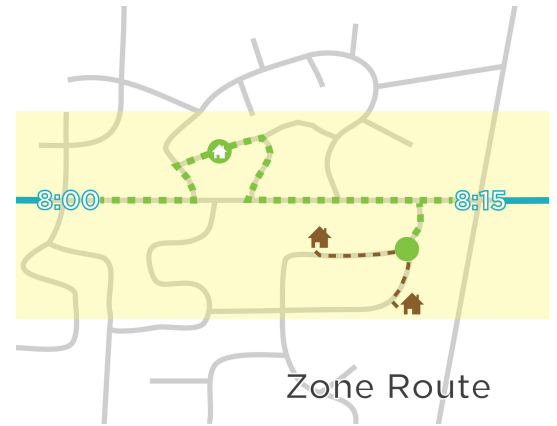
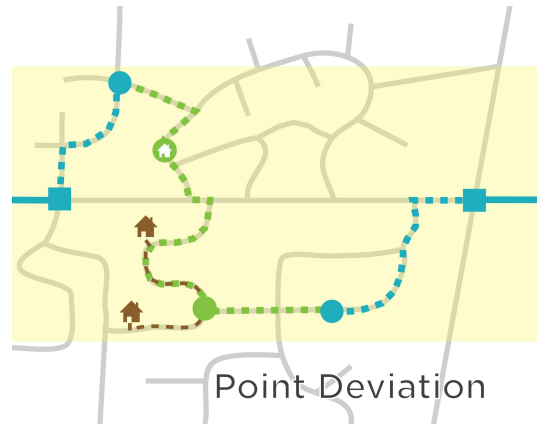
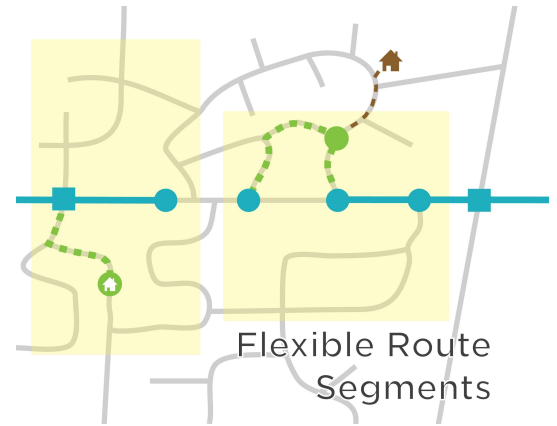
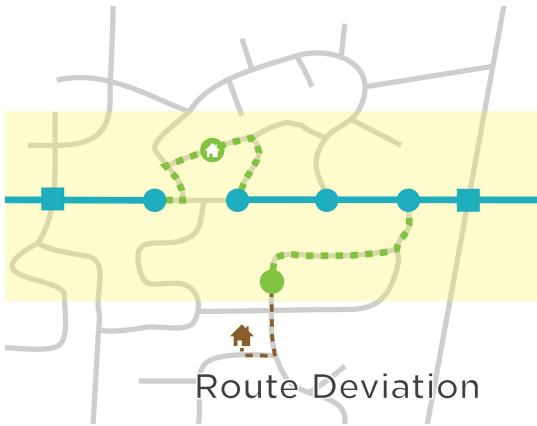


Demand-Responsive Connector



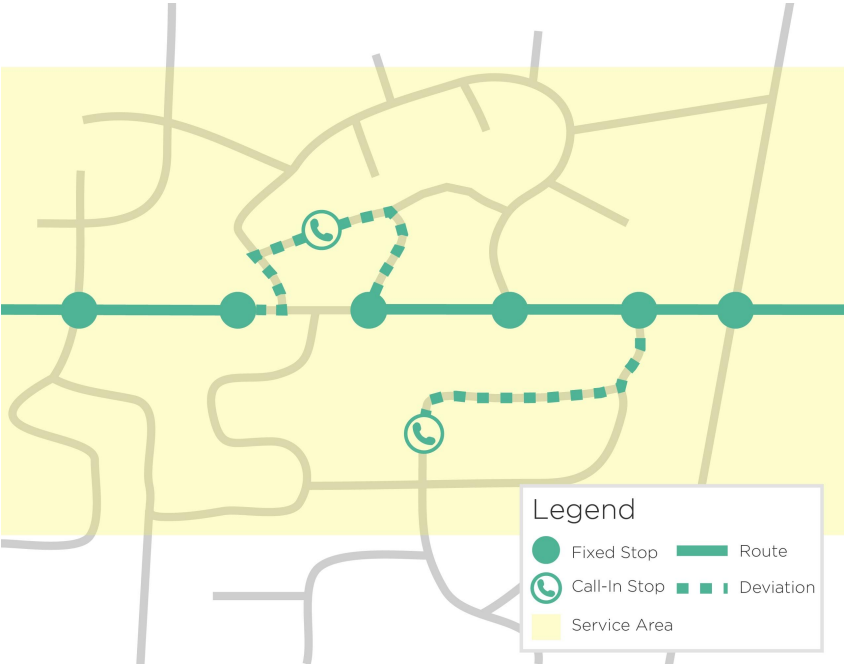
Zone Route



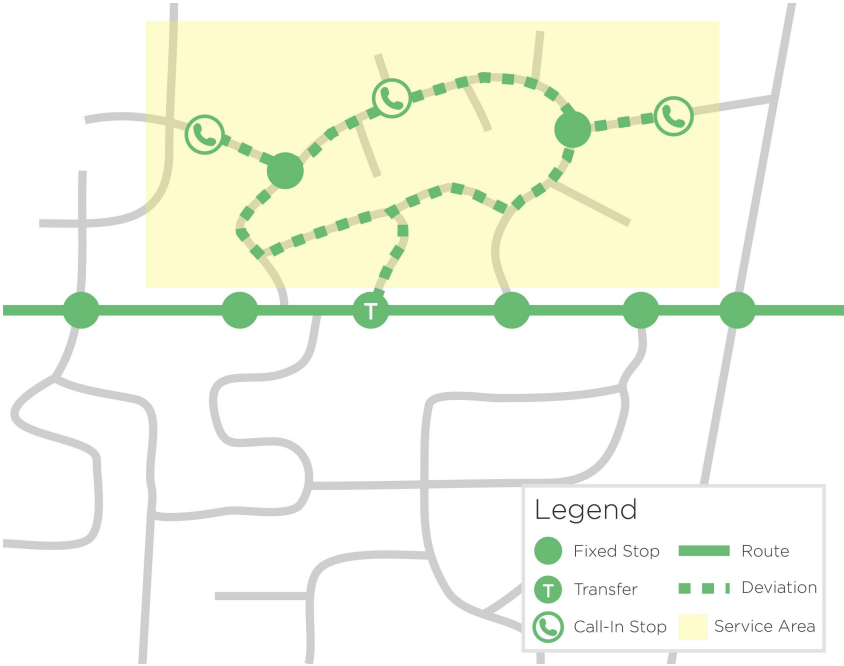




# The Deviator

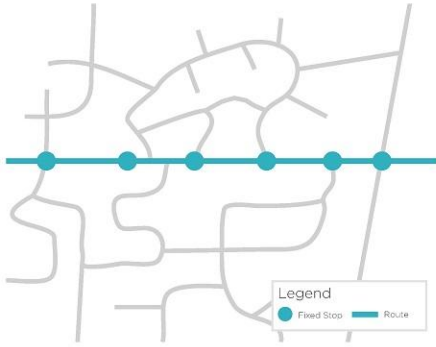


# The Hopper



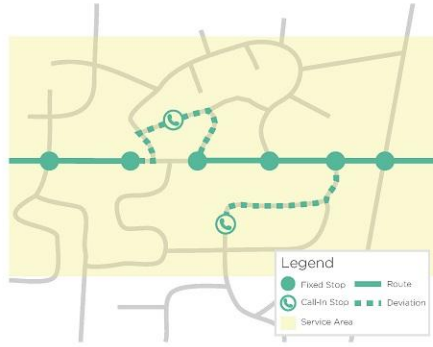
# Regular Bus

Cherriots is the good old-fashioned bus service that everyone is familiar with. The bus follows the same route and makes the same stops each day. If you want to ride the bus, you can show up at the nearest stop and expect it to arrive at a scheduled time.



# The Deviator

The Deviator is the most like regular bus service. The bus goes on the same route and makes similar stops. The biggest difference is that it will go off of the normal street when needed or requested to pick people up and drop people off.



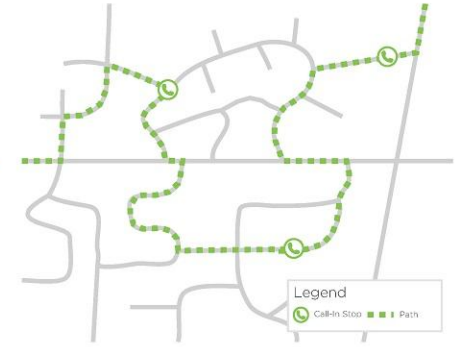
# The Hopper

The Hopper is less like a regular bus and more like dial-a-ride service (a shared taxi). There are fewer regular bus stops for jumping on and off, but the bus can go anywhere in the neighborhood or any defined area with some kind of notice.



# Dial-a-Ride

Not as well known because it's restricted to seniors and people with disabilities. CherryLift buses are a lot like shared taxis, in that they will pick you up (and anyone else along the way) and take you anywhere you want to go in Salem or Keizer. There are no bus stops or schedules, instead you have to call in advance to make reservations.



# Workshops



St. Joseph, Missouri  
The Ride



Woodbridge, Virginia  
PRTC



Burnsville, Minnesota  
MVTA



Royal Oak, Michigan  
SMART

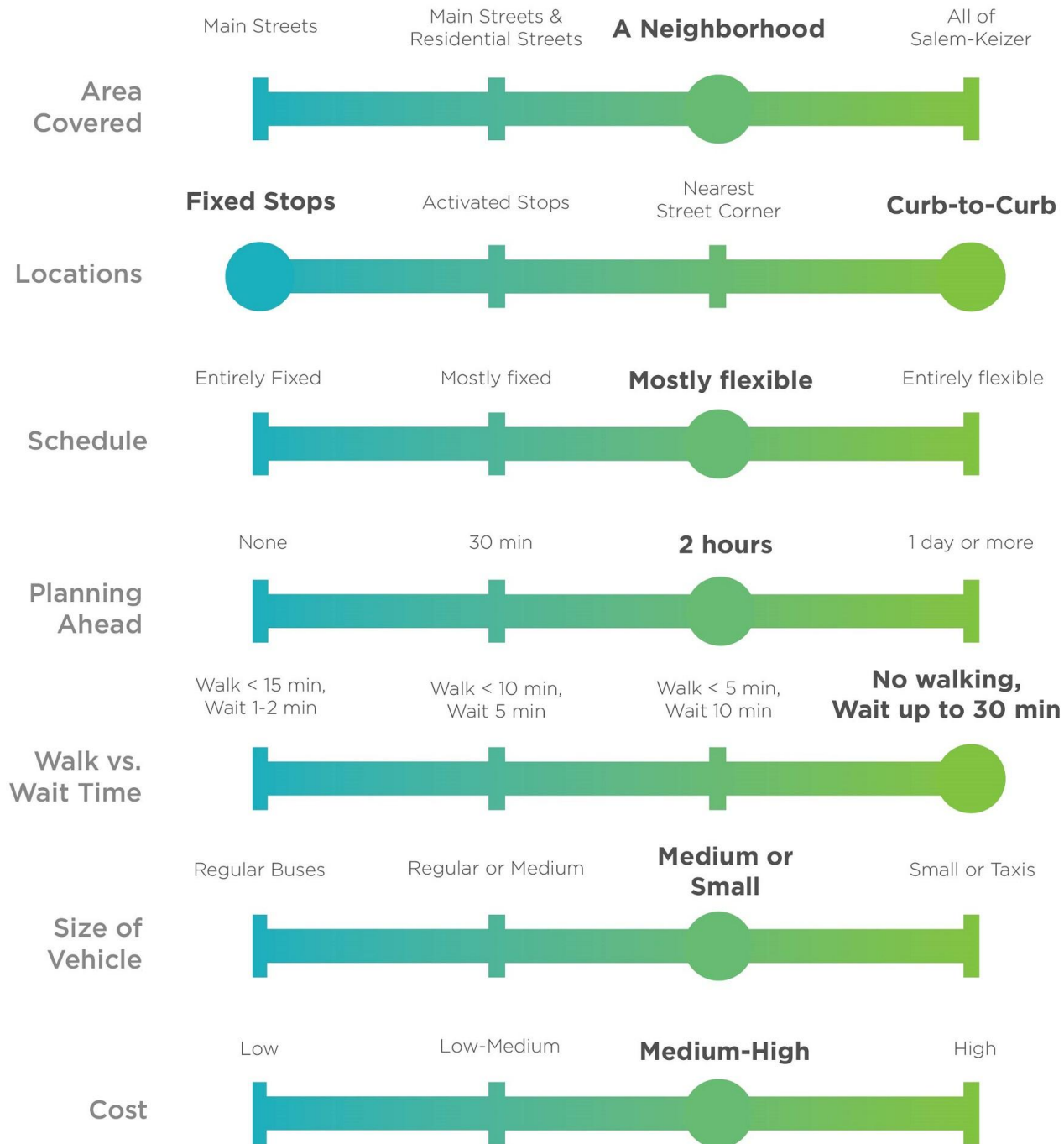


Jacksonville, Florida  
JTA



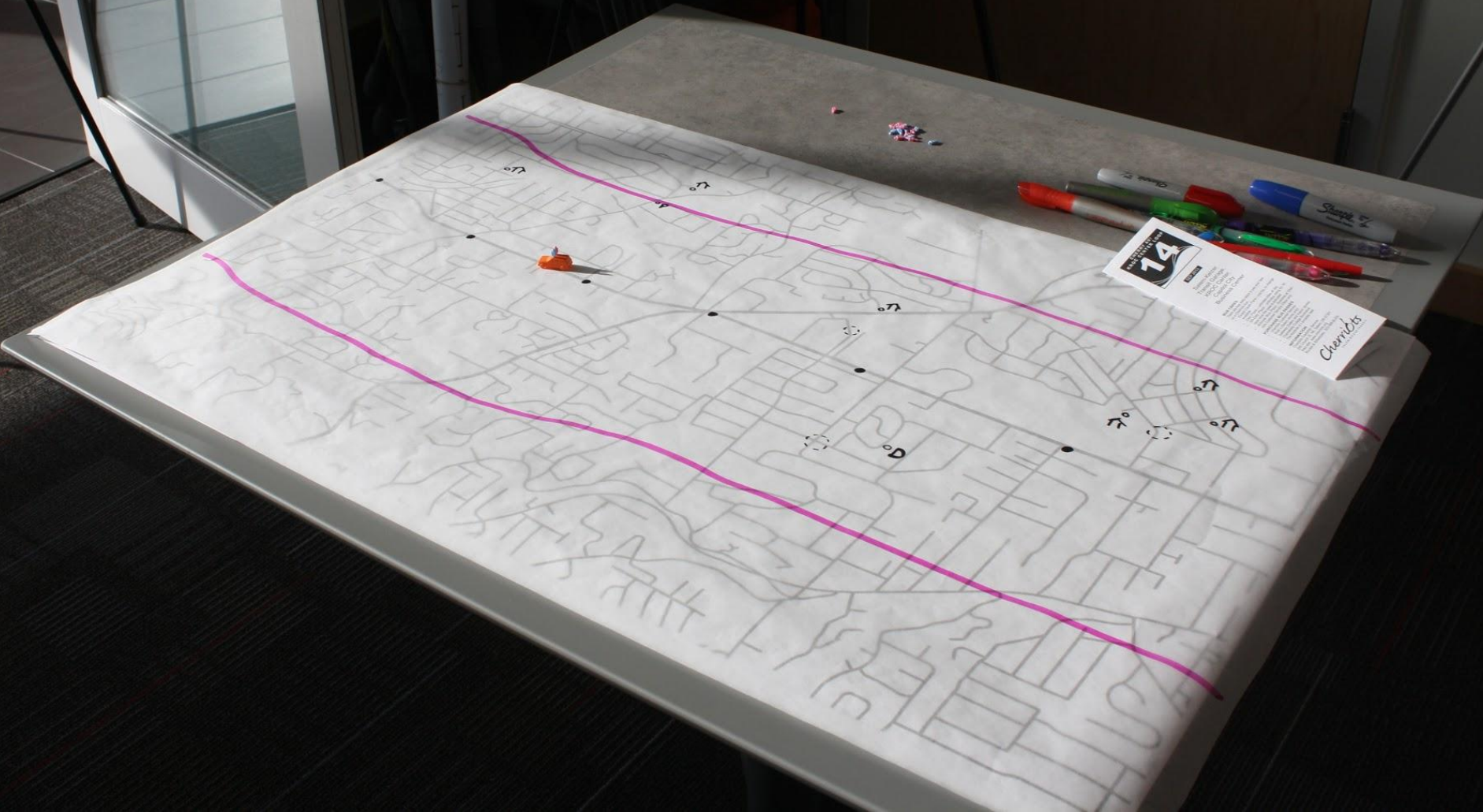
Richland, WA  
Ben Franklin Transit





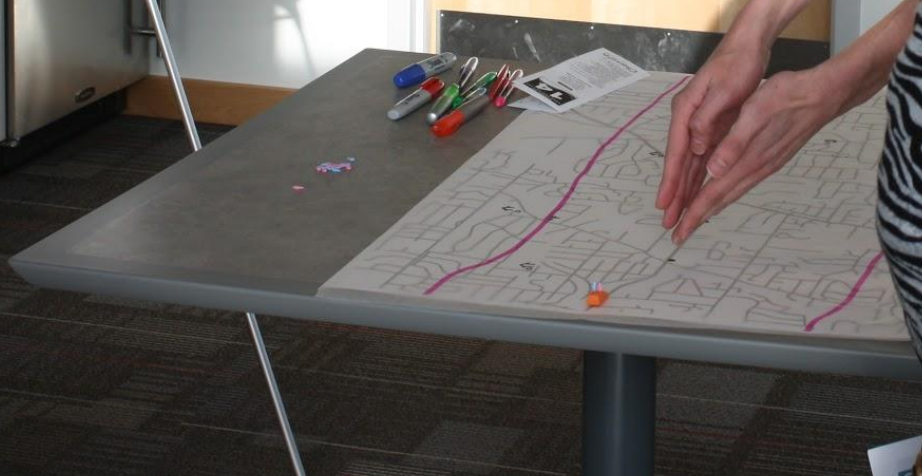
you?

- Would this work for the kind of trips you need to make (to work, school, the grocery store, etc.)?
- Would you be willing to walk to a collection point the Divinator could more easily access?
- Would you prefer the bus to deviate further for pick-ups and drop-offs if it meant that it might make your trip a little longer?





The Deviator







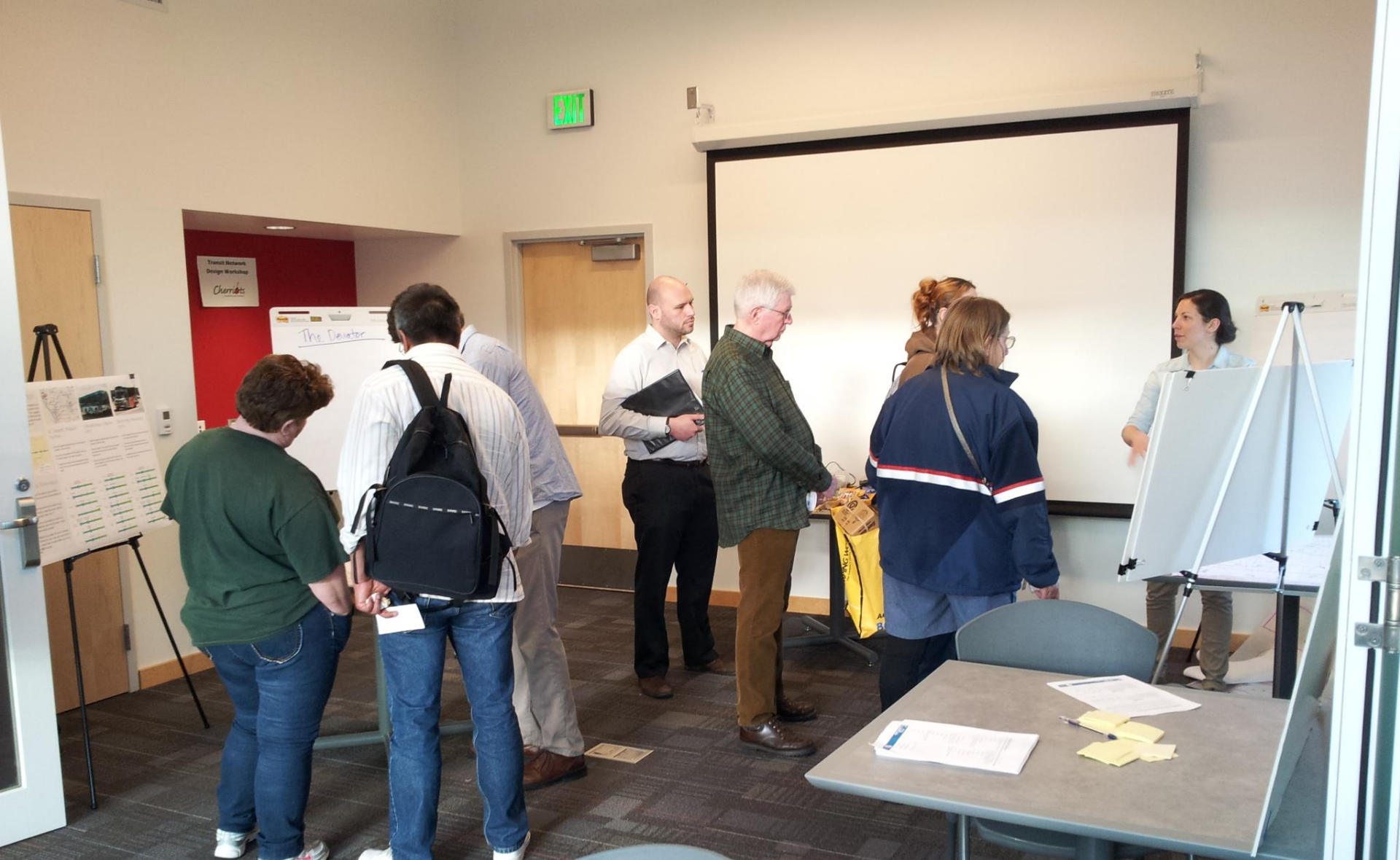












# Keizer Workshop





# South Salem Workshop





# West Salem Workshop



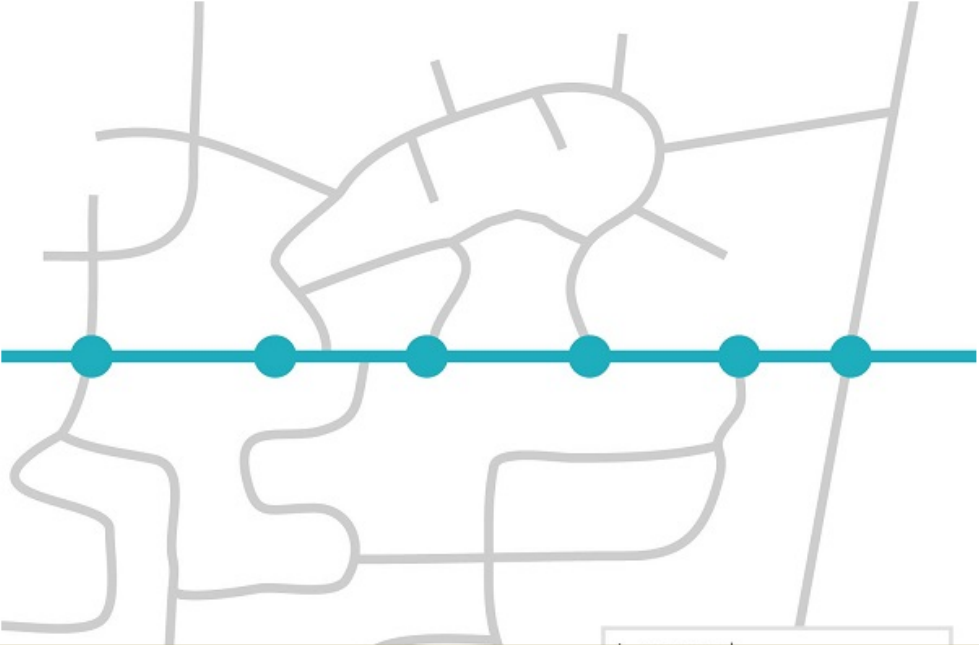
[SURVEY PREVIEW MODE] Flexible Transit Survey - Google Chrome

SurveyMonkey, Inc [US] [https://www.surveymonkey.com/s.aspx?PREVIEW\\_MODE=DO\\_NOT\\_USE\\_THIS\\_LINK\\_FOR\\_COL](https://www.surveymonkey.com/s.aspx?PREVIEW_MODE=DO_NOT_USE_THIS_LINK_FOR_COL)

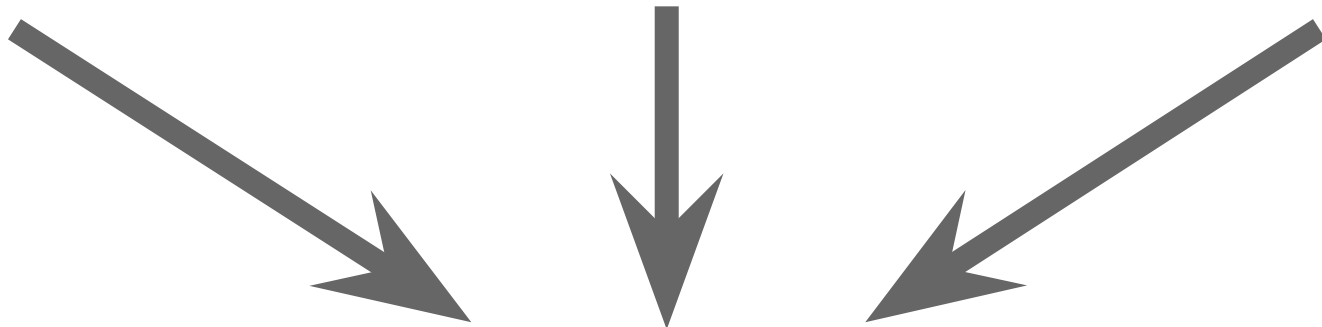
## Flexible Transit Survey

Currently, the two most common forms of bus transit found in the Salem-Keizer area are regular bus service and dial-a-ride service.

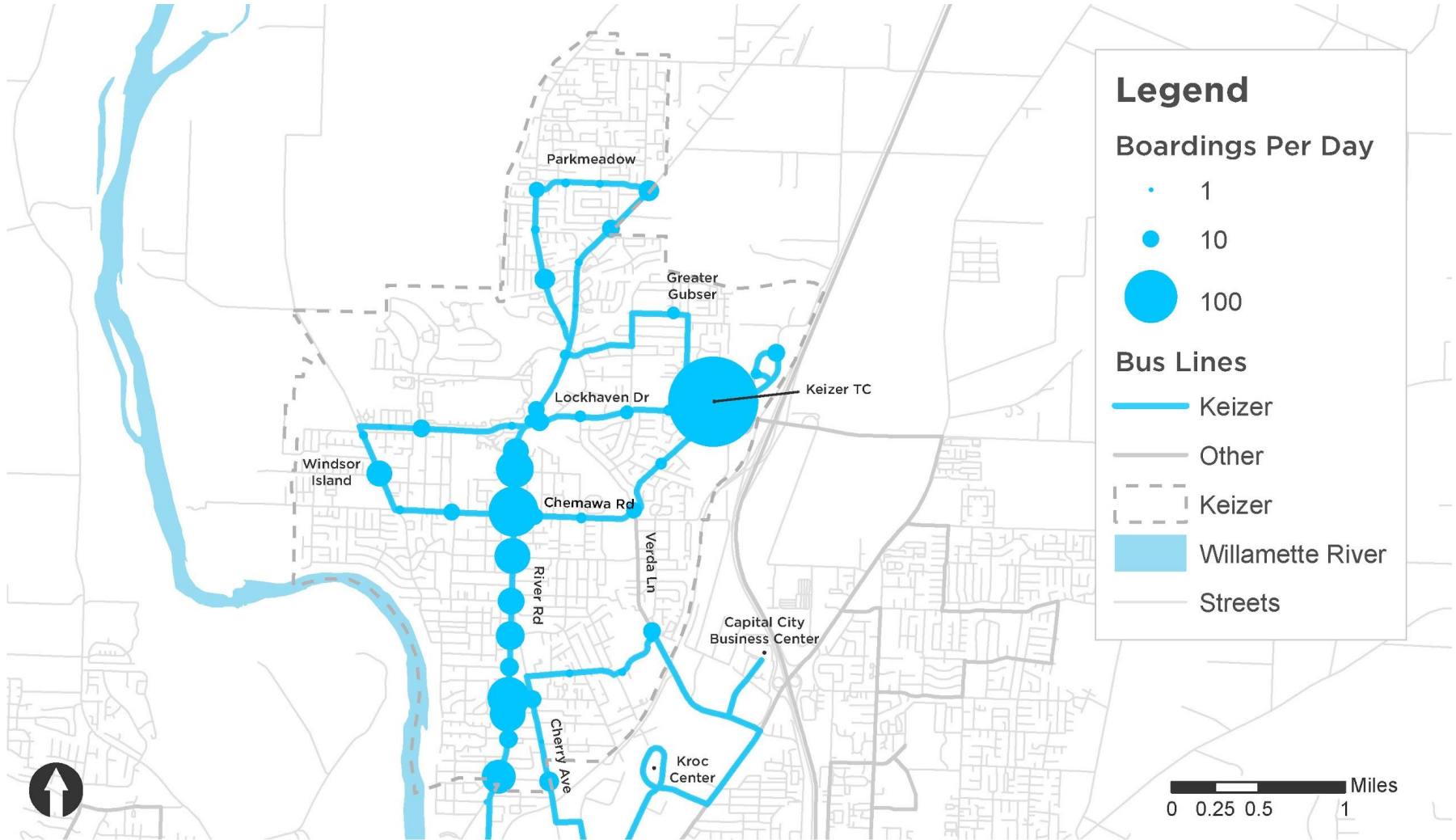
Cherriots is the regular bus service that everyone is familiar with. The bus follows the same route and makes the same stops each day. If you want to ride the bus, you can show up at the nearest stop and expect it to arrive at a scheduled time.



# Flexible Transit Survey



**Alternatives  
Creation**



Parkmeadow

Greater Gubser

Lockhaven Dr

Keizer TC

Windsor Island

Chemawa Rd

River Rd

Verda Ln

Capital City Business Center

Kroc Center

Cherry Ave



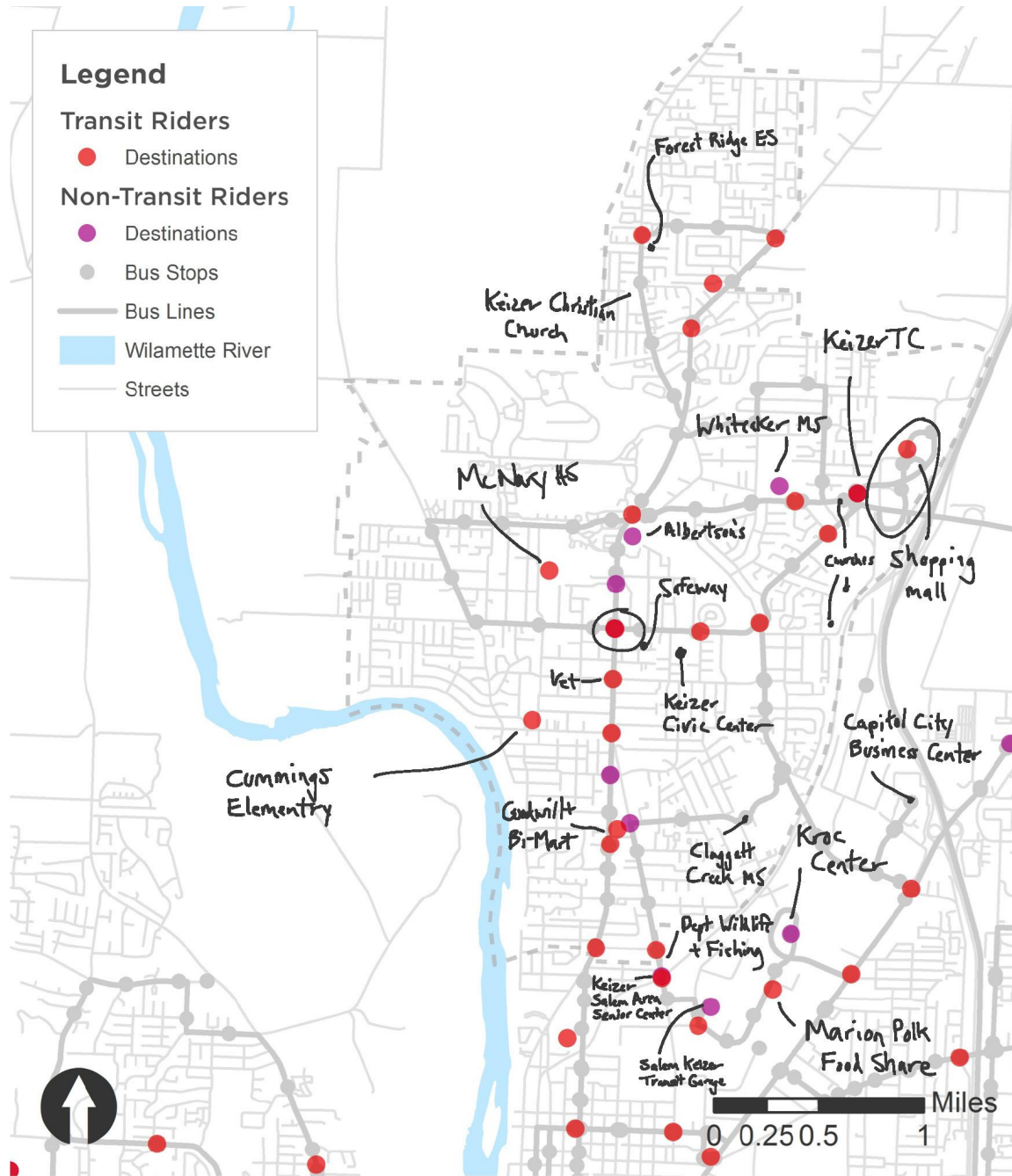
### Legend

#### Transit Riders

- Destinations

#### Non-Transit Riders

- Destinations
- Bus Stops
- Bus Lines
- ▬ Wilamette River
- Streets



# Features



**Activated**  
Stops



**Minibus**  
capacity of 22



**3/4 Mile**  
Buffer



**1 Hour**  
between buses

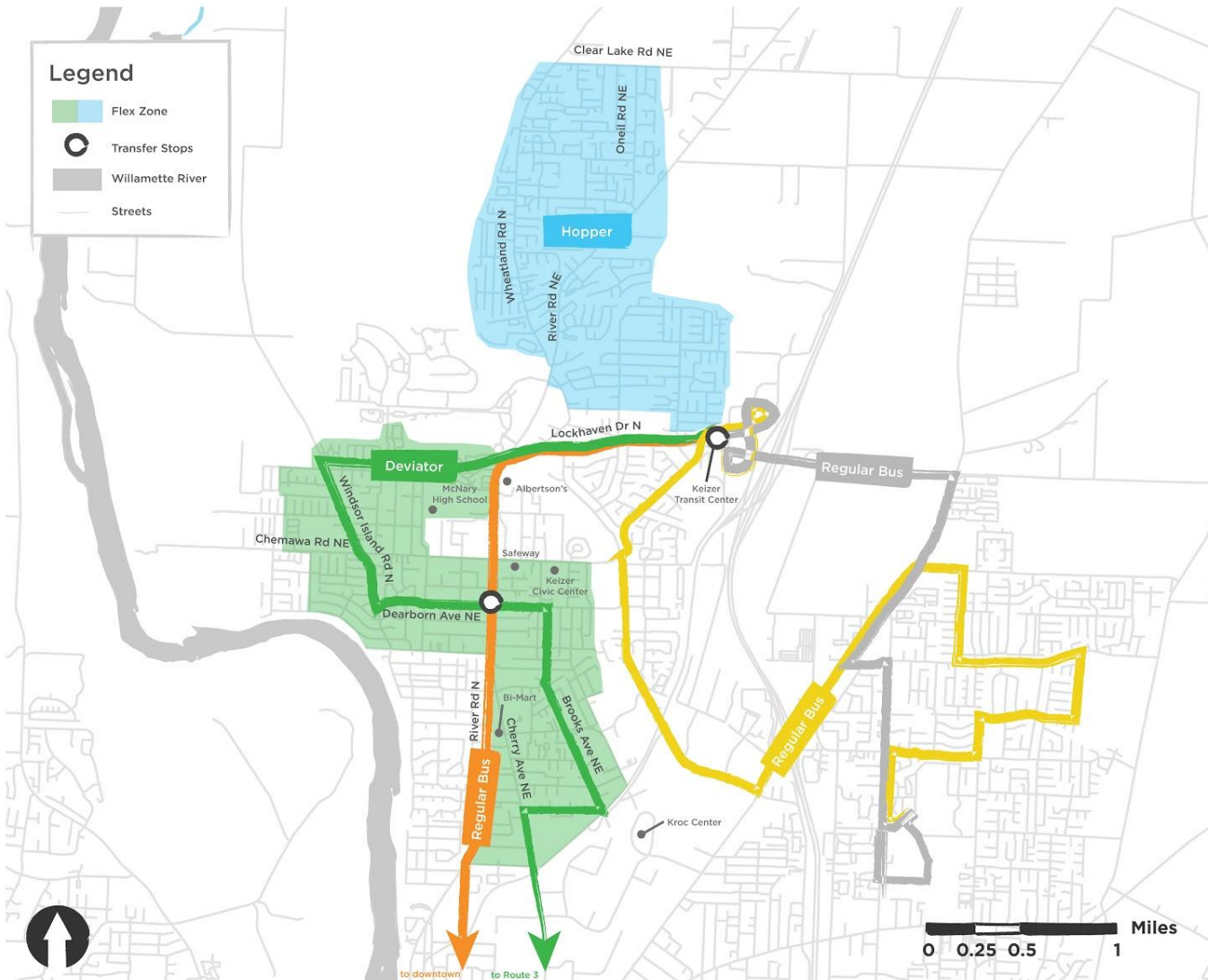


**High**  
# of deviations



**Optional**  
activation

# Keizer Alternative 2



### Hopper Features

- Activated Stops
- Zone Coverage
- Medium # of deviations
- Minibus capacity of 22
- 45 Minutes between buses
- Required activation

### Deviator Features

- Activated Stops
- 1/4 Mile Buffer
- Low # of deviations
- Minibus capacity of 22
- 1 Hour between buses
- Optional activation

### How to Activate Stops

- Step 1:** Contact Triplink call center
- Step 2:** Request to activate nearest activation stop and also activate drop-off stop if needed
- Step 3:** Call center will provide a wait window
- Step 4:** Walk to your activated stop
- Step 5:** Bus will pick you up in your wait window
- Step 6:** Get off bus at any activated or fixed stop

### Boarding at Fixed Stops

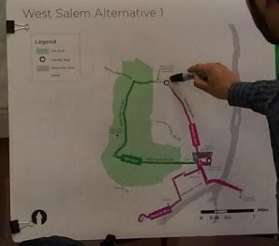
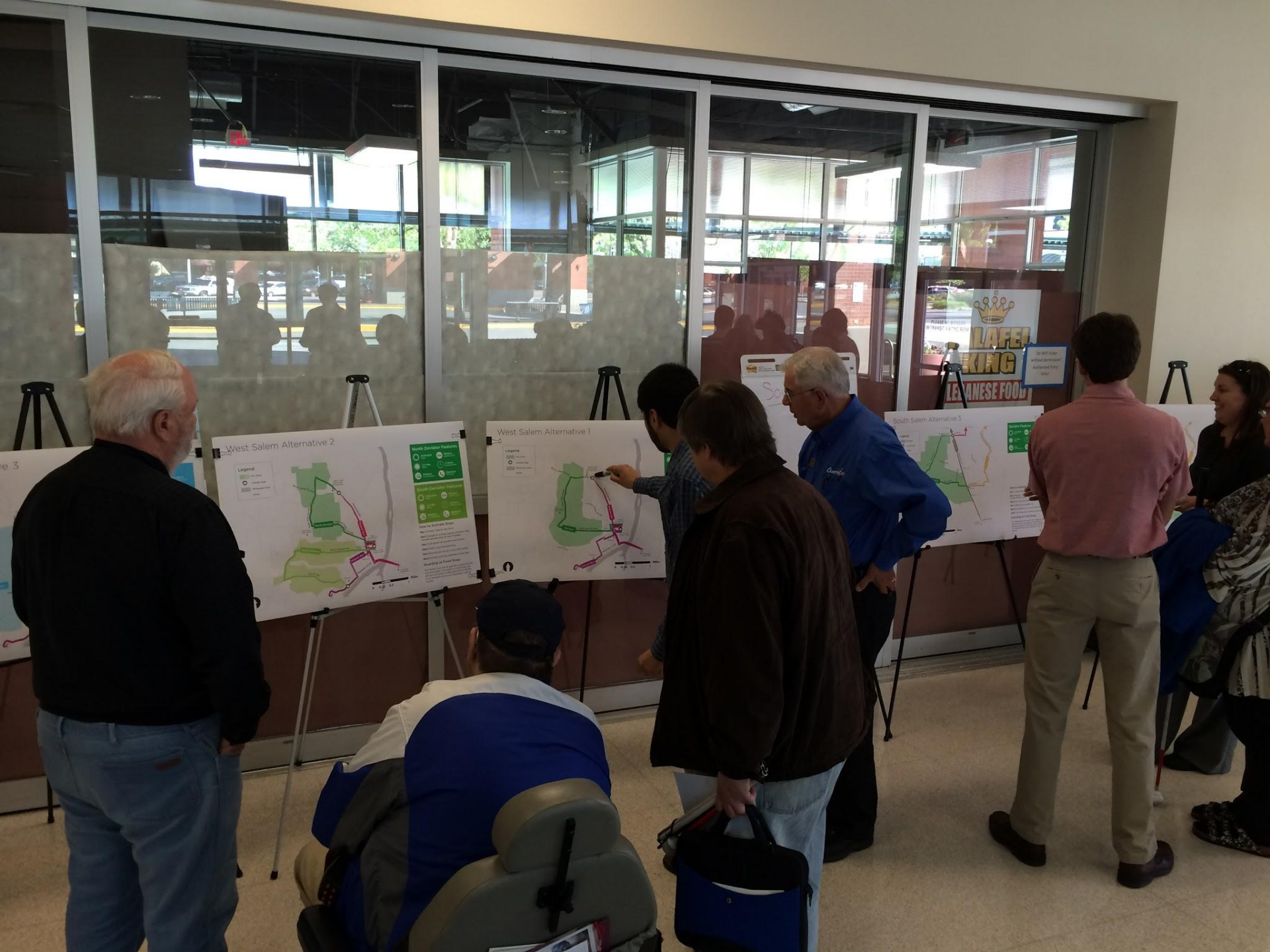
This Deviator can be used like a regular bus line with fixed stops. If you board on a fixed stop, you still have the option of asking the driver to deviate to an activated stop for your destination. The Hopper only has a fixed stop at its end.





# Open House





PLEASE VISIT US AT [www.lifeking.com](http://www.lifeking.com)

# LIFE KING

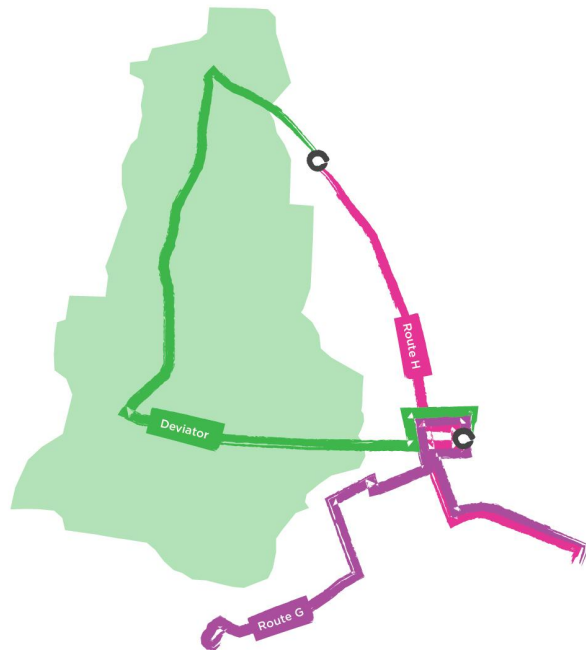
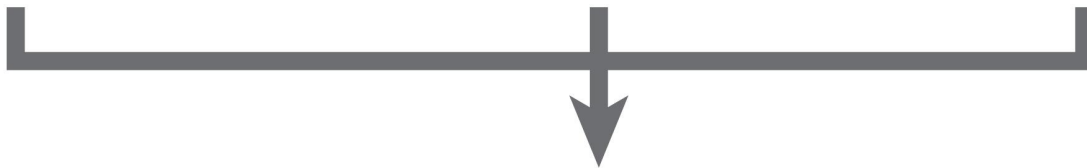
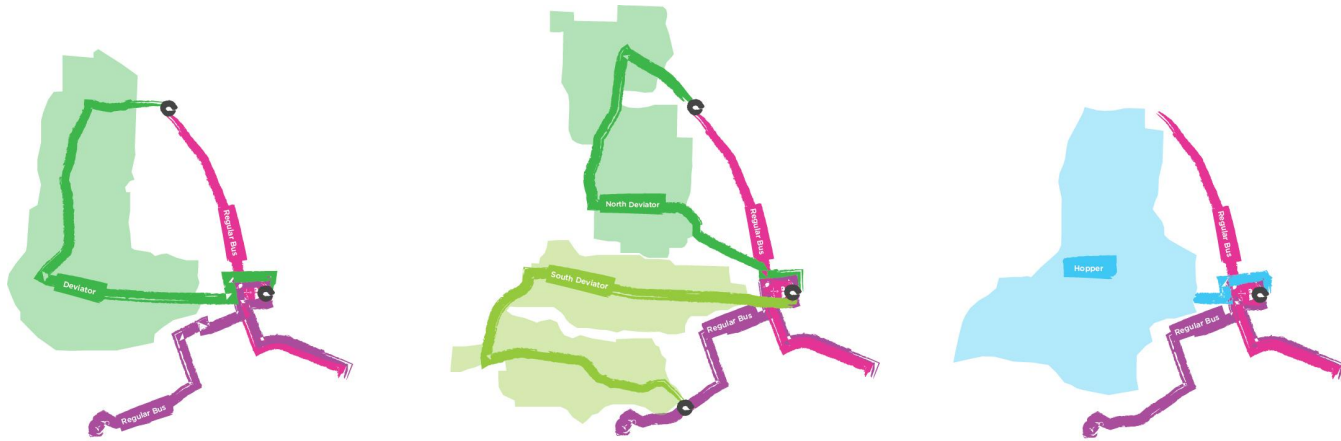
LEARN MORE

To Not Enter actual amount. Additional Info Only



# Bus Driver Focus Group





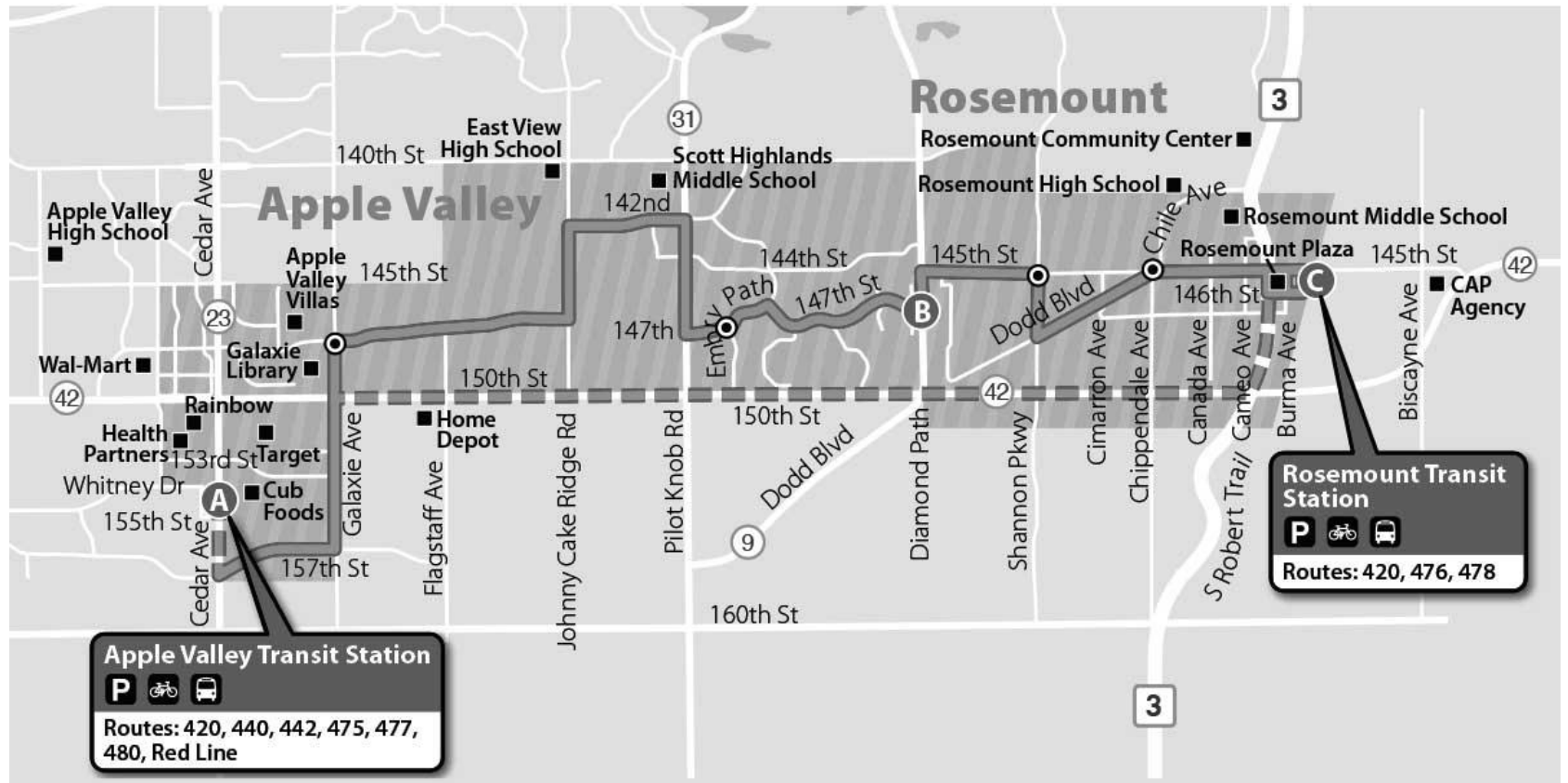
# Vehicle Type



# Fixed Stops

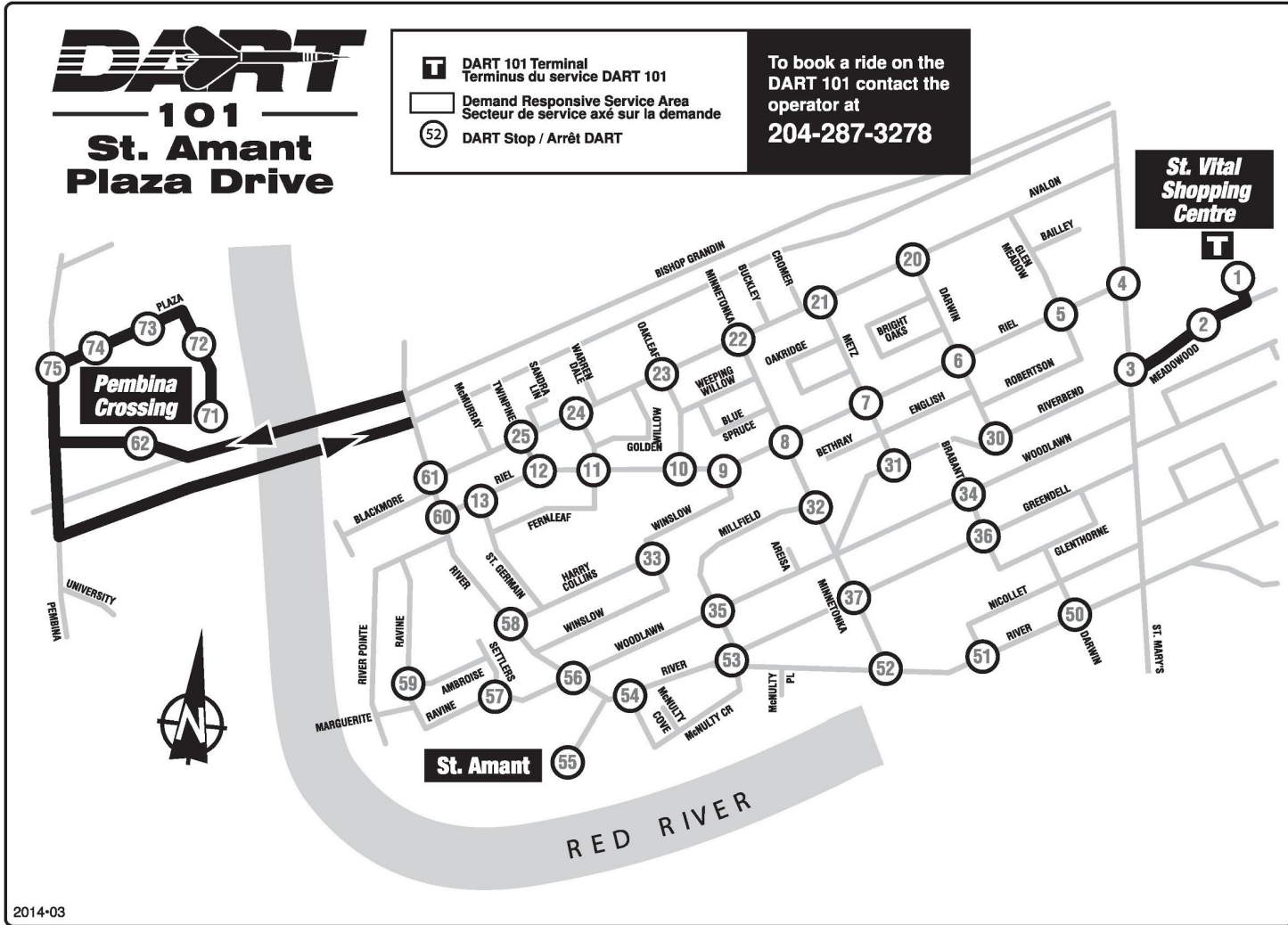
## ROUTE 420

6/22/2013





# Activated Stops



# Planning Ahead



# Dispatching & Technology





# Other Recommendations

- **Education**
- **Marketing & Branding**
- **Transit Operator Training**
- **User Cost**
- **Signage**
- **Street Network Layout**
- **Stop Placement**
- **Subscription Service**
- **Advanced Reservation Policies**
- **Real Time Tracking**

A stylized white notebook icon with a spiral binding on the left side, set against a green background. The text is centered on the page.

**FLEXIBLE  
TRANSIT  
PLAN**

A stylized white notebook icon with a spiral binding on the left side, set against a green background. The text is centered on the page.

**FLEXIBLE  
TRANSIT  
SYSTEM  
DEVELOPMENT  
GUIDEBOOK**

